

comparison of that and the bulk of the other that authorized me to determine in my mind the approximate quantity present; the orange red precipitate was collected, dried and heated with boiling hydrochloric acid; the solution gave me a white precipitate, which was soluble in tartaric acid, and when treated with sulphide of ammonium became orange red; thence I concluded that an antimonial was necessarily present; that furnished the chemical test of that material; in regard to the quantity, the only guide I had was acting on a known quantity; I weighed out one grain of the white sediment from the tumbler; the antimony obtained was in the shape of sulphide of antimony, and that dried and weighed was four-tenths of a grain, from which I inferred that the tartar emetic present in that grain of white sediment must have been eight-tenths of a grain; if that was true of one grain, eight-tenths of the sediment must have been tartar emetic; in my judgment fifteen grains were, speaking within bounds, present, and the tartar emetic I put at ten grains, desiring to underestimate rather than overestimate; no one can ever separate in substance tartar emetic after being dissolved; the only evidence of its presence is the presence of an antimonial compound; when taken into the stomach it becomes mixed with the organic matter; the means employed to destroy the organic matter destroys the tartar emetic, but does not destroy the antimony which existed as a part of it; it breaks up one compound and leaves the constituents of which that compound was formed; I did not use all the processes by which antimonial poisoning may be detected; I used means by which I arrived at what I have a right to consider a perfect certainty; the means I employed I learned when I was a student; they were then recognized as reliable; all the authorities, as far as I know, consider all the properties I have described as perfectly conclusive as to the presence of antimony; I have been teaching my classes so many years that these are the reliable methods for detecting antimony that I cannot remember when I began to teach them; I have practiced medicine only eighteen months; but I graduated in medicine.

Mr. Revell now proposed to ask the witness if a person might not die from poisoning, and the poison not be detected in the stomach?

Mr. Steele objected, as Professor Aikin was only a chemical expert and not a medical expert.

Judge Miller said the witness seemed to be only a chemical expert, and that the question should be propounded to a medical expert.

Mr. Revell desired to ask the witness if from his reading and his knowledge of the circulation of the blood, etc., he could answer the question?

Judge Miller requested the State's Attorney to reduce his question to writing, which he did, as follows: "Does your knowledge of chemistry and of poisons enable you to declare your opinion whether or not a person may die of poison, and yet no traces of the poison be found in the stomach after death; and whether it is not within the scope of your

profession to know and explain the effect of poison in the human system?"

The Chief Judge said the Court did not think the question could be asked, as the answer of the witness, already given, was fatal to the question.

Mr. Syester said he had supposed the question involved was one well known to science, and especially to chemical science.

The witness continued—All the agents I employed were pure—that is, free from anything that could interfere with the success of my experiments.

Professor Aikin continued—The title of the chair I hold in the University of Maryland is that of Chemistry and Pharmacy; the duties of my chair involve a knowledge of the chemical properties of medicines; my duty is to teach everything connected with the chemical properties of medicines. Mr. Syester asked the Court if the latter answers of the witness laid the foundation for the question just ruled out, and the Court decided that they did not.

The witness was now turned over to the defence, and Mr. Steele proceeded to cross examine him: It was my intention to state all the processes I used, but I remember that I used metallic copper for arsenic, which gave me no result; after all my examinations, I have nothing to produce here in Court; the products were not preserved;

Mr. Steele—"Do you not know that in a case of life and death it is the custom to preserve the results of chemical analysis, and produce them in Court?"

Prof. Aikin said he knew of one instance, but none in the case of antimonial poisoning. Continuing—I was born in 1807; I did not inquire what had been administered to General Ketchum, and I knew nothing of his treatment; I had not heard of the yellow jasmine and the chloral; I did not make what are called laboratory notes, but made memoranda; they were thrown aside and I cannot furnish them; they were merely aids to my memory; I made a summary in October to Mr. Knott, or a part, in Baltimore, of the results of my analysis; as soon as I got results which only antimony could have furnished, I considered my duty done; I supposed evidences which would admit of but one result would be satisfactory to any reasonable mind; I did not understand them to be color tests; if I get a yellow precipitate, it is not alone satisfactory; lead will give a red precipitate sometimes; I rely upon the red precipitate as far as it goes, but not that alone; I have seen salts of lead produce a color which might be mistaken for the antimonial red; the color is important, but not conclusive; I presume I could have gotten metallic antimony; my object was to satisfy my mind of the presence of antimony, and I considered my duty performed; I do not admit of any degrees of certainty; having been made certain, I could not be made more certain; I evaporated only what passed through the filter; the test I then applied was directed exclusively to strychnia; if laudanum had been there I think I would have obtained some indications of the presence of morphia; I got no trace of the alkaloid contained in yellow jasmine; my work was