'Urogenital Organs of North American Lizards,' by Barney Brooks, professor of chemistry in Coronal Institute.

'The Indebtedness of the German Language to the Latin,' by Dr. Sylvester Primer, professor of Germanic languages in the University of Texas.

The volume concludes with the proceedings of the academy for 1905.

FREDERIC W. SIMONDS,
Secretary

UNIVERSITY OF TEXAS,
April 2, 1907

THE CHEMICAL SOCIETY OF WASHINGTON

THE 173d regular meeting of the Washington Section of the American Chemical Society was held at the Cosmos Club, March 14, 1907.

The question of a sanitary committee was settled by authorizing the president to instruct the committee on communications (O. Schreiner, chairman) "to make arrangements for special meetings of the society, or joint meetings with other organizations where lectures and reports may be presented on general or special phases of sanitation, in order that the society may be kept informed on such matters, and suitable action taken."

W. L. Dubois read a paper on 'Lactose and Butter Fat in Milk Chocolate' in which he showed that lactose could be accurately estimated by polarizing the solution of sugar at 86° after inversion, and butter-fat could be approximately determined by the Reichert-Meissl number of the extracted fat. Dr. A. Seidell presented a paper on the 'Determination of Acetanilid in Headache Powders.' The method suggested was based upon the reaction of bromine with anilin to form anilin tribromide. The sample containing acetanilid is dissolved in dilute hydrochloric acid and the solution boiled. Anilin hydrochloride thus formed is titrated directly with a standard solution of potassium bromate. The free bromine colors the solution yellow at the end of the reaction. W. T. Schaller presented a paper on 'The Chemical Composition of Molybdic Ocher' in which it was shown that the natural molybdic ocher is a hydrous ferric molybdate Fe_2O_3, $3MoO_3$, $7\frac{1}{2}H_2O$, and that the existence of molybdenum trioxide MoO_3 has not been demonstrated.

On April 1, Professor A. Frank, Jr., of Germany, gave an address before the society at the lecture hall of the George Washington University on 'The Utilization of Atmospheric Nitrogen in the Production of Calcium Cyanamid.' The speaker described the gradual steps which had been taken by various investigators during the past century to bring about the fixation of atmospheric nitrogen, and told of the successful accomplishment of this problem by his father working in collaboration with Dr. Caro. The successful issue of this task was made possible only after Professor Moissan had shown the practicability of manufacturing calcium carbide commercially, and after the introduction of the dynamo and electric oven by Siemens and Halske. The process consists essentially in passing a current of air freed from oxygen through calcium carbide heated in an electric oven, calcium cyanamid or lime-nitrogen being thus produced. The speaker also touched upon the fertilizing experiments carried on in Europe to show the value of cyanamid as a fertilizer. Other products are also produced, some being used in the manufacture of gun powder. Specimens of the various products were exhibited.

J. A. LE CLERC,
Secretary

BUREAU OF CHEMISTRY,
WASHINGTON, D. C.

DISCUSSION AND CORRESPONDENCE

THE FIRST SPECIES RULE AS IT AFFECTS GENERA OF NORTH AMERICAN BIRDS

IN my consideration of the application of the 'first species rule' in fixing the types of the genera of North American birds[1] I stated that fourteen changes in the genera of the A.O.U. Check List would result, while the types of several genera would be shifted to congeneric species. Dr. J. A. Allen has stated[2] that my statistics 'greatly underestimate the number of changes' and re-

[1] SCIENCE, XXIV., p. 262, November 2, 1906.

[2] SCIENCE, XXIV., p. 778, December 14, 1906.

cently[8] he has presented a list of twenty-one changes that he claims would be necessary.

It is well known to all that the first species and elimination methods are only used as methods of last resort; and cases where the author in the original publication has indicated a type do not come under the operation of either method. Four of Dr. Allen's alleged changes may thus be cancelled at once.

Spinus Koch, 1816, type *Fringilla spinus* L. by tautonomy.

Zonotrichia Swainson, 1831, types '*leucophrys, pennsylvanica, melodia*' designated by the author. We are bound to pick our type from these three 'typical' species and by either method *leucophrys* is the type and no change is required.

Poœcetes depends upon the last and falls with it.

Cyanurus Swains., 1831, is similarly restricted by the author to tropical species.

Colymbus Linn., 1758, does not come under the first species rule.

Erionetta Coues, 1884, is a monotypic genus and how it can become nameless by the operation of the first species rule I can not conceive. What does happen is that it is replaced by *Somateria,* the type of the latter being *Anas borealis* not by first species rule but because it is the only species definitely quoted.

One other case, *Aix,* I included among those in which the type shifted to a congeneric species, the A.O.U. committee having voted not to divide the genus *Aix.*

Removing these seven cases from Dr. Allen's list we have left fourteen, exactly the number I gave.

In my paper I claimed that fifteen changes would result from consistent elimination. Dr. Allen claims but three changes. I can not of course comment upon his results until the details of his eliminations are published.

In the eliminations of vulturine genera that he has published I called attention to several inconsistencies. One of these he now admits and changes the type of *Sarcorhamphus* from *auricularis* to *gryphus.* In his republication of the *Vultur* case, however, he makes another slip, forgetting that since *gryphus* is now the type of *Sarcorhamphus,* 1806, it must be removed from *Vultur* at that date, leaving *harpyia* or *papa* as the type of *Vultur,* the choice being a nice question of priority.

Sarcorhamphus thus replaces *Vultur* of Dr. Allen's scheme and *Vultur* will replace either *Harpyia* or *Gypagus.*

There seems to be only one alternative, *i. e.,* to remove *gryphus* at the date it became the type of *Sarcorhamphus.* If we do this, however, we must do the same with the other genera: *Aura* will go out at 1816, and *papa* at 1854, the latter being thus the type of *Vultur.*

This is an excellent illustration of the complexity of the elimination method and the opportunities it offers even to experts to fall into errors.

Dr. Allen's comments upon the points of my recent paper do not cause me to alter my statements and further discussion along those lines seems useless. The consideration of Linnæan names and priority of Swainson's papers are quite apart from the main issue.

WITMER STONE

ACADEMY NATURAL SCIENCES,
PHILADELPHIA, April 6

[8] SCIENCE, XXV., p. 552, April 5, 1907.

LACK OF RECUPERATIVE POWER OF ITALIAN WORKMEN

TO THE EDITOR OF SCIENCE: On reading Dr. Meltzer's most interesting paper in SCIENCE for March 29 I was reminded of a remark made to me some four or five years ago in regard to the lack of power of Italian workmen, in Italy, to recover from injuries. My informant had for many years been in charge, as foreman, of large numbers of Italian machinists and laborers (and of some English ones as well) in the Armstrong gun carriage and repair shops at Pozzuoli. In reviewing his impressions of the operatives he said that they were able to do fair days' work but that they were likely to be long ill or even to die from injuries that would not prove serious to an English workman. This he attributed wholly to the less substantial diet of the Italian. It is a noteworthy fact in this connection that the poorest Neapolitans set the subsistence limit at six *soldi, i. e.,* six cents,