

as we plunge into the water for our first morning's swim, we notice that this is not the kind of water we have been accustomed to in our lakes or rivers. We find it a little easier to float in, and that is an advantage; but the first mouthful of it which we chance to swallow makes us splutter and gasp as we have never done before. The water looks pure and clean, but its taste is horrible.

Sea-water is salt water. The boys of the sea-side village where we are staying are well aware of this, and would laugh at the wry face we make over the bitter salt taste. We, who have known only the fresh water of the great lakes or of the woodland streams, are much surprised at the amount of salt which the sea contains. Let us see if we can find out how much salt there is in its water.

Evaporation is the simplest way. By heating the water we can drive it off in vapour or steam, while the salt that is dissolved in it will be left in a solid form. Suppose, then, that we take a tall glass jar or cylinder, and fill it with sea-water to the depth of twelve inches. We shall place this over a fire, standing it in a pan of water to prevent the glass from cracking with the heat. If we keep the water in the pan boiling, by-and-by the water in the cylinder will grow less and less, until at last it is quite gone. If we then examine what is left, we shall find a thick crust or cake of solid matter, mostly salt, and this crust will be very nearly half an inch thick. That is to say, one twenty-fifth part, or four per cent., of the bulk of the sea is made up of salt dissolved in its water.

Where has all this salt come from? The most of it has doubtless come from the land. There is salt mixed with the soil everywhere. Some of it is used by plants as food, and when these plants are dried and burnt, their ashes contain a little salt. Our bodies contain salt: we taste it in the tears we shed, and in the blood which flows from a cut finger. Rain water is pure, but as it flows through the soil it becomes mixed with a little salt and other substances, and these are carried down by streams and rivers to the sea.

All the salt which thus reaches the sea must remain in it.