

so, but remain brown. I am anxious to trace the southern boundary of the region in which these animals make this change—become white. I should be grateful, therefore, if any naturalist, trapper, or other reader of this journal, who believes he lives near this sought-for southern boundary, would send me word upon a post-card, or by letter, whether the weasels in his locality turn completely white, or only partly so, or whether some turn and others do not; and also whether the change appears to him to depend upon the coming of snow—that is does its time vary with the comparative earliness or lateness of a season?

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SCIENTIFIC MEN AND PHONETIC SPELLING

TO THE EDITOR OF SCIENCE: Professor J. C. Arthur, of Purdue University, says in SCIENCE for October 10, 1913, p. 513:

He is a brave man who openly throws stones at another man's domicile, even if he justify the act as altruistic, knowing the proverbial danger incurred.

Professor Arthur thereupon bravely throws stones at Dr. Dabney, and now I wish to throw a few friendly stones at Professor Arthur, at Dr. Dabney and at most of the other eminent contributors to SCIENCE. True,

It is not the proper plan

For any scientific gent to whale his fellow man.

But throwing stones is not "whaling," and all scientific gents will agree that a mere philologist can not be himself a scientific gent according to the statute in that case made and provided.

Professor Arthur chides Dr. Dabney for using the phrase "fungus growth," though he would excuse the phrase if it were intended for "fungous growth," "with the *o* accidentally omitted." But suppose Dr. Dabney, like some other scientific men, for example Dr. Wilder, should spell the adjective *fungous* with the *o* intentionally omitted? Would that be a violation of "good English" or of "good grammar"? Many scientific men would say so. Other scientific men would not say so.

The point that I make is that many contributors to SCIENCE, in criticizing matters of language and grammar, ignore a much more important matter in the relation of science to language. Even the gentlemen who write long and interesting articles about nomenclature, and insist with vehemence on the retention of this or that name or spelling or misprint, because it happened so (surely a free and easy attitude in science), do not touch upon the vital point. Most of them, by their example, or by abstaining from utterance or action, are preventing the scientific discussion, and the scientific settlement, of important matters of language relating to science. That is, they will not consider or discuss, or help others to consider or discuss, in print, the scientific notation of the English language, or of other languages. By their conservatism, obscurantism, ignorance, indifference, apathy, hostility, fury, cynicism, geniality, orthodoxy, call it what you will (and it is some or all of these), they prevent the editors and readers of the journals of science from dealing with this important matter of science.

They may write to their journals about the pronunciation of this or that word, sometimes about the etymology of this or that word, but, usually what they write, or at least what is printed, is superficial, insufficient or inexact; in a word, unscientific.

The reason is, I suppose, that most of the orthodox men of science do not know anything, accurately, about the pronunciation of English words, or about the sounds of English, or about the sounds of any language. They do not know, and will not try to find out, what symbols they should or might use in order to indicate with accuracy the sounds they wish to indicate or to discuss. And even those who do know these things, and can use, with a pen, an adequate notation of sounds, can not present that notation in the pages of a scientific journal, unless by a special arrangement with a more or less reluctant editor or group of editors, or at an expense which the writer himself must meet. In short, the orthodox scientific men of the United States and of Great Britain are, in this

matter, either unscientific, or are prevented, by some of their orthodox leaders from being scientific, in what should be an elementary matter of science, namely the accurate ascertainment and the intelligible record of the sounds of the English language, and of the other languages used in science. They are thus hostile to the sciences of philology and phonetics; and some openly proclaim their hostility.

If any of your correspondents who may do me the honor to dissent from these views will attempt to state in *SCIENCE* (and I am sure that the editor would be willing to permit the experiment) the actual facts about the words which Professor Arthur mentioned, namely, *fungus*, *fungous*, and *fungoid* (or any other group of words offering like conditions); to state exactly, in print, the pronunciation which those words have or should have; to state exactly what is or what should be the plural of *fungus*; to state exactly the nature of the difference between *funguses* and *fungusses*; to state exactly the different pronunciations of *fungi*; to state also whether the word so spelled is Latin or English, and whether it is Latin or English in all its pronunciations, or in one—if any one will try to do this, and succeed in doing it without recourse to the abhorred science of philology, and the despised “fad” of phonetics, I should like to see the result.

Even in the much simpler matter of a modernized spelling of English, we find the scientific journals holding aloof from the scientific view, and clinging to an unscientific and medieval spelling, while, nevertheless, in their columns we find frequent jibes or jabs at other medieval superstitions, and at other popular errors.

Yet nearly one fourth of the men who are recorded in Dr. Cattell's biographic dictionary, “American Men of Science,” in the first edition, signed a card agreeing to use some simplified spellings, and thereby gave the idea the value of their approval. No doubt they still cherish the same sentiments. In fact, some of them cherish these sentiments so fondly that they are wholly unwilling to part with them, or to share them with the public.

So they wrap themselves in their intellectual integrity, put over that the cloak of scientific orthodoxy, and go about disguised as harmless men. And the directors of scientific societies and institutions sit and do likewise. Then they arise and print pretty things about science and progress.

And longer should I sing, but with a frown the editor, impatient, rises. Having thus laid myself open to a lapidation of my meter (which some scientific gents *will* spell “metre,” or die in the attempt), not to say of my orthographic orthodoxy, I blush and drop my sling—before I smile a sickly smile and curl up on the floor.

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SCIENTIFIC BOOKS

Gas Analysis. By L. M. DENNIS, Professor of Inorganic Chemistry in Cornell University. New York, The Macmillan Co., 1913. Pp. 434. Price \$2.10 net.

This book may perhaps be described as the American Hempel. It is based upon the translation of Hempel's last edition, but extensive additions have been made by the author. The reviewer has always considered the plan of publishing researches in a text-book open to question, even though this adds materially to the value of the book to the investigator. It would seem better to make them much more widely known by having the researches appear in a periodical.

It is fair to expect in a work of its size that it should be encyclopedic and that the latest work should be included. No mention however is made of Uehling's automatic apparatus for analyzing chimney gas; of the Sargent gas calorimeter; of Elliott's gas apparatus, which is probably the most widely used of any for illuminating gas; of Hinman-Jenkins's method for total sulphur; of Crafts's method for purifying mercury; of the excellent work of Burrell and others of the Bureau of Mines in analyzing mine gases; of the detection of carbonic oxide by birds and mice; of the absorption of hydrogen by palladium chloride; of the practical application of chimney-gas analysis and of the calculations involved.