department of horticulture, has been appointed dean and director of the College of Agriculture of the University of Illinois. Dr. Blair succeeds the late Dean H. W. Mumford, who died on May 31 as a result of injuries received in an automobile accident. Dr. Eugene Davenport, who retired in 1922, was the first dean and director. Professor Blair, in addition to being dean of the college, will be director of the experiment station and of the extension service in agriculture and home economics. It is understood that he also will continue as head of the department of horticulture.

Dr. Kenneth F. Maxov has resigned as professor and head of the department of bacteriology at the Johns Hopkins University to become professor and head of the department of epidemiology in the School of Hygiene and Public Health.

Dr. Jerzy Neyman, of the University College, London, formerly chief of the Agricultural Institute of Warsaw, will become in the autumn a member of the department of mathematics at the University of California at Berkeley. At Los Angeles new members of the faculty include Dr. James Gilluly, of the U. S. Geological Survey, and Professor T. Y. Thomas, of the department of mathematics of Princeton University.

Dr. Janet Howell Clark, formerly associate professor and now lecturer at the Johns Hopkins University and since 1935 head of the Bryn Mawr School in Baltimore, has been appointed professor in the division of biological sciences and dean of the College for Women at the University of Rochester.

Francis McBryde Taylor, assistant in chemical engineering at the Ohio State University and formerly chemical engineer for the Tennessee Eastman Corporation, has been appointed assistant professor of chemical engineering at Tulane University.

Dr. ALEXIS CARREL sailed for Europe on June 22 to continue work in his laboratory on St. Gildas Island, off the coast of Brittany. Dr. Carrel will retire from

the Rockefeller Institute for Medical Research in July, 1939.

The Bernice P. Bishop Museum of Honolulu, in continuation of its program on exploration in Oceania, has sent Dr. C. Montague Cooke, Jr., staff malacologist, his assistant Y. Kondo, and Elwood C. Zimmerman, staff entomologist, to Fiji for three months of intensive field work. They will collect insects and land shells, placing special emphasis on the rediscovering of "lost" species and the gathering of data pertinent to Pacific zoogeography. Some of the more important islands of the Lau group, Ovalau and Viti Levu will be visited.

SHARAT K. Roy, curator of geology at the Field Museum of Natural History, Chicago, has left Chicago on June 18 by automobile to take part in a geological expedition sponsored by Sewell Avery, of Chicago. It is planned to collect rock specimens illustrating phases of physical, dynamic and structural geology in both western and eastern regions of the United States. This is the first of four expeditions for the museum this year under the sponsorship of Mr. Avery, who is a trustee of the museum. Later in the season a botanical expedition will collect intertidal plants in the Bay of Fundy region, Nova Scotia; a zoological expedition will be dispatched to British Guiana, and a second botanical expedition will go to Guatemala.

The Institute of Medicine of Chicago announces that competition for the 1938 Joseph A. Capps Prize, founded by the late Dr. Edwin R. LeCount, is open to graduates of the medical schools of Chicago who completed their internship or one year of laboratory work in 1936 or thereafter. The prize of \$400 is awarded for the most meritorious investigation in medicine or in the specialities of medicine; investigation may also be in the fundamental sciences provided the work has a definite bearing on some medical problem. Manuscripts should be submitted to the Institute of Medicine of Chicago, 86 East Randolph Street, Chicago, not later than December 31.

DISCUSSION

MAXIMUM CONVENIENCE IN CITATIONS

Through the years of my experience with scientific periodical literature, first as a student and then as a librarian, the conviction has been growing in me that the one thing which would do most to facilitate the use of libraries by research workers is a reform in the matter of citations. No one who has not sat behind a librarian's desk could guess the total time that is lost in fumbling over obscure references which might just

as easily be right. Yet the same persons who are bothered by mis-citations feel obliged to perpetuate the identical handicaps because no other precedent is set them. A note on the subject at this time is prompted by the recent appearance of a new edition of an admirable handbook on the preparation of scientific papers by Professors Trelease and Yule¹ to which

¹ S. F. Trelease and E. S. Yule, "Preparation of Scientific and Technical Papers," 3d ed. Williams and Wilkins, 1936.

exception is to be taken on this one point only, the instructions and examples covering the question of abbreviations for periodical titles (pp. 85-95).

