

jects dealt with in the several chapters of the association's book on "Methods and Analysis" and to nominate its candidate for the award to the committee of the Association of Official Agricultural Chemists, which will make the final selection. All contributions must be in the hands of W. W. Skinner, secretary of the Association of Official Agricultural Chemists, Box 540, Benjamin Franklin Station, Washington, D. C., on or before August 1.

As announced at the time of his death in 1937, Henry Dazian, a leading theatrical costumer, left the bulk of his estate to establish a foundation for research in medicine and the creation of medical fellowships. According to a recent transfer tax appraisal the sum of \$1,325,288 will go to establish the foundation. Under the will a self-perpetuating board of five physicians and four laymen is designated to conduct the work of the foundation. Full power was left to the governing board to regulate the functions of the foundation and to direct distribution of its funds. Twenty-five years after his death, Mr. Dazian directed that the principal of the trust funds be distributed to hospitals, sanatoria and similar institutions selected by majority vote of the board. During the life of the trust, however, Mr. Dazian directed the board to create and maintain two fellowships, at not more than \$2,500 yearly, for affording a post-graduate education to persons already holding a degree of doctor of medicine, so that they may specialize in some science directly or indirectly associated with medicine.

ACCORDING to *Nature*, at a reception on December 6 at the Belgian embassy, Baron de Cartier de Marchienne, the ambassador, presented a number of bronze medals awarded by King Leopold of the Belgians to various British scientific workers. The medals, bearing on one side the head of King Leopold and on the other the name of the recipient, and the occasion of the award, were a token of appreciation for the help given by the various specialists in classifying the natural history collections which the King of the Belgians made in 1928-29 during his voyage to the East. The recipients, most of whom were present at the embassy, were: Sir Guy Marshall, Dr. K. Jordan, Dr. Isabella Gordon, Dr. S. Maulik, Dr. W. H. Leigh-Sharpe, Miss G. Ricardo, C. L. Collenette, Mrs. L. M. I. Macfadyen, W. H. T. Tams, H. E. Andrewes, Miss I. Meyrick (for her late father, Mr. E. Meyrick), Professor H. Gordon Jackson, Dr. H. Hanitsch, C. J. Arrow, Dr.

Evelyn Cheesman, Dr. Marie V. Lebour, Dr. Schwarz, L. B. Prout, A. J. T. Janse and Lieutenant-Colonel F. C. Fraser.

THE British Commonwealth Scientific Conference which met in London in 1936 recommended that an Imperial Bureau of Dairy Science should be established with headquarters at the National Institute for Research in Dairying, Shinfield. According to *The Lancet*, this recommendation has now been carried out and Professor H. D. Kay, D.Sc., director of the institute, has also been appointed director of the new bureau, while W. G. Sutton, from Massey Agricultural College, New Zealand, has been appointed deputy director. The bureau is financed cooperatively by the governments of the British Empire in the same way as the other imperial agricultural bureaus. The bureau will index research work in dairy science, and collect, abstract and collate information which it will distribute both by publication and by private communication to research workers, officials and advisory officers throughout the empire. Its ambit will include the microbiology, chemistry and physics of milk and its products; animal diseases in so far as they affect milk and its products; the technology of processing milk and manufacturing dairy products; the physiology of milk secretion as affecting quality and quantity of milk and dairy products; and standards for the composition and quality of milk and its products. The bureau will also promote conferences of workers and visits to research centers, and encourage the circulation of information, ideas, material and personnel.

It is reported in the *Journal* of the American Medical Association that the building of the Japanese institute for research in military aviation medicine, under construction since last summer on the top of Mount Fuji (3,778 meters), was completed in July. The opening ceremony was held in August, with many prominent military surgeons present. The costly building contains fourteen rooms with complete protection against cold, and it is situated next door to the station belonging to the Central Meteorologic Observatory. There will be a standing staff consisting of two army surgeons, and two men from the military medical school will alternate yearly as assistants. The chief research will be on such subjects as the physiologic state of the human body at a high altitude and the hygiene of aerial navigation. This is the first institution of this kind in Japan.

## DISCUSSION

### AN OUTWORN NOMENCLATURAL PRACTICE

THE old dictum that "nomenclature is a means not an end" probably needs even more emphasis now than

formerly. Always a practical matter, nomenclature in a practical age and one with vastly increased demands has little place for tradition unsupported by modern needs.

