astronomy of the Paris Academy of Sciences, has died at the age of eighty-seven years.

IN honor of the three hundred and sixtieth anniversary of the birth of Galileo, on February 15, 1564, the Boston Public Library has arranged an exhibition of the earliest and rarest editions of Galileo's works in the Barton room.

WE learn from *Nature* that arrangements are being made by a committee convened by the Royal Society to celebrate on June 26 the centenary of Lord Kelvin's birth. The committee is composed as follows: Sir Richard Glazebrook (chairman), Professor F. O. Bower (Royal Society of Edinburgh), Mr. W. R. Cooper (Physical Society), Sir John Dewrance (Institution of Mechanical Engineers), Mr. D. N. Dunlop (hon. secretary), Mr. F. Gill (Institution of Electrical Engineers), Sir Donald MacAlister (vice-chancellor of the University of Glasgow), Sir Charles Morgan (Institution of Civil Engineers), The Duke of Northumberland (Institution of Naval Architects), Dr. E. C. Pearce (vice-chancellor of the University of Cambridge), Dr. Alexander Russell (Institution of Electrical Engineers), Mr. F. E. Smith (Royal Society). A large number of Dominion, American and foreign men of science and engineers will be attending conferences at the British Empire Exhibition at that time, and July 10 and 11 have been selected as convenient dates for the Kelvin centenary celebrations. These will include a meeting for the receipt of addresses from delegates, at which Sir J. J. Thomson will deliver a memorial oration, and a dinner at which the Rt. Hon. Earl Balfour has promised to preside.

THE one hundred and twenty-fifth regular meeting of the American Physical Society will be held in Schermerhorn Hall, Columbia University, New York, on February 23.

WE learn from *Nature* that on January 23 Mr. W. B. Hardy formally declared open a laboratory for research in colloid chemistry and physics which has been founded in the University of Manchester by the generosity of a number of Lancashire firms. This laboratory, which has been named after Thomas Graham, the founder of the science of colloids, consists of two large and three small rooms, and is being specially equipped for the proposed course of research. It has been put in the charge of Mr. D. C. Henry, of Trinity College, Cambridge, who has been for two years a lecturer in chemistry at the University of Manchester.

THE International Congress of Mathematicians will hold its meetings at Toronto from August 6 to 13.

THE Fourth Congress of Industrial Chemistry under the auspices of the Société de Chimie Industrielle will be held at Bordeaux, France, from June 15 to 20. It is hoped that all of the American delegates to the International Union of Pure and Applied Chemistry at Copenhagen will be able to attend the meeting. American chemists desiring to present papers at this congress should send in a request for an application blank to Dr. J. E. Zanetti, Chairman, Division of Chemistry and Chemical Technology, National Research Council, Washington, D. C.

AT the medical congress held under the auspices of the British Medical Association in Melbourne opportunity was taken to open the new anatomy department of the University of Melbourne.

A SCHOOL of geographical surveying and field astronomy has recently been organized under the auspices of the American Geographical Society, which will provide the means whereby training may be obtained in the methods of accurate surveying, particularly for purposes of exploration.

THE trustees of Mount Sinai Hospital, New York City, have ratified the program for a $1,500,000 home and training school for nurses, and have themselves subscribed $735,000. A pledge of $200,000 was made by George Blumenthal, president of the hospital. The training school will occupy the south side of Ninety-ninth Street, opposite the hospital.

THE Natural History Museum, South Kensington, has been presented by Mrs. Wood, widow of the Reverend Theodore Wood, with a named collection of 14,000 specimens of British coleoptera, and 3,000 specimens of varieties from localities outside Britain. The collection includes a number of specimens which fill gaps in the study series in the Insect Room.

UNIVERSITY AND EDUCATIONAL NOTES

THE University of Naples, founded in 1224, will celebrate this year its seventh centennial.

DURING December of this last year, the National Southeastern University at Nanking, China, lost by fire its most important building which housed the library and the departments of agriculture, biology, education and engineering. The loss of the library was the greatest misfortune. Publications, especially those dealing with education and science, are urgently needed and gifts will be most welcome.

