

November 15, 1937

Mr. F. O. Clements
Technical Director
Research Laboratories Division
485 West Milwaukee Avenue
Detroit, Michigan

Dear Mr. Clements:-

In reply to your letter of November 11th concerning the financing of the Kettering Laboratory of Applied Physiology and the part played in that by the Frigidaire Corporation, it seems well to review briefly the situation at that time and the present status of the laboratory.

My associates and I had been working on the general problem of the toxicity of sulphur dioxide and certain other refrigerants since some time in 1927. We had also been studying the general problem of lead poisoning not only in its relationship to the hygienic problems of the Ethyl Gasoline Corporation, but also with respect to the total hygienic aspect of the use and distribution of lead commodities. The information which we had obtained had been useful both to the Frigidaire Corporation and to the Ethyl Gasoline Corporation, but actually since our work was published and made generally available, it had no greater usefulness to these Corporations than it had to any others who might see fit to apply what we had learned.

Some time late in 1928 or early in 1929, it became apparent that it would not be possible for us to extend our experimental studies as far as might desired by reason of inadequate space and laboratory facilities in the Medical College of the University of Cincinnati. It seemed advisable to develop our work and, accordingly, some discussion was had with representatives of Ethyl Gasoline Corporation and the Frigidaire Corporation in which we pointed out our difficulties and discussed with them the desirability of carrying them further. After several such discussions it developed that both Corporations were willing to make some contribution to the University of Cincinnati for providing space and equipment for carrying on our work. In due time this willingness crystallized into a contribution made to the University of Cincinnati without strings of any kind, except that the money was to be used for one

purpose only, namely, the construction and equipment of a laboratory which should be so planned and so arranged as not to cost more than the sum available for its completion. This contribution was made and the building was constructed and equipped, it being ready for occupancy in November of 1930. Its formal dedication was in December of 1930.

An agreement was entered into between representatives of Ethyl Gasoline Corporation, Frigidaire Corporation and E. I. duPont de Nemours and Company (the latter also contributed toward the sum of \$130,000.00 which was made available). This agreement contained two main provisions with reference to the donors. First that the Board of Directors of the University bound themselves not to spend more than the sum made available in building and equipping the laboratory, and second, that the contributors to the support of the laboratory might withdraw at any time on giving six months notice of their intention to the University. (It was fully understood and stated in the agreement that the building and its equipment were in fact the property of the University of Cincinnati and could be used for any purpose by the University of Cincinnati. Any special equipment which might have been loaned by the contributors for the pursuance of some phase of the investigative work might be removed from the laboratory within six months of the time said contributor withdrew his support from the laboratory. As a matter of fact, no items of special equipment were ever loaned to the laboratory for any but the briefest period of time, so that all of the equipment within the building has been acknowledged to be the property of the University of Cincinnati throughout the entire period of the existence of the laboratory.)

During 1930 and 1931, and part of 1932, we maintained some systematic experimental studies on the toxicity of various refrigerants at the expense of Frigidaire Corporation. This work was of a semi-public character and was made the subject of reports both to the Frigidaire Corporation and to various public officials. In addition most of this work was published in scientific journals. In fact, any material that was not published was held back only because it was not completed and therefore was not suitable for immediate publication. In terms of the policies of the University of Cincinnati and of this laboratory it is not possible for it to do work primarily of commercial value for any industry. Our problems have been medical during the entire period of our work. Whatever we do is subject to publication through the usual scientific channels. The laboratory, therefore, can not be regarded as any other than an entirely independent scientific agency for the accumulation and dissemination of medical information.

In 1932 the Frigidaire Corporation found it necessary (for financial reasons, I believe) to reduce its budget for experimental purposes. In line with this policy

it discontinued its financial support to this laboratory. Our work on refrigerants has been largely discontinued since that time, although we have carried on certain types of experimental work in which we are primarily interested. Thus one of the problems with which we were concerned at the time of our work on these refrigerants had to do with the combustion products of certain of the halogenated hydrocarbons. These were hydrochloric and hydrofluoric acids. The practical importance of these materials to industry in general led us to investigate their toxicity further. We completed this work and reported our findings in the Journal of Industrial Hygiene in 1934. I mention this merely to illustrate the fact that the laboratory has maintained strict independence in its experimental work, having chosen among the numerous problems of industrial hygiene those which we are particularly well equipped to study and those which, because of their importance, justified the expenditure of time and effort.

The present status of the laboratory is that of a University agency for the study of industrial hazards and occupational diseases. We have established a certain prestige for the reliability and the unbiased character of our work. As a consequence of this more problems are brought to us by industry than we are able to handle. We accept for study only such problems as merit investigation in our own judgment. We investigate these problems in our own way and publish the information obtained when and where we choose. If this arrangement does not suit any industrial organization that comes to us for assistance, we do not accept the work. It should be apparent, I believe, that no laboratory of standing in a sound University can adopt any other policy.

In conclusion I am glad to say to you that as the Director of this laboratory, and as a representative of the University of Cincinnati, I feel more than grateful to the industrial groups who provided the money to initiate this venture originally. I shall always feel that the executives of these corporations by their action expressed a very considerable personal confidence in me, and moreover that they have done a fine and disinterested thing in starting a project of this sort. On the other hand it is quite clear to me now, and it has never been otherwise than clear to me, that these men made an investment fundamentally in an idea. They bought nothing from the University of Cincinnati which was in any wise tangible. Any benefits which they received from the University of Cincinnati in their business enterprise was the result of their own wisdom in applying such information as we have been able to obtain. At present they have no more right to make demands on this laboratory than does any other corporation which comes to us with a problem that in our judgment needs to be solved. Obviously, however, because I have learned that I can deal in a straight forward manner with these executives,

There is no documentary evidence other than the agreement originally entered into between the Board of Directors of the University of Cincinnati and the donors of the laboratory which would tend to prove the truth of the statements which I have made in the foregoing paragraphs. Therefore I do not know how to comply with your request that I send descriptive literature representing the policies and functions of this laboratory during and since 1930. The only evidence which I can present to you would be found in the form of a series of published articles in medical literature which have come out of this laboratory since that time. I do not know if it would be useful to you to have these articles listed, and I am not sure that what I have said above fully answers your purpose. However I leave that to you to decide and if there is any further information which I can give you, I shall be glad to do so.

Cordially yours,

RAK:is

Robert A. Kehoe, M.D.