boss and in the amazing concentration of financial and industrial control in the hands of a few men. But that no need of our university world is keener than the need of an increase in the personal importance, dignity and self-assertion of the professor, we are profoundly convinced. And it is encouraging to note that on every hand when the issue arises sentiment is strongly manifested on the right side. The dismissal of Professor Ross from Leland Stanford found nowhere stronger condemnation than among men thoroughly out of sympathy with his economic views, but deeply conscious of the importance of professorial independence. The report recently made to the Carnegie Foundation by a mechanical engineer was at once recognized everywhere as a *reductio ad absurdum* of the idea that colleges and universities should be conducted on machine-shop principles. The attempt to get the maximum of efficiency at every point by the exercise of supervision and control, even when not carried to that ridiculous extreme, is destructive of that vitality upon which the true efficiency of a university depends, and which resides in the inherent personal qualities of its professors. It is the permanence of tenure of professors, the undisputed dignity and honor of their position, that have made the great universities of the old world what they are. And no substitute for the vitalizing influence of these essential elements can be provided by any amount of supervisory meddling or administrative perfection.—New York *Evening Post.*

SCIENTIFIC BOOKS

Conduction of Electricity through Gases and Radioactivity. By R. K. McClung. Philadelphia, P. Blakiston's Son & Co. Pp. xiv + 245.

Among the many books which have appeared upon this subject within the past five years this is the first which attempts to present a definite course of instruction "suitable for the less advanced student or undergraduate." The feature which differentiates it most markedly from other books and which gives it its great importance is the presentation of detailed directions for 125 laboratory experiments. The book is in fact built up about these experiments and any student who performs them all can scarcely fail to gain a fundamental grasp of the principles of gaseous conduction and radioactivity.

It may perhaps be questioned whether many undergraduates will be found who will have either time or ability to perform satisfactorily all of the experiments outlined—in fact, I confess to a suspicion that perhaps no one person has ever performed all of them, for I should estimate that that would be a task requiring four or five years of continuous work by a well-trained experimenter. Nevertheless, the book is a great boon for the student who is just beginning research in this field as well as for the instructor who is directing it, for it collects in compact, accessible form a multitude of practical points which are essential to successful experimenting, but which each individual experimenter has heretofore had to "dig out" for himself or else to obtain from some more experienced person by the laborious process of individual oral instruction.

The one danger which will have to be guarded against is that the student by virtue of being crowded too rapidly over the experimental ground covered by practically all of the important researches in this field of the past fifteen years does not develop the habit of very superficial experimenting. The book meets an important need and will doubtless receive wide use.

R. A. Millikan
Ryerson Laboratory,
University of Chicago,
December 28, 1910

Die Ernährung der Wassertiere und der Stoffhaushalt der Gewässer. Von August Pütter. Jena, Gustav Fischer. 1909. Pp. 168. Price M. 5.0.

Dr. Pütter's researches on the food of aquatic animals have called attention to a source of supply which had been almost or quite disregarded. Some of the views expressed in his earlier papers met with more or less criticism because the results obtained by other investigators were not always in accord