ical economics have become their presidents. A more recent movement in the selection of college and university presidents has shown a favoritism to political economists. Perhaps a combination may prove the best solution. A live wire carries energy; if insulated it is safe. Professional modesty forbids me from mentioning which is the wire.

A physical chemist sits as a member of the privy council of Great Britain and is helping in the readjustment of its politico-economic policy. A plain, but distinguished, chemist was for years a senator and member of the cabinet of France during its trying period of recovery from disastrous conflicts without and within. Our nation has been so blessed in natural resources that it has achieved a reputation for extravagance, national, communal and personal. "In times of affluence prepare for depression," is a trite rendering of an expression usually enunciated in simpler words. In recent times no chemist has had a voting voice in affairs at Washington. It was fortunate for our city that in a time of the fullest prosperity it should place in charge of its finances a chemist who had known the needs of laboratory economy and the benefits of earned prosperity. For he successfully applied those principles to the municipality in times of stress, and perhaps will yet apply them for the welfare of the nation. I have the honor of presenting the Comptroller of the City of New York.

Mr. Metz spoke of the important part the chemist plays in the control of structural work, the purchase of supplies, health and happiness of the community, and emphasized the reliance a large municipality should place in the chemical profession. He called attention to the immense saving to the City of New York which had come about through his establishing a chemical laboratory in conjunction with the department of finance. He expressed his obligation to his course in chemistry in the Cooper Union, and the gratification of the city officials at present in power in having had a part in completing the handsome buildings of the college of the city where the high and low alike might secure adequate preparation for their life work.

In presenting the Honorable James W. Hyde, the secretary of the board of trustees, Professor Baskerville referred to Mr. Hyde's reluctance to appearing too prominently at public functions where such striking evidence of his remarkable executive capacity was to be seen on every hand. After thanking those who had come for their presence, Dr. Baskerville said: "Come again. This college and its every department is yours. It belongs to you, to me, to every man, woman or child of our great city, who pays taxes or rent, and you have a right to know whether we keep the faith."

Mr. Hyde then formally opened the building and declared it fit for the use for which it was devised.

At the conclusion of the exercises, an informal reception was held by the speakers and the laboratory was inspected by parties under the direction of the various members of the staff.

SCIENTIFIC BOOKS

Conductivity and Viscosity in Mixed Solvents. By Harry C. Jones, Professor of Physical Chemistry in the Johns Hopkins University, and C. F. Lindsay, C. G. Carroll, H. P. Bassett, E. C. Bingham, C. A. Rouiller, L. McMaster and W. R. Veazey. Carnegie Institution of Washington, Publication No. 80. Pp. v + 235.

In this volume are presented the results of an extended series of investigations on the electrical conductivity and viscosity of solutions of certain electrolytes in water, methyl alcohol, ethyl alcohol and acetone; and in binary mixtures of these solvents.

The conductivity measurements have brought to light a bewildering range of behavior on the part of the solutions studied. In the first place, it appears that in practically all mixtures into which water enters as one of the constituents of the solvent, the molecular conductivities show a minimum value for a certain composition of the solvent. In the second place it is shown that in mixtures of the alcohols, the conductivity follows the law of averages, that is, the conductivity of solutions in such mixtures is usually approximately the mean calculated from the conductivities of equimolecular solutions in the pure solvents. Finally, in mixtures of the alcohols with acetone, the molecular conductivities generally show a maximum value for certain mixtures.

These relations, however, hold only in broadest outline; so complex indeed are the observations that it would be useless to attempt an account of them in the limits of a review.

As the result of a long series of measurements of viscosity of mixed solvents and their solutions, there has been shown to exist a parallelism between the fluidity—that is, the reciprocal of the viscosity—of a solvent and the conductivity of its solutions, whence it is concluded that electrical conductivity is largely dependent upon the fluidity of the solvent. The parallelism between fluidity and conductivity is shown to be only approximate, however, for upon the effect of fluidity on conductivity is superimposed the effect of the degree of dissociation of the solute and also the size of the sphere of solute which is assumed to be in combination with the ion and to affect the speed with which it travels through the solution.

The experimental results are discussed at length and hypotheses are offered in explanation of the diminished fluidity of the solvent mixtures containing water; of the increased fluidity of certain mixtures of the alcohols and acetone; of the approximately normal behavior of mixtures of the alcohols with respect to fluidity; of the obvious dependence of electrical conductivity on fluidity; of the observed deviations of the conductivity curves from the fluidity curves; of the effect of temperature on the conditions prevailing in solutions in mixed solvents; of the effect of the presence of ions of high atomic volume on the viscosity of solvents; and of what seems to be the greater ionizing power of certain mixed solvents over that of either constituent of the mixture.

Altogether a very extended series of relationships have been discovered and a number of ingenious hypotheses have been offered which are certainly of the greatest importance as contributions to our knowledge of solutions.

E. C. FRANKLIN

Elementary Experiments in Psychology. By CARL F. SEASHORE, of the University of Iowa. Pp. 218. New York, Henry Holt & Co. 1908.

Had this very valuable manual appeared a few weeks earlier, a notice of it would have been incorporated in the review of Professor Judd's handbooks of psychology (SCIENCE, May 15, 1908). Like the Judd volumes it testifies to the increasing need of serviceable handbooks for the presentation of the experimental attitude to students of mental processes. Like the Witmer handbook, Professor Seashore's manual contains within its own covers (with the aid of a few simple properties to be found in every household) a considerable range of experiments illustrative of psychological principles. Unlike the Witmer volume, it is not at the same time a text, but merely a companion manual to any text or course. It should be said with the brevity as well as with the emphasis characteristic of the book itself that it accomplishes its purpose with exceptional skill. Its appeal is to a very general clientele. There is hardly a course in psychology so brief or elementary as not to make possible the introduction of the experimental method on the scale provided by Professor Seashore. Let it also be said that while the scope of the work is elementary, its spirit and discernment are sufficiently advanced to arouse in all disposed thereto a proper "student" psycho-