

heat of vaporization, has been utilized through adaptation of the organism to secure very high efficiency in a physiological process.

Such is the method which must be followed in order to decide the question of the fitness of the environment. The physico-chemical characteristics of water, carbonic acid, and the carbon compounds are to be taken up one by one, and their absolute and relative magnitudes considered. The possible utility of such properties, both automatically and through process of organic adaptation, must then be estimated, bearing in mind the fundamental characteristics of the living organism which have been arbitrarily postulated. Finally the various favorable qualities of water, carbonic acid, and the carbon compounds must be grouped together in order to see if they constitute a unique ensemble of fitness, among all possible chemical substances, for a living organism which must be complex, regulated, and engaged in active metabolism.

At length the problem of fitness appears in a simple form. The road to a solution is open, and we may now proceed to an untrammelled discussion of unexceptionable data and well-known laws of physics, chemistry, meteorology, and physiology. Without further hypothetical difficulties, these must lead to the goal.