

UNIVERSITY AND EDUCATIONAL NOTES

GROUND has been broken for the construction of five of the six buildings for Northwestern University, to be erected at a cost of \$5,350,000, on McKinlock Memorial Campus at Lake Shore Drive and Chicago Avenue. Those who made possible the construction of the buildings are: Mrs. Montgomery Ward, who gave \$3,000,000 for the medical-dental center; Mrs. Levy Mayer, \$500,000 for the law school building; William A. Wieboldt, representing the Wieboldt Foundation, \$500,000 to complete the school of commerce; George A. McKinlock, \$500,000, which made possible the purchase of the campus; Mrs. George R. Thorne, \$250,000 to erect an auditorium, and Elbert H. Gary, \$100,000 for the Gary Law Library.

A REQUEST of \$50,000 to Harvard, the income to be used by the Harvard Medical School for research in etiology and therapeutics of diseases of men, is provided in the will of William H. Wellington, of Boston.

PROMOTIONS at Yale University include Dr. Alan Mara Bateman, editor of the *Journal of Economic Geology*, to a professorship of economic geology; Dr. Arthur Joseph Hill, to a professorship in organic chemistry; Dr. Alois Francis Kovárik, to a professorship in physics, and Dr. Egbert Joseph Miles, to an associate professorship in mathematics.

PROFESSOR CHARLES SHATTUCK PALMER will rejoin the staff of the department of chemistry of Northwestern University in September. For the past year he has been research chemist of the department of scientific research of the Institute of American Meat Packers.

DR. SAMUEL E. POND, of Washington University, has been appointed assistant professor of physiology at the University of Pennsylvania.

DR. ENGLISH BAGBY, assistant professor of psychology at Yale University, has been appointed associate professor of psychology at the University of North Carolina. Besides his teaching work he will be in charge of research problems in student personnel.

PROFESSOR B. HELFERICH, of Frankfurt-on-Main, has been called to Greifswald to fill the chair of chemistry made vacant by the removal of Professor R. Pummerer to Erlangen.

DISCUSSION AND CORRESPONDENCE

FRESH-WATER MEDUSAE IN THE PANAMA CANAL ZONE

At various times during the past eighteen years SCIENCE has contained announcements pertaining to

the presence of fresh-water medusae in different parts of the United States. In Washington, D. C., Kentucky, Indiana and Georgia the specimens have been found which formed the basis for these announcements, and *Craspedacusta sowerbii* Lankester is the species involved.

It gives me pleasure to announce the discovery of specimens of this species in Gatun Lake, in the vicinity of the Barro Colorado Island Laboratory in the Panama Canal Zone. Mr. James Zetek, the resident custodian of the laboratory, made a collection December 1, 1924, and forwarded the specimens to the writer for identification. They had been preserved in alcohol. In response to a request for more material additional specimens were sent by Mr. Zetek. They were collected on January 24, 1925, and preserved in formalin. The later collection included specimens of various sizes ranging from 9 mm to 19 mm in diameter and were in excellent condition. Only males have been found among the specimens examined.

A comparison between the new specimens and others which the writer had previously received from Professor Garman, of Kentucky, and Professor Payne, of Indiana, leaves no doubt in the mind of the writer that they all belong to the same species; and furthermore that the specimens from China, described by Oka as *C. kawaii*, were probably of the same species. Oka describes the arrangement of tentacles in seven sets and as differing from that in *C. sowerbii*, in which the tentacles had been described as forming three sets. An examination of the Gatun Lake specimens reveals an arrangement which corresponds closely to that described by Oka. A similar arrangement is found in the specimens received from Kentucky and Indiana. "Die Tentakel I, Ordnung" of Oka corresponds to the set 1 of Lankester and others, the perradial tentacles. The second set "secondary tentacles" of Lankester and some others is equivalent to Oka's "Die Tentakel II-IV, Ordnung" and is about 28 in number. The "intermediate set" of Payne includes also Oka's "V, Ordnung," making about 60 in that set. The third set of most writers would include Oka's "V-VII, Ordnung" or his "VI-VII." It is the opinion of the writer that Oka would very likely have written a similar description of tentacle arrangement had he been studying Gatun Lake specimens. The number of tentacles in the larger specimens recently received is approximately 400, and that of the lithocysts is not far from 200.

Mr. Zetek has suggested that the writer make a preliminary announcement of the discovery, and has expressed an intention to prepare a general report

on the various features connected with this new occurrence of the widely distributed *C. sowerbii*.

