CORRESPONDENCE

AMERICAN PHARMACEUTICAL ASSOCIATION CONTRIBUTIONS TO SCIENCE.

It is quite unusual to have the opportunity and privilege, in the same issue of the JOURNAL, of recording the appreciation and recognition of European authorities relative to the research of two of our members.

* The introduction of the contributions of Solvents in Pharmacy, published in the JOURNAL OF THE A. PH. A. in 1917, explains the connection of the later articles by Prof. J. U. Lloyd with those of the PROCEEDINGS OF THE A. PH. A. in the volumes of 1879–1885. During the earlier years Prof. Lloyd contributed a series of papers entitled "Precipitates in Fluid Extracts." This cosmopolitan text enabled him to enter into any desired phase of plant pharmacy manipulation; the study chiefly concerning physics as applied to or involved in pharmacy. Dr. Wolfgang Ostwald recognizes the work of Prof. Lloyd as the foundation of colloidal chemistry.

Dr. Ostwald asked for permission several years ago to reprint the articles in question because of their importance in the fundamentals of colloidal chemistry. In commenting on the reprint Dr. Ostwald said, "It has not been customary heretofore to print in *Kolloid Zeitschrift und Kolloidchemischen Beihefte* reproduction of already printed articles. The Editor, however, is of the opinion that the greater number of the readers, after the study of Lloyd's treatise, will share his views that we are here confronted with an even unusually original communication."

Professor Ostwald has continued his studies of the work of Professor Lloyd and the latter has prepared his investigations of a half century ago for publication in the JOURNAL so that this important work will be on record. Professor Ostwald writes that "modern physical chemistry confirms and proves in a beautiful manner the observations Professor Lloyd made so many years ago." He also has suggested that owing to the importance of having it recorded authoritatively, the table contributed to the JOURNAL A. PH. A., 1917, should not be overlooked.

The following is printed in compliance with the suggestion. Reference is made to Table I, p. 137, JOURNAL A. PH. A., February, 1918, together with Dr. Ostwald's comments; the table is increased by two series of figures. "These represent the values of two very general physico-chemical properties of liquids; *e* the so-called *Dielectric constant*, and *m* the so-called dipole moment.

"In reality they are both electrical quantities, the latter of which is entirely modern, *i. e.*, being only a few years old. But the newer theory of matter is more and more in need of such electrical quantities, and makes better headway with them than with the physico-chemical properties heretofore used.

"The figures given show this: The 3 classes of solvents found by you experimentally correspond to 3 classes having Dielectric consts. *e* of different order of magnitude. Class I contains exclusively liquids with high values for *e*. Class II with intermediate, and Class III only liquids with the smallest dielectric consts. thus far known. Hence Lloyd's classification corresponds exactly with one which the modern theory of liquids would make on a theoretical basis, and it again furnishes handsome proof of the exactness of Lloyd's purely experimental work, demonstrating also how far he is able to reach in this manner, although such proof is almost superfluous to one who is acquainted with his work.

"According to latest investigation, however (in which Dr. Ostwald has a rather considerable share), the constant *e* is not sufficient in characterizing in all cases the physico-chemical behavior of liquids. Another, sometimes even more important constant is *m*, the magnitude of the so-called dipole moment. These figures in Table I tell us the following: Class III (so-called isolating liquids) has not only the smallest known values of *e*, but also the smallest values of *m*.

"Conversely, Class I has intermediate values of *m*, although the highest values for *e*. Of especial interest, however, is the middle Class II. Acetone, then amyl alcohol, have exceptionally high dipolar values. That for acetone is one of the highest that are known for liquids in general use; a value still higher is possessed, *e. g.*, by nitrobenzene. This is not considered accidental at all that the conspicuous position of acetone as a solvent, which Lloyd has so well emphasized,

* Quotation from an address by E. G. Eberle before Maryland Pharmaceutical Association, printed in the *Maryland Pharmacist*.

is closely linked with this high value for the dipolar moment. Thus also in this respect his observations were confirmed by the most modern development of the physical chemistry of organic liquids.

Of course in giving this numerical characterization of the phenomena, their theory is not explained. The table follows. Dr. Ostwald will send studies in which such figures are given for about 250 liquids.

	E	*U*	
Class I abt.	43	?	1. Glycerin
	81	1.7	2. Water
	26	1.6	3. Alcohol (water)
	31	1.5	4. Methyl alcohol
Class II.	20	2.7	5. Acetone
	5	1.1	6. Chloroform
	16	1.8	7. Amylic alcohol
	?	?	8. Acetic ether
	4	4	9. Sulphuric ether
Class III.	2.2	0.1	10. Benzol
	2.6	? (x)	11. Carbondisulphide
abt.	2	? (x)	12. Benzine
abt.	2	? (x)	13. Turpentine oil
abt.	2	? (x)	14. Liquid petrolatum.

(x) very small
e so-called dielectric constant
u Dipole-momentum

AN OPEN LETTER TO THE PUBLISHERS OF THE *ARCHIV FÜR EXPERIMENTELLE PATHOLOGIE UND PHARMAKOLOGIE* BY DR. DAVID I. MACHT, BALTIMORE, MD.:

"PERMIT me to call attention in this place to the gross neglect of three authors who have recently published in your journal to give at least a passing notice to American literature concerning the problems on which they have been working. As it happens that the three papers to which I am referring have each failed to mention the priority of the work which I, myself, have done, I wish to take the opportunity of correcting the false impression thus produced and in this way also at the same time to speak for a more diligent international coöperation in respect to quoting scientific literature. As I am fully aware, English-speaking writers have been guilty of the same negligence.

