

that for which he must apologize, he can unwrite it before he goes to press. Surely no reader really wants to read apologies.

My conclusion is that good writing is a form of good manners. Like good manners it has to be learned, and there are individual differences in aptitude for it. It is best learned in youth, and the way to start is for the writer to shift his attention away from himself and to focus it upon that audience whose comprehension of his thought is his only reason for writing at all.

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### THE APPROXIMATE CONNECTION OF BOILING POINTS FOR VARIATION IN BAROMETRIC PRESSURE

It is well known<sup>1</sup> and may be readily demonstrated that, for normal liquids, changes in the boiling point, corresponding to small changes in the pressure, may be represented by the following equation:

$$\Delta T = \frac{RT_B}{21} \times \frac{\Delta P}{P}$$

where  $T_B$  is the boiling point (in degrees absolute) at the pressure  $P$ ,  $R$  is the gas constant (in calories per mol), and  $\Delta P$  and  $\Delta T$  are the corresponding changes in pressure and temperature. However, it does not appear to be common knowledge that the relation may be stated in the following readily remembered form.

$$\Delta T = \frac{T_B}{10} \Delta P_{\text{atm.}}$$

That is, that the change in the boiling point is equal to one tenth of the product of the normal boiling point (in degrees absolute) and the change in pressure, expressed in atmospheres.

When applied to changes of 15 or 20 mm this rule gives results, for normal liquids, which do not differ from the correct values by more than 0.1° C. Although it overcorrects the boiling points of highly associated liquids, the error introduced by applying it to even such abnormal liquids as water or methyl alcohol is less than half of the original correction.

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### OPINIONS RENDERED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE<sup>1</sup>

SUMMARIES of the Opinions are as follows:

*Opinion 124.*—The various Subdivisions of genera published by Linnaeus in 1758 are not to be accepted

<sup>1</sup> See, for example, MacDougall, "Thermodynamics and Chemistry," Wiley, 1926, p. 133, New York.

<sup>1</sup> Opinions 124 to 133. Smithsonian Miscellaneous Collections, vol. 73, no. 8, October 28, 1936. (Publication 3395).

as of this date (1758) as of subgeneric value under the International Rules.

*Opinion 125.*—*Borus* Agassiz, 1846, is an emendation of, and therefore an absolute synonym of, *Boros* Herbst, 1797; *Borus* Albers, 1850, is a dead homonym.

*Opinion 126.*—On basis of evidence and expert advice of outstanding specialists, the commission does not see its way clear to declare the new names in d'Orbigny's, 1850, "Prodrome" as unavailable or as *nomina nuda* under the Rules.

*Opinion 127.*—Complying with expert advice from specialists in the group involved, the commission herewith suspends the Rules and places *Lepidocyclina* Gümbel, 1868, type *Nummulites mantelli*, in the Official List of Generic Names, with *Cyclosiphon* Ehrenberg, 1856, type *Nummulites mantelli*, as objective synonym. The consultants agree, almost unanimously, that to apply the Rules in this case would produce greater confusion than uniformity.

*Opinion 128.*—Under suspension of the Rules *Nycteribia* Latreille, 1796, with *pedicularia* Latreille, 1805, as type, and *Spinturnix* von Heyden, 1826, with *myoti* Kolenati, 1856, as type, are hereby placed in the Official List of Generic Names.

The specific name *vespertilionis* of all authors is hereby invalidated for the following generic names: *Acarus*, *Acrocholidia*, *Celeripes*, *Dermanyssus*, *Diplostaspis*, *Gamasus*, *Hippobosca*, *Ichoronyssus*, *Liponyssus*, *Listropoda*, *Megistopoda*, *Nycteribia*, *Pediculus*, *Penicillidia*, *Periglischrus*, *Phthiridium*, *Pteroptus*, *Sarcoptes*, *Spinturnix*, *Strebla*, on the ground that the application of the Rules would produce greater confusion than uniformity.

*Opinion 129.*—The rules are herewith suspended in the case of *Bipinnaria* 1835 vs. *Luidia* 1839, on the ground that "the strict application of the Règles will clearly result in greater confusion than uniformity." *Luidia* Forbes, 1839, with monotype *fragilissima* 1839 (subjective synonym of *Luidia ciliaris* 1837), is hereby placed in the Official List of Generic Names. The names *Auricularia*, *Bipinnaria*, *Brachiolaria*, and *Pluteus* are hereby excluded from availability as generic names and are reserved as designations of developmental stages.