An ideal system of nomenclature and many of the details of its practice should meet the needs not only of working taxonomists and specialists, but, so far as possible, also of general zoologists, paleontologists, anthropologists and laymen. Doubtless the specialist should not unduly sacrifice his requirements for those of the layman, but any simplification which he can make tending toward the ideal is likely to be a forward step. It is idle to say that the layman should be disregarded entirely, for he is not sharply distinguishable and, as knowledge becomes more and more synthesized, he demands increasingly the privilege of using it, not only as to its generalizations but even as to its technique.

Established nomenclatural practices are not lightly to be changed. Most of them are the result of hard experience and, especially those written into official codes, are born of necessity and struggle. There appear to be some, however, that go back to a time when names were relatively few, that have never been the subject of controversy and that now persist after they have become burdens rather than advantages. One of these, to which attention may be called, is the practice of enclosing in parenthesis the authority for specific or subspecific names which have been transferred from one genus to another. To discontinue this would be a blessing to the active taxonomist, to whom it is now needless, and also to the layman, to whom the name itself is a sufficient irritation without this added esoteric source of mystification.

Apparently the first sanction for the use of the parenthesis is that found in the so-called Stricklandian code authorized by Section D of the British Association and published in 1842, nearly a century ago. Here there is lengthy discussion of the relative merits of first and second authorities with decision in favor of the first and recommendation that the authority for the specific name when not also that for the combination should be enclosed in parenthesis and followed by the symbol (sp.). The example given is "*Tyrannus crinitus* (Linn.) (sp.)," thus written. This obviously awkward arrangement is then followed by a footnote stating that "The expression *Tyrannus crinitus* (Linn.) would perhaps be preferable from its greater brevity." Double authorities seem not to have been considered at this early date and zoologists do not now use them. If any zoologists ever used them, the practice was soon discontinued. For botanists, who "worship the combination," as some one has said, the parentheses may be defensible; but zoologists, having dropped the second authority, should also drop the parentheses.

It is difficult to see much advantage in the parenthesis even as it was used by early authors when it was less called upon to indicate a changed combination than

now. It merely drew attention to the fact of a change for any cause whatever and could not go farther as to the time, place or reason for such change. These details were to be found in the synonymy, and even there they were not always fully evident, so it was only the specialist in the group concerned who understood all the implications of the symbol. For him, therefore, it was likely to be superfluous, and for any one else its significance was almost or quite negligible. A name with its authority in parenthesis simply had a different history from that of one without it. It was not necessarily one that had a longer or more vicissitudinous history, since it was quite possible for a name to be changed and carry the parenthesis for a considerable period and then return to its original form, when the parenthesis would be omitted.

In the nineteenth century, when generic concepts were relatively static, the transfer of a species from one genus to another was an event which assumed an importance that can scarcely be claimed for it now. To signalize such a change may have had some advantages when the field was limited and before the tremendous expansion of knowledge and refinement of practice which has taken place in recent years. As every one knows, the species of Linnaeus is the genus of to-day with the result that the great majority of early nomenclatural combinations have been changed and there is no great need to point out each one individually.

The International Code of Zoological Nomenclature directs the use of the parenthesis only in cases involving changed generic and specific combinations. In spite of this, several rather prolific writers have assumed to use the parenthesis to indicate any change whatever from the form originally written, even though the generic term remains the same. Especially they have used it for names changed from binomials to trinomials, or *vice versa*, and, since such names often act as if on a pendulum, there is little accomplished except mental exercise. This, it seems to me, is compounding a felony. Probably some of them would not draw the line even at changes in spelling or capitalization.

Possibly there are some advantages in retaining the parentheses, but even so, they are greatly outweighed by the practical inconveniences. For a number of years my personal experience has engendered a growing antipathy to them. As a writer on taxonomic subjects, as an editor of taxonomic manuscripts, as a provider of popular printed matter and labels for a large museum and a zoological garden and as an adviser to amateur naturalists, I have found the parenthesis a constant source of irritation and loss of time. For some years I have ceased to use it on museum labels and am now spared the attempt to explain it to print-

ers, proofreaders and public. Also in recent technical papers of my own it has been omitted. One of these<sup>1</sup> dealt with some 250 species and had a fairly wide distribution. After six years, no one has complained. Moreover, I have discussed the matter with various zoologists and do not find them inclined to offer defense unless on grounds of pure conservatism.

Typographically the parentheses are not desirable. They often mar the appearance of the printed page, and they are always anathema to the proofreader. Some amusing incidents have occurred. In one case, a very competent proofreader, finding some names with and some without parentheses, very carefully supplied the omissions and the change was not detected until final proofs were reviewed. In a very recent publication<sup>2</sup> the proofreader or editor completely triumphed. Here every one of nearly 150 authorities is carefully placed not in parentheses but in brackets, obviously without the knowledge or consent of the author.

