

which are imposed upon inquiry by assuming complexity, regulation, and metabolism exclusively. Perhaps in reality these postulates are only two. Metabolism might without difficulty be included under regulation, but the consideration of such purely logical questions is beside the present purpose. However, these are probably the characteristics of the organism which are best fitted for discussion in relation to the physico-chemical phenomena of matter and energy, and it is barely possible that no others bear the same simple relations to the outside world.

York, 1903, Chaps. X and XI, especially the following statement: —

“The physical conditions on the surface of our earth which appear to be necessary for the development and maintenance of living organisms may be dealt with under the following headings: —

“1. Regularity of heat supply, resulting in a limited range of temperature.

“2. A sufficient amount of solar light and heat.

“3. Water in great abundance, and universally distributed.

“4. An atmosphere of sufficient density, and consisting of the gases which are essential for vegetable and animal life. These are Oxygen, Carbonic-acid gas, Aqueous vapor, Nitrogen, and Ammonia. These must all be present in suitable proportions.

“5. Alternations of day and night.”

It must be remembered, however, that such conclusions depend upon reasoning from analogy, a dangerous proceeding.