*Opinion 130.*—Under suspension of the Rules *Lytoceas* Suess, 1865 (genotype, *Ammonites fimbriatus* Sowerby) is hereby placed in the Official List of Generic Names.

*Opinion 131.*—The type species of *Tromikosoma* is *T. koehleri*.

*Opinion 132.*—The "Gattungsbezeichnungen" published by Sobolew, 1914, are of the same nature as the designations published by Herrera; namely, formulae, not generic names, and have no status in Nomenclature. See Opinion 72.

*Opinion 133.*—Under the Rules, the type of *Urothoe* is *U. rostratus*. The original author of a family name is free to select any contained genus as the nomenclatorial type of that family. It is not necessary to select the oldest included genus as type genus for the family.

Under the present premises it is unnecessary to substitute the newer name *Urothoidae* 1932 for the earlier *Phoxocephalidae*.

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## THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

### MEETING OF THE EXECUTIVE COMMITTEE

THE fall meeting of the Executive Committee was held at Atlantic City on October 24 and 25, 1936. The following members were present: Drs. Cattell (*chairman*), Caldwell, Chamberlin, Conklin, Livingston, McKinley, Ward, Wilson and Woods. In addition to the usual number of formal business items and minor matters, the following deserve record here:

The constitution of the American Association for the Advancement of Science provides in the complete plan of the association for a Section on Manufactures and Commerce. The advisability of organizing this section to provide for active and careful scientific discussion of questions of outstanding importance has been brought up many times and came up for discussion as a question of association policy. The Executive Committee requested Dr. Wilson to bring together a group to consider the feasibility of such a move, and if discussions warrant, authorized him with the full approval of the Executive Committee to take steps towards formulating a plan to be presented to the council at the Atlantic City meeting.

The rôle of affiliated state academies was discussed in connection with a communication suggesting the organization of a state association for the advancement of science for coordinating the activities of scientists within the state. No action was taken, but the opinion was expressed that such a function fell clearly within the powers of a state academy.

The program for the Atlantic City meeting was carefully discussed and plans made to provide on Friday a general luncheon for all sections and societies. It is expected that a distinguished member of the British Association will be present to deliver an address after the luncheon. Discussion of the Atlantic City meeting brought out the fact that sessions of many sections and societies would close on Thursday evening or earlier, and that this fact would imperil the success of the sessions planned for Philadelphia on the following Saturday. Other special features are being provided for Friday, and a detailed announcement will be made shortly. The association will adjourn on Friday evening to meet at Philadelphia on Saturday, January 2. Members attending will be guests of the various scientific organizations in Philadelphia and special cour-

tesies arranged for that occasion. Full details will be published soon.

In view of the pressure at meetings, which has been the subject of frequent comment, the Executive Committee felt that the situation could be greatly improved to the advantage of all concerned by extending the number of days utilized for sessions. This would provide more time for the discussions of papers and for additional joint sessions. Plans were discussed for presenting the advantages of the change suggested to the various affiliated societies.

The dates of the Richmond meeting were changed to provide that the meeting open formally on December 27, 1938.

The financial reports of the treasurer for the fiscal year 1936 were presented, accepted and ordered audited. The treasurer's budget for the fiscal year 1937 was referred to the council for approval with such adjustments as may be desired.

The financial reports of the permanent secretary for the fiscal year 1936 were presented, accepted and ordered audited. The permanent secretary's budget for the fiscal year 1937 was referred to the council. The financial report of the Saint Louis exhibition and the budget for the Atlantic City exhibition were approved as presented.

The general secretary reported verbally plans for the academy and secretaries conferences, status of branches and junior academies, and plans for establishing other branches.

Dr. Woods reported that the Occasional Publication (No. 3) containing the symposium papers on "The Scientific Aspects of Flood Control," read at the Rochester meeting, had been published.

The permanent secretary was advised to have copies made of a report submitted by Dr. Miles with regard to procedure for awarding the annual Association Prize. It was felt that these copies should be distributed to secretaries of sections and affiliated societies in order to develop a better understanding of the situation and of the methods of securing maximum advantage in connection with this award.

On recommendation of the respective sections, fellows were elected as follows: Psychology, 5; Engineering, 1; Medical Sciences, 1.