that the incomparable mobility of water, which depends upon its peculiar physical properties and upon its existence in vast quantities in all three states of solid, liquid, and gas, is the chief factor among the properties of matter to determine the nature of the phenom-

upon the presence of the atmosphere, upon the relief of the land, and upon the radiant energy of the sun. Through the agency of rainfall, of surface streams, of underground waters, and of wave action, the hydrosphere is constantly modifying the surface of the lithosphere, while at the same time it is bearing into the various basins the wash of the land and depositing it in stratified beds. It thereby becomes the great agency for the degradation of the land and the building up of the basin bottoms. It works upon the land partly by dissolving soluble portions of the rock substance, and partly by mechanical action. The solution of the soluble part usually loosens the insoluble, and renders it an easy prey of the surface waters. These transport the loosened material to the valleys and at length to the great basins, meanwhile rolling and grinding it and thus reducing it to rounder forms and a finer state, until at length it reaches the still waters or the low gradients of the basins and comes to rest. The hydrosphere is, therefore, both destructive and constructive in its action. As the beds of sediment which it lays down follow one another in orderly succession, each later one lying above each earlier one, they form a time record. And as relics of the life of each age become more or less imbedded in these sediments, they furnish the means of following the history of life from age to age. The historical record of geology is, therefore, very largely dependent upon the fact that the waters have thus buried in systematic order the successive life of the ages." — CHAMBERLIN AND SALISBURY, "Geology." New York, 1904, Vol. I, p. 8.