THE NATURE OF THE PROBLEM

multicellular plant and animal, even that of man, is composed. This anatomical knowledge is of extreme importance; and it is supplemented by the embryological discovery that each of the higher multicellular organisms is developed out of one simple cell, the impregnated ovum. The "cellular theory," which has been founded on that discovery, has given us the first true interpretation of the physical, chemical, and even the psychological processes of life—those mysterious phenomena for whose explanation it had been customary to postulate a supernatural "vital force" or " iminortal soul." Moreover, the true character of disease has been made clear and intelligible to the physician for the first time by the cognate science of Cellular Pathology.

The discoveries of the nineteenth century in the inorganic world are no less important. Physics has made astounding progress in every section of its provincein optics and acoustics, in magnetism and electricity, in mechanics and thermo-dynamics; and, what is still more important, it has proved the unity of the forces of the entire universe. The mechanical theory of heat has shown how intimately they are connected, and how each can, in certain conditions, transform itself directly into another. Spectral analysis has taught us that the same matter which enters into the composition of all bodies on earth, including its living inhabitants, builds up the rest of the planets, the sun, and the most distant Astro-physics has considerably enlarged our stars. cosmic perspective in revealing to us, in the immeasurable depths of space, millions of circling spheres larger than our earth, and, like it, in endless transformation, in an eternal rhythm of life and death. Chemistry has introduced us to a multitude of new substances, all of