

It contains one (1) per cent. of Arsenious Acid (As_2O_3) weight in volume, and it is quite apparent that the British Pharmacopœia requires a degree of accuracy within one five hundredth ($\frac{1}{500}$) of this amount, or 0.002 per cent. Arsenic. The method of assay prescribed by the Pharmacopœia is sufficiently delicate, if carried out with due precaution, to indicate this degree of accuracy. Making all necessary allowance, I conceive that no freshly prepared solution should vary more than 0.010 per cent. of arsenic from the standard or normal fixed. Fifteen (15) samples now reported fall within, or closely approximate to this limit, and these are designated in the Table as "Accurate" or nearly accurate." Of the remaining samples, eighteen (18) are found to vary from the standard by ten times this amount, or more; (0.100 per cent. Arsenic) and, of these, five (5) samples differ from the standard by 0.250 per cent. Arsenic, while two (2) samples contain only half the amount of Arsenic required by the Pharmacopœia.

The following synopsis presents a classification;—

Liquor Arsenicalis.

	Samples.
Within 0.010 of B. P. requirement.....	15
" 0.050 " " 	21
Beyond 0.100 " " 	18
Not classified.....	21
Total.....	75

While it would be correct, under Sec. 7 of the Adulteration Act (R.S. 1906, chap. 133), to declare most of the samples now reported, *adulterated*, I am of opinion that the object of the Act will be best attained by a publication of this report, and especially so, since this is the first occasion upon which the article named has been subjected to official inspection.

It is further to be remembered that a certain practicable limit of accuracy or degree of variation from an absolute standard, must be allowed for. This limit has not been fixed, and is only suggested or implied by the pharmacopœia itself, not explicitly stated therein.

I would respectfully suggest the wisdom of adopting 0.020 per cent. of arsenic as a maximum limit of variability in *Liquor Arsenicalis*; and beg to recommend the publication of this report as Bulletin No. 175.

I have the honour to be, sir,

Your obedient servant,

A. MCGILL,
Chief Analyst.