his day viewed them as epoch-making, for they appeared in splendid translations in all the languages of contemporary Europe.

Then should be read his lectures on oratory and criticism and on general history, as well as his volume on "Perspective," that his profound attention to literature in general, as well as to art, may be noted.

However, your thoughtful consideration must be called to another truly remarkable work of Joseph Priestley—further proof of his versatile intellect—a work the fitness of which and the belief in which are to-day evidenced on all sides of us.

Indeed, if the Priestley medallists for the next quarter of a century were each, in turn, to discuss some domain in which our hero has left his imprint, the complete story of his versatility could not be conclusively told.

Ten years before discovering oxygen—that was in 1764—Joseph Priestley wrote an "Essay on a Course of Liberal Education for Civil and Active Life," saying that when he became a tutor in the old Warrington Academy he found

> the far greater part of the students were young gentlemen designed for civil and active life, whereas the course of study, as in all other places of liberal education, was almost entirely adapted to *the learned professions;* and it occurred to me that, besides the lectures which they had been used to attend, other courses might be introduced, which would bring them acquainted with such branches of knowledge as would be of more immediate use to them when they should come into life.

Accordingly, he proceeded to prepare a new curriculum. He was far in advance of his fellow educators, as the "Essay" shows. Brief abstracts from it are these:

> I would recommend as new subjects (1) Civil History and (2) Civil Policy; such as the theory of laws, government, manufactures, commerce . . . and (3) the study of the country's *present constitution and laws* that the student may acquire a more thorough acquaintance with his own country. . . . Time was when scholars might, with a good grace, disclaim all pretensions to any branch of knowledge but what was taught in the universities . . . but those times of revived antiquity have had their use, and are now no more. We are obliged to the learned labours of our forefathers for searching into all the remains of antiquity, and illustrating ancient valuable authors; but their maxims of life will not suit the world as it is at present. . . . The politeness of the times has brought the learned and the unlearned into more familiar intercourse than they had before. They find themselves obliged to converse upon the same topics. The subjects of history, politics, arts, manufacture, commerce, etc., are the general topics of all sensible conversation.

Are not these suggestions modern in their tone and are not our technical schools, our schools of finance and commerce, of administration—products of these visions of Joseph Priestley upon a "Liberal Education"? That printed document to which reference has been made is rich to overflowing in similar thoughts. A pioneer truly was he in education—a profound student—the speeches of his detractors to the contrary notwithstanding.

A few years subsequently he wrote "Remarks on a Proposed Code of Education," and a third and rather lengthy document, possibly influenced thereto by Benjamin Franklin, on "Miscellaneous Observations Relating to Education, more especially as it respects the Conduct of the Mind."

And now—quite recently (*Journal of Educational Research* for May, 1926) has appeared a very interesting and learned article in which the writings of Herbert Spencer and Joseph Priestley are compared—extracts from their publications being printed side by side and closely contrasted. The concluding paragraph of this startling communication reads:

> In their non-Conformist position, their opposition to state control of education, their individualism, their radical attitude on science, their utilitarianism, the two men agree closely. It is not strange that Herbert Spencer should have gone to this intellectual ancestor of his for ideas; but it is singular that the debt should not have been discovered before; and it is note-worthy that the debtor on every occasion fought vigorously in defense of his various claims for priority. Spencer's chief additions to Priestley's eighteenth-century thought were a slashing style and a brilliant faculty for special pleading. Few, if any, other writers on education have attained a great reputation so cheaply; but perhaps fame rarely conforms to the facts.

But I must stop. Another side of this versatile brother chemist has been called up; and when he is properly understood and known, future generations will encircle his name with

> those never-fading wreaths, compared with which the laurels that a Caesar reaps are weeds.

We chemists of America, holding high that name, glory in the privilege of

> doing honour . . . to Priestley, the peerless defender of national freedom in thought and in action; to Priestley the philosophical thinker; to that Priestley who held a foremost place among "the swift runners who hand over the lamp of life," and transmit from one generation to another the fire kindled, in the childhood of the world, at the Promethean altar of science.

EDGAR F. SMITH

JAMES ALEXANDER LYMAN

JAMES ALEXANDER LYMAN, Ph.D., Johns Hopkins, 1892, for seventeen years head of the department of chemistry at Pomona College, Claremont, California,

died suddenly on July 29, 1926, while on a vacation trip at Long Beach, California. His death followed an operation for acute appendicitis.

