

July 26, 1940

Dr. C. M. Hillenbrand
Harrison Radiator Division
General Motors Corporation
Lockport, New York

Dear Doctor Hillenbrand:

I have gone over the exchange of correspondence between you and Dr. Gradwohl concerning the question of stippling. I have also noted the comparison of the reports from Dr. Gradwohl's laboratory and your own Lockport laboratory. I am returning all of the correspondence and reports to you herewith.

It would seem to me that the significance of this discussion is fairly well demonstrated by the comparison of the two reports. You are able to express your findings in quantitative terms which have a comparative significance, while Dr. Gradwohl's reports, on the other hand, are in symbols to which certain arbitrary interpretations can be given. I believe it is quite clear that Dr. Gradwohl's method of approach can not produce anything better than rough estimates, and it is not sufficiently precise in its quantitative expression to be of real value either from the point of view of medical control or medico-legal consideration.

As I have stated to you before, the thick drop method of making smears has a certain advantage in enabling one to see a large number of erythrocytes at one time. It has the unfortunate disadvantage that one does not see as clearly and is, therefore, in some doubt as to the significance of what he sees. There is the further disadvantage that it is impossible to estimate with even approximate accuracy the number of erythrocytes which occur in a microscopic field. For this reason there can never be any quantitative expression of the results, and in as much as quantitative expressions are necessary both for interpretation and for medical-legal purposes, the method may be put down as definitely unsatisfactory and inferior to the one which you are using.

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As far as staining is concerned, the Giemsa stain can be used, but I think Wright's stain is preferable and I believe methylene blue, as we have used it, is also superior. These are mere details and undoubtedly experience in the use of various stains can be wholly satisfactory. The chief objection to the thick drop method lies in one's inability to express the results in even roughly quantitative terms, and if one is to rely upon guess work in this field, I should think that he might just as well guess without doing any work as to have to continue to guess after carrying out laboratory procedures. By this I do not mean to indicate that thick drop smears are entirely valueless for diagnosis purposes. On the other hand it is almost entirely valueless for the purpose for which you want to use blood examinations.

I was very glad to see you again and to find out how well your work had been going on. I trust it will continue to go along satisfactorily.

With kindest personal regards, I am

Cordially yours,

RAA:ls

Robert A. Kehoe, M.D.

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