

of creation. It rests, in the first place, upon the short duration of the lives of individual beings, which in a few hours have completed a whole life's course. Hence in a brief space of time a single individual may have increased in geometrical proportion through several generations. It rests, in the second place, upon the dependence of the prosperity of these creatures upon certain external and indeterminate influences, which may increase their multiplication to the incredible, whilst a reverse of the same often annihilates whole generations at a stroke.

The kind of color depends naturally upon the color which the individual organisms possess. If these are colorless, the whole multitude will appear white through the reflection of the light. Most commonly there is, especially among microscopic plants, a green coloring, which can be referred to the chlorophyl, which is of such universal occurrence in the plant kingdom. This is also found in numerous microscopic animals of the class of *Infusoria*; so that both equally contribute to the green coloring of the water, as also to the production of green coatings on the surface. But if they are red, and have increased, as is frequently the case, to such immense masses as entirely to cover large surfaces, then they produce a uniform red, sometimes like to carmine, but more usually to blood, which often suddenly changes and again vanishes; and to the uninitiated, who cannot explain this occurrence, must present the appearance of a dread miracle.

In small lakes and fish-ponds certain red *Infusoria* (*Euglena sanguinea*) increase to such immense numbers that, when the sun attracts them to the surface, the water becomes covered through them with a slimy red coating, as if blood had been poured out over it. And so it was considered in innumerable instances in earlier times, and always looked upon as an ominous and dreadful event. This *Euglena sanguinea* is one of the smallest, as well as one of the neatest, creatures which can be imagined. It is like to a little fish with a sharp tail, and is painted a beautiful green and red, while a scarlet-red eye glitters in a head as clear as crystal. Yet this little animal, so