

ing a very large quantity of water must remain liquid; a body of water at 0° centigrade can warm up a very large amount of colder air with the formation of a very small quantity of ice. Thus the permanency of the ocean, and the moderating effect of water upon cold climates are very nearly maximal. These are also facts, directly dependent upon the physico-chemical nature of water, which are remarkably favorable to the organism.

Still more important is the latent heat of evaporation of water. Wherever water is in contact with the air, evaporation must take place until, if the system be of small dimensions, equilibrium is established between aqueous vapor and the liquid; in short until the air is saturated with water. Unlike freezing, which occurs only at one particular temperature, this process goes on continuously throughout all ranges of temperature at which liquid water can exist, and even upon ice at low temperatures. It is always accompanied by the conversion of heat, in the amount measured by the latent heat of evaporation, into other forms of energy; the heat becomes latent. And since air in contact with water is rarely saturated with aqueous vapor, owing to the constant movement of the atmosphere, the process of evaporation, with the accompany-