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EDITORIALS.

THE DETROIT MEETING.

PRESIDENT WHITNEY struck the keynote of the General Meetings of the American Chemical Society when he said that the purpose of the gatherings was not so much to listen to papers as to get acquainted: knowledge of a man's personality was the basis of appreciation of what he said or wrote. Chairman Little, of the Division of Industrial Chemists and Chemical Engineers, put the idea to work when he asked each member of the Division to rise, state his name and deliver a brief autobiography. A confession is always thrilling and there was the most intense interest manifested in these brief statements of careers and occupations. Afterward every man and woman felt better acquainted. This precedent should become a custom and a tradition in the Division.

The Detroit meeting was the most successful summer meeting ever held by the Society. Two forces accomplished this result: a growing and enthusiastic membership, officered by men of worth, breadth and great activity, and the hosts, the Society of Detroit Chemists. Whether judged by the attendance, which was over three hundred, the number of papers read, which was more than one hundred and seventy, or by the general enthusiasm and good fellowship this meeting sets a new mark for summer meetings of the Society.

Next winter's meeting will be held in Boston; next summer's meeting in San Francisco. If any chemist, who is not in the habit of attending these meetings, desires to be inspired with a new interest in his profession, let him attend.

The officers of the American Chemical Society are to be congratulated on their splendid organization.

THE LIMITATIONS OF THE CHEMIST.

WE all know what a halo of mystery and romance clung to the alchemist of old, especially in the minds of his contemporaries. His profound skill and wisdom were regarded as almost supernatural. It is without doubt helpful to the dignity of the profession to-day that something of the same feeling of awe and wonder exists in the popular mind toward the modern chemist. To the "laity" he still works in dark and mysterious ways and is endowed with keener and more occult powers than his fellows. With practically no difficulty he is supposed to be able to solve at once any complicated industrial problem suggested, or duplicate, perhaps while you wait, almost any unknown mixture of ingredients placed in his hands. With scarcely an effort he is considered capable of detecting the presence and amount of any obscure substance whatever, poisonous or otherwise.

In fact, in the popular eye the chemist of to-day is still apparently gifted, to some extent, like the alchemist of yore with superhuman powers. Fortunate it is that, as a rule, no one knows better his limitations than the chemist himself, and this knowledge affects his life and work in widely varying degree, largely dependent, of course, on

the character of his work and his temperament. To a large number the realization of these limitations will make little or no practical difference, while with others it may act as a continual source of annoyance. There is the superconscientious worker, for instance, who worries often unnecessarily lest perchance in his determination of alcohol, some other unidentified volatile substance may not also be included, or lest, when required to report the miscellaneous ingredients of a mixture, something important and even vital may not still be undetermined.

The extent to which one's limitations seriously affects one's work largely depends on the degree of responsibility bound to arise eventually from the results of that work. Probably, from the nature of his calling, no one is more handicapped in this regard than the toxicological chemist. To him at times may come the responsibility of causing a fellow being to be condemned to death or long imprisonment by evidence submitted by himself. Under such conditions he cannot fail to consider in every phase the possible fallibility of his tests and of his opinions based thereon.

To a less degree does the same question of limitations apply to the public analyst who alleges adulteration or misbranding of food, or, indeed to all chemists who at times appear as expert witnesses and on whose evidence decisions are rendered in court. The anomaly is familiar to us all of the method that works so admirably in one man's hands proving utterly useless with another. This illustrates a single phase of the chemist's limitations. Can we not attribute to these very limitations the fact that so often diametrically opposite testimony is given in court by experts of equal ability and integrity, or that glaring differences of opinion are expressed and widely varying results obtained by scrupulous workers employing equally careful methods of analytical research? Better by far that this be the case rather than the oft-repeated popular taunt that experts will testify to anything they are paid for.

The proper recognition of these limitations, not in a pessimistic spirit, but as a prevailing condition, cannot fail to help rather than hinder the progress of the art. Such recognition need not discourage work in any field, but should rather stimulate to increased care and precaution in methods of procedure, and to greater tolerance of those who honestly differ from us.

ALBERT E. LEACH.

THE CHEMIST AND THE PUBLIC.

IT is altogether natural that the public recognition and appreciation of the chemist should be a slow development. That which is occult, obscure, unseen, dark, may excite the imagination of the layman but will surely appeal less strongly to his rational understanding. The art of the engineer has ever been visible and tangible, and therefore has been the more readily grasped and appreciated by the average man. Not so the art of the chemist.

It is gratifying to note that in these latter days many signs of an increasing understanding of the chemist's aims and works are being shown, if not by the general public, at least by the non-technical educated minority. Many things have worked toward this end—the chemist's part and the public's interest in the conservation of natural resources, the development of manufacture and industry and better and more liberal education itself. As a sign of the times the following editorial from the *Boston Herald* of June 26th, is of the greatest interest. It is entitled "The Chemist's Service."

"Two sorts of wise men are now interested in the chemist: the man who is concerned with the origins and elements of all life and the man who is bent on developing human welfare to its utmost on the physical side. The philosopher is interested in him because, just now, more than any other man of science, the chemist seems to be in line as the agent for revealing unsuspected and revolutionizing facts about nature and her laws. Where a decade or two ago the biologist was supreme the chemist now stands as pioneer in fathoming, not the source, but the method of continuous creation. The stateman, the manufacturer, the merchant and the consumer of the products of applied science are interested in the chemist, because wherever he has been given a fair chance by private initiative or by generous treatment on the part of the state, he has added so immensely to the wealth of society and to the comfort and the health of life by his discoveries, by his reductions in cost of manufacture, by his utilization of matter previously wasted, by his synthetic creation of rare and costly products of nature and by the light he has shed on the hidden causes of health and disease through study of the chemistry of transformations that go on within the body, that it is difficult to overrate his importance to society.

"The debt owed the chemist is one that cannot be measured in pecuniary terms; it must be reckoned in higher values that always follow after bettered