

February 6, 1933

Mr. A. X. Schmidt
Department of Chemistry
College of the City of New York
Convent Avenue and 140th Street
New York City

Dear Mr. Schmidt:

I am very sorry that I can not give you any information on the subject which you mention in your letter of January 24th. I have not investigated the lead content of tobacco although I am aware that lead is to be found not only in cigarettes but in practically all forms of tobacco. So far as I am aware, the only information in the medical literature refers to the lead content of snuff. Cases of lead poisoning which have resulted fatally in a few instances have occurred on the use of snuff heavily contaminated with lead chromate - which had been employed in order to give the snuff a commercially desirable color. You may be interested in some of the references which occur in medical literature in this connection. Joseph Uttal had an article in the Journal of the American Medical Association - Volume 90 - Page 298 - 1928. Bauer and Ropes published an article in the same Journal - Volume 90 - Page 757 - 1928. Both of these articles give other references.

The amount of lead which is in cigarettes is not known to me and I would judge that the quantities would show considerable variation. It is not a particularly difficult matter for anyone who is in position to make use of highly accurate methods of analysis, to determine the lead content of cigarettes. We have not had occasion to do so for the reason that the problem does not seem to me to be especially important in view of the very much larger opportunities for lead absorption from a variety of other very common sources. As to what occurs during the smoking of cigarettes or cigars, I have even less basis for opinion. My guess is that a certain amount of finely divided lead would be inhaled and the greater portion of it would be exhaled. However, this is a pure guess and since I do not consider it seriously myself, I should not wish the opinion to be taken seriously by anyone else.

I can only give you one further suggestion - namely, that if you are interested in carrying out some experimental work on this subject, it would be advisable to review with great care the analytical methods which are now available. In the past few years several methods have been developed which have a very high accuracy. For the sake of example, the method which we have used is capable of detecting amounts somewhat less than .03 to .04 of a milligram. Quantitative accuracy is possible in the case of amounts in excess of .03 of a milligram.

Very truly yours,

RAK:IS

KE ■ 00088