

January 25, 1937

Dr. D. V. Conwell
The Hertzler Clinic
Halstead, Kansas

Dear Doctor Conwell:

In replying to your letter of January 22nd about your patient Mr. [REDACTED] it seems wise to acquaint you somewhat more fully with the reasons for the statement made in my recent letter. I am rather sure of my position in the matter by reason of the fact that we have been investigating this problem for something more than ten years, and by methods which I believe are more exact and more critical than those which have ever been applied to any other general lead exposure. In your letter you suggest that the mode of poisoning in such a case might be that of ingestion as a result of contamination of the hands. This I may say is scarcely possible in the case of leaded gasoline for the reason that the concentration of lead in the gasoline is indeed quite low. Any gasoline which came in contact with the hands would evaporate off before one contaminated food or other articles with it, and in this instance the lead compound which is a volatile one would also evaporate off. As a matter of fact the lead concentration in the gasoline is so low that it would be impossible to ingest a toxic amount of lead without ingesting a dangerous amount of gasoline. Therefore the question of absorption by way of the alimentary tract is not an important one. The hypothetical dangers which have been most feared are that lead might be absorbed out of the gasoline by inhalation, and that lead might be absorbed through the skin. These aspects of the problem have been most carefully investigated, but the ingestion phase has not been ignored since the studies have been made on persons with severe exposure to leaded gasoline in all of the ways which occur in the handling of gasoline. Actually over a period of years some several hundred of the most severely exposed persons have been carefully studied and with entirely negative results from the point of view of lead absorption. In as much as it seems probable that you will be interested in these practical investigations, I am sending you herewith two reprints which summarize the early work and describe in some detail the most recent observations made in this field. I believe these articles will serve to show

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you why I am somewhat confident that Mr. [REDACTED] has not had a significant exposure to lead regardless of the manner in which he has been handling gasoline.

My available supply of reprints of these articles is now just about exhausted, and therefore I would appreciate it very much if you would return these reprints to me when you have examined them. You will see from the bibliography at the end of the article published in March 1934, that there have been quite a number of extensive and thorough investigations of this subject. In fact, by reason of its general significance, it has been one of the most thoroughly investigated subjects that I have known anything about. It is, therefore, entirely proper that one speaks more certainly about the magnitude of this lead exposure than is possible in the case of lead trades.

I shall not be able to send you the containers which I mentioned for some days on account of flood conditions in Cincinnati. However, as soon as it is possible, I shall send you two sets of containers with detailed instructions for the collection of the samples from Mr. [REDACTED]

My associate Dr. L. W. Sanders examined Mr. [REDACTED] some days ago but because of some difficulties in his traveling schedule, he was unable to get in touch with you at that time without very great inconvenience and delay. However he talked with Mr. [REDACTED] and explained the situation of his occupation in much manner which I discussed it with you. I think it is quite probable, therefore, that Mr. [REDACTED] will not feel that he is taking any chance with his health in returning to his work. Moreover I think you need not feel unduly responsible for permitting your patient to return to an occupation which is shared by thousands of men, none of whom have ever been known to have lead poisoning as a consequence of their work.

Cordially yours,

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Robert A. Kehoe, M.D.

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