

February 21, 1945

Dr. Paul M. Holmes,
The Bunting Brass and Bronze Company,
Toledo, Ohio.

Dear Dr. Holmes:

I am glad to hear that things have gone well in your plant during the past winter. However, I am afraid that I cannot get very enthusiastic about stippled cell counts in relation either to impending lead intoxication or to the level of lead absorption of your group. While we have found some general indication of a rough correlation between the mean level of stippling and the general level of lead absorption, the individual variations have been found to be quite high, and therefore the difference between two groups that is required to exceed the limits of mere chance, must be very great. Accordingly before drawing any conclusion on your data, I would have to see the spread of the results, the extent of the variability on individuals, and similar items of information before coming to any conclusion about the significance of the findings. In general, I would say that the point of greatest clinical importance in connection with the stipplings lies in the behavior of the phenomenon in the individual case. If the number of stippled erythrocytes begins to increase abruptly and progressively in the individual case, I should regard it with some apprehension. However, a slow progressive increase, or a general trend toward a slow increase with variations upward and downward, has very little significance in my opinion. I am quite sure that the only way one can determine the significance of the hazard in the group or any individuals, is to know the level of lead concentration in the blood or urine or both, preferably both. The hematopoietic phenomena are non-specific, irregular in their occurrence, and subject to much too much variability to give one a predictable basis for judgment. I do not think that the time spent in obtaining such information is entirely wasted, but frankly I do not consider it worth much for the estimation of the hazards of the lead trades. There is one thing I would be willing to say, however. This has been a rather unusual winter with fewer open days than we have had for many a year. Consequently, insofar as your exposure has been influenced by reduced ventilation because of weather conditions, you should have had more exposure than usual, and other things being equal, you should have a rather worse clinical picture than usual at that period of the year when your troubles usually come. If this increased exposure has been offset by increased artificial

KE 0003502

Dr. Paul M. Holmes - (2) - February 21, 1945

ventilation, it is entirely possible that the exposure has been less rather than lower than usual. I think there is no way in which this could be established other than by systematic and careful sampling of the air, or by equally comprehensive excretory results on the personnel.

Thanks very much for letting me know about your problem. I shall certainly be very much interested in knowing how it turns out.

Sincerely yours,

Robert A. Kehoe, M. D.

RAK ef

KE 0003503