

February 7, 1945

Dr. Emil Bogen,
Laboratory Officer,
Base Hospital 15, Navy 3205,
Fleet Post Office,
San Francisco, Calif.

Dear ~~S~~ Bogen:

I am slow in replying to your letter, but I am afraid that my reply will not be very satisfactory. Perhaps this is the reason I have delayed replying.

In order to know whether lead solder in your cooling condenser would give rise to any significant danger, one would have to know something of the surface of exposure in relation to the volume of the milk, something of the time factor, and something about the temperatures. Knowing none of these factors, I can only hazard a guess. On the supposition that the surface of the exposure is not very great in relation to the total volume, I would be disposed to believe that the hazard from the contamination of the milk would not be very great. The amount of solution that would occur in such a menstruum in a short time should not be very great. Moreover, the absorption of lead from the alimentary tract is not very rapid, and unless the contamination was of the order of magnitude of 1/10 mg. or more of lead per liter, it would probably not signify much. Our experimental work on the ingestion of lead has demonstrated that it would take years of exposure to produce a hygienically significant absorption and accumulation of lead if the intake per day were of the order of magnitude of 1 to 1 1/4 mgs. of lead regularly. Obviously the hazard depends upon the composite dosage rather than upon that introduced in any one item of food, but I doubt if a hazardous condition would be produced by the factor you mention.

I am glad to hear from you and I send my best wishes.

Sincerely yours,

Robert A. Kehoe, M. D.

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