

of carbonate of lime* in solution, is well known; and also that changes of temperature, as well as many other causes, will occasion the calcareous earth to be in part or wholly precipitated. The *fur*, as it is called, that lines a boiler which has been long in use, affords a familiar illustration of this fact. At the temperature of 60°, lime is soluble in 700 times its weight of water; and if to the solution a small portion of carbonic acid be added, a carbonate of lime is formed, and precipitated in an insoluble state. If, however, the carbonic acid be in such quantity as to supersaturate the lime, it is again rendered soluble in water; and it is thus that carbonate of lime, held in solution by an excess of fixed air, not in actual combination with the lime, but contained in the water and acting as a menstruum, is commonly found in all waters. An absorption of carbonic acid, or a loss of that portion which exists in excess, will therefore occasion the calcareous earth to be set free, and precipitated on any substances in the water, such as stones, sprigs, and leaves of trees, &c. Some springs contain so large a proportion of calcareous earth when they first issue from the rocks, and so speedily throw it down in their course, that advantage has been taken of the circumstance to obtain incrustations of various

* *Carbonate of lime* consists of lime in combination with carbonic acid gas, which is a most abundant natural product. This gas is unrespirable, and when pure, will immediately suffocate an animal immersed in it. It extinguishes flame.