Reports of A. Ph. A. Committees

REPORT OF THE COMMITTEE ON WEIGHTS AND MEASURES.

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During the past year much has been accomplished in the matter of popularizing the metric system of weights and measures. Here in the East, physicians are employing the metric system in prescription writing to a greater extent than ever before.

Medical schools and colleges are at least bringing this system to the attention of their students, something that until recently was not the practice, excepting in some instances.

Students of the medical schools were taught the doses of the various preparations in both systems, it is true, but they rarely understood the simplicity of the metric system. The simple relations of this system of weights and measures were not explained to them, and consequently only a very limited number of medical practitioners employ this system in prescription writing.

A teacher at a medical school when asked why so little attention was given to this matter, stated that the student was expected to know all about weights and measures, including those of metric origin, before entering upon his studies, and that the curriculum of the school did not provide any time for this, from the medical standpoint, very unimportant matter.

Every effort should be made to induce the teachers in medical schools to adopt the metric system in their teachings, so that in time we may hope that the physician will be more familiar with its terms, and no longer consider it unimportant.

It is hopeless to expect the older practitioner, who during the entire course of his practice has written his prescriptions in the terms of the ordinary system, to become a convert to the metric system. He thinks in grains and ounces and will always continue to do so.

How unimportant the metric system seems to many of the teachers in the medical schools, may be illustrated by the following:

One of these teachers in explaining the metric system to an inquiring student, especially as related to prescription writing, stated as follows:

First: The gram is always to be considered the equivalent of 16 grains.

Second: A two-ounce mixture is the equivalent of 60 cubic centimeters.

Third: A two-ounce mixture equals 16 teaspoonfuls.

Therefore, if you desire to prescribe a given drug in one-grain doses, write for one gram, if in one-half grain doses, write for one-half gram, etc. The result of

this teaching was that the student, afterward the practitioner, was able to write, according to the rule laid down, a two-ounce mixture in metric terms. When he desired to prescribe a three or four-ounce mixture, the rule had to be changed, and this being too troublesome, three or four-ounce mixtures were written in the ordinary terms.

Propaganda work endeavoring to bring about more harmonious relations between the members of the medical and pharmaceutical professions, has done considerable to bring the metric system before the practitioner. This movement has to a great extent popularized the U. S. P. and N. F. preparations in many localities. Physicians have had their attention directed to the manner in which these preparations are manufactured, thus becoming acquainted to a greater or lesser extent with metric quantities and terms. Stating the average dose in metric terms, as is done in the U. S. P., has also been of some assistance.

There remains, however, still much work to be done if this system is to finally become our universal standard. It must not be forgotten that there are those who oppose its adoption most strenuously.

This missionary work for the popularizing of the metric system will have to be done among a certain class of pharmacists, as well as among physicians. I am afraid that some of our schools of pharmacy do not give the proper time and attention to the study of this system. I have found quite a number of pharmacists, some of them graduates, who, rather than provide themselves with an accurate set of metric weights and measures, prefer to convert, usually with the assistance of a table, metric terms into their equivalent in the other systems. Not only is this the case when compounding prescriptions, but holds true in manufacturing operations as well.

The pharmacist who when manufacturing 1000 grams of liniment of camphor, U. S. P., would rather employ 7 ounces av. and 24 grains of camphor and 28 ounces av. and 96 grains of cottonseed oil, than 200 grams of camphor and 800 grams of cottonseed oil, is still with us.

I believe that much good would result, if the topic of popularizing the metric system were more frequently discussed on occasion of pharmaceutical meetings, particularly those of the local branches of the American Pharmaceutical Association.

Schools of pharmacy likewise should more energetically advocate the use of the metric system. In some of the schools the student is supplied with metric weights and measures, which he is obliged to use, as occasion requires, during his course of instruction.

The cost of such weights and measures need not be prohibitive, as they are not required to be of the expensive type. I have never found a student who objected to the extra outlay, when the necessity for it was made apparent to him. After graduation the student takes the weights and measures with him, and if he has been at all careful in their use, they are still serviceable. I know of an instance where a young man obtained a position as clerk soon after graduation, and taking his weights and measures to his quarters, which adjoined the pharmacy where he was to be employed, was surprised to find that the weights and measures he owned

were the first metric ones that had ever been in such close proximity with this particular establishment.

More attention should also be given to the care and preservation of weights. Particularly such as are employed in prescription compounding should be the objects of special care. Such weights should be restandardized as occasion requires, or new ones, which are accurate, procured. I have note of an instance where a drachm weight was the equivalent of only 55.4 grains, and a scruple weight the equivalent of 18 grains. Other such instances are perhaps not at all uncommon.

The authorities all over the country seem to have awakened to the necessity of a more careful supervision and examination of weights and measures employed in ordinary commercial transactions. Here in New York, during the past winter, on occasion of a pure food and drug exposition, the Bureau of Weights and Measures exhibited a very large number of weights, measures and scales, which had been confiscated. In practically every instance gross fraud was being intentionally practiced, and much ingenuity was employed to make the fraudulent practices seem honest.

In conversation with one of the officers in charge of this exhibit, it developed that the pharmacist was about the only one who did not indulge in these fraudulent practices. He stated that he had examined the scales and balances employed in a number of pharmacies, and had found them all standard. In some cases he had discovered a slight deviation in weights, but in no single instance did any evidence of fraud appear. Prof. Johnson, a member of this committee, reports a similar condition for the West.

WAR AS A STIMULUS TO PREVENTIVE MEDICINE.

In the splendid address with which President Taft opened the International Congress of Hygiene and Demography, he made a very significant statement, which contains food for thought. It was this: The greatest impetus preventive medicine has ever received in this country, and perhaps in any country, came from the Spanish-American War. What we have learned concerning the causes of disease and its prevention, as a more or less direct result of that war, has revolutionized sanitary medicine. If we have gained nothing else, the knowledge thus obtained is well worth all that the war cost us.

This is a strong statement—but isn't it true? As a direct result of the Spanish War we have the development of the mosquito-theory of the transmission of yellow-fever; the eradication of yellow-fever from Cuba; the demonstration at Panama of the possibility of eradicating malaria in the tropics *and at home;* the practical solution of the problem of typhoid fever in military camps and the evolution of preventive vaccination against typhoid fever; and a modification of quarantine methods for plague, cholera, smallpox, and all the rest, with wonderful increase in efficiency.—*American Journal of Clinical Medicine.*