

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 pediatricist, 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 com-

position 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