"In volume 124, page 245, a Japanese Dr. Kayaga published an article on the oil of *Sabina*. He makes no reference whatever to an extensive research which I have done nearly fifteen years ago on emmenatogue oils, including the oil of *Sabina*, and which was published in the *Journal of Pharmacology and Experimental Therapeutics* (1912), volume 4, page 547, and in the *Journal of the A. M. A.* (1913), volume 61, page 105. Kayaga's work is practically a repetition of mine and his results show very little that is new.

"Again in *Schmiedeberg's Archiv*, volume 126, page 307, Dr. Poos published an article on experiments with the isolated iris muscle and describes a method seemingly original. In this paper he gives no reference at all to my extensive work on the subject in which I believe I was the first to utilize the method of isolated iris muscle. My work was published in the *Archives internationales de pharmacodynamie* (1922), volume 22, page 175, and JOURNAL OF THE AMERICAN PHARMACEUTICAL ASSOCIATION (1922), volume 11, page 882.

"Now in a very recent number of the *Archiv*, volume 127 (January 1928), page 174, we read another contribution, Über das Zusammenwirken der Opiumalkaloide am Atemzentrum, by Dr. Alexander Rikl in which he states that the effect of opium combinations on the respiratory center has been studied very little and then goes ahead to describe his seemingly important experiments. As a matter of fact thirteen years ago in 1915 in the *Journal of Pharmacology and Experimental Therapeutics*, volume 7, pages 339 to 373, I have published an elaborate contribution entitled 'Ac-

tion of the Opium Alkaloids, Individually and in Combination with Each Other, on the Respiration,' in which I have employed not only the method of Dreser and Impens which Rikl used, but also metabolic studies and perfusion experiments on the medulla. This work has been widely quoted and I find that it is cited directly in the 1920 edition of Meyer and Gottlieb's Experimental Pharmacology which I have before me on page 381.

"This communication is written as an appeal for a closer mutual study of international literature in connection with scientific investigations, at least in the medical field. Far be it from me to belittle the work of the esteemed writers mentioned above, and I hope that they will accept this correction in a proper and friendly spirit."

The following comment is expressive of the fair-mindedness and high ideals of the *Archiv.*

P. S.—As we have an international interest we recognize the question raised in the above and as we also seek to reciprocate, we do not hesitate to submit the letter to our co-workers, and contributors.

STATE ASSOCIATION OFFICERS.

WEST VIRGINIA.

Among the speakers at the West Virginia meeting held at White Sulphur Springs were the following: Clyde L. Eddy, J. C. Peacock, Jerry McQuade, Herbert R. Mays.

Among the topics discussed at the Round Table were state and national legislation, prohibition and narcotic regulations and pharmaceutical ethics. Plans were formulated for presenting a new pharmacy law which is to include the professional public health bill.

Morgantown was selected for the next place of meeting and the following officers were elected for the ensuing year:

President, S. Monroe Bledsoe, Beckley; *First Vice-President,* Earl Fortney, Fairmount; *Second Vice-President,* Robert R. Pierce, Richwood; *Third Vice-President,* Carl Kesling, Richwood; *Secretary-Treasurer,* J. Lester Hayman, Morgantown.

WISCONSIN.

Hon. Clyde Kelly addressed the Wisconsin Pharmaceutical Association at their annual meeting held at Greenlake June 26th to 28th. Other speakers were Robert J. Ruth on "Chain Stores and the Narcotic Laws." The Vice-President of the AMERICAN PHARMACEUTICAL ASSOCIATION, Alfred W. Pauley, represented the A. PH. A. and also spoke on "The Work of the Druggists' Research Bureau." Secretary S. C. Henry spoke for the N. A. R. D. Other speakers were Dr. Edward Kremers of the University of Wisconsin and Hon. Henry Staab, member of the Wisconsin Legislature.

The inspector of the Pharmacy Board reported that 762 stores had been inspected during the year; that there were 21 prosecutions, 11 convictions, and 8 cases still in court. The resolution adopted provides for a chairman of the Association in each Congressional District with power to appoint sub-committees to work in the interest of Association activities.

The Veterans' dinner held during the Convention was largely attended.

The next meeting of the Association will be the 50th anniversary, and this brings the suggestion that it might be a good idea for all of the state associations that have arrived at the 50th year to have some features of the Jubilee celebration in common. As the AMERICAN PHARMACEUTICAL ASSOCIATION encouraged the formation of State Associations, and has continuously given them encouragement, recognition in some form might be given it.

The following officers were elected for the ensuing year:

President, William G. Rheineck, Milwaukee; *Vice-Presidents,* Clarence Andrae, Adams; B. F. de Hosson, Greenlake; Oscar B. Olsen, Superior; *Secretary,* E. B. Heimstreet, Lake Mills; *Treasurer,* Hugo F. Wussow, Milwaukee.

Greenlake was selected for the next place of meeting.

DRUG BUSINESS GOOD IN ENGLAND.

The demand for essential oils, drugs and chemicals is approximately the same in England as in the United States and the demand for drugs and medicines is probably somewhat larger relatively, as the mass of the population suffers more from slight illness than do people in the United States.

Cosmetics and perfumes are much less used than in the United States and the demand for basic materials for such preparations is considerably smaller. The demand for all products of the pharmaceutical industry is in the main supplied by domestic manufacturers.