

ogy at the university, described the public service of the School of Medicine. The dinner address was given by Dr. Reginald Fitz, of the Harvard Medical School, who described the close relations during the last century between the Medical Schools of Harvard University and Western Reserve University.

THE centenary meeting of the Royal Anthropological Institute, London, was held on October 30 under the presidency of Professor J. H. Hutton. According to *Nature*, addresses were delivered by Sir John Myres on the work of the institute, and by Lord Hailey on "The Role of Anthropology in Colonial Development." There was a symposium on "The Future of Anthropology," in which Dr. G. M. Morant spoke on physical anthropology; Professor V. G. Childe on archeology; R. U. Sayce on material culture, and Professor R. Firth on social anthropology.

THE new home of the American Institute of Physics at 57 East 55th Street, New York City, it is hoped, if the exceptional obstacles of wartime can be overcome, can be opened at the time of the January meeting. The building, formerly a private house, will in the course of years become the headquarters of the offices of the institute and of some of its founder societies, the scene for conferences and committee meetings and generally the headquarters for Amer-

ican physics. The purchase price of \$70,000, a bargain due to the generosity of the former owner of the house, has already been met to the extent of \$51,000. The Building Fund Committee hopes to receive the contributions of those who intend to contribute but have not yet done so. Contributions should be addressed to the American Institute of Physics, 175 Fifth Avenue, New York 10, N. Y.

It is proposed to establish a medical center at the College of Medicine of Wayne University, Detroit. The plan of development involves the expenditure of \$50,000,000. A board of trustees has been incorporated, of which Dr. Edgar H. Norris, dean of the College of Medicine, is a member. Dr. Frank F. Tallman, Lansing, director of mental hygiene of the Michigan State Hospital Commission, has become adviser and consultant to the board, including the development of its Industrial Health Institute and psychiatric units. George F. Pierrot, director of the United Service Organizations in Metropolitan Detroit for the past seventeen months, has been appointed executive secretary of the finance committee. It is reported that an appropriation of \$10,000 to initiate plans for the development of the center have been approved by the ways and means committee of the County Board of Supervisors.

DISCUSSION

THE BOTANICAL NAME OF THE GIANT SEQUOIA

IN the April number of *Leaflets of Western Botany*, W. A. Dayton, of the U. S. Forest Service, has presented a discussion of "The Names of the Giant Sequoia," based principally upon excerpts from 29 replies from certain Californian botanists in response to a request for information made by Mr. Dayton. The conclusions drawn are that botanical opinion in California (1) favors retention of *Sequoia gigantea* as the name of the big tree, (2) favors amendment of the international rules to conserve this name, and (3) indicates a reluctance to accept the recently proposed generic name *Sequoiadendron*. Some of the statements upon which these conclusions are based are rather amusing. One writer says he has "never seen or heard any name except *Sequoia gigantea*." Another says that the name *Sequoia gigantea* will remain in use because "millions of visitors come to this State [California] to view that tree." Another says, "Any change in the name would produce a distinct shock among 'plant lovers.'" Only two or three of the replies contain any reference to truly scientific or botanical considerations. I should like, therefore, to point out that since this is essentially a technical botanical

question, it is to be decided on scientific grounds, without regard to the provincial enthusiasms of the residents of any particular part of the earth.

Clearly, there are only two fundamental points at issue. The first one is, Does the name selected conform to the International Rules of Botanical Nomenclature? The second question is, What are the basic biological facts? The first question I shall leave to the nomenclatural specialists, although it is worth while noting that the generally used name, *Sequoia gigantea* (Lindl.) Dene., being a homonym, is untenable under the international rules. *Wellingtonia* also is ruled out, and for the same reason. The second question, however, calls for comment, since, after all, taxonomic botany is a branch of the science of biology.

While it is not at all necessary to review here the important data presented by Buchholz in 1939,¹ it may be not altogether out of place to quote briefly from the recently published work of two other botanists, Looby and Doyle,² who, presumably, may be safely considered free from any motives ulterior to the spirit of scientific inquiry. These two botanists have come independently to the conclusion, on the

¹ *Am. Jour. Bot.*, 26: 535-538, 1939.