PLANS for the erection of a wing to the University of Pennsylvania Medical School to house the laboratories of anatomy and physiologic chemistry, have been submitted to the board of trustees by Dean William Pepper. This addition is made possible by the recent gift of the Rockefeller Foundation and the General Education Board, which insures the univer-

sity a building fund of $1,000,000 on condition that the university raises $500,000. The funds are already in hand. The new addition will be a T shaped wing immediately adjoining the present building on Hamilton Walk, permitting the university's laboratories of physiology, pathology, pharmacology, anatomy and physiologic chemistry to be together.

DR. JOSEPH S. AMES, professor of physics, has been elected dean of the college faculty at the Johns Hopkins University beginning March 1, when the resignation of Professor John H. Latané becomes effective.

DR. VICTOR E. MONNETT has been appointed acting head of the department of geology of the University of Oklahoma to succeed Dr. J. B. Umpleby, who resigned recently to become vice-president of the Goldine Oil Company of New York.

DR. MARTINEZ VARGAS, dean of the Barcelona faculty of medicine and a well-known pediatrist, has been nominated rector of the University of Barcelona.

DR. WILLIAM CAMPBELL, bacteriologist of the city of Bradford, England, has accepted the Wernher Beit chair of bacteriology at the University of Capetown, South Africa, succeeding Dr. T. J. Mackie.

DISCUSSION AND CORRESPONDENCE

ELECTRICITY AND CHEMISTRY STUDENTS

THE whole theory of transfer of electricity as it applies to chemistry is in a sad state of development so far as many of our text-books are concerned. The old dualistic notion of electricity is still sometimes retained in chemistry, while in physics the more modern conceptions are generally taught.

In the last edition of a widely used physical chemistry text-book the discussion of the Daniell cell reads: "When the zinc and copper electrodes are connected by a wire, a current of positive electricity passes from the copper to the zinc, along the wire." How much better if we would adopt the modern view and say that a stream of electrons flows along the wire from the zinc to the copper? This is just one example, while many others might be cited from books for elementary students. One author says: "The direction of the current as arbitrarily named is opposite to the flow of electrons along the wire. This decision as to the direction of flow was made before scientists knew anything about electrons." Why stick to a system of nomenclature which misrepresents the facts and confuses the student? Why not from the first explain the modern conception of matter? Whatever positive electricity is, it certainly never flows along a wire. It does, apparently, constitute the main mass of the "building stones," hydrogen and helium, but the ultimate composition of these masses is not well understood. These central cores of atoms certainly do not flow along wires. Why be so conservative about introducing the new conception of atoms? At present many of our best students come to our advanced courses with the idea that the ions carry electricity through an electrolyte, much as a gang of laborers would carry coal from the street to the furnace room. Why not from the beginning teach that the electrons which come from the battery never go to the "positive pole," and that the electrons supplied to the "positive pole" are those originally present on the negative ions of the electrolyte? The modern conception is no more difficult to grasp and it is at least nearer the truth.

EARL C. H. DAVIES
MORGANTOWN, WEST VIRGINIA

CHEMICAL SPELLING MATCH NO. 2

THE idea of a chemical spelling bee, as explained by Professor Jacobson in SCIENCE of September 29, 1922, p. 368, made a strong appeal to us here and seemed to offer considerable help in part of the teaching work of freshman chemistry. We decided shortly before Christmas to hold such a contest and Dr. Hale, director of the department of chemistry, presented the matter to the seven sections of students taking this course. The vote was unanimous for adoption; from this time forth short preliminary matches were held in the various sections, score being held for each of these.

After several weeks the students seemed to tire somewhat and to lose interest in the contest. However word soon got about that a certain section was confident of winning the prize and from that time on competition and interest grew steadily. Students willingly and eagerly spent much extra time in drill, and pledged their instructors for extra drill periods.

The five in each section making highest scores in the preliminary drills took part in the final match. Each team was named and the members wore insignia. Graded lists of names and formulae were typed in triplicate and handed the judges and the reader. Preliminary to the contest several reels of moving pictures of the Production of Sulfur were shown.

Interest throughout the final contest was keen and decided. The prize offered was too small to have any effect of its own, and the entire interest was of a personal nature. Toward the close, when only four of the original thirty-five were left standing, excitement rose to a considerable pitch.

We adopted this contest because we hoped it would be the means of teaching the students valence, position of the elements in the periodic system, and something of the nature of compound formation. It has