

February 18, 1929

Mr. A. E. Mittnacht,
Ethyl Gasoline Corp.,
25 Broadway,
New York City.

Dear Mr. Mittnacht:

Replying to your letter of February 16. I have gone over the letters which you sent me from Phillips and Skinner, The Liberty Mutual Insurance Company, and the Walburn Petroleum Company. In the first case there is very little to be said except what we have previously said, namely, that there is no reason for supposing that Ethyl Gasoline introduced into the eye is capable of producing injury greater than that which would be occasioned by the gasoline base administered alone. On the other hand, there is experimental evidence that the ingredients of ETHYL fluid taken by themselves and that Ethyl Gasoline itself introduced into the eye does not produce blindness in experimental animals. Sometime ago we experimented with rabbits introducing gasoline, ethylene dibromide and tetraethyl lead into the eye without producing anything more than a fleeting irritation of the conjunctiva of the eye. There is no doubt that any irritating substance can produce ulcers of the cornea, and this is particularly true if the eye is rubbed. A slight injury to the cornea plus infection results in scarring which, if it is directly over the pupil, may produce blindness.

I doubt very much if any considerable information could be gained by observations on a large number of animals. However, we will investigate the matter a little further and see what can be seen. The past experimental information I have, however, has been gained from the spilling of ETHYL fluid and gasoline accidentally into the eyes of a considerable number of men. At the Dayton plant in early times a little splashing of ETHYL fluid into the eye was not uncommon. It produced pain and burning but after a careful irrigation of the eye with salt solution, boric acid or bicarbonate the irritation was diminished and we saw no actual injuries to the eye.

In the instance referred to by the Liberty Mutual Insurance Company it would seem that there is very little likelihood of any possible relationship between the illness of this man and Ethyl Gasoline. In reply to the letter it should be stated that if this man's exposure was only to the fumes given off by Ethyl Gasoline then there is no possibility of his having had lead poisoning. The experimental data on the subject proves conclusively

that no measurable quantity of lead is given off in the first ten percent of vaporizing gasoline and that it would therefore be impossible for one to develop poisoning from these vapors. It is unnecessary for me to re-state our evidence in the matter of skin absorption. There is no reason for going back on our original conclusion that no appreciable amount of lead is absorbed by skin contact with Ethyl Gasoline. This has been indicated by our animal experimentation and has been substantially verified by the experiences of the last five years. Furthermore, the diagnosis of splenic leukaemia which has apparently been made on this man, and which is apparently justified by the history and symptoms, can hardly be held to have any relationship to lead poisoning.

In the last case there is not sufficient information in the letter to enable me to form an opinion. In this instance also the diagnosis of leukaemia has been made and, unless this is a misprint for anemia I can see no possible relationship between it and lead. Just when and how lead poisoning has come to have any association with leukaemia is more than I am able to say.

I shall be glad to answer any and all of these letters direct if you wish me to do so, but I shall do nothing about them until I have heard from you further.

A few days ago I received from Mr. Schaefer a report concerning the behavior of prohibition agents in opening and sampling drums of tetraethyl lead. I do not share Mr. Schaefer's anxiety about these two men and I am not interested in making examinations of them, unless you wish it for some reason. From the point of view of the Ethyl Gasoline Corporation I can understand fully the desirability of preventing any tampering with drums of ETHYL fluid by prohibition officers for the reason that the drums are likely to be left in bad condition and are likely to leak thereafter. I can also recognize the fact that since these men are acting under orders they are not responsible for what occurs. I must say however, that when acts of this sort are committed which are stupid, and not to say unconstitutional, the individual should be willing to take the consequences and I am not at all anxious about them. If you feel, however, that there is any reason why these men should be looked after, I will be pleased to arrange it.

I am sending you herewith two copies of Dr. Machle's report of the examination of Mr. Wm. B. Merrill at Atlanta, Ga., a former employee of the Standard Oil of Kentucky. In addition to the information which is in the report Dr. Machle obtained samples of blood and arranged to obtain specimens of excreta for chemical examination. We shall have to report on these when we have finished the analyses. However, I am sending the report up to date in order that it may be of such use to you as you find possible.

February 18, 1929

You will not find the report entirely satisfactory for it is rather difficult to make a diagnosis on this man, not only because of the long time that has elapsed since the onset of his illness but also because of his somewhat peculiar statements which are not entirely in agreement with certain observed findings. Since his illness this man has been in the hands of about twelve doctors. This is enough in itself to put him at sea with regard to the nature of his illness and the result is that he is now, if he was not before, the victim of a psychoneurosis. This in plain English means that he is in a very definitely unbalanced mental state without being insane, and that he is convinced that he has a serious illness. A history of the entire condition offers very little reason for believing that lead had anything to do with it, and the physical findings do not give one any basis for believing that he has now, or has had, a condition resembling lead poisoning. I do not know what can be done about it but I see no reason for having any doubt as to the lead factor in his case for it seems to have been absent from the first. You may use your own discretion in forwarding this report to Mr. Steidle of the Standard Oil Company of Kentucky. You may either forward it at once or await the result of the analysis.

Very truly yours,

RAK:EJ