² *Sci. Proc. Roy. Dublin Soc.*, 23: 35-54, 1942.

basis of their studies of the formation of megaspores, female gametophytes and archegonia, in both the big tree and the redwood, that the two species belong to different genera. Following is a quotation from their conclusions:

Buchholz (1939c) has recently published a short paper on the generic segregation of the Sequoias. In this he tabulates numerous differences between them, and concludes that they can not be retained as species of one genus. To these points others might be added, notably perhaps the difference in wood structure in typical specimens. Many of these points may be only such as are natural to different species, but the differences in proembryo and embryogeny are more important. When to these are added the further differences in development, outlined in this paper, in gynospore origin, in tapetum, in early prothallial growth and expansion, and in maturer cellular formation in the prothallus, it is clear that the two redwoods differ essentially in practically every phase of their life-history. In no other coniferous genus have such differences between species been recorded; on the contrary, true species of any other genus show extremely close similarities in their development. The other differences noted by Buchholz (1939c) are thus given greater importance, and we, therefore, without hesitation, agree with him that the Sierra Redwood, the Big Tree, commonly now known as *Sequoia gigantea*, can no longer be retained as a species of *Sequoia*, a generic title to which *Sequoia sempervirens* has priority claim. . . .

They go on to say that they prefer to use the generic name Wellingtonia, instead of Sequoiadendron, for the big tree. That is, however, beside the point. The significant facts are (1) the two species differ essentially in practically every phase of their life-history, and (2) in no other genus of conifers have such extreme differences between species been recorded. Additional biological evidence supporting the theory that the two species are more than specifically distinct was adduced as early as 1894 by Radais,³ who proposed two subgenera of *Sequoia*, subgen. *Eusequoia* for *S. sempervirens* and subgen. *Wellingtonia* for *Sequoiadendron giganteum*. In 1931, Florin⁴ pointed out that Arnoldi, in 1900, and Lawson, in 1904, had presented sufficient evidence from embryogeny to show the fundamental generic differences between the two species. Doyle,⁵ in 1940, has indicated that the segregation of the big tree into a separate genus is fully justified.

It may be not altogether without significance that, although not proposed until 1939, the name Sequoiadendron already has been adopted by some of the most distinguished authorities on North American botany,

³ M. Radais, *Ann. Sci. Nat. Bot.*, ser. 7, vol. 19. Paris (thesis).

⁴ Rudolph Florin. *Untersuchungen zur Stammesgeschichte der Coniferales und Cordaitales*. K. Svenska Vet.-Akad. Handl. ser. 3 vol. 10. Stockholm.

⁵ *Nature*, 145: 900, 1940.

including Alfred Rehder,⁶ L. H. Bailey⁷ and several others. During the last three years several articles, in which the name Sequoiadendron has been employed, have appeared in both European and American botanical journals.

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THE APPARENT TIME ACCELERATION WITH AGE

HAVING for some time given a little attention to the physiology of aging and still having a fair memory at sixty-eight, I was more amused than instructed by the current discussion in *SCIENCE* of the apparent acceleration of time with advancing chronologic age. This discussion reminds one of the old quip: "Married men do not live longer than bachelors, it just seems longer," of which the truth and the why depend on the individual (and his mate). When we eliminate amnesia for current events and make the comparison in matters of approximately equal desirability, anxiety and boredom, there is no difference in the estimate of time speed at six and at sixty, so far as one can rely on memory. Death is obviously not in the category for comparison, because of the limited experience and understanding of youth. At the age of 7 to 10, when I greatly desired to reach the stature, the capacity and the dignity of a grown-up man, called to mind the prospect of a brief visit to my mother or longed for the end of the current day when sound slumber would shut out the perpetual baa-ah of the sheep in my care, the hours, weeks and years seemed *long* indeed. But in those same years a day's visit with mother, an hour in the swimming hole or fishing in the river passed with incredible speed. It is purely a question of the item of particular concern (desirable or objectionable) in the thought of the individual. Age has nothing to do with the illusion. For now at sixty-eight, the days, weeks, months and years of war drag on as slowly as they did sixty years ago when I wanted to grow up in a hurry. Then, I wanted (above all things) to be a man. Now, I want (above all things) mankind at peace. The time to attain either seemed and seems unduly long. On the other hand, a day at fishing, now, an hour at attempting to teach, a conference with intelligent colleagues, verily, *tempus fugit*.

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In a recent discussion in *SCIENCE* on the apparent time acceleration with age, Frank Wilen made a statement, the implications of which I should like to dis-

⁶ "Manual of Cultivated Trees and Shrubs," second edition, 1940.

⁷ "Hortus Second," 1941.