

spherical, bodies, thousands of which would lie on the point of a penknife. These cells are not by any means all alike; every organ, each tissue has its own kind of cell of which it is constituted, so that in the human body there are not only many hundreds of millions of cells, but there are several hundred different kinds of cells. As we descend the series of organic forms from man, the highest to the very lowest, we find that the lower we go in the scale the fewer different kinds of cells the animal has until we come to the very lowest of all animal forms, and we find that of these each one is composed of a single cell. Here, then, is another marvellous series: First, animals consisting each of a single cell; then animals consisting each of a number of cells, but all the cells of the same kind; then animals consisting of two kinds of cells; then of a larger and larger number of cells and of kinds of cells, until we ascend to man, whose body contains a greater number of different kinds of cells than that of any other creature.

But now comes a curious fact: Man's body (as well as the body of every living creature, animal or vegetable,) begins its individual life as an animal of one cell. This cell is multiplied by growth and division, and after a certain amount of development has taken place instead of one there are many cells all of one kind; then some of the cells grow (as it were) apart from the rest, and we have many cells of two kinds; as the embryo develops we have both a larger and larger aggregate number of cells, and a larger and larger number of kinds of cells, until we have at last the immense number of cells and of kinds of cells found in the full grown man.

So here again we have two series corresponding with one another: the infinite series, namely, of the different animal forms from the unicellular to the most multicellular, and the series through which the individual man passes from his origin as a unicellular living form to his million-celled maturity.

(3rd.) The third series to which I wish to direct your attention is the chemical. One of the first things we learn when we begin the study of medicine is that life is almost entirely a chemical process; that the body consists entirely of chemical molecules; that these are constantly breaking down and as constantly being renewed; that every act of which we