until a miscarriage occurred twelve months since. This was accompanied with considerable hæmorrhage. Since that time the catamenia have recurred profusely every two weeks. A week before admission the hæmorrhage was so abundant as to induce syncope, and the flowing still continues, sometimes more, sometimes less. Vaginal examination revealed a fibroid about the size of a hen's egg, attached by a distinct pedicle within the cervix near the internal os. This being drawn down and removed the hæmorrhage ceased immediately, and not recurring for a week the patient was discharged well.

FLUID WEIGHTS IN PRESCRIPTIONS.

MESSRS. EDITORS, — The JOURNAL of March 8th contains a communication signed E. T. R., in which the continuance of the practice of dispensing liquids by measure is advocated. Permit me as one of the few who as yet have publicly taken the opposite view briefly to lay the arguments of the other side before your readers.

The reasons assigned by E. T. R. for his side are (1) "much greater convenience for all parties concerned," and (2) "accuracy entirely sufficient for all practical purposes." I agree with the second proposition, because all doses of medicines are at best only approximations to the quantities actually required; but the fact that one has done well is no reason why he should not do better, and I am pleased to notice that E. T. R. indirectly concedes the greater accuracy of the other way.

In regard to the first reason, it will be granted that the "parties concerned" are the patient, the pharmacist, and the physician, to the first of whom it does not make the slightest difference how the liquids are dispensed, because he will have to continue to take mixtures by the conventional teaspoon or some other convenient measure. The pharmacist, however, will encounter some inconvenience if the proposed change is made; he will have to unlearn some of his accustomed practices, and become proficient in others to which he is not accustomed, but after that has been accomplished, we believe that he would not like to change back again to the present method, even if he were permitted to do so.

The physician is in a precisely similar position to that of the pharmacist, only that in the case of the latter, methods of manipulation are the main difficulty, while with the former the apportionment of doses is the chief or rather the *sole* obstacle to be overcome. Neither the one nor the other will exist for those who may join either profession after the change shall have been adopted; for it will be just as easy, and I think easier, for the physician to remember the doses of tinctures, syrups, etc., by weight, because they will have been made in fixed proportions by weight only. However, the opposition to the proposed change arises perhaps mostly from the mistaken notion that physicians could not estimate the volume of a liquid medicine prescribed by weight. On reflection it will be granted that, practically, but two classes of liquids deserve consideration as general vehicles forming the bulk of the mixtures usually prescribed, namely, waters and syrups, and their relation to

each other as to weight is so well known to every intelligent person that the physician will have no trouble in using it for his purposes with greater mathematical precision, remembering merely that the one class is one third heavier than the other. The specific gravity of tinctures made with diluted alcohol, which constitute sometimes the principal volume of liquid medicines, is so near that of water as to be practically the same, and liquids which vary materially from the specific gravities of the two classes mentioned above are never prescribed as ingredients of mixtures in such quantities as materially to influence their bulk beyond what would be produced by the same weight of water or syrup. On reflection, I think E. T. R. will grant that he urges merely personal and temporary inconvenience as an argument against the proposed change, which I freely admit.

The above considerations, however, point to the greater exactness and convenience of weights over measures in the prescribing and dispensing of liquids after both physicians and pharmacists shall have accustomed themselves to the change. For the wholesale drug and chemical trade this has long since been recognized, and has even, to some extent, been admitted by our national Pharmacopœia in the last two editions. If correct for one half the liquids, why not for all? But there is another point which is generally overlooked by the opponents to the proposed change, namely, the fact that all civilized nations except those speaking the English tongue prescribe and dispense all medicinal substances by weight alone, and that by adopting the same course the scientific intercourse between the different nations will be greatly facilitated.

In the *American Journal of Pharmacy* for February I have discussed these points at some length, and have also shown that the physician may gradually accustom himself to the change, either by using the tables there given in converting the measures of different liquids into their corresponding metric weights, or by directing the apothecary to dispense them by this weight after converting the weights and measures now in use into grammes.

Mr. Alfred B. Taylor, in the *Philadelphia Medical and Surgical Reporter*, February 24th, in a paper bearing the title of this communication, proves likewise the greater convenience and accuracy in prescribing and dispensing liquids by weight; but he suggests that the mixture be made up to a desired bulk by adding a sufficient quantity of the vehicle or adjuvant. The plan will answer very well as a compromise for those physicians who from long habit have become so wedded to measures that they cannot discern the simplicity of apportioning by weight alone the doses of such medicines as have to be taken by the spoonful.

For those who are acquainted with the subject, no argument is needed to prove that the reasons for preferring in many cases volumetric to gravimetric analysis do not apply to the dispensing of medicines.

Very respectfully yours,

JOHN M. MAISCH.

PHILADELPHIA, March 17, 1877.}