for it appears that the hot springs themselves are subject only to imperceptible variations. All these springs are slightly impregnated with sulphuretted hydrogen gas. The fetid smell, peculiar to this gas, can be perceived only by approaching very near the springs. In one of these wells only, the temperature of which is 56·2°, bubbles of air are evolved at nearly regular intervals of two or three minutes. I observed that these bubbles constantly rose from the same points, which are four in number; and that it was not possible to change the places from which the gas is emitted, by stirring the bottom of the basin with a stick. These places correspond no doubt to holes or fissures on the gneiss; and indeed when the bubbles rise from one of the apertures, the emission of gas follows instantly from the other three. I could not succeed in inflaming the small quantities of gas that rise above the thermal waters, or those I collected in a glass phial held over the springs, an operation that excited in me a nausea, caused less by the smell of the gas, than by the excessive heat prevailing in this ravine. Is this sulphuretted hydrogen mixed with a great proportion of carbonic acid or atmospheric air? I am doubtful of the first of these mixtures, though so common in thermal waters; for example at Aix la Chapelle, Enghien, and Barèges. The gas collected in the tube of Fontana's eudiometer had been shaken for a long time with water. The small basins are covered with a light film of sulphur, deposited by the sulphuretted hydrogen in its slow combustion in contact with the atmospheric oxygen. A few plants near the springs were incrusted with sulphur. This deposit is scarcely visible when the water of Mariara is suffered to cool in an open vessel; no doubt because the quantity of disengaged gas is very small, and is not renewed. The water, when cold, gives no precipitate with a solution of nitrate of copper; it is destitute of flavour, and very drinkable. If it contain any saline substances, for example, the sulphates of soda or magnesia, their quantities must be very insignificant. Being almost destitute of chemical tests,* we contented ourselves

* A small case, containing acetate of lead, nitrate of silver, alcohol, prussiate of potash, &c., had been left by mistake at Cumana. I evaporated some of the water of Mariara, and it yielded only a very small residuum, which, digested with nitric acid, appeared to contain only a little silica and extractive vegetable matter.