

Comments and Communications

Hybrid

A COMMENT seems in order on the naming of the ingenious device for measuring drinking described by Hill and Stellar (SCIENCE, 114, 43 [1951]). To graft English and Greek to form the word "drinkometer" is unworthy of scientists. If their knowledge of Greek was deficient, they could have done just as I did—consult a Greek-speaking friend. The device in question could be legitimately named "potometer." One may forgive words like "fathometer" or "ceiometer," which are essentially trade names rather than names of scientific instruments.

This brings to mind a problem with respect to artificial languages. If new words in a language like Esperanto could be imported from any language, no matter how obscure, there is nothing to prevent the importation into an artificial language of words that have no meaning to the majority of users because of the unfamiliarity of the language of origin. Likewise, there is the problem of synonymy that now arises if the same concept is named nearly simultaneously by workers with diverse native languages. What might have happened if Fermi, A. H. Compton, and Bohr had independently named the "barn" (nuclear physics) according to the appropriate similes from their own countries? There is therefore some point in the unwritten requirement that new terms should be derived from either Greek or Latin, the result being often nearly identical, and that they should not be either grafts or hybrids.

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Zoological Nomenclature: Notice of Proposed Suspension of the Rules in Certain Cases for the Avoidance of Confusion and the Validation of Current Nomenclatorial Practice (A. (n.s.) 10)

NOTICE is hereby given that the possible use by the International Commission on Zoological Nomenclature of its plenary powers is involved in applications relating to the undermentioned names included in Part 11 of Vol. 2 and Parts 1 to 4 of Vol. 6 of the *Bulletin of Zoological Nomenclature*, each of which parts was published on September 28, 1951:

- (1) *Applications in Part 11 of Vol. 2*
 - 1) *Nysius* Dallas, 1852, and *Artheneis* Spinola, 1837 (Class Insecta, Order Hemiptera) (pp. 313-18) (File 181).
 - 2) *Xiphosura* Brünnich, 1771 (Class Merostomata), proposed suppression of, and validation of *Limulus* Müller, 1785 (pp. 319-23) (File 506).

(2) *Applications in Part 1 of Vol. 6*

- 3) Trivial names *duplicatus* and *floriformis* (each published by Martin in 1809 in combination with "*Erismatolithus Madreporites*") (Class Anthozoa) (pp. 7-17) (File 461).
- 4) Trivial names *resupinatus*, *semireticulatus*, *productus*, *crumena*, *pugnus*, *trigonalis*, *subconicus*, and *striatus* (each published by Martin in 1809 in combination with "*Conchyliolithus Anomites*") (Class Brachiopoda) (pp. 7-17) (File 461).
- 5) *Martinia* McCoy, 1844 (Class Brachiopoda) (pp. 30-32) (File 535).

(3) *Applications in Part 2 of Vol. 6*

- 6) *Laternaria* Linnaeus, 1764, proposed suppression of, and validation of *Fulgora* Linnaeus, 1767 (Class Insecta, Order Hemiptera) (pp. 34-44) (File 162).
- 7) *Geotrupes* Latreille, 1796 (Class Insecta, Order Coleoptera) (pp. 49-51) (File 338).
- 8) *Lipeurus*, *Colpocephalum*, *Gyropus*, all of Nitzsch, 1818 (Class Insecta, Order Mallophaga) (pp. 54-60) (File 343).
- 9) *Eureum* Nitzsch, 1818 (Class Insecta, Order Mallophaga) (pp. 61-64) (File 532).

(4) *Applications in Part 3 of Vol. 6*

- 10) *Modiolus* Lamarck, 1799 (Class Pelecypoda) (pp. 67-71) (File 213).
- 11) *Hexarthra* Schmarda, 1854, and suppression of trivial name *polyptera* Schmarda, 1854 (as published in combination with above generic name) (Class Rotifera) (pp. 73-78) (File 340).
- 12) *Trigonia* Bruguiere, 1789 (Class Pelecypoda) (pp. 79-83) (File 499).
- 13) Trivial name *caesius* Cloquet, 1818 (as published in the combination *Coluber caesius*) (Class Reptilia, Order Squamata) (pp. 88-89) (File 531).
- (5) *Applications in Part 4 of Vol. 6*
 - 14) Trivial name *quinqueloba* Goldfuss, 1831 (as published in the combination *Asterias quinqueloba*) (Class Asteroidea) (p. 106) (File 514).
 - 15) *Hoplites* Neumayr, 1875 (Class Cephalopoda, Order Ammonoidea) (pp. 110-13) (File 533).
 - 16) *Anguina* Scopoli, 1777 (Class Nematoda), possible suppression of (pp. 125-26) (File 588).

2. The present notice is given in pursuance of decisions taken, on the recommendation of the International Commission on Zoological Nomenclature, by the Thirteenth International Congress of Zoology, Paris, July 1948 (*Bull. Zool. Nomencl.*, 4, 51, 57; 5, 5, 131 [1950]).

