

THE new Stanford University Hospital, which is being erected at a cost of approximately \$500,000, will, it is expected, be ready for occupancy about October 1.

MR. V. EVERIT MACY, commissioner of charities and corrections, West Chester County, has undertaken to support three fellowships, of the value of \$500, each for work and investigations in the West Chester County penitentiary.

THE following changes have been made in the staff of the anatomical department of the Johns Hopkins University: Dr. Florence R. Sabin has been promoted from associate professor of anatomy to professor of histology; Dr. Lewis H. Weed, from associate to associate professor in anatomy, and Dr. Charles C. Macklin, from instructor to associate. Professor O. Van der Stricht, of the University of Ghent, becomes lecturer in anatomy. Dr. Edmund V. Cowdry, associate in anatomy, has resigned to accept the professorship of anatomy in the Peking Union Medical College which is now conducted by the Rockefeller Foundation of New York. Dr. Eldon W. Sanford becomes assistant in anatomy.

MR. W. G. WATERMAN, recently assistant professor of biology at Knox College, has been appointed assistant professor of botany at Northwestern University.

ASSOCIATE PROFESSOR WILLIAM A. KEPNER has been promoted to a professorship of biology in the University of Virginia.

AT the University of Minnesota, Henry T. Moore has been appointed assistant professor and Karl S. Lashley instructor in psychology, with salaries of \$2,500 and \$1,700, respectively.

DISCUSSION AND CORRESPONDENCE

HERITAGE AND HABITUS

THE word "habitus" as distinguished from "heritage" was defined in 1913 by Gregory¹ as follows:

The totality of the cœnotelic or recent adaptive characters of an animal may be called its *habitus*; the totality of its palæotelic characters may be

¹Gregory, W. K., "(IV.) Convergence and Allied Phenomena in the Mammalia," *Rept. Brit. Assoc. Adv. Sci.*, 1914 (1913), pp. 525-526.

referred to as its *heritage*. The habitus tends to conceal remote phylogenetic relationships, the heritage to reveal them. Thus, the diverse habitus of *Thylacinus*, *Notoryctes* and *Phaseolomys* concealed their remarkably uniform underlying heritage.

The habitus of a race of fishes is the totality of their cœnotelic characters, *i. e.*, of all those characters which have been evolved in adaptation to their latest habits and environment. The heritage of a race of fishes is the totality of their palæotelic characters, *i. e.*, of all those characters which were evolved in adaptation to earlier habits and environments and which were transmitted in a more or less unchanged condition, in spite of later changes in habits and environment.²

The derivation is, of course, from *habitus*, meaning attire, but by a natural extension habitus is taken to mean among other things, *e. g.*, *facies* (Century Dictionary, p. 2675). The word "habitus" is common property. It is a word of wide significance. Gregory applied it in a limited sense without entirely losing sight of its generally accepted meaning (*e. g.*, habitus of plants).

The terms habitus and heritage may become very useful and be generally adopted among naturalists. The reptilian heritage of ichthyosaurs stands in clearest contrast to their marine habitus; so too the mammalian heritage of bats and cetacea, the primate heritage of man, the avian habitus and diapsid heritage of pterosaurs, the struthious habitus and theropod heritage of *Strouthiomimus*, etc.

Lillie recently uses the term habitus in the same general sense in which Gregory has used it, but the latter gives it a more precise meaning, *viz.*, the totality of all characters evolved in response to the latest or final life zone. "Somatic habitus" as used by Lillie means "general bodily characteristics," while habitus in botany means the sum of the adaptive characters, much as Gregory uses it. These adaptive characters are, of course, inherited.

The words cœnotelic and palæotelic, also proposed by Gregory, are perhaps still better terms, because they are self-explanatory to those who know even a little Greek. Cœnotelic signifies characteristics evolved during present life habits; palæotelic signifies in-

² *Ann. N. Y. Acad. Sciences* for 1913, p. 268.

heritance from previous life habits. A cœnotelic character of previous life-zone habitus often becomes a palæotelic character in a subsequent habitus. The "somatic habitus" is generally the expression of the latest life habits.

HENRY FAIRFIELD OSBORN

SCIENTIFIC MEETINGS IN WAR TIMES

A NUMBER of our scientific societies have deemed it advisable "on account of the war" to either cancel or postpone their future meetings and conventions. The American Electrochemical Society disapproves of this action and at its recent board meeting adopted resolutions encouraging rather than discouraging the holding of meetings.

Modern warfare is not so much a matter of prowess at arms as it is a stupendous engineering undertaking. To hasten this war to an early and victorious close our many thousand engineers must bring to bear every possible effort. However, individual, independent effort is not desirable at this time: *concertive* action is absolutely essential for the most efficient service.

In order to expedite the solution of many of the new problems that have arisen as a direct consequence of our martial state, unrestricted discussion of the problems (with but few exceptions) at scientific meetings is bound to give all of us a clearer understanding of the real points at issues, of the urgent needs of our country at this momentous hour.

Meetings of scientific and technical societies have ever served as a great stimulus for their members and have been a "clearing house" for many of the best thoughts and ideas of our professional men.

Let us follow the good example set us by England. Let us encourage rather than discourage the holding of scientific meetings in these war times. When England found herself confronted with a very serious shortage of sulphuric acid, glass, dyes, electrodes, brass, furnaces, etc., the scientific societies arranged symposiums on these subjects and invited not only all of the members to attend, but, further, urged those factory men who were not members to come to the meetings to give their views and

experiences and to learn all they could in return.

Just as a large business corporation depends upon the organized effort and efficiency of the several units and departments, so does our government, now more than ever, look to the organized concertive effort of its large engineering bodies for quick and efficient results. Let us continue our meetings and hold them more frequently than ever before.

COLIN G. FINK

THE PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES

THE fourth number of Volume 3 of the *Proceedings of the National Academy of Sciences* contains the following articles:

"A Re-determination of the Value of the Electron and of Related Constants:" R. A. Millikan, Ryerson Physical Laboratory, University of Chicago. The values for the charge on the electron, the Avogadro constant, etc., are given with estimates of the accuracy of the result.

"Body Pigmentation and Egg Production in the Fowl:" J. Arthur Harris, A. F. Blakeslee and D. E. Warner, Station for Experimental Evolution, Cold Spring Harbor, New York. A strong negative correlation exists between the October ear-lobe pigmentation and the egg production of the year.

"Variability of Germ Cells of Sea Urchins:" A. J. Goldfarb, College of the City of New York, and Department of Marine Biology, Carnegie Institution of Washington. The varying behavior of the eggs in the experiments of Loeb, Lillie, Wasteney and others, was apparently due in large part to variation in the physiologic condition of the eggs they used.

"Transplantation of Limbs:" Ross G. Harrison, Osborn Zoological Laboratory, Yale University. The experiments confirm previous ones, showing that the limb bud is a self-differentiating body: they also show that the laterality of the fore limb may be affected by its new surroundings.

"The Shapes of Group Molecules Forming the Surfaces of Liquids:" Irving Langmuir,