

March 28, 1941

Lieutenant Colonel C. J. Gentzkow
Army Medical School
Army Medical Center
Washington, D. C.

Dear Colonel Gentzkow:

We are sending herewith three copies of the discussion and review of "Gasoline Intoxication". As you requested, this was drawn up in some detail and a great many more references have been included than will be contained in the finished paper. I propose soon to condense this material considerably and publish it in one of the journals. Largely as a consequence of the detail included and to a degree because of the large amount of material that had to be gone over, this paper will permit of considerable reduction should you wish to use all or any part of it for purposes of information in the Army Medical Corps.

The work on the stove is practically at completion. Two runs of 4 to 6 hours each were made initially, then the stove was operated daily for a period of some weeks, and a third balance experiment carried out. Our recoveries have been from 96 to 100%, well within the limits of experimental error, and several matters of practical significance have developed from this work. It would appear that when leaded gasoline that contains 3 cc of lead is used measurable amounts of lead are found in the flue gases, but that the greater proportion of this comes over in the first 30 minutes while the stove is coming to temperature, and we have further found that the lead which passes the filter in the early minutes of running is in the form of tetraethyl lead. This of course does not escape into the flue gas as it is completely decomposed in passage through the flame, but it does suggest the possibility that improvements in the stove could be made that would enable more complete decomposition of the tetraethyl lead while the stove is being started.

Some items in connection with this and the matter of the amounts of lead found in the flue gas make it seem advisable that we discuss this matter together as soon as all of our analytical data is at hand.

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It happens that Dr. Kehoe and I will be in the east in the second week in April and it would be possible for us both to stop off at Washington on Friday, April 11. This happens to be Good Friday and may not be a convenient day for you. On the other hand it will be one of the few times when it will be possible for us to have Dr. Kehoe sit in on this meeting, and I think it would be most desirable to have his opinion at the time we go over the data. Will you, therefore, please let me know as soon as convenient, whether or not it will be possible for us to see you on April 11. Should that date not be convenient, will you set some other time. I shall look forward to seeing you.

Best regards.

Cordially,

WM:vr

Willard Machle, M. D.

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