

# THE PALÆOCHEMISTRY OF THE OCEAN IN RELATION TO ANIMAL AND VEGETABLE PROTOPLASM.

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Institute, 1903-4.)

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## I.—INTRODUCTION

THE history of the composition of ocean water is a question of very great interest to the geologist, the physiographer and the biologist. To the geologist and physiographer its importance lies chiefly in the fact that it is associated with the history, on the one hand, of erosion and denudation of land surfaces of the globe, and, on the other, of the formation of all the sedimentary strata. The ocean, ever since the first condensation of water on the rockcrust of the earth, has acted as a gigantic solvent, and the salts it now holds in solution represent what it has retained after its action for millions of years as a leaching and filtering agent. The sedimentary rocks are thus but a vast precipitate from the ocean of what had been partly suspended and partly dissolved matter in it during all the geological periods. The history of the composition of the ocean is, on this view, the complement of the history of all the terrigenous changes necessary to fill out all the pages of the record of events that have transformed the surface of the earth.