

admissibility of evidence up to the constitutionality of the act is vigorously and skilfully contested on the defendant's behalf. The stress of the contest and the progress of the pure-food movement are such, moreover, that nearly every session of the legislature witnesses some change in the letter of the law that anew requires judicial construction; while decisions on established phraseology are being handed down by the bench in every commonwealth and by the federal courts. Furthermore, where the laws have assumed the civil form, the losses of cases arising from the unskilful preparation of the original records in the magistrates' courts and from the imperfect transcription of these records, have been sufficiently serious to warrant the employment of skilled legal assistance in even the first stages of the prosecution.

There is need therefore not only for legal aid of a high order, but also for the services of lawyers who have given special attention to food laws, the decisions relative thereto, and the general nature of the evidence they must elicit for the proper conduct of their cases. The public analyst should never be made to appear as the prosecutor, but should always be protected from the appearance, as well as the reality of such an attitude. His duty is that of the impartial judge within his own peculiar sphere, not that of the attorney.

For the reasons just set forth for the employment of skilled counsel in the service of food controls, it is likewise clear that the public analyst requires, if he is to be fitted for the highest usefulness in his sphere, special preparation for his forensic duties. It is to be hoped that on this side of his work, some manual will soon be written that shall have in that respect the same high degree of excellence that Mr. Leach's book exhibits on the laboratory side.

WM. FREAR

STATE COLLEGE, PA.,
February 8, 1910

SCIENTIFIC JOURNALS AND ARTICLES

The Journal of Pharmacology and Experimental Therapeutics, Vol. 1, No. 3, issued Oc-

tober, 1909, contains the following: "Experimental Criticism of Recent Results in Testing Adrenalin," by W. H. Schultz. The dilation time is a better index of the relative physiological activity of two adrenalin solutions than is the degree of mydriasis. "On the Relation between the Toxicity and Chemical Constitution of a Number of Derivatives of Choline," by Reid Hunt and R. deM. Taveau. Choline has been found widely distributed in plants and animals, but its function in the organism is yet unsolved. These authors point out that 0.00000001 gram acetyl choline will cause a fall in blood pressure and is only slightly toxic, so that its possibility in therapeutics, perhaps as a substitute for the nitrites, is suggested. "The Action of Adrenalin on the Pulmonary Vessels," by C. J. Wiggers. The difficulties in solving the problem are brought out. "A Clinical Study of Crystalline Strophanthin," by H. C. Bailey. Crystalline strophanthin is a valuable cardiac stimulant in broken compensation due to chronic interstitial nephritis or valvular heart disease. It should not be repeated in twenty-four hours. "The Life-saving Action of Physostigmin in Poisoning by Magnesium Salts," by Don R. Joseph and S. J. Meltzer. Physostigmin is capable of efficiently antagonizing some of the toxic actions of magnesium salts. This is mainly by its action on the respiration. "Note on the Amanita-Toxin," by W. W. Ford and I. H. Prouty.

Number 4 of the same journal issued January, 1910, contains the following articles: "Action of Urea and of Hypertonic Solutions on the Heart and Circulation," by J. A. E. Eyster and A. G. Wilde. In the mammal there is no striking difference evident and the effects of sodium chloride and glucose would seem to be approximately equal to those produced by a solution of urea of equal concentration. "The Inhibitory Action of Phenol on Absorption," by T. Sollmann, P. J. Hanzlik and J. D. Pilcher. Phenol checks intestinal absorption. This is proportionate to the amount of phenol absorbed. "On the Toxicity of Dextro-, Lævo- and Inactive Camphor," by W. E. Grove. The dextro- and lævo-rotatory

camphors differ only quantitatively in action. "Apparatus for Recording the Outflow of Liquids," by W. R. Williams. The mechanical description of an efficient method of recording secretions in physiological work.

RECENT PROGRESS IN METEOROLOGY AND CLIMATOLOGY

THAT interest in meteorology and climatology is increasing is shown by the advancement made within recent years, in the instruction offered in these fields by American colleges and universities. A comparatively few years ago only a few of the larger eastern universities included such courses among their sciences. At the present time, however, nearly every institution of note offers such electives, while in most agricultural schools these studies are included in the prescribed work. In some institutions, such as the Universities of Iowa and of Wisconsin, the courses are included in the work offered by the department of physics, while in others, notably Harvard and the University of Minnesota, they come under the supervision of the department of geology. A typical example of the rapid growth of interest in these sciences from an educational point of view is seen in the history of the courses in the last named institution. The first course in meteorology at the University of Minnesota was given by Professor C. W. Hall, head of the department of geology, in the spring term of the year 1906-7. This was a half-year course in elementary meteorology and the class numbered ten students, all of whom were juniors or seniors in the academic college. The numbers have grown and the interest has increased to such an extent that during the present school year a course covering one year, and including climatology, has been instituted by Professor E. M. Lehnerts, of the same department, who now has charge of the work. The class in the latter course now numbers seventy-six, of whom forty-seven are juniors and seniors in the academic department, and twenty-nine are freshmen and sophomores in forestry and agriculture.

THE last number of the United States Weather Bureau's *Monthly Weather Review*

in its accustomed form has recently been issued. As announced by Professor Willis L. Moore, the chief of the bureau, on March 12 last, the *Weather Review* will hereafter be "a monthly report of the weather and climatology of the country, and there will be excluded from its pages everything technical that is not of a purely climatological nature or a current report of weather conditions." While the change was doubtless made after careful deliberation, it is a change that students of meteorology will regret nevertheless, as it leaves the United States without a single meteorological journal of any kind. Although various American journals contain notes from time to time in meteorology and climatology, no magazine is devoted exclusively to these sciences, as are several in Europe. With our extensive weather service and with the increased interest in these fields within recent years, it would seem that the time is now ripe for the institution of a new journal as a private enterprise. Indeed, it is not improbable that the deceased *American Meteorological Journal* would meet with a hearty welcome if it should be resurrected.

Senór V. Castaneda, of the Mexican Weather Service, recently visited the United States for the purpose of studying the methods of distributing weather forecasts, storm warnings and the like, and also of the carrying on of other routine matters of a meteorological service. He spent part of September in the central office of the United States Weather Bureau in Washington, and then visited other stations of the bureau, going as far north as Boston, where he visited the Blue Hill Observatory. He is the second representative of the Mexican bureau to visit this country in such a capacity—the head of the service, Senór Manuel E. Pastrana, having been here for a considerable period three years ago. The object of his mission was to study the scientific basis of weather forecasting and the acquiring of the data from which the forecasts are made. The Mexican Weather Service has done some very creditable work, aside from the daily routine, the most important probably having been the preparation of a cloud