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.

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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

done all these things in an interesting way, and has decidedly helped even those students who were well aware from the start that they could not place in the finals.

Several copies of the formula list are on hand, and may be secured by application to Dr. Hale.

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A CASTIGATION AND AN APPEAL

RECENTLY Professor G. A. Miller paused in a general address before the mathematicians of America to point out what he considered a flaw in one of my books. He said (this journal, 1924, p. 4) that it is "not true that he (Benjamin Peirce) was in charge of this almanac (the Nautical Almanac) for some years." Miller says that Peirce "did much work on the Nautical Almanac" and "was consulting astronomer from 1849 to 1867." The difference in content between Miller's statement of about fifteen words and my statement of three words ("in charge of") is the same as the difference between tweedledum and tweedledee. The admissibility of my phrasing is still more evident in the light of a passage in the preface of the first volume of the Nautical Almanac: "The theoretical department of the work has been placed under the special direction of Professor Benjamin Peirce, LL.D., and most of the calculations have passed under his final revision." It should be noted that in my book I carefully avoided saying that Peirce held the official title of "Superintendent"; such a statement would have been erroneous.

It should be noted that Professor Miller made two other errors in the passage which he devotes to my book. He informs the mathematicians of the country that among the men "in charge" of this almanac were "J. H. Coffin (1865–1877), and Simon Newcomb (1877–1894)." Now J. H. Coffin was a meteorologist and professor at Lafayette College, and was not superintendent of the Nautical Almanac; it was John Huntington Crane Coffin who was superintendent. Secondly, Newcomb did not retire in 1894. William Harkness, in his preface to the almanac dated September, 1897, says: "Professor Simon Newcomb, U. S. N., was director of the almanac until March 11, 1897." Miller's address contains some other misleading statements, but I confine myself to the part which relates to my book.

However, I do wish to make an appeal for fair play. Unfriendly critics are usually satisfied when they give a book one thorough overhauling. Not so Professor Miller. He prepared a long review of my book and then, during the past four years, followed it up with a procession of articles in various journals, further attacking that book. If his historical criticisms were careful and accurate, his course might be justified. But I am prepared to show that many of them are not. Many of them are partly or wholly wrong. Also, most of them are superficial in the sense that Miller does not usually consult the original sources. Is it too utopian an appeal to the spirit of fair play to propose that, when a critic finds that he himself is mistaken, he should do justice to the author criticized by publicly retracting his erroneous criticism?

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QUOTATIONS

MOUNT EVEREST AGAIN

THE time is drawing near when, for the third time in four years, the climbers and scientists of the expedition organized by the Royal Geographical Society and the Alpine Club for the ascent of Mount Everest will turn their faces towards Tibet. General Bruce, once again the leader, as he was in 1922, starts this week for India, with Major E. F. Norton, about a month in advance of the main body, to make the final preparations on the spot. In the article which we publish this morning he discusses some of the chief factors on which the chances of success must depend. The proved competence of the British *personnel* and of the hillmen who acted as porters in 1922—impervious, he says, to cold, exposure and fatigue—is, to begin with, an asset of the highest value. Other assets are the insight which has been gained into the character of the people with whom the expedition will have to deal, and the extreme friendliness of the existing relations between the British and the government of the Dalai Lama—mainly brought about, General Bruce, says, by the action of our own political officers. It may be added that the leader's own wide knowledge and understanding of the Himalayan races have been, and will be again, of great service in the conduct of the expedition. General Bruce considers that the experience in high acclimatization gained during the last expedition will enable the use of oxygen to be delayed till a much later stage than had hitherto been considered practicable, and that this economy in its use will tend to simplify the difficult problem of transport on the highest slopes. On the other hand, the one unknown and unknowable factor—in itself the most important of all—will be the weather. Last year the monsoon, and with it the adverse conditions which cut short the time available for the one last and most promising attempt to reach the summit in 1922, was delayed. If, by great good fortune, the same thing happens this summer, the chances are probably in favor of success. If not—if, that is to say, the bad weather again comes before its time—