decidedly in favor of acid phosphate as compared with either bone meal or phosphate rock. In Dr. Hopkins's article omission was made of the fact that in the table referred to —Bulletin 90, p. 89, Tennessee Agricultural Experiment Station—every $1.00 invested in acid phosphate gave on the average a calculated profit of $4.28 where the cowpea crops were turned under, and of $5.42 where they were removed for hay. Phosphate rock, on the other hand, gave by a similar calculation a profit of only $2.58 where the pea crops were turned under and the same amount where they were removed for hay. These results are the average of three series of experiments, one conducted for five years at the Knoxville Station, another conducted for four years at the Ford farm in Knox County and the third conducted for three years at the Weaver farm in Warren County.

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SOIL SOLUTION

IN an article on "Acidity and Adsorption in Soils as Measured by the Hydrogen Electrode,"[1] Sharp and Hoagland truly say, as far as the literature is concerned, "Our present methods do not enable us to study the soil solution itself" (p. 127), but the writer hopes that the Van Suchetelen and Itano method as developed in this laboratory will forward this study. Description of this method will be published soon by this station. The soil solution thus obtained is considered as closely representing the one in the soil. The writer is using this soil solution for bacteriological studies of soils and sees no reason why it should not be used in the study of other soil conditions. This method by which sufficient solution can be obtained for the study of chemical composition, physical properties, etc., should be an aid in the study of soil fertility.

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[1] *Journal of Agricultural Research*, Vol. VII., No. 3, 1916, pp. 123–143.

OLIGAEROBE, HISTANAEROBE

THERE has lately come into use the word microaerophilic[1] to designate the oxygen requirements of a class of microorganisms (*Meningococcus, Gonococcus, Bacillus abortus*) that require free oxygen for their growth, but which succeed best only when the oxygen is in less amount than it is in the atmosphere.

From the etymologic standpoint, the word appears fairly satisfactory, although μικρός is more applicable to smallness of size than quantity. It seems unfortunate that a word based on the form of the well-established aerobe and anaerobe was not coined. In its place I would suggest the word oligaerobe, from ὀλίγος, meaning few, with special reference to number or quantity.

For organisms like *Treponema pallidum* that require a small piece of sterile tissue added to the medium in addition to anaerobic conditions, the word histanaerobe would appear to be a suitable designation.

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FILEABLE ANNOUNCEMENTS OF NEW BOOKS

TO THE EDITOR OF SCIENCE: One who receives the numerous advertising circulars of book publishers is often at a loss to decide how much of this material to keep and how to file it, and the result is that when some particular information is wanted it is not always easy to get at it quickly. Having found the card system such a time and labor saver for such data as needs filing in a chemical laboratory, I have long wished that I might have a catalogue of all new books bearing on the subjects in which I am interested. It has seemed to me that the publishers in general would gain much if, instead of sending out the usual leaflets and circulars which vary in size and make-up as widely as the territory over which they are scattered, they would send out 3×5 cards giving the complete title, name of author, size of book, number of pages and of illustrations, table of contents, and a short paragraph indicating the scope of the work. If all publishers

[1] Dorland, The American Illustrated Medical Dictionary, p. 580, 1916. Cohen and Markle, *Jour. Amer. Med. Ass.*, Vol. 67, p. 1302, October 28, 1916.

sent out their information about new books in this form, the recipients could file the cards in any way which fitted their needs best and could feel reasonably sure of being able to find quickly the necessary information, when the need should arise. Printing some of the information on the reverse of the card should not be objectionable. One or two publishers have recently done a little along this line of advertising and doubtless many teachers have wished that publishers would introduce the plan generally. I am sending you this information in the hopes that publishers of educational books may have their attention brought to the desirability of putting their announcements in the form suggested. It should be a good business investment for them.

Wilhelm Segerblom

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The Phillips Exeter Academy,
Exeter, N. H.

QUOTATIONS

THE WORK OF THE AMERICAN ASSOCIATION

The meeting in New York this week of the American Association for the Advancement of Science and fifty other affiliated national scientific societies, is an event which ought to loom large in the minds of thoughtful people. Not only do the thousand papers and reports read at the various section meetings themselves represent a large part of recent scientific achievement, but the meeting and exchange of views between men occupied in different fields can not but stimulate and liberalize the great human effort to conquer the jungle of ignorance and prejudice that surrounds the little clearing of cultivated science. Yet despite the fact that the meeting this week gives due prominence to the chemical conditions of "preparedness," and other matters affecting our national prosperity, it does not seem likely that it will do much to shake the massive apathy toward the spread of science and scientific method which characterizes our educated classes. A large part of this apathy is due to the vague but widespread feeling that science no longer needs any champions, that since the days of Tyndal, Huxley and Youmans, it has conquered and taken possession of all our educational institutions.

Nothing could be farther from the truth. Compared with the provisions for scientific research in countries like France and Germany, ours are pitifully meager. The energy of our colleges and universities is primarily directed to increasing the number of students, buildings and degrees conferred. The professors are so loaded up with routine teaching and such an unconscionable amount of administrative work, that he who would engage in genuine scientific research must do so by stealth and at the expense of his health. Nor do we provide many incentives for that kind of work. The public reward and recognition extended to technologic promoters is out of all proportion to that extended to scientific achievement itself—witness the millions of people who have heard of Edison but not of Theobald Smith, or who think that Marconi invented wireless telegraphy. Probably thousands of Yale men have not heard of Willard Gibbs, one of the most creative minds in nineteenth-century science, whose work at New Haven was possible largely because he was a man of means and of good family. Perhaps the general cause of science might prosper more in this country if there were greater cooperation and less provincial isolation among the various groups of specialists. Thus the great meeting in New York this week is marked by the absence of all the social science associations, which meet in Columbus, Ohio. The separation between the social and the physical scientists can surely not be of any real advantage to either. At any rate the great outstanding and deplorable fact is that on the vital questions requiring their cooperation, *e. g.*, the effect of immigration or of the interbreeding of races we have multitudes of impassioned orations and sophomore essays, but nothing worthy of being called science. Thousands upon thousands of studies have been devoted by the historians to the German migrations of the fifth century. Can it be that recent events because we are in a position to know more about them are necessarily of lesser intrinsic importance?—*The New Republic.*