the appearing of the dry land; whilst the lignites, which contain little or no iodine, indicate their formation to have occurred during the present condition of our globe. Iodine reappears in the ashes of peat, the modern detritus of the stunted vegetation of our marshes and bogs. Graphite, from the large proportion of iodine which it contains, would appear to claim a place amongst the productions of an organic and aqueous origin, representing the vegetation of a period long anterior to the coal formation, and probably the first which appeared on the surface of the earth after it had become cooled.

The animals which live in fresh water were found by M. Chatin to contain iodine, and in larger proportion than the plants grown under the same circumstances. M. Chatin is of opinion that the richness of waters in iodine may be correctly deduced from the amount of iron they contain: so that the waters to which we apply the term ferruginous may also be called iodureted waters.—The waters of volcanic formations appear from M. Chatin's researches to contain more iodine than the sedimentary strata. The waters containing much lime and magnesia salts usually show but slight traces of iodine. The usual form of the appearance of iron in these waters is that of iodide of iron.

Iodine exists also in some terrestrial plants and animals, especially in plants frequently watered. The salts of soda, potash, and magnesia, as ordinarily met in commerce, almost always contain appreciable quantities of iodine. Fermented liquors are found by M. Chatin to contain iodine, but in less proportion than the mean of fresh waters. Wines also contain iodine, varying in quantity according to the variable nature of the soil producing them. Milk is richer in iodine than wine, and asses' milk contains more than the milk of the cow. The quantity of iodine appears to be in an inverse proportion to the abundance of that secretion. Eggs are extremely rich in iodine. A hen's egg of the weight of $2\frac{3}{4}$ ounces contains more iodine than a quart of milk, or than two quarts of wine or good water.

Iodine exists also, according to M. Chatin, in arable soil, in sulphur, the ores of iron, in peroxide of manganese, and in sulphuret of mercury. M. Chatin considers it very probable that the want of iodine, or its existence in too small a proportion in the waters employed in different countries for domestic purposes, is the principal cause of goître, and recommends the employment in cases of this affection of such diet as is found to contain a somewhat large proportion of iodine.

As somewhat in connection with the above, we may mention some recent researches of M. Maumené on the water of Rheims. M. Maumené states that he is unable to find the least trace of magnesia either in the waters or in the soil: and to this want of magnesia in the water he attributes the almost universal prevalence of the goitre in that city, there being but few families in which one or more persons are to be found exempt from this affection.

In his investigations on these waters, M. Maumené notices a fact somewhat opposed to preconceived opinions; it is, that water containing sulphate of lime is not always decomposed by soap. His experiments go to prove that all the salts of lime, without exception, may exist in somewhat considerable proportion in water which does not contain other salts, without producing a deposit on the addition of soap: the maximum limit he finds to be about 10 grains of sulphate of lime, $6\frac{1}{2}$ grains of chloride of calcium, and ten grains of nitrate of lime, each, in one quart of water. Carbonate of lime would at first sight appear to prove an exception; but the addition of soap produces only an opacity up to a certain limit, beyond which, a deposit takes place. M. Maumené considers that the insoluble carbonates do not exist in water in the state of bicarbonates, as has generally been supposed. If the carbonic acid influences the solubility of these carbonates, it is not, he considers, by reason of any chemical action, but simply in virtue of a dissolving force. Carbonic acid is not the sole agent in the solution of the carbonates; there are certain salts which have the power of destroying this insolubility. Hence he concludes that in natural waters the carbonates are dissolved partly by the action of carbonic acid, and partly by the action of other saline substances.—*London Med. Gazette.*