

atmosphere, from strata in contact with it, or from decomposed and living animal and vegetable substances. Though tasteless and without smell when pure, the foreign ingredients impart to it a peculiar taste, frequently an odour also, which the senses of man may fail to detect, but is readily observed by certain animals: at a great distance in the desert the scent of water is recognized by the camel. The amount of fresh water compared with the salt is utterly insignificant, while the lakes of North America comprise one-half the fresh water on the face of the globe. The universal ocean is salt, and by a process of evaporation a considerable portion of our common salt is procured from its waters. The origin of the saline quality of the ocean is a question involved in obscurity; we merely know that various salts and immense masses of rock salt are constituent parts of the earthly system, a large quantity of which has come in contact with the ocean and been dissolved by its waters. The salt ingredients render sea water more bouyant than fresh, and consequently better adapted for navigation, while a larger area is preserved from being ice bound. Fresh water freezes at the temperature of 32° ; salt water requires a lower temperature to be frozen, or $28\frac{1}{2}^{\circ}$. Besides, the ocean salt water has an extensive distribution on land, in lakes and springs the salts occurring much stronger than in the sea. Amongst the salt lakes are the Caspian Sea; Lakes Aral, Urumah, Toozla, Elton, and the Dead Sea occur in the Asiatic region. Some of these waters are so excessively saline as to irritate the skin. Fish cannot live in them, and if a bird dips on their surface its wings are encrusted with salt on drying. Water appears at the surface of the globe at every temperature from the freezing to the boiling points. The springs of Bath have a temperature of 109 to 117° ; the hottest permanent springs in America range from 204 to 207° , and flow remote from all volcanoes.

The waters of the globe exhibit different colours, which depend upon a variety of circumstances. The true colour of the sea is ultramarine; in the Gulf of Guinea it is white, in the Maldive Islands black; purple, red and rose, in the higher parts of the Mediterranean. Lake waters in mountainous districts are frequently very transparent and of the purest azure hue; others are intensely green, others are brown, and some black. River waters exhibit a similar diversity, even those that are most apart from earthy admixtures. The different hues of clear and

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