

## XXIII. THE CRYSTALS OF THE SEA.

## SALT AND GYPSUM.

LOOK over a map of the Caspian Sea and notice on the eastern side a roundish bay nearly cut off from the main body. This is the Karabóghaz or Black Gulf. Though appearing so small, this bay is about ninety miles across. The channel which connects it with the Caspian is only one hundred and fifty yards broad and five feet in depth. The water is shallow, though that in the central part of the Caspian attains a depth of twenty-four hundred feet. Through the strait connecting the Karabóghaz with the sea, a current of water sets out from the Caspian at the rate of three miles an hour. The inhabitants of the region fancy that an underground passage exists from the Karabóghaz to the Persian Gulf or the Aral Sea. This, however, is impossible, since the Caspian is eighty-four feet lower than the ocean, and one hundred and seventeen (some assert 250) feet lower than the Aral. The vast volume of water discharged into the Karabóghaz is lost by evaporation from its surface. No large rivers empty into it, while the climate is dry, and the summer intensely hot.

The water of the Caspian, as you know, is salt. It has been calculated that three hundred and fifty thousand tons of salt are carried by the current into the Karabóghaz daily. The process of evaporation must consequently increase the saltiness of the water in the bay; and the great drain from the sea must tend to diminish its saltiness. Now, as a fact, the Caspian possesses only about half the saltiness of the open ocean, while the Karabóghaz has become so intensely salt that the animals which once inhabited its waters have disappeared. In fact, the concentration has gone so far that layers of salt are being deposited on the mud at the bottom. In all probability these processes will continue in the future, and it must be anticipated that the salt deposit will increase in thickness as long as this gulf exists. Should there be an elevation of the strait connecting the gulf with the sea, the gulf would