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October 21, 1924

Dr. R. R. Sayers,
Chief Surgeon
U. S. Bureau of Mines,
Washington, D.C.

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CHIEF SURGEON

My dear Dr. Sayers:

I am greatly obliged to you for your kind letter of the 16th inst., with regard to Tetra-ethyl Gasoline. Of course, we will keep this information entirely confidential.

I may say that the results which you are getting seem to me very surprising. Analysis of ethyl gas, made independently by our chemical experts, indicate that the treated gasoline as used in the engine contains approximately 2 grams of metallic lead per gallon of gasoline. This lead has to come out somewhere, and one would expect it to come out in the form either of powdered carbonate or powdered oxide. Both of these powders are well known to be extremely poisonous. Therefore, it seems to me very remarkable that you have had no symptoms of poisoning in your exposed animals with the amount of exposure to the exhaust gases which you have used. Of course, experiments are the final test, but have you any idea as to the reason why the poisoning has not been obtained?

I may say also, although this I must ask you, if you will, to keep confidential, that I am informed that a number of the garage employees of the Standard Oil Company in northern New Jersey are showing symptoms of lead poisoning, due presumably to the fact that the company is using the ethyl gas in this district. I have not confirmed this information, but it comes to me rather directly, and I am inclined to credit it. Of course, this fact, even if true, does not necessarily mean any toxicity of exhaust gases, as it might be explained by poisoning due to contact of the ethyl gas with the skin.

I have decided to go into this whole matter of the ethyl gas very definitely. It seems to me that there is a distinct danger of a widespread poisoning, and that it is the duty of

R. R. Sayers

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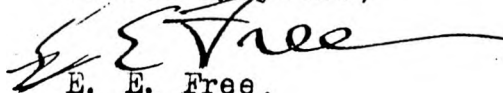
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the Scientific American to get at the exact facts, and to make them public. Since you are investigating the thing, I think I would like to talk over the whole field with you, and to look over your experiments, if that is possible. Of course, we will agree not to quote you or the Bureau in any way, or to make any use of your results, except with your complete and specific approval. What I really want is to be perfectly fair about the whole thing, which means that I want to get all the possible facts from every possible source.

Are your experiments being carried out in Washington or elsewhere, and would it be agreeable to the Bureau to have me meet you somewhere, talk over the whole thing and look over the experiments?

In case Dr. Bain is still absent, and you should wish some assurance of my competence and honesty, I may say that a number of the Bureau of Mines officials are more or less acquainted with me, as are Judge Finney, (Assistant Secretary of the Interior), Dr. George Otis Smith, of the Geological Survey, Dr. Charles A. Parsons, of the American Chemical Society, and Dr. George A. Rankin, of the Chemical Warfare Service, etc.

Sincerely yours,


E. E. Free,
Editor

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