Approximately 75,000 titles are contained in the original edition of the Union list of serials, thousands more will be added in the revised edition now in progress, and in even a fair-sized library catalogue there are several thousand. To find one's way about readily in this large territory of literature obviously requires a real technique, and since the cataloguing of these serials throughout American libraries has been completely standardized by adherence to Library of Congress rules and this Union list, the test of a correct citation is clearly that it conform to their procedure, so that the user is led by the citation directly to the right place in the finding list. The guiding principle in formulating a reference, in other words, is that it should begin with the word which is the key word in the catalogue. The following corollaries indicate the details of the way in which the principle works itself out.

(1) In the case of society, academy or university publications, the institution comes first and the title second. A conversational order is now generally followed, which it should be a simple matter to learn to invert when one approaches a catalogue. But actually it may be explained to a man that just as one looks for books, not under "Introduction to . . ." or Vorlesungen über . . . ," but under the author, so one must expect in any catalogue to find the order:

Cambridge philosophical society.

National academy of sciences.

U. S. Bureau of Standards.

Proceedings.
Proceedings.
Bulletin.
Journal of Research.
Technical papers.

yet none-the-less the same man will next time make a similar attempt to find the Comptes Rendus or Verhandlungen of his reference. It may even be that he is not given the corporate author at all. To one long since instructed, Phil. Trans. alone may seem sufficient, but beginners with the desire to help themselves should not be subject to the embarrassment of admitting, "I can't find any Philosophical transactions. What are An extreme case of this sort was recently encountered in a biological paper in the Journal of Applied Physics, simply "Ber." A look at the Union list suggested that this might be the biologists' jargon for his Berichte über die gesamte physiologie, properly a title entry. But checking and further search in Biological Abstracts revealed the fact that the reference is in fact to a Berichte which could be found in any catalogue only under the entry Deutsche chemische gesellschaft. Another similar mistake is the frequent use of Ber. Ber. for Preussiche akademie d. wissens. Sitz. ber.

This practice of using the catalogue order in abbreviations is now followed almost consistently by Science Abstracts, though apparently not by any other of the abstracting services. All the H. W. Wilson indexes of course use it, as do other major library tools. It may sound at first artificial to other than librarians, but its adoption would prevent much waste of effort and we do have precedent for our encouragement.

- (2) An editor's name should be avoided unless it is officially in the title. E.g., not Poggendorff's Annalen, but Ann. d. physik, ser. 2 or Ann. d. physik (2). Pflüger's Archiv, on the other hand, is suspect, but turns out to be correct.
- (3) The vernacular should be adhered to, not a translation. E.g., not Contributions of the Observatory of Lund, but Lund. Observ. Meddel. Acad. is sure to cause trouble when it should be Akad. or Accad.
- (4) Unless one is understood to be using some particular list with a key provided, one should not abbreviate too far, particularly the first word. E.g., most persons would have to look in Science Abstracts for the meaning of A.T.M., and Archiv f. tech. mess. is not much longer. Inst. el. eng., Jour. is safer than J.I.E.E., particularly if it stands a chance of being printed J.I.E.F. Soc. de biol. is better than Soc. biol. because Société biologique and Société de biologie are surprisingly far apart in many catalogues.
- (5) When an institution is organized in parts, *Math.-phys. kl.*, *Sect. I*, or whatever the case requires, should be added. This may seem obvious to both writer and reader, but when the reference is turned over to some one who does not know of the division, or does not know the context, as when it is the basis of an interlibrary loan, or a telephone call from one part of a library system to another, the omission may well lead to serious difficulty.
- (6) For the same reason, the series should always be given in case the set is numbered in series. There are circumstances in which the date does not take its place.

The older literature and the foreign will still provide sufficient occasions when a man must wait to ask a specialist in library detective work "What does this reference mean?" if our own technique of citation were improved beginning now. It requires only a little consideration from the point of view here presented, and in cases of doubt there will almost always be a librarian available to help edit a bibliography. This will be work of a constructive rather than a corrective sort in which, like other people, librarians take particular pleasure. On essential points of this proposal all library editing would undoubtedly be consistent.

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