

else, is that, *if* there be terms, which he calls points, and might as well call "oints" or "raths" or "momes" or any other name (what's in a name?), that satisfy the given postulates, then they satisfy certain propositions called theorems. The only existence asserted by or in geometry is thus the existence of certain *implications*. As to subject-matter, that of geometry, as Russell has, I think, shown beyond a reasonable doubt, is multiple series or, more radically, the relations by which such series are generated or in which they extensionally consist.

I wish to add in closing that this address had not been possible but for the far-reaching researches and brilliant expositions of Schröder, Russell and Couturat in the works already cited.

C. J. KEYSER

COLUMBIA UNIVERSITY

CHEMISTRY AT HARVARD UNIVERSITY

THE following letter has been prepared by the committee of overseers to visit the chemical laboratory of Harvard University and by several others who are especially interested in the subject:

HARVARD UNIVERSITY is in urgent need of the endowment of modern facilities for chemical instruction and research.

Some progress toward such an endowment has already been made by the conditional offer of contributions for the construction of a special laboratory for research in physical and inorganic chemistry, as a memorial to Wolcott Gibbs.

Wolcott Gibbs was a pioneer in scientific research in the field of inorganic and physical chemistry, and for many years was considered the foremost chemist of America. He died on December 9, 1908, in his eighty-seventh year. The greater part of his useful life was spent as Rumford professor at Harvard University, and it is eminently fitting that any memorial to this great and good man should take a form which would further that branch of chemistry to which he had devoted his splendid abilities.

This project forms a highly suitable beginning of the much-needed endowment of modern facilities for chemical instruction and research at Harvard University, because in precise investigations of this kind Harvard is among the leading

institutions of the world. Such work demands, for its highest development, construction and facilities superior to any now in existence; and above all this laboratory should be designed for research only, and separated from the rooms in which elementary teaching is conducted. The new building would also partially relieve the very disadvantageous and unhygienic condition of Boylston Hall, now one of the most crying evils in Harvard University.

This Wolcott Gibbs Memorial Laboratory would form part of the group of several buildings necessary for the adequate accommodation of the department of chemistry. The report of the Committee of Overseers to Visit the Chemical Laboratory contains a provisional plan of this projected group, which offers a magnificent opportunity for other large gifts. These would form dignified memorials of benefactors or those named by them, as well as permanent sources of usefulness to Harvard and to America.

The report just mentioned calls attention to the important rôle played by pure chemistry in almost all departments of industrial science which contribute towards the health and prosperity of mankind, and concludes:

"The last century has been a century of power, by the perfection of machinery and the development of electricity. The coming century promises to be a chemical century. Should Harvard, if all this be true, be content until it has obtained the best chemical laboratory in the world?"

Towards the erection of the Wolcott Gibbs Memorial Laboratory subscriptions of nearly \$53,000 have already been made, most of them upon the condition that \$47,000 more be immediately secured. Checks either for this fund or as contributions toward one of the other laboratory buildings may be drawn to the order of Charles Francis Adams, 2d, treasurer of Harvard College, 50 State Street, Boston.

J. COLLINS WARREN,	CHARLES W. ELIOT,
JAMES M. CRAFTS,	ALEXANDER AGASSIZ,
ELIHU THOMSON,	HENRY P. WALCOTT,
E. D. PEARCE,	HENRY L. HIGGINSON,
CLIFFORD RICHARDSON,	ALEXANDER COCHRANE,
CHARLES H. W. FOSTER,	FREDERICK P. FISH,
MORRIS LOEB,	HARRISON S. MORRIS,
A. LAWRENCE LOWELL,	E. MALLINCKRODT, JR.,

*Committee of the Overseers to Visit the
Chemical Laboratory*

President Lowell's interest is emphatically expressed in the following letter, which he kindly permits to be published:

November 24, 1909.

DEAR MR. SANGER:—

I hope most earnestly that you will be successful in your efforts to raise money for a new chemical laboratory. That Boylston Hall has been inadequate for purposes both of research and instruction has long been lamentably evident, and that Harvard University should not be properly equipped in this field is the more to be regretted, in view of the rapidly increasing importance of chemistry in industry and medicine. It is well known that the industries of America are behind those of Germany in the use of chemical processes, and better chemical facilities at our universities would help greatly towards curing this defect. It seems unfortunate that the magnificent research in chemistry being conducted at Harvard should be hampered by the lack of laboratory room. Yours very truly,

A. LAWRENCE LOWELL

Professor C. R. Sanger.

SCIENTIFIC NOTES AND NEWS

IN the present issue of *SCIENCE* are printed the address of the retiring president of the American Association for the Advancement of Science, Dr. T. C. Chamberlin, of the University of Chicago, and of the vice-president of the section for mathematics and astronomy, Professor C. J. Keyser, of Columbia University. In the issue for next week will be printed the proceedings of the Boston meeting, which promises to be of more than usual interest and importance.

THE Chicago Geographical Society has awarded the Helen Culver gold medal to Commander Robert E. Peary, for distinguished services in exploration, and to Professor Thomas C. Chamberlin, of the University of Chicago, for distinguished services in geographical research. The medals will be presented at the annual dinner of the society on January 26.

THE Paris Academy of Sciences has awarded medals for aeronautic achievements as follows: gold—Wilbur and Orville Wright, Blériot, Farman, Count de Lambert, Santos-Dumont, De La Vaux, Voisin and Count Zeppelin; enamel—Bremuet, Paulhan, Delagrèze, Rougier and Esnault Peltrie.

As has been everywhere announced, the University of Copenhagen has reported adversely on the claims of Dr. Frederick A. Cook to have reached the North Pole. This report will not now come as a surprise to any one nor had a different result been anticipated at any time by those conversant with the circumstances, as is indicated by the note published in this journal, on September 10, when the announcement was first made.

DR. THEO. GILL, of the Smithsonian Institution, and Professor August Brauer, director of the Zoological Museum, Berlin, have been elected foreign members of the Zoological Society of London. The following corresponding members were elected: Mr. E. Salis-Schwabe, of Manaos, Brazil; Professor W. Kukenthal, of Breslau, Germany; Professor Gustave Gilson, of Ostend, Belgium, and Dr. E. G. Racovitza, sub-director of the Laboratoire Arago, Banyuls-sur-Mer, France.

DR. EPHRAIM MILLER, professor of mathematics and astronomy in the University of Kansas, who will celebrate his seventy-seventh birthday on April 25, will retire from active service at the close of the academic year under the provisions of the Carnegie Foundation.

PROFESSOR J. CULVER HARTZELL, B.S. (Chattanooga), M.S. (Yale), Ph.D. (Munich), has resigned as head of the department of geology and chemistry in the University of the Pacific, the resignation to take effect at the close of the present academic year.

DR. E. B. TYLOR, professor of anthropology at Oxford University, will retire from active service.

DR. LEO LOEB, assistant professor of pathology at the University of Pennsylvania, will at the close of the present academic year become director of an institution for the study of cancer in St. Louis.

DR. SHEPHERD IVORY FRANZ, psychologist at the Government Hospital for the Insane, Washington, D. C., has been appointed scientific director of that institution.

MR. W. M. TATTERSALL has been appointed keeper of the Manchester Museum in succession to Dr. W. E. Hoyle.