in some ways actually suggests, the existence of such energies. I should, therefore, even admit that the vitalists are wholly right in their contention that the vital processes are not at present explicable as the direct result of such energies as are observed in the non-living world. To prejudge this question would set up a dogmatic barrier to progress, not only in biology, but also in chemistry and physics. If this be vitalism there are probably many of us who must be enrolled as "vitalists," however doubtfully we may regard the honor of bearing such a title. But if the word "vitalism" be used in any other sense than as a convenient phrase, an X by which to designate an unknown quantity, if it be taken in a positive sense to imply in the living organism any negation of the fundamental laws of matter and of motion, the existence of any distinctive entity, or principle that does not fall within the chain of physical causation or that contravenes the general laws of physics, then, I protest, to accept "vitalism" as a principle of interpretation is deliberately to abandon the scientific method in biological study.

Again, in an address entitled "Science and a Liberal Education," he characterizes the place of science in our culture as follows:

> The main service of science to our intellectual life is to help preserve us from a certain disorder of the imagination which I will permit myself to speak of as the malady of Peter Bell. I make no attempt to disguise the fact that Peter Bell and his celebrated primrose have begun to show the ravages of time. Even so, I suspect that science will not with impunity lay her desecrating hand upon Wordsworth's parable. And yet that perennial primrose by a river's brim, which through every changeful year
>
> A yellow primrose was to him
> And it was nothing more—
>
> that weather-beaten botanical specimen, I say, symbolizes a kind of mental myopia with which the man of science feels himself to be as much concerned as the poet. Science has a very definite part to play in the treatment of this insidious ailment. It should adjust our vision to the larger meanings of things in the material world. And by this I mean to say *that science should develop—and it should discipline—the constructive imagination.*

Dr. Jewett has said that Dr. Wilson has qualified under both clauses of the deed of gift, *i.e.,* by his specific accomplishment in a field of science and by his general service in the advancement of science. Let me add a third qualification: by service in the general cause of civilization. When we look over the world to-day, with its nationalistic strife and prejudice, which threatens freedom if not civilization itself, when we view our late political campaign with all its extravagant claims, denunciations and promises, we may well wish that the spirit of Wilson's careful search for truth, his scrupulous weighing of evidence, his moderation and caution in drawing conclusions, in short all those qualities that make up the character of our best men of science, might enter more fully into affairs of politics and government.

ROSS G. HARRISON

OBITUARY

JAMES NEWTON PEARCE

WHILE waiting in the Iowa stadium for the opening of a football game, which was his favorite sport, Professor James Newton Pearce died suddenly of a heart attack on Saturday, November 14, 1936. His passing was a profound shock to his colleagues and friends. For some time past those of us who had been in daily contact with him were fearful that his general health had been impaired by an attack of appendicitis which he suffered a few years ago. But in view of the fact that he had since that time carried a regular schedule of work with his accustomed zeal and energy, no one knew that he was in any immediate danger.

James Newton Pearce was born at Oswego, Illinois, on December 21, 1873, the son of James Titsworth and Mary Catherine (Gannon) Pearce. He received the degree of Ph.B. from Northwestern University in 1896, and that of Ph.M. in 1897. During the ten years following his graduation he was successively chemist for James S. Kirk and Company, soap manufacturers of Chicago, graduate student at the University of Chicago, instructor in chemistry at Northwestern and graduate student at Johns Hopkins University, where he received the degree of Ph.D. in 1907.

Dr. Pearce was a member of Phi Beta Kappa, Sigma Xi, Gamma Alpha, the American Chemical Society and the American Association of University Professors. He was a fellow of the American Association for the Advancement of Science and the Iowa Academy of Science. He had served as chairman and councilor of the Iowa Section of the American Chemical Society. For the past nine years he had been a member of the committee on contact catalysis of the National Research Council and a member of the board of editors of the *Journal of Physical Chemistry* for 1932–33.