Dr. Lyman was born in Lee Center, Illinois, October 17, 1866. He was graduated from Beloit College in 1888 and took his master's degree from the same institution in 1891. At the close of his graduate work at Johns Hopkins he was an instructor for one year at the University of Chicago. He then taught chemistry at Portland (Oregon) Academy until he became head of the department of chemistry at Pomona College in 1909.

Dr. Lyman was married in 1897 to Ethel Anna Skinner. He is survived by his wife and three children. His younger and only brother, Dr. George R. Lyman, late dean of the college of agriculture at the University of West Virginia, died recently, thus bringing a double loss to the aged parents who survive them.

Dr. Lyman's special research problems were in the field of sulphonphthaleins and the ethers and esters of p-nitrobenzyl alcohol. He was joint author with William Conger Morgan of two preparatory school text-books, "Chemistry, an Elementary Text-book" and "Chemistry, an Elementary Text-book with Laboratory Manual." He also had nearly completed the manuscript of a text-book of organic chemistry.

Dr. Lyman was a brilliant and inspiring teacher and under his guidance a strong department of chemistry was developed at Pomona College. To his students he was a wise counsellor and a good friend. To those like myself who had the privilege of working with him in the department he was always the soul of kindness and sympathetic understanding. His keen sense of justice and his good judgment, seasoned with a humor which always took the sting out of criticism, made him admired and deeply respected by his students and colleagues and the members of the community in which he held honorable place. He has gone for a time, but his spirit lives in the hearts of the many to whom he has given a helping hand.

EDWARD P. BARTLETT

SCIENTIFIC EVENTS

THE PRESENT STATE OF SCIENTIFIC KNOWLEDGE OF CANCER

AT the close of the conference on cancer held last week at Lake Mohonk, N. Y., more than a hundred specialists from various countries joined in the following statement:

Although the present state of knowledge of cancer is not sufficient to permit of the formulation of such procedures for the suppression of this malady as have been successfully employed for the control of infectious diseases, there is enough well-established fact and sound working opinion concerning the prevention, diagnosis and treatment of cancer to save many lives, if this information is carried properly into effect.

Although the causation of cancer is not completely understood, it may be accepted that for all practical purposes cancer is not to be looked upon as contagious or infectious.

Cancer itself is not hereditary, although a certain predisposition or susceptibility to cancer is apparently transmissible through inheritance. This does not signify that because one's parent or parents or other members of the family have suffered from cancer, cancer will necesssarily appear in other persons of the same or succeeding generations.

The control of cancer, so far as this subject can be understood at the present time, depends upon the employment of measures of personal hygiene and certain preventive and curative measures, the success of which depends upon the intelligent cooperation of patient and physician.

Persons who have cancer must apply to competent physicians at a sufficiently early stage in the disease in order to have a fair chance of cure. This applies to all forms of cancer. In some forms early treatment affords the only possibility of cure.

Cancer in some parts of the body can be discovered in a very early stage, and if these cases are treated properly the prospect for a permanent cure is good.

The cure of cancer depends upon discovering the growth before it has done irreparable injury to a vital part of the body and before it has spread to other parts. Therefore, efforts should be made to improve the methods of diagnosis in these various locations and the treatment of the cancers so discovered.

The public must be taught the earliest danger signals of cancer which can be recognized by persons without a special knowledge of the subject and induced to seek competent medical attention when any of these indications are believed to be present.

Practitioners of medicine must keep abreast of the latest advances in the knowledge of cancer and learn signs of cancer in order to diagnose as many as possible of the cases of cancer which come to them.

Surgeons and radiologists must make constant progress in the refined methods of technic which are necessary for the diagnosis and proper treatment not only of ordinary cases but of the more obscure difficult ones.

There is much that medical men can do in the prevention of cancer, in the detection of early cases, in the referring of patients to institutions and physicians who can make the proper diagnosis and apply proper treatment, when the physicians themselves are unable to accomplish these results. The more efficient the family doctor is the more ready he is to share responsibility with a specialist.

Dentists can help in the control of cancer by informing themselves about advance in the known cases