The Barro Colorado Island Laboratory recently established by the Institute for Research in Tropical America gives promise of being a source for a great variety of highly interesting material and a very attractive center of research activity. An account of the laboratory and its remarkable surroundings appeared in the *Journal of Heredity*, March, 1924, Vol. XV, No. 3.

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THE TAXONOMY AND RANGE OF POISON IVY

THERE are several statements in the botanical part of my book "*Rhus Dermatitis*"¹ that should be revised in accordance with recent investigations:²

On page 3 it is stated on the authority of Nuttall³ that the leaves of the male and female plants of the western poison oak (*Rhus diversiloba* T. & G.) differ in shape. This has not been found to hold true.

On page 4 the following statement occurs, "The only botanical ground for the separation of the two (*Rhus Toxicodendron* L. and *Rhus diversiloba* T. & G.) into different species is a slight difference in the shape of their leaflets." It is now known that these species are altogether distinct, as they possess excellent fruit and flower characters.

In regard to the geographical distribution of western poison oak, the herbarium specimens listed on pages 11 to 13 were not all seen by the writer and from present information² its habitat seems to be limited to California, Oregon and Washington.

The writer's studies on the taxonomy of the poison ivy group² in North America lead him to conclude that there are four species in this area, namely: *Rhus quercifolia* (Michx.) Steud. (eastern poison oak) from New Jersey southward and westward to Texas; *R. diversiloba* T. & G. (western poison oak) in California, Oregon and Washington; *R. Toxicodendron* L. (poison ivy) of general distribution exclusive of California, and *R. greenei* McNair confined to Lower California. *R. diversiloba* has a *forma radicans* and *R. Toxicodendron* has a *forma radicans*, a *forma malacotrichocarpum* and a variety *eximia*.

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¹ "*Rhus Dermatitis, Its Pathology and Chemotherapy*," University of Chicago Press, Chicago, Ill.

² "*The Taxonomy of Poison Ivy*," Field Museum Publications, Botanical series, Vol. 4, No. 3, March 14, 1925, Field Museum of Natural History, Chicago, Ill.

³ Nuttall, in Torrey and Gray, "*Flora of North America*," Vol. I, p. 218, 1838.

A NAME FOR THE n IN $\cos nt$

VARIOUS authors have recognized the desirability of having a name for the quantity n which represents 2π -times-the-frequency of a simple harmonic motion and which appears in the equation

$$x = A \cos (nt - \epsilon).$$

Professor Lamb states¹ that Lord Kelvin and Professor G. H. Darwin have used the term *speed*; Professor Lamb himself has suggested² the name *rapidity*; Mr. Jeans³ calls it *frequency*; Mr. Albert Campbell⁴ has called attention to the French term *pulsation*, and has suggested as an English equivalent the word *pulsatance*; I have suggested⁵ translating the German term *Kreisfrequenz*, and calling the n a *circular frequency*. Other names may also have been suggested, but none of them has been generally adopted.

Of the various suggested names, the words *speed* and *frequency* are now very often used with other meanings. Any of the terms *rapidity*, *pulsatance*, *circular frequency* might be adopted, but I am now suggesting still another. The reason for desiring a name for this quantity is the circumlocution that is often necessary when we have no such name. The objection to a new term is the increase in the number of names that we must remember. If a term naturally suggests the quantity which it names, it is a better term—other things being equal—than one which does not so readily suggest the quantity.

I am proposing that we call n the π -frequency of the motion. This term is easily spoken and easily printed; it at once suggests a close relationship between frequency and π -frequency, and if a student has difficulty, when he first meets these quantities, in remembering whether the π -frequency equals the frequency multiplied by 2π or divided by 2π the term π -frequency suggests multiplication.

I should be glad, and I presume many others would, if those of us who often have occasion to refer to this quantity would adopt some name for it, and it seems to me that a good name would be π -frequency.

Since writing the above I have found that Voigt⁶ has used still another term. He calls n the *vibration index* of the motion. This does not seem to be as good a name as π -frequency.

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¹ "*Hydrodynamics*," ed. 3, p. 237.

² "*Dynamical Theory of Sound*," p. 10.

³ "*Theoretical Mechanics*," p. 263.

⁴ Phys. Soc. Lond., Proc., 31, p. 81, 1919.

⁵ SCIENCE, 48, p. 447, 1918.

⁶ Wied. Ann., 40, p. 654, 1890.