the north temperate zone united, not only as a whole, but by groups separately, to show a marked fall of temperature immediately succeeding an observed fall of solar radiation. A large number of inland meteorological stations have been selected to furnish data for an examination of the probability of variation of solar radiation heretofore, and this material is being worked over at the Astrophysical Observatory, and will form a part of Vol. II. of its *Annals* now being prepared.

R. L. FARIS,
Secretary

THE CHEMICAL SOCIETY OF WASHINGTON

THE 172d regular meeting was held in the Cosmos Club, February 14, at 8 P.M. After the regular business, President Fireman brought before the society the subject of the advisability of appointing a local sanitary committee—"The chemist, like every other citizen, is vitally interested in the sanitary conditions of the locality in which he lives. But, more than any other citizen, he is qualified, owing to his particular training, to examine into, and form a true judgment of the sanitary conditions surrounding him. Self interest, and whatever altruism there is in each civilized person should impel him, especially the chemist, to take an active interest in observing how the local sanitary requirements are provided for." After discussing the subject pro and con, the president was authorized to appoint a committee of seven to advise the society on local sanitary matters, and the committee was instructed to report at the next meeting.

Mr. Sherman Leavitt then read a paper on 'The Manner in which the Alkaline Earth Metals are held in Solution by Carbonic Acid.' The writer gave an account of the investigation of the boiler-water supplies of several western railroads, in collaboration with Professor Keiser, of Washington University, St. Louis. This work, carried on during 1901–1904, showed that the methods for testing waters were not capable of giving the necessary information for properly softening waters for steam purposes. The results indicated that the calcium carbonate held in solution by carbonic acid, as an acid carbonate, required two molecules of carbonic acid instead of one. Later experiments were conducted in a temporary laboratory established in an ice plant, where the temperature was kept at 28° F. The investigator finally succeeded in isolating an acid carbonate of calcium which was found to decompose at about +2° C. On analysis, this compound gave a percentage of water and carbon dioxid gas corresponding very closely with a formula for the acid carbonate containing two molecules of carbonic acid in combination with one of calcium carbonate. Barium was found to give a similar compound with even more favorable results.

On February 16, Professor E. C. Franklin, of the Department of Physical Chemistry at Stanford University, delivered an address before the Chemical Society at the George Washington University on some of his researches regarding the reactions which take place in liquid ammonia. The speaker called attention to the fact that liquid ammonia was neutral and had properties in all respects analogous to those of water. The lecture was illustrated by charts and equations.

J. A. LECLERC,
Secretary

BUREAU OF CHEMISTRY

THE ELISHA MITCHELL SCIENTIFIC SOCIETY OF THE UNIVERSITY OF NORTH CAROLINA

THE 170th meeting was held in the main lecture room of Chemistry Hall on Tuesday evening, February 12, 7:30 P.M., with the following program:

PROFESSOR COLLIER COBB: 'Some Human Habitations.'

PROFESSOR JOSEPH HYDE PRATT: 'The Fishing Industries of North Carolina.'

ALVIN S. WHEELER,
Recording Secretary

DISCUSSION AND CORRESPONDENCE

THE 'FIRST SPECIES' AND THE 'FIRST REVISER'

THE vast extension of our knowledge of animals and plants has forced upon all investigators the necessity of reducing systematic nomenclature to law and order, and to eliminate from it all elements of personal

choice and personal favoritism. It has, moreover, shown that no rules or laws can be made binding by mere agreement. They must in the very nature of things represent the best possible adjustment, else later generations will cast them aside. Hence laws must be simple, clear, and as far as may be, free from exceptions.

As part of the nature of things, the law of priority has forced its way to acceptance. In like fashion the law of unchanging spelling and the rule that nouns spelled differently are different words, regardless of etymology, must become universal.

The chief point of variance now left is this: A genus is known by its type. In case an author of a genus names several species, but fails to designate one as type, how shall the actual type be determined?

In this case we have two possible methods, both resting on a logical basis. I do not count among these the rule of elimination, which in my judgment has never been defined in workable fashion, and, however defined, will never meet with general adoption.

These two methods are, in brief, that of the 'first reviser,' and that of the 'first species.'

In the first method, when a genus is left without type indicated, the genus rests with the first of the original species which any subsequent author may select as type. In the second method, the type, unless otherwise indicated, is the first species named under the head of the genus in question, by its original author.

