

the basis of my argument only the relics of animals and plants actually found in the rocks. And when one sees mountain masses, often of small shells, and spread over wide areas, he is amazed to learn how prolific nature has been. What a countless number of vegetables, too, must have been required to produce beds of coal from one to fifty feet thick, and extending over thousands of square miles, and alternating several times with sandstone in the same basin! There is reason to believe, too, that the number of animals preserved in the strata bears only a small proportion to those which have been utterly destroyed and decomposed into their original elements. For example, in the sandstone along Connecticut River, the tracks of more than forty species of bipeds and quadrupeds have been found most distinctly marked. Some of these bipeds must have been of colossal size; as much as twelve or fifteen feet in height. And yet scarcely any other vestige of their existence has been discovered. They were the giant rulers of that valley for centuries; but they have all vanished. How numerous, then, may have been the softer animals of the ancient world, which have not left even a footmark to certify their existence to coming generations!

But the facts recently brought to light respecting infusoria and polythalamia fill us with the greatest admiration of the extent of organic life upon the globe. We have already seen that some of these animals are so minute that eight millions of them are found in a space not larger than a mustard-seed; and yet they had skeletons of silex, lime, and iron; and, of course, these skeletons have been preserved; and, though of the smallest size, it requires not less than forty-one billions to make a single cubic inch; yet deposits of them, or of species not much larger, occur, several feet in thickness, and extending over several square miles. Nay, the chalk of Northern Europe, and also of Western Asia, where it constitutes most of Mount Lebanon, and extends southerly through Palestine into Arabia and Egypt, and also deposits in North and South America, thousands of miles in extent, this rock, I say, is nearly half composed of microscopic shells. The oölite, also, contains them; and, indeed, infusorial remains occur in flint and opal; and, as instruments and observations are perfected, more and more of the solid rocks are found to have once constituted the framework of animals. It is hardly to be doubted