SOCIETIES AND ACADEMIES.

THE NEW YORK SECTION OF THE AMERICAN CHEMICAL SOCIETY.

AT the regular meeting of the New York Section of the American Chemical Society, held May 12th at the Chemists' Club, the following papers were read:

C. W. Volney: 'New Extraction Apparatus.'

C. W. Volney: 'Artificial Musk.'

P. A. Levene: 'Modern Researches on the Chemistry of the Proteid Molecule.'

J. A. Mathews: 'Calticyanides of Bismuth.'

Dr. Volney's artificial musk was exhibited and caused considerable discussion. It is said to be a compound belonging to the paraffine series, and therefore a distinct departure from the idea that an artificial perfume must contain the 'benzol ring.' No analysis was given nor particulars of the method of preparation, these being reserved for a future communication.

Asked whether his musk is composed of a saturated or unsaturated paraffine compound, Dr. Volney said it is saturated.

Dr. Schweitzer said that so far as he knew, it had never been claimed that an aromatic group was necessary in the synthetic musks. Patents had been taken out for a variety of processes, some for preparing musks by nitrating resins, among them ordinary rosin; but when the inventor had been asked to supply his musk on a large scale he had furnished 'musk Baur.'

Dr. Stearns claimed that nitrated bodies do not smell of true musk. Different persons, he said, are differently affected by the true musk odor, and many are incapable of deciding that an imitation is a good representative of the true odor. In this way many substances were called artificial musk which would not pass even an arbitrary set of tests. It is not yet known what the essential element of true musk is, or whether it is pre-existent, or is formed by a slow chemical change in the constituents of musk material. Baur has examined musk to determine whether nitrated bodies were present, but found none.

Dr. Levene's paper was an interesting review of the work which has been done and the views which have been held during the past two years on the chemistry of the protein compounds and the classifications of their constituents.

In regard to the sulphur in their composition, he said it evidently existed in two forms or conditions of combination, one molecule being separable as hydrogen sulfide, the other remaining.

Dr. J. A. Mathews described an investigation of the cobalticyanides of bismuth designed to develop a process for separation of bismuth in analytical work, for instance in the analysis of pig and refined lead. The conditions under which such an analysis are carried out were found, however, to prevent the complete precipitation of bismuth as cobalticyanide, and as yet he had not been able to make the practical application of the study of these salts which had been hoped for.

The meeting was addressed by Professor Rising, of California, who said that much interest was manifested by the chemists of the Pacific coast in becoming members of the American Chemical Society, and an application for a charter would soon be made.

Dr. McMurtrie, president of the Society, was present, and, invited to take the chair, said that in view of the approaching general meeting it was necessary that each member should bring out whatever subject he had in readiness for publication in time to have its title announced on the program. All such titles should be transmitted to the General Secretary, A. C. Hale, 551 Putnam Avenue, Brooklyn, N. Y., as early as practicable, to facilitate the preparation of the program and to enable the committee to arrange sufficient time for the sessions.

Dr. Doremus announced the full list of sections and ground covered thereby in the congress of chemists to be held at Paris in July; also that titles of papers to be presented there should be forwarded not later than June 1st.

DURAND WOODMAN,
Secretary.

CHEMICAL SOCIETY OF WASHINGTON.

THE regular meeting was held April 12, 1900.

The first paper of the evening was read by Mr. J. K. Haywood, and was entitled 'The Analysis of the Arsenical Insecticides.'

The paper consisted of the comparative study of various methods proposed for the analysis of these preparations.

The second paper of the evening, which was presented by Dr. H. C. Bolton, entitled 'A Claim for Priority,' was read by the Secretary.

The Journal of the American Chemical Society for March, 1900, contains a paper by Joseph W. Richards and Norman S. Powell, entitled 'Substitutes for Hydrochloric Acid in Testing Carbonates'; the authors find that potassium acid sulfate, oxalic acid, citric acid and tartaric acid can be used in testing carbonates, producing effervescence more or less actively and they give a table of results. The authors make no reference to previous work on the same lines, and this prompts me to claim that about twenty years ago I anticipated all their observations and published the results in periodicals accessible to everyone.

Between 1887 and 1882 I published three memoirs under the title 'Application of Organic Acids to the Examination of Minerals,' in which I showed the action of these acids on 200 mineral species, including carbonates, sulfids, oxides, silicates and many others. I pointed out the usefulness of citric acid as a substitute for hydrochloric acid in the laboratory and in the field, and showed that by means of it certain minerals could be readily distinguished.

