

("sal-i-gen-in" for sal-ij'en-in), *stearic* ("stēr-ik" instead of ste-ar'ik), and *xenon* ("zē'non" for zen'on).

Medical terms, however, seem to be the most frequently mispronounced of all scientific words. Very few physicians, for example, pronounce *gynecology* "jin-e-kol'o-je," but say "guy-ne-kol'o-je." The former is regarded as orthoëpic by Drs. W. A. N. Dorland, E. C. L. Miller and G. M. Gould, the recognized authorities on medical lexicography, as well as by the leading lay phonologists. *Enteroclysis* is another ordinary medical word that is often mispronounced as "en-ter-o-klī'sis," instead of en-ter-ok'lī-sis. Another term of entirely different meaning, *enterocleisis*, is pronounced correctly in the former way.

There are in scientific use quite a few homophones, or words having the same sound as others, but differing in meaning and generally in derivation and often in spelling. *Sitology* and *cytology* are illustrations, both being pronounced "sī-tol'o-je." If the former were in wider usage, it would be better to pronounce it "sit-ol'o-je." *Psychosis* and *sycosis* are two other examples of casual homonyms. Then we have *tic* and *tick*; *cerasin*, *ceresin* and *sericin*; *cerin* and *serin*; *cetaceous* and *setaceous*; and other groups of words agreeing in sound but differing in meaning from one another.

Much more insistence should be accorded in education to standards of diction and composition—an insistence that students of all classes pronounce and use words carefully and properly. In England the manner of a person's speech is largely influential in determining not only his social standing but also his earning capacity—the natural condition in a country where competition is more rigorous than we in America can yet conceive, but to which we shall certainly come.

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"ISORROPIC"

REFERRING to the note by Professor Alfred C. Lane on "Isontic," p. 37 of *SCIENCE* for July 13, 1928, I would call attention to the word "Isorropic" given in Webster's dictionary, from which it would appear that it is compounded of the Greek words for equal and momentum. As a whole we are told it is intended to mean: "in equipoise; of equal value." An *isorropic line* in a diagram is "the locus of all points for which a specific function has a constant value."

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PRICKLY PEAR CONTROL IN AUSTRALIA

IN speaking of Dr. R. J. Tillyard's paper on the "Biological Control of Noxious Weeds" in the account of the Congress of Entomology in *SCIENCE* for September 14, the writer attributed the work done in Australia on the control of the prickly pear to Dr. Tillyard. Coming in late to listen to the paper I missed the opening remarks and the explanation by Dr. Tillyard that the work was done by the Prickly Pear Board in Queensland and New South Wales under the direction of Professor Harvey Johnston, Mr. J. C. Hamlin, Mr. W. B. Alexander and, finally, by Mr. Alan P. Dodd, to all of whom Dr. Tillyard gives most glowing tribute for the excellence of their work. The acknowledgments to these men are fully set forth by Dr. Tillyard in his paper which will appear later in the Proceedings of the Congress.

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QUOTATIONS

THE NATIONAL ACADEMY OF SCIENCES AND HARVARD UNIVERSITY

PRESIDENT CAMPBELL, of the University of California, has recently published in *SCIENCE* a survey of the geographical and institutional distribution of the membership of the National Academy of Sciences. The significance of the survey lies in the recognized standing of the National Academy as indicating the relative eminence of American men of science in the judgment of their colleagues. It is the equivalent in America of the British Royal Society. It was incorporated in 1863, during the presidency of Lincoln, with Agassiz, Joseph Henry and others among its charter members. Its membership includes scholars in mathematics and astronomy, physics and engineering, chemistry, geology and paleontology, biology and anthropology. Originally established as a means of relating scientific research to public needs, it rendered a notable service during the Great War, and was responsible for the organization of the National Research Council, through which this service has been organized and perpetuated.

As regards geographical distribution, President Campbell's survey brings out the fact of sectional segregation. Sixty-six per cent. of the academy's members live in the New England and Middle Atlantic States (including Washington, D. C.), seventeen per cent. in the Middle West and fifteen per cent. in California, leaving the South and West (excepting California) almost unrepresented. Among institutions, Harvard has thirty-five members, and is followed, in turn, by Chicago and Yale with sixteen each,

California with fourteen and Columbia with thirteen. Of the Harvard thirty-five, seven are professors in the Medical School.

