

are extant, seems to be to place Hydrobromic Acid among the list of chemicals only obtainable from manufacturing chemists.

Solution of Hydrobromic Acid thus prepared is a limpid, colorless odorless liquid having a *very* strong acid taste and the specific gravity of 1.274. Fifty measured minims would be the Bromine equivalent of 30 grains of Bromide of potassium. Fothergill and Wade both state, however, that in practice the Acid is effective in much smaller doses than its equivalence to the Bromides would indicate, which corroborates the opinion previously formed by Dr. Squibb. Dr. Squibb, speaking from the limited experience of the physicians in contact with him, says it would appear that the dose needed for a prompt sedative effect is from 15 to 25 measured minims and even larger. This dose, it must be borne in mind, only refers to the acid when prepared by Dr. Squibb's process, which being so concentrated, has the very great disadvantage of being extremely acid; in fact, so much so, that 15 or 20 minims require at least 2 ounces of water with syrup to make it agreeable.

Dr. Wade, of Holly, Michigan, who may justly claim to have introduced this chemical to the practical notice of pharmacists and physicians, differs from Dr. Squibb as to the best formula, stating with justice there is no necessity for complicated formulæ requiring special apparatus and time, when simple ones will do quite as well, and reiterates in a recent letter to a New York Pharmacy Journal the assertion, that many physicians not only use this acid, to the exclusion of the Bromine Salts, but also for many purposes where the latter would not produce similar results.

The following is the formula which was originally proposed by Dr. Wade, and to which he alludes in his letter of March last:—

℞ Potassii Bromidum, ʒi oz. avoirdupois.

Acid Tart. Crystals, ʒi oz. “

Water, 40 fluid oz.

Dissolve the Bromide and then the Acid in the water; keep in a cold place until precipitation ceases and decant. This contains 10 grains of Bromine in each fluid dram, and as an unobjectionable impurity about 1/4th of a grain of Potass. Bitart. in each dose.

The Acid, thus prepared, is the kind in general use in this city, and it has been found to answer the expectations of prescribers. The average dose for an adult, according to Dr. Wade, is half a fluid drachm well diluted. A mixture containing one ounce of Hydrobromic Acid (Dr. Wade's formula) with two ounces of syrup of orange and sufficient rose water to fill an eight-ounce vial, makes a very pleasant acid mixture, and why should not prescribers always make their medicines pleasant to take? Assafetida, skilfully coated with sugar, is at once converted into a bonbon, while numerous formulæ attest the ease with which Valerianate of Ammonia may be converted into a very pleasant elixir.

Dr. Wade, in his letter, states as a reason for introducing Hydrobromic Acid to the notice of the profession as a substitute for the Bromine Salts, that the effect always depends upon the amount of Hy-

drobromic Acid produced in the stomach by the decomposition of the Salt, and it is probable that generally a part of the salt becomes absorbed before being broken up, and the effect of the Bromine of such part lost, owing to the variable amount of free acid present in the stomach at the time of the administration of the salt. He further asserts it is found clinically, as well as in theory, that a smaller amount of Bromine, in the form of Hydrobromic Acid, will produce the specific effects of this halogen upon the system, than when administered chemically united to a base.

Dr. Squibb, in his paper above alluded to, differs on several important points from Dr. Wade, but as Dr. Wade speaks from much practical experience in the use of this Acid, his opinions must necessarily carry the greater weight.

PHARMACOGRAPHIA.—We have the pleasure of announcing that arrangements are being completed, whereby Prof. Fiuckiger will publish through Wm. Wood & Co. an edition of the Pharmacographia specially adapted to the materia medica of the United States, Canada, and the West Indies.

SALICYLIC ACID FOR KEEPING LEECHES.—A correspondent of the *Pharmaceutische Zeitung* writes thus: “I have with much interest prepared all the compounds of salicylic acid, and made every imaginable experiment with it. As I was one day examining my leeches the idea occurred to me to ascertain how these animals were affected by salicylic acid. Accordingly, I placed two apart, and added water and the acid; too much of the latter being employed, the leeches expelled blood and died. Another was placed in water containing a very minute proportion of the acid; the animal remained quite lively, excreted mucus in the usual natural manner, and at the end of a month the water was free from any disagreeable smell and remained tasteless. After a month I placed two leeches in about 100 c.c. of water to which had been added four drops of an aqueous solution of .33 per cent. salicylic acid. Having kept the first leech three months, and the latter two two months, in unchanged water, they remain quite healthy, and the water is fresh and clear. Eight days ago I found the water in a litre vessel, in which I had placed 100 leeches, turbid and slimy, and of a foul smell, with three dead leeches at the bottom. I removed the dead animals, added to the water 30 drops of the above solution of salicylic acid, and set the vessel aside. Next morning the foul smell had quite gone, and the animals were very lively. I poured forth the water, well-washed the leeches, rinsed the vessel, and supplied it with fresh water containing 20 drops of the solution. Since then the animals have been healthy, no death has occurred, and the water remains fresh and clean. This observation must certainly be of the highest interest to pharmacists, especially as summer is now at hand, when it is very difficult to keep these delicate creatures alive and in good condition. I would recommend, therefore, to all who are obliged to keep leeches the use of salicylic acid, and am confident they will be pleased with the result.”