The logical basis in the first case is this: No generic diagnosis is complete until a type species has been indicated. If the original author neglects this, the first of his successors who does it, completes the generic diagnosis, and the generic name in question must stand or fall with the species selected. The rule of elimination may be a handy device for the use of the first reviser, and as such it has been justly commended; but he does as he pleases, and from his decision, the type once chosen from among the original species, there is no appeal. That is, we have no appeal, unless we find an earlier 'first reviser,' in which case the act of the later one is null and void. This rule of the first reviser is probably more generally recognized than any other in systematic zoology and botany. It has been lately strongly supported by Dr. Charles Wardell Stiles. Objections to it are these: Often the first reviser overlooks the fact that a type was virtually or even actually indicated by the original author. This makes it necessary to reverse many time-honored decisions, in which the work of the reviser is better known than that of the original author. More often the first reviser fails to make his own position clear. Whether he has actually chosen a type or merely used a species of illustration is often a matter of doubt. Still worse, after we have followed the first reviser, we find that we had overlooked a still earlier one. As a result of this, no name of this sort is safe until all the returns are in and all the work of obscure authors has been examined. This is bad enough when the priority of names is in question. It is a trial to do it in the interest of the meaning of names as well.

The first species method rests on this principle; the application of a generic name should depend solely on data furnished by the author himself. If he fails to indicate a type species, either directly or in some one of the recognized methods, then the first species he mentions must be considered as type. If he mentions no species, directly or by implication, the genus has no existence. This rule has been lately adopted by the American Ornithologists' Union and a strong argument for it has been made in this journal by Mr. Witmer Stone.

There is no injustice in this rule. Its application rarely if ever admits of serious question. It does not involve any bootless investigation of the meaning or intention of subsequent writers. It would involve probably less change of accepted nomenclature than any other rule that can be framed. The first reviser, in fact, has usually chosen as type the first species named by the original author. The French school of zoologists, Lacépède, Cuvier and their successors as a rule have placed first as *chef de file* the typical species

of each genus. Those memoirs in which the type species is placed in the middle of a genus are, in general, systematic catalogues, not descriptions of new species. When a genus is first named, nine writers out of every ten place first a species they know and which they deem typical of the group in question.

For all these reasons, the writer thinks that the first species rule should prevail, though he would not strenuously object to the rule of the first reviser. In so far as the method of elimination sets aside both first species and first reviser, doing the work over again with every change in our views of generic limits, he feels sure that future systematists will have none of it.

DAVID STARR JORDAN

SPENCER F. BAIRD

THE following, which I have just come across in the 'Autobiography' of Moncure D. Conway (Vol. 1, p. 49) seems worth reprinting in SCIENCE. Conway was a student at Dickinson College, Carlisle, Pa., when Baird was professor of zoology there.

T. D. A. C.

Baird, the youngest of the faculty, was the beloved professor and the ideal student. He was beautiful and also manly; all that was finest in the forms he explained to us seemed to be represented in the man. He possessed the art of getting knowledge into the dullest pupil. So fine was his spirit that his explanations of all the organs and functions of the various species were an instruction also in refinement of mind. Nothing unclean could approach him. One main charm of spring's approach was that then would begin our weekly rambles in field, meadow, wood, where Baird introduced us to his intimates. About some of these —especially snakes—most of us had indiscriminate superstitions. Occasionally he would capture some pretty and harmless snakes, and show us with pencillings their difference from the poisonous ones. He even persuaded the bolder among us to handle them. * * * After Professor Baird went to reside in Washington I had opportunities of seeing him and his family often. Mrs. Baird was a lady of fine culture and much wit. Baird was very lovable in his home, and to the end of his life he remained a man in whom I never discovered a fault of mind or heart. He awakened in me a love of science, to which I had previously given little thought.

MONUMENT TO MENDEL

TO THE EDITOR OF SCIENCE: It may not be generally known that an effort is being made to erect a suitable monument to Gregor Mendel. The movement has the support of leading biologists both in Europe and in America. It is hoped that American biologists will use their best efforts to see that this country is not behind Europe in its appreciation of the remarkable work of this pioneer in a field which at the present time occupies so important a place in biology.

According to circulars just received from Professor Tschermak, Professor C. B. Davenport, Cold Spring Harbor, Long Island, New York, has consented to receive subscriptions to the fund.

While American scientific men are, generally speaking, not wealthy, I think we all appreciate fully the service rendered by Mendel, and should not only contribute according to our means, but should endeavor to induce those who have the means and are interested in the progress of science to do so.

W. J. SPILLMAN
U. S. DEPARTMENT OF AGRICULTURE

ASSOCIATED PRESS FAKES

TO THE EDITOR OF SCIENCE: The Associated Press cables us that Matteucci says that within a few weeks the earth is to strike the tail of Marchette's comet, with dangerous consequences to the world. Now does the Associated Press believe this, and has it made any provision against such catastrophe; or has it merely preempted the right to say 'I told you so'?

Every one recognizes the attempted scare as one of the vapid jokes of an Associated Press agent. No one is soft enough to be hoaxed, and no one has suffered from the stupid fake, except a few frightened invalids and that particular Press Association itself which allows its name to be used as guarantor for such folly. Luckily there are other press associations, whose reputations are above sending such stupid cablegrams, or making their patrons pay for such nonsense.

C. A.