These papers were printed in whole or in part in the following journals: *Chemical News*, Vols. 35, 36, 43 and 47; *Annals N. Y. Acad. Sciences*, Vols. I. and II.; *Proceedings American Assoc. Adv. Science*, Vol. 47; *Reports Brit. Assoc. Adv. Science*, Vol. 50; *Mineralogical Mag.*, Vol. IV.; *Berichte d. d. chem. Ges.*, Vol. XIII.; and abstracts appeared in many other journals. Moreover, the use of citric acid in testing minerals was adopted by teachers in more than one scientific school, the use of potassium acid sulfate having been long known before. Finally, Nason's edition of Elderhort's *Manual of Qualitative Blowpipe Analysis* (1881) gives a whole chapter to my method.

It is gratifying to note that the results obtained by Richards and Powell agree well with mine. Coincidences of independent thought often occur, but in publishing a research some acknowledgment of previous work is generally made; had the authors made even a slight examination of familiar literature they would have found that their field of study had been thoroughly traversed.

The third paper was read by Dr. Cameron and was entitled, 'The Estimation of the Carbonates and Bicarbonates of the Alkalies,' by F. K. Cameron and L. J. Briggs.

The last paper was read by Dr. Cameron and was entitled 'The Solubility of Calcium Sulfate in Solutions of other Salts,' by F. K. Cameron and F. D. Gardner.

Mr. Chestnut exhibited specimens of plants used by the Indians in California to stupefy fish which they use for food.

An adjourned meeting was held at Hopkins Hall, Johns Hopkins University, Baltimore, Md., on April 21, 1900.

Dr. Remsen welcomed the society and explained that the Chemical Department of the University is now undergoing repairs after damage by fire. He gave an interesting account of the work in progress under his direction in the University laboratory.

The first paper was read by Dr. Simon and was entitled 'A Storage Vessel for Solid Carbon Dioxid.' The author exhibited an improved vessel, which he had designed and which is giving universal satisfaction in the transportation of such materials as solid carbon dioxid and liquid air. In connection with the vessel he exhibited some solid carbon dioxid which had been placed in it the day before and showed that there had been very little loss.

Professor Morse read a paper on the preparation of permanganic acid, in which he discussed various methods and showed that the electrolytic method had been most satisfactory. He described in detail the apparatus used in his laboratory for carrying out this method.

Dr. Bolton presented a paper entitled, 'An Experimental Study of Radio-active Substances.' The paper was illustrated with photographs taken with Radium light.

The last paper of the evening was read by Dr. F. W. Clarke and was entitled: 'The Action of Ammonium Chlorid on Certain Silicates' by F. W. Clarke and George Steiger.

A brief outline of the method of decomposition of some zeolites by heating with ammonium chloride in a sealed tube, was first given. It was shown by the experiments that two of the formulæ hitherto given, to Scolecite, Natrolite and Prehnite must be abandoned. Scolecite and Natrolite give almost identical ammonium compounds, calcium having been replaced in the one case and sodium in the other. They also show these two zeolites to be probably salts of orthotrisilicic acid. In the case of Prehnite the results were quite different, two experiments giving only .17 per cent. in the one case and .22 per cent in the other, of ammonium, in the product formed by their treatment. This different action shows that Prehnite can no longer be classed with the former two. In the case of Pectolite the results were so irregular that definite conclusions could not be drawn from the facts at hand. Some figures were given and a formula suggested.

WILLIAM H. KRUG,
Secretary.

BIOLOGICAL SOCIETY OF WASHINGTON.

THE 325th regular meeting, the last for the season, was held on Saturday evening, May 19th. Mr. C. H. Townsend spoke at length on 'The Recent Cruise of the *Albatross* among the South Pacific Islands, with Remarks on the Inhabitants and their Customs,' illustrating his remarks with numerous lantern slides. The speaker described the route followed, the method of sounding and dredging, and noted the additions made to our knowledge of the depth of the ocean. The peculiarities of some of the islands were given, including those of the typical atolls. Mr. Townsend then described the inhabitants of some of the groups of islands visited, calling attention to the fact that each group possessed its own type of house and canoe. In conclusion the speaker gave an account of his trip across the island of Fiji, giving high praise to the manner in which the group was ruled by the English.

F. A. LUCAS.

THE ANTHROPOLOGICAL SOCIETY OF WASHINGTON.

THE 305th regular meeting of the Anthropological Society was held Tuesday, April 24, 1900.

The meeting was designed as a memorial of Frank Hamilton Cushing, Vice-President of the Section of Technology, whose recent death had deprived the Society of one of its most brilliant members.

