

## III

## THE OCEAN AS ENVIRONMENT:

There are, in accordance with our fundamental postulates of the characteristics of life, two principal requirements of the living organism which an environment must fulfill, — such a supply of matter and energy for food as may be suitable to a complex mechanism, and stability of conditions.

After a general review of the chief characteristics of the ocean, it is therefore necessary to examine them more particularly in relation to such requirements. In so doing it must not be forgotten, however, that these characteristics of the ocean which we have just discussed are only in part due to the unique physical properties of water which have been already discussed in Chapter III, and to those of carbonic acid which have been discussed in Chapter IV. In part they depend upon the mere magnitude of the sea, on the stability of the solar system and the consequent antiquity of the geological and meteorological processes, and upon a great variety of astronomical and geophysical conditions. However, we shall only a little extend the scope of our inquiry if we now consider water not only as an indi-