Since the foregoing was written, I have read two recent communications to *SCIENCE*<sup>3</sup> discussing related subjects. Like Dr. Jacot, I agree with Mr. Peattie that single authorities are sufficient, and the fact that zoologists find them so seems pretty good evidence. However, it may be readily conceded that botanists at this time, having a different historical background, may wish to retain the double authorities for good reasons which do not apply in zoology. To change the single authority to the maker of the combination as advocated by Mr. Peattie would be highly impractical for zoologists at this late date. Some of the arguments he makes for it were discussed in the Stricklandian code of 1842, previously mentioned. Since then all the emphasis has been upon the original describer of the species, who has been thoroughly indexed and docketed, while the maker of the combination has been given scant recognition. In connection with Mr. Peattie's zoological example, it is fair to assume that the same authority which informed him that *Butorides virescens* is the current name for the green heron would also give him chapter and verse relative to the original Linnaean name *Ardea virescens*. This authority naturally would be the Checklist of the American Ornithologists' Union. In other words, it would be practically impossible for him to obtain the combination from a really authoritative source without also finding the original reference.

It may be that both botanical and zoological practices are due for great changes in the future; but unless zoologists are willing to make a beginning by such a change as dropping the superfluous parenthesis, it will

be more than the hundred years suggested by Dr. Jacot before much progress is made.

WILFRED H. OSGOOD

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### ESKIMO SEXUAL FUNCTIONS

WHITAKER, in his recent note on Eskimo sexual functions,<sup>1</sup> quotes some interesting data from Bertelsen<sup>2</sup> regarding the age at menarche among these people, and raises again the much discussed question as to the reliability of Dr. Cook's reported observations a half century ago.<sup>3</sup> Bertelsen now finds the age at menarche to be 15½ years, while a half century ago Dr. Cook stated that it occurred at the age of 19 or 20 years. And a century ago MacDairmid<sup>4</sup> said that the menses did not begin until about the age of 23 years. Because of the wide variance in these reports, must we discard the earlier ones as unreliable, and accept only the recent one based on carefully collected statistics? May there not have occurred among the Eskimos the same marked progression of the menarche toward earlier ages that has been witnessed in many other regions of the earth during the last century?

Original masses of statistics recently calculated by the author<sup>5</sup> gave mean ages at onset of the menses as follows:

Germany, Göttingen, 1795 .....	16.6 years
Munich, 1864 .....	16.3 "
Munich, 1880 .....	15.4 "
Giesen, 1920 .....	14.5 "

Norway, 1868 .....	16.1 years
1935 .....	14.5 "

#### U. S. A., Cincinnati

Age of Women (1935)	Mean Menarchial Age (Years)
24 under 20	13.13 ± 0.22
78 20-29	13.77 ± 0.11
125 30-39	14.09 ± 0.10
118 40-49	14.29 ± 0.11
97 50-59	14.75 ± 0.14
62 60-69	14.76 ± 0.14
48 70-79	14.67 ± 0.17
22 80-89	14.77 ± 0.34
1 91	in her 15th year.

#### Philippine Islands, Cebu (1935)

64 under 20	14.48 ± 0.11
65 20-29	15.59 ± 0.14
76 30 +	15.71 ± 0.11

Similar findings have been obtained from many countries and from different races, always showing a progressively earlier onset of the menses. Girls entering the Universities of Cincinnati, Southern California and Wisconsin have exhibited a reduction of menarchial age from over 14 years for those born before 1900,

<sup>1</sup> *Field Mus. Zool. Ser.*, 18: 193-339, August, 1932.

<sup>2</sup> Dixon, "Birds and Mammals of Mount McKinley National Park," U. S. Department of the Interior, National Park Service, Fauna Series, No. 3, 1938.

<sup>3</sup> Peattie, *SCIENCE*, 88: 128, August 5, 1938; and Jacot, 88: 240, September 9, 1938.

<sup>4</sup> Wayne L. Whitaker, *SCIENCE*, 88: 214, 1938.

<sup>5</sup> A. Bertelsen, *Meddelelser om Grønland*, Bd. 117: nr. 1, 1935.

<sup>6</sup> F. A. Cook, *Trans. N. Y. Obstet. Soc.*, 1893-4.

<sup>7</sup> E. M. Weyer, "The Eskimos," p. 48, 1932.

<sup>8</sup> C. A. Mills, *Human Biology*, 9: 43, 1937.