## CHAPTER IV.

## The Magnitude of the Ocean.

THERE are several arbitrary quantities which contribute to determine the state of things at the earth's surface besides those already mentioned. Some of these we shall briefly refer to, without pursuing the subject into detail. We wish not only to show that the properties and processes of vegetable and animal life must be adjusted to each of these quantities in particular, but also to point out how numerous and complicated the conditions of the existence of organized beings are; and we shall thus be led to think less inadequately of the intelligence which has embraced at once, and combined without confusion, all these conditions. We appear thus to be conducted to the conviction not only of design and intention, but of supreme knowledge and wisdom.

One of the quantities which enters into the constitution of the terrestrial system of things is the bulk of the waters of the ocean. The mean depth of the sea, according to the calculations of Laplace, is four or On this supposition, the addition to the five miles. sea of one-fourth of the existing waters would drown the whole of the globe, except a few chains of moun-Whether this be exact or no, we can easily tains. conceive the quantity of water which lies in the cavities of our globe to be greater or less than it at present is. With every such addition or subtraction the form and magnitude of the dry land would vary, and if this change were considerable, many of the present relations of things would be altered. It may be sufficient to mention one effect of such a change. The sources which water the earth, both clouds, rains, and rivers, are mainly fed by the aqueous va-