men and animals in the process of carrying out representative actions.

It was while investigating the joint original work of Leland Stanford and Eadweard Muybridge on animal locomotion carried out at Palo Alto in 1878 and 1879 that the writer discovered this wealth of material in the Commercial Museum. He is glad to pass on the information. These duplicate plates should be in the possession of scientists, artists and art schools and those interested in the history of motion pictures. Those desirous of securing them should correspond with Charles R. Toothaker, Curator.

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A UNIFIED SYSTEM OF PRESENTING BIBLIOGRAPHIES

IN reading current scientific literature the diversity of bibliographic systems is forcibly brought to one's attention. It would seem that a more uniform and improved system of presenting bibliographies formulated through cooperation of the various scientific journals would be desirable.

A well-selected bibliography is one of the more valuable parts of a majority of scientific articles. To be of the most value to the research worker the references should enable him to trace further information on the particular point in which he is interested with the least expenditure of effort. This calls for a full presentation, including the title of the papers to which reference is made. It also calls for information as to the time when the work referred to was done, and this can be most efficiently supplied in the text of the article being reviewed.

The name-number and name-date systems of referring to bibliographies are both used. It would seem that the advantages of the name-date system justify its use in practically all cases. Its value in keeping before the reader the date of the work referred to in the text and the relation of this to its significance is evident to research men. It is an economy of the readers' time, in a great number of instances preventing the necessity of thumbing back to the bibliography. A number associated with the author's name has no value except in helping locate the reference in the bibliography. This number is different for each different bibliography. A supplementary value of the name-date system is apparent to authors when they wish to add a reference or two to a manuscript which was thought to be ready for publication. This is a frequent occurrence.

The name-date system also logically calls for the grouping of the bibliography in alphabetical order at the end of the article, which has its advantages especially in relocating references. Below are examples, referred to as Bailey and Sherwood (1926), Gortner and Holm (1920), and Mitchell (1924), which include the advantages mentioned above.

Bailey, C. H., and Sherwood, R. C.
1926 Relation of crude protein content of flour to loaf volume.
Cereal Chem. 3: 393–402.

Gortner, R. A., and Holm, G. E.
1920 The origin of the humin formed by the acid hydrolysis of proteins, V.
J. Am. Chem. Soc. 42: 821–7.

Mitchell, H. H.
1924 A method of determining the biological value of protein.
J. Biol. Chem. 58: 873–903.

It will be noted that each of the four items, date, name, title, reference, has the same definite location in each of the references. Locating the reference to the journal itself on a new line in every case is a distinct advantage to the reader and in a large number of cases requires no additional journal space. This same form of noting bibliographic references is also convenient for card index files. Arabic rather than Roman numerals for indicating the volume numbers of journals are very much preferred, since the former are always comprehended at a glance.

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A NEW BLUE CRAYFISH

WHILE traveling through the state of West Virginia during the summer of 1928 with the West Virginia University biological expedition, I collected several specimens of a blue crayfish identified by Dr. Waldo L. Schmitt, curator of marine invertebrates, U. S. National Museum, Washington, D. C., as a blue phase of *Cambarus carolinus dubius* Faxon. The only blue Cambarus hitherto recorded is *Cambarus carolinus monongalensis* Ortman collected by Dr. E. A. Ortman in Pennsylvania and the northern part of West Virginia. The altitude of this subspecies ranges from 800 to 1,200 feet.

My collections of the blue phase of *Cambarus carolinus dubius* Faxon were made from the bank beside Cool Run near Cass, Pocahontas County, West Virginia, at an elevation of 2,400 feet, and Bald Knob, located about two miles from Cass, at an altitude of approximately 3,500 feet. One blue specimen was observed at Spruce Knob, Pendleton County, West Virginia, at the elevation of 4,500 feet.

This blue crayfish will be discussed more fully in a later paper.

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