Dr. Pearce's interest in chemistry began in his undergraduate days and was emphasized by a short period of industrial work, a few years as a teacher of chemistry, then a period of graduate study. This interest was broadened and intensified by his work in the laboratory of Professor Harry C. Jones at Johns Hopkins, and it may be said that his experience there determined in large measure the direction of his life

work. His publications include more than 50 titles, and nearly all of them deal with the properties of solutions of electrolytes, the adsorption of gases and the development of apparatus required to test the reactions involved.

Dr. Pearce went to the University of Iowa in 1907 as assistant professor and was placed in charge of physical chemistry. He was made associate professor of physical chemistry in 1919 and professor in 1920. His enthusiasm as a teacher and his insight as a research worker attracted a large number of graduate students. To them he gave unsparingly of his time and energy. He worked long hours in the laboratory and went home to write reports and read proof. It was his habit to give students an opportunity to develop initiative, and he judged them finally by their ability to work independently. Nevertheless, he was always ready with advice and counsel. His interest in his students did not cease when they left his laboratory. On the contrary, one of his greatest delights was to greet them again at home-coming, at a meeting of the American Chemical Society or at some similar gathering.

Dr. Pearce gave twenty-nine years of devoted service to the department of chemistry of the University of Iowa. Few have served longer in a single academic post, and none more faithfully than he.

L. CHAS. RAIFORD

SCIENTIFIC EVENTS

THE SECTION OF MEDICINE AND SCIENCE OF THE PARIS EXPOSITION

ACCORDING to present plans for the International Exposition in Paris in May, 1937, announced by the French High Commissioner, three large pavilions will be devoted to medicine and science. Special emphasis will be placed on the precise scientific character of modern medicine as compared to the hit-or-miss methods of the nineteenth century. It is planned that the exhibit, which it is expected will be of special interest to members of the medical and allied professions, will be so arranged and displayed as to be easily understood by the layman.

Professor A. Gosset, an authority in applied medicine, and Professor G. Roussy, pathologist, will be in charge of the scientific medical division. Both clinical practice and research work will be included in the exhibit.

The three halls, each dedicated to a great name in French medical history, will be devoted to the illustration of the various phases of medicine and allied sciences. The Claude Bernard Pavilion will contain, among many other exhibits, a transparent man, illuminated to show the glands, nervous system and general anatomy. Another of the halls will be called the Laennec Pavilion. In this building will be shown an important collection of instruments, books and relics of nineteenth century medicine, with a display of modern medical instruments and equipment, illustrating the advances of the past fifty years in the science of medicine. The exhibits will be arranged chronologically to demonstrate steps in the history of medical progress. Every branch of medicine will be represented and in many cases treatment for certain diseases will be demonstrated. Moving pictures will be employed to show scientific experiments, research into the causes of infection and illness and methods of treatment.

In addition to presenting a comprehensive view of medical history and present-day practice, insight into the probabilities of medical science of the future will be afforded and advances made through scientific research will be demonstrated. Governmental regulation of sanitation will be stressed and the necessary contribution of industry to the elimination of disease will be emphasized.

INTERNATIONAL EXHIBITION OF APPLIED AND SCIENTIFIC PHOTOGRAPHY

AN International Exhibition of Applied and Scientific Photography will be held in Rochester in March, 1937, under the sponsorship of the Rochester Scientific and Technical Section of the Photographic Society of America. The objective of the exhibition will be to show examples of the application of photography to the various branches of science and technology.

The following sections have been organized:

I. Color Photography: (a) processes in detail; (b) transparencies; (c) prints.
II. Astronomy and Metrology.
III. Aerial Photography.
IV. Photomicrography: (a) metallography; (b) other subjects.
V. Medical Photography: (a) prints; (b) radiographs; (c) motion pictures.
VI. X-Ray in Industry.
VII. Documentary Photography: (a) small film library work; (b) instrument reading; (c) miscellaneous.
VIII. High Speed Photography.
IX. Stereo-Photography: (a) prints; (b) transparencies; (c) motion pictures.
X. Photography in Physics and Chemistry: (a) x-ray spectrography; (b) cosmic and other ray effects; (c) miscellaneous.
XI. Photographic Sensitivity: (a) photographic effects; (b) light-sensitive substances.
XII. Natural History.
XIII. Miscellaneous.