may certainly be obtained when from 10 to 20 milligrammes are contained in 100,000 parts of perfectly fresh urine, and the solution is saturated with sulphuretted hydrogen. But if the elements of the urine have begun to undergo decomposition, none of the black sulphuret is thrown down, even though from 20 to 50 milligrammes of the chloride are present; often there is only a muddiness produced, from which dirty yellow flakes are gradually deposited, and if, as often happens, the fluid cannot be cleared by filtration, mercury may be found by the electric test, not only in the precipitate, but in the filtrate. It is impossible, when chloride of mercury is present in the urine in a state of extreme dilution, to obtain it all in the form of the sulphuret. I have satisfied myself by numerous experiments that the employment of alcohol or ether is of no advantage when the mercury is contained in an organic mixture for qualitative analysis they are unnecessary —for quantitative, insufficient. The most delicate method for obtaining the smallest quantities of mercury from the most dilute solutions, is without doubt electrolysis. It is not, however, sufficient to have the metal deposited at the negative pole of the battery, it is necessary to prove the character of the deposits by chemical tests. [The author here enters into chemical details which it is unnecessary to reproduce.] From having performed numerous experiments on mercury dissolved in pure water, and in organic solutions, such as urine, I have satisfied myself that the electrical test is the most certain method of recognizing the smallest quantity of mercury, but that it is not well adapted to a quantitative analysis. I have also observed that, where in addition to mercury, the urine contains iodide of potassium, the metal cannot with certainty be directly separated by electrolysis, but that the iodine must in the first place be removed.

Having satisfied myself as to the best modes of performing my analyses, and having made myself acquainted with the various circumstances which must be taken into account in examining organic matter, I next proceeded to my actual experiments. My examinations embraced the following substances:—

1. The urine of persons affected with secondary syphilis, but who had never been treated with mercury.

2. The urine of persons suffering from secondary syphilis some of whom had been treated with mercury long before; others were undergoing mercurial treatment; while others were taking iodide of potassium after having been treated with mercury.

3. I examined the urine of two persons who had suffered for three years from mercurialism; and one of them having died, I also examined his liver and brain.

4. I examined portions of the bones, the liver, spleen, kidneys, and brain of a person who had suffered from syphilis for five years, had been three times treated with mercury, and who had died of pericarditis a few weeks after the last mercurial treatment.

5. In the case of two persons under treatment by mercury, I endeavoured to determine how much of the metal was discharged by the urine and fæces. The saliva was also examined in these and some other cases, but no trace of mercury was ever detected in it.

In reference to the urine, I may state that the quantities examined was always considerable. In only one case was the analysis confined to that passed in twenty-four hours; in all the others the urine of not less than from three to six days was employed. In the individuals who had been treated by mercury some time before, or who had taken iodine, the urine was collected during from ten to fourteen days.

The results of my observations were as follow:—In the urine of syphilitic persons who had never taken mercury, no trace of that substance could be detected. An examination of the urine of nine individuals who had been treated by mercury some time before, led to the same negative result. The following is an example of one of these observations: An individual, in the year 1858, was treated with mercury during a considerable time; he took, on the whole, 25 grains of corrosive sublimate internally and rubbed in 6 drachms of mercurial ointment; subsequently he took iodide of potassium to the amount of an ounce. The following year the secondary symptoms reappeared; a