June 17, 1955

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Mr. Philip Drinker
A.M.A. Archives of Industrial Health
55 Shattuck Street
Boston 15, Massachusetts

Dear Phil:

I am not disposed to argue on the point of your acceptance of Manville's paper for publication in the Archives, not because I have any doubt as to the pertinence of my criticism of the concept involved in it, but rather because I do not wish to stifle ideas with which I disagree by denying them a hearing. I'm afraid that I have not made this evident in my previous and somewhat vehement protest against the procedure. If you and your editorial consultants believe that the paper is worthy of publication, let it be published by all means. On the other hand, I wish to make my position clear to you on the medical principle involved. In doing so I have no intention of preaching to you or in instructing you. I merely think it important to establish clearly a principle that has been validated to my satisfaction by nearly a lifetime of medical practice in industry.

The physician in industry fulfills several roles, one of which, because of the frailties of human knowledge and performance, is the treatment of industrial casualties. In the production team, however, his primary function, ideally and in due course of evolution, is that of serving as the conscience and the critic of industry, in matters of health. To define human health in terms of physiological criteria, and to insist upon the preservation of that last increment of health and well being that may be jeopardized for productive gain, is his simple duty. Good industrial hygiene, in its engineering function of controlling the industrial environment, involves adequate compliance with appropriate physiological specifications. Anything less than that is not good, if the specifications are grounded in established physiological facts, regardless of how and what is being done. Good industrial hygiene, in terms of the medical supervision of the personnel employed in the hazardous environment, is made up of study of the hygienic status of the men, hygienic instruction, provision for the proper use of personal protective devices, and removal from exposure, i.e. rotation in jobs, transfer to a safe environment, etc. Therapy is indicated,only if the criteria for safety are unknown or in the process of being established, or if the measures of control fail through inadvertencies, accidents and human failures.

Now as these principles apply to the lead trades, we have, at present, adequate and very nearly absolute criteria (in physiological terms) for a safe industrial environment. I have expressed these in simple direct language

(see the chapter on lead in Patty's book), and they are accepted and applied by a number of industries. They are based upon careful, elaborate and long-term clinical and experimental observations. They have proved their adequacy in practice, and they are not subject to any doubt whatever, so far as they go. We do not know that the permissible levels of lead absorption (as now defined in practice) are wholly and permanently satisfactory, in terms of their complete insurance of freedom from any vague or insidious or presently unknown influence of lead on human well-being or longevity, but we do know that they provide against the occurrence of lead poisoning in any of its presently recognizable clinical or symptomatic forms. The matter of lead accumulation in the body is taken care of by them, and I may say that any standard that does not do this, in conformity with our present fairly full information on the subject, or any criterion of "good industrial hygiene" that does not meet this, is a contradiction in terms. For professional people in the field of industrial health, the acceptance of standards that make compromises with safety, when the latter can be soundly defined, represents a stultification of conscience and a brutalization of social sensitivity, that can only be regarded as a manifestation of callousness, stupidity or intellectual dishonesty.

If safety can be achieved in the most dangerous of the lead trades, it can be done (and has been in at least a score of those with which I am directly familiar) in those involving lesser hazards and more tractable engineering problems. As I have pointed out previously, many of the lead trades in the U.S.A. have been greatly improved in moderately recent years, but not very many of them have improved to the point of the elimination of mild types of lead poisoning. We have reduced the incidence of the more serious forms of lead poisoning, without actually eliminating the milder cases. Some of our engineers and physicians in the field of industrial hygiene are apparently content with this, taking satisfaction from the invested effort and the qualitative appearances of progress. In this, I cannot go along with them, for I am not prepared to accept the propriety of this attitude on the part of a physician.

The physician in private or general practice is privileged to treat lead poisoning in any of its forms, as he thinks best. In fact it is his duty to do so. But the physician in industry must regard every instance of the necessity to treat lead poisoning, among the men under his supervision, as a failure in the regimen of industrial hygiene of which he is a part. To establish any form of therapy as a conventional adjunct to such a regimen, is to accept and to condone its inadequacies, unless indeed he takes the steps necessary to needle the collective conscience of the responsible people. This business of condoning inadequate measures of industrial hygiene is precisely what is happening in the "prophylactic" use of disodium-calcium versenate. That it is being done ignorantly and without such intent, and that it is being advised, more or less naively, by the representatives of Riker Laboratories, is beside the point. That is its effect, as I am sure because of my correspondence and conversations with quite a number of people in the profession. If you now object to my speaking of this procedure as the treatment of lead poisoning, let me remind you that Manville referred to symptomatic improvement of the persons treated, and to certain changes in the objective clinical findings. If men show

any symptomatic or physiological deterioration in response to lead absorption, they have lead poisoning, and nothing but confusion of mind and conscience results from calling this "lead absorption," or "latent lead poisoning." We should not delude ourselves with words, but stick to the facts.

It is possible to accomplish the avoidance of lead poisoning among men who are exposed to too much lead, without lulling the management to sleep or contentment, by removing the men from exposure before they reach a dangerous level of absorption. This is better than therapy, in that it avoids any suggestion of illness, and at the same time points the finger at the situation which requires attention. Not only is this possible. It is standard practice in certain industries. Certainly it causes trouble. Why shouldn't it? Certainly the regimen that makes it possible is costly. Why shouldn't any industry bear the necessary cost of providing safety for its people, or if it cannot do so, fold up and get out of business? Is there any social justification, except in emergency or during a period of temporary stress, for the continuation of a business that damages people or shortens their lives? My heart does not bleed over the economics of the situation. Nor am I impressed by the high adventure associated with disregard of life and limb. Let those who want it have it, by all means. But let us not confuse the issue by involving those who have to work, where they can, to make a living for themselves and their families.

Only one other point occurs to me in such a way as to require a word of comment. I have no criticism of Manville's experiment as an experiment, so recognized and proclaimed. Nor shall I object to the experiments of others, as experiments. I realize that Manville went into this without recognizing its implications. I forgive that also, for it is human to be ignorant and inexperienced. I could not forgive myself, however, if I were silently and supinely to see this situation develop before my eyes and not protest.

Sincerely yours,

Robert A. Kehoe, M. D.

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