February 20, 1947

Dr. N. B. Herman,
1041 St. Paul Street,
Baltimore 2, Maryland.

Dear Dr. Herman:

I am very glad to confirm the impression set forth in your letter of February 14 concerning the lead hazard of brush painters who do no spray painting. It is fair to say that lead exposure sufficiently great to produce lead poisoning, is quite infrequent in its occurrence among brush painters. There are several factors which bring about this situation, and I will undertake to deal with these factors.

1. The use of lead paints has been very greatly diminished in recent years. Interior paints, for a number of reasons, are very low in their lead content, with the exception of the greens and the yellows which are likely to contain lead chromate, for the simple reason that the substitutes for lead chromate in the production of these colors are rare and relatively unsatisfactory. For this reason interior painting, together with the greater hazard of scraping, burning and sand papering which give rise to dust and fume in a relatively unventilated place, is much less hazardous than it used to be. Moreover, by the reason of the alternation of interior and exterior painting, the lead exposure of the painter is likely to be intermittent rather than continuous.

2. The application of paint by means of a brush is generally without appreciable hazard, except as the painter gets paint on his hands, his tobacco, and his food, and thereby ingests considerable quantities of lead unnecessarily. Ingestion of lead is, of course, much less hazardous, in proportion to the dosage than is inhaled. Nevertheless, it cannot be ignored, and the careless painter who ingests lead pigments may get himself poisoned without having inhaled any appreciable quantity of lead. We have seen several instances of lead poisoning of this type, in which there was no question of the nature of the exposure. The professional painters, however, have had their attention called to this matter rather forcibly, and therefore the men who work regularly take reasonable care in this regard. It is likely to be the amateur who indulges in gross carelessness in this regard.

The hazard of the regular painter occurs chiefly in connection with exterior paint, in which white lead is the principle pigment, since the latter is still regarded as much the most satisfactory

exterior paint. Here, if we disregard the possibility of ingestion, the hazard arises largely from the work done to prepare the surface for the new coat of paint. The use of the torch in burning the surface, so that old paint can be scraped off, is a serious hazard, because the fume is thrown into the air close to the breathing level. When this work is accompanied by sand papering, dust is also thrown into the air, giving rise to considerable exposure. Not all jobs require this preparatory procedure, but sometimes a prolonged job of this sort at which the particular individuals work steadily for some days or weeks may result in an acute episode of intoxication. Undoubtedly the reason this doesnot occur more frequently is that such jobs alternate with simpler jobs so that a short period of severe exposure alternates with a period of slight or insignificant exposure, and therefore the overall danger is kept within reasonable limits.

It would be very difficult to cite you to references that would give you any information beyond that given above out of our own experience and observation. The only evidence which could be adduced as a matter of record is the incidence of lead poisoning among painters at the present time, as contrasted with that of an earlier period. You will probably realize that the statistics are not very good. Such as they are, they indicate that the incidence of lead poisoning among painters has diminished appreciably and steadily during the past twenty years. Such evidence can be found in the reports of State Departments of Health and State Compensation Boards, such as those of the State of Ohio, New York, New Jersey and the City of Baltimore.

Cordially yours,

Robert A. Kehoe, M. D.

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