3. Any specialist who may desire to comment on any of the foregoing applications is invited to do so in writing to the Secretary to the International Commission, 28 Park Village East, Regent's Park, N. W. 1, Eng., as soon as possible. Every such comment should be clearly marked with the commission's file number as given in the present notice.

4. If received in sufficient time before the commencement by the International Commission of voting on the applications in question, comments received in response to the present notice will be published in the *Bulletin of Zoological Nomenclature*; comments re-

ceived too late to be so published will be brought to the attention of the International Commission at the time of the commencement of voting on the application in question.

5. Under the decision by the International Congress of Zoology, the period within which comments on the applications covered by the present notice are receivable is six calendar months calculated from the date of publication of the relevant parts of the *Bulletin of Zoological Nomenclature*. The five parts now in question were scheduled to be published on September 28, 1951. In consequence, any comments on the applications published in these five parts should reach the Secretariat of the International Commission at latest by March 28, 1952.

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Bovine Albumin Standard for Serum Protein Determinations

THE usual procedures for the determination of serum proteins are the falling drop, Kjeldahl, and the biuret reaction. The biuret method depends upon the use of pooled sera as a standard protein solution. Anyone experienced in the use of the latter knows the unreliability of such solutions as standards, and the difficulty encountered in the duplication of calibration curves with the same biuret reagent and a new lot of pooled sera. In addition, their keeping qualities are very poor. We have found that the only reliable and reproducible standard for protein estimations is a pure protein such as albumin. We have employed such a standard in all our protein work for a considerable length of time and have found it to be completely satisfactory.

We originally employed a salt-poor 25% human albumin solution as standard. Protein concentrations varying between 100 mg and 6.0 g % were prepared by dilution with physiological saline. The protein content of each of the diluted solutions was determined in triplicate by the Kjeldahl method ($N \times 6.25$). For the biuret reaction, the procedure described by Gornall, Bardawill, and David (1) was used. Suitable calibration curves were prepared from the results of each set of determinations. Exactly the same procedure was employed, using pooled sera as the standard. Under the same experimental conditions, when protein determinations were made upon fresh specimens of serum, it was repeatedly observed that the readings from the albumin curve gave the most consistent and reproducible results.

The use of human albumin is not feasible in general routine work, because of its high cost and unavailability; however, we have found that bovine albumin is a perfect substitute for the preparation of protein calibration curves. Lever and his co-workers (2) have suggested the use of crystalline bovine albumin for the preparation of a calibration curve obtained from biuret determinations, but this requires very accurate weighing and is time-consuming. The present com-

munication proposes the use of a bovine albumin solution as a protein standard. It is a sterile, stable solution, the albumin content of which has been carefully standardized by its nitrogen content.¹ The bovine albumin curve obtained from the biuret determinations can be superimposed upon the curve obtained by the use of human albumin.

The most important features of the proposed bovine albumin solution for the calibration of serum protein curves are: (1) The solution keeps indefinitely; (2) the protein content is guaranteed to be accurate; (3) it may be used to spot-check reagents and previously prepared calibration curves; (4) it is economical to use; (5) it is easily obtainable. The use of this bovine albumin solution offers clinical biochemical laboratories a means of standardization of serum protein determinations hitherto unobtainable.

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References

1. GORNALL, A. G., BARDAWILL, C. J., and DAVID, M. M. *J. Biol. Chem.*, **177**, 751 (1949).
2. LEVER, W. E., et al. *J. Clin. Invest.*, **30**, 99 (1951).

¹ We are indebted to Albert H. Holland, Jr., of Armour Laboratories, Chicago, for supplying the standard bovine albumin solution.

Catalysis and Olfaction

I AM preparing a paper on the sense of smell for Vol. VIII of the international series "Colloid Chemistry, Theoretical and Applied," and will appreciate receiving any germane reprints and information, so that they may be given consideration.

Most of the papers dealing with olfaction published recently in SCIENCE center about the views of L. H. Beek and W. R. Miles (SCIENCE, **106**, 511 [1947]), which Professor Pfaffmann in Steven's recent *Handbook of Experimental Psychology* (New York: Wiley [1951]) characterizes as a restatement of the infrared theory in vogue "ever since Faraday first noted that many odoriferous materials strongly absorb radiation in the infra-red region of the spectrum." All these writers were obviously unaware of the catalyst theory of olfaction advanced by J. Alexander in *Colloid Chemistry*, 4th ed. (New York: Van Nostrand [1937]), which was epitomized in *Chemical and Engineering News* of Aug. 1, 1949 (p. 2227) as follows: "The odor-producing substances affect the catalyst balance of the olfactory cells by any or all of the following mechanisms: (1) by modifying existing catalysts, an effect analogous to that of promoters in commercial catalysts; (2) by forming new catalysts (neocatalysts); (3) by inhibiting all or part of the activity of normal cellular catalysts—e.g., H. S. Taylor showed that catalysts may have several different specific catalyst areas, which can be selectively inhibited."

About a year after publication of the above abstract, G. B. Kistiakowsky (SCIENCE, **112**, 154 [1950]), obviously unaware of these earlier publications of the catalyst theory, advanced as something new an emas-