The following resolutions, prepared by a committee of the Board of Managers of the Society, were presented:

WHEREAS, Our colleague and friend, Frank Hamilton Cushing, Vice-President of the Section of Technology in the Anthropological Society of Washington, has been removed from our midst by death—

Resolved, That the members of the Anthropological Society of Washington unite in an expression of deep sorrow at his untimely death. An enthusiastic investigator, an acute observer, a genius in grasping the thoughts of primitive men, a master in exposition, and a tireless worker, his contributions to the science of man are many and brilliant.

To unravel and correlate the fading myths of a well nigh extinct race, he gave the best years of his unselfish life, braving disease, danger and death itself in his work as a pioneer; and in his death while yet in his prime and in the midst of his noblest work the science has suffered a grievous loss. An active member of this Society from its foundation, he was a frequent contributor to our proceedings; his contributions were of surpassing originality, embodying rich and unique experience and the results of profound study, always expressed in felicitous form; so that his death closes forever one of our richest sources of instruction and inspiration.

The loss to the science and our Society is a loss to mankind; the world is poorer to-day because the life of Frank Hamilton Cushing has passed from it.

To his bereaved family and sorrowing friends we tender our heartfelt sympathy.

J. H. MCCORMICK,
P. B. PIERCE,
W. H. HOLMES,
Committee.

Addresses giving various phases of Mr. Cushing's life and work were then made by President W J McGee, Major J. W. Powell, of the Bureau of Ethnology, in which Bureau Mr. Cushing was a brilliant worker, Mr. L. O. Howard, Secretary American Association for the Advancement of Science, who was a classmate in Cornell; Professor W. H. Holmes, spoke of his work for the National Museum; Mr. Stuart Culin, of his researches in behalf of the University of Pennsylvania; Mr. J. D. McGuire, of his genius in the technological and archæological field; Dr. Washington Matthews, of his discoveries in Zuni and the Salado Valley and of his organization and explorations with the Hemenway expedition; Mr. P. B. Pierce, of his character as a personal friend; Miss Alice C. Fletcher, of Mr. Cushing's wonderful mind and his ability to discern similarities and forge the connecting links between the thoughts of primitive man and the archæic remains with which he was surrounded. The consensus of opinion was that Mr. Cushing occupied a field peculiarly his own and that he ranked as one of the few real geniuses of the world.

Letters of regret were read from Dr. Franz Boaz, of the American Museum of Natural History and Mr. Wm. Wallace Tooker and Wells M. Sawyer.

The resolutions were adopted by a rising vote.

J. H. McCormick.
Secretary.

DISCUSSION AND CORRESPONDENCE.

HUMANIZING THE BIRDS.

Bird Lore for December last contained an excellent article by Caroline G. Soule, entitled 'Humanizing the Birds,' and protesting against the too common practice of ascribing to them human qualities which they do not possess and mental traits with which they are not endowed. The title might well serve as the text for a long discourse on the subject, for there is all too much of this 'humanizing' indulged in now-a-days, not only by those who write about birds, but by writers in all branches of natural history, and it is not confined to stories written for the instruction of small children, but in articles intended for the edification of children of a much larger growth. Writers on evolution are all too prone to humanize their subjects, and it is so favorite a sin with those discussing problems of mimicry that in his *Dictionary of Birds* Professor Newton follows that caption 'with the prefix UNCONSCIOUS, which in every department of zoology should always be expressed or understood.' For it is a common fault to make the mimicking process active instead of passive, to say, for example, that "Many butterflies escape destruction by mimicking the colors and markings of uneatable forms," as if the butterflies had given serious thought to the matter. When an author writes that "Butterflies are often attracted by the excreta of birds and a spider takes advantage of this fact to secure his prey," he implies a considerable amount of reasoning power in the spider. That this implication is not intended is shown a little later by the statement that "The whole combination of habits, form and coloring afford a wonderful example of what natural selection can accomplish," but the damage has been done and the suggestion made that the mimicry is intentional.

When we read that the "witch-hazel, knowing that neither boy nor girl, nor bird nor beast nor wind, will come to the rescue of its little ones, is obliged to take matters into its own hands" we realize that it was written for a child, although we may deplore this manner of writing and wish that the case had been differently stated. But here is a statement almost, if not quite as bad, taken from an important work on zoology and not written with the view of interesting a child: "In the Mediterranean the embryos [of sponges] * * * escape from the tissues of the parent when they have arrived at the blastula condition * * *, in the same species on the shores of the English Channel the young are retained until after gastrulation * * *." The explanation of this it is said is not difficult: "In the Mediterranean there are no strong currents and is evidently best for the parents to get rid of the young at as early a moment as possible, thus escaping longer drain upon its energies. In the English Channel, on the other hand, the current is very strong, and were the embryos to be set free at the stage at which they are in the Medi-