Allowing for those who may be attached to the Bussey Institution or other exclusively graduate departments of the university, it is safe to say that between twenty and twenty-five of these eminent scientists are members of the Harvard Faculty of Arts and Sciences and are therefore accessible to the undergraduates in Harvard College.

The National Academy of Sciences includes only men engaged in mathematics and the natural sciences, and can, therefore, include only a fraction of the eminent scholars who are members of the Harvard faculties. These figures serve, however, to indicate the kind of opportunity which Harvard as a university-college extends to its undergraduate students. The creative scholarship of the teacher is what makes "higher education" higher than other education. It behooves universities to foster and conserve it, as it behooves students to appreciate it.—*Harvard Alumni Bulletin*.

SCIENTIFIC BOOKS

Die Säugethiere. Einführung in die Anatomie und Systematik der Recenten und fossilen Mammalia, von MAX WEBER, professor emeritus der Zoologie in Amsterdam. Zweite Auflage. B'd. I, Anatomische Teil, unter Mitwirkung von Dr. H. M. de Burlet, Prosector a. d. R.-Univ. Utrecht; B'd. II, Systematischer Teil unter Mitwirkung von Dr. Othenio Abel, Prof. d. Paläobiologie a. d. Univ. Wien. Gustav Fischer, publisher, Jena, Vol. I, 1927; Vol. II, 1928.

THE first edition of Weber's text-book on the mammalia was published in 1904, and has been of great value to both teachers and research students. Although dealing primarily with existing mammals, the treatment of extinct forms was exceptionally full and well evaluated. To students of fossil vertebrata it has been indispensable, owing to the clear, concise presentation, free use of tables and diagrams and well-balanced treatment of osteology and "soft" anatomy, taxonomy, distribution and fossil record.

The new edition, revised and enlarged, gives more extended consideration to the paleontology of the mammalia, which has been thoroughly and very ably revised and brought up to date by Professor Abel, whose brilliant researches and text-books have placed him in the forefront of modern vertebrate paleontology. The combination of the sound, conservative judgment and thoroughness of Dr. Weber's treatment of the older phase of the science dealing with modern

mammalia, brought well up to date with de Burlet's assistance and the thorough, liberal and sometimes radical review of the fossil evidence and its bearing upon the taxonomy and phylogeny of the mammalia given by Abel, appear to be well suited to the status of these two aspects of the subject. There is much that is new, as Dr. Weber points out, in our acquaintance with modern mammalogy. But its main outlines are fixed and the new evidence serves rather to confirm and settle doubtful points. Paleomammalogy, on the other hand, has been and is still advancing so rapidly and changing so much in major as well as minor features that an adequate treatment of it demands the insight and vision, the tolerance and breadth of view, the ready but provisional acceptance or initiation of new views and concepts, that we find so well displayed in Abel's work.

The student of paleontology will find in the volume an authoritative and accurate statement of what he especially needs to know about modern mammals, and a very complete and critical summary of the recent great advances in our knowledge of fossil mammals. The chapters contributed by Abel will assuredly provoke criticism on various minor and some important points. They are doubtless so intended. Only through such a process can the new knowledge be assimilated to the body of the old.

The first volume of the book, dealing with the anatomy of mammals in general, covers some four hundred pages in addition to bibliography and index. Of these more than half are devoted to the skeleton and skin, nervous and sensory systems. A rather brief treatment is given to the muscles and teeth, the reproductive system is more fully discussed, other features of the anatomy more concisely treated. These proportions are eminently suited to the needs of the paleozoologist, for whom the present reviewer feels qualified to speak. The systematic part forms a volume of 840 pages, preceded by a tabular classification and by lists of the European and North American Tertiary faunas and followed by a bibliography and index. The groups are taken up seriatim with diagnosis and discussion of the characteristic features of each, geographic distribution, taxonomy and past history.

The arrangement of the orders shows some notable differences from the previous edition, reflecting chiefly the better understanding of the relationships of various extinct groups. It is a point of interest that instead of increasing the number of orders Dr. Weber has found it advisable to reduce them from twenty-four to seventeen, making also certain significant shifts in the sequence. The Tubulidentata are wholly dissociated from the Edentate superorder and come