

TO: George Roush, Jr., M.D.
FROM: Robert A. Kehoe, M.D.
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In considering the significance of what Dr. C. C. Patterson has said or may say about the hazards to the public health that appear to be indicated by his observations and those of his associates in the California Institute of Technology, it is important to recognize certain facts. There can be little doubt as to the correctness and the scientific importance of the observations of these men within the field of their primary professional interests and competence. There is grave doubt, however, as to the soundness of their judgment in appraising the hygienic significance of their findings, as these relate to the lead content of the air to which individuals in our population, in any part of the country are being exposed. There is much information on the latter with which investigators in other scientific fields can hardly expect to be fully conversant. Moreover, further investigations are underway. It is not as though the problem of which Dr. Patterson and his associates had become aware of is new.

This is not to suggest that these investigations should not have considered the possible hygienic significance of their findings. On the contrary

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they might well have suggested the need for a careful examination of the facts in the light of the new evidence. Their fault, if it can so be designated without undue criticism, was in arriving prematurely at a judgment on a matter which was beyond the range of their knowledge. What, for example, are the facts concerning the exposure of various segments of our population to lead compounds from a variety of sources? How is this being influenced by lead in the air? What are the sources of lead in the streams that flow down to the seas? What happens to this lead on the way to the sea, and after it reaches the sea, and what are the problems that arise out of this within the streams and seas, with reference, for example, to the flora and fauna of the streams and seas, and the food supplies that come from the sea? (The answers to those questions involve further investigation in the field under exploration by Dr. Patterson and his associates.)

Further questions relate to the lead and its inhabitants. For example, what has happened, with respect to the total intake and absorption of lead of people in various areas and groups during and before the period of years involved in the changes in the distribution of lead in the seas, which have been described recently? And what may be regarded as the limits of safety or danger to human

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health with respect to such intake and absorption of lead? A considerable amount of information is available to provide at least partial answers to these questions, and such information must be taken fully into account before any opinion in the present situation, in relation to human health can be formulated.

It is easy, but irresponsible, to give voice to statements that excite apprehension in people who cannot possibly give proper weight to such statements. The responsibility for the exercise of caution in such matters is especially great among men of science who occupy prominent and highly respected positions. Consultation with knowledgeable colleagues in unfamiliar but pertinent disciplines would seem to be the minimum of the precautions which should be taken in matters of this type.

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