

In the Edition of 1914, the brucino is destroyed by oxidation with nitric acid in presence of sulphuric acid, and it is claimed that this method yields more accurate results for strychnine. In illustration of the results of work done upon the same sample by both methods, I may quote the following:—

Sample.	Method of 1898.	Method of 1914..
64627.. . . . .	1'45	1'32
64628.. . . . .	1'54	1'45
64629.. . . . .	1'49	1'35
62636.. . . . .	1'26	1'24
62637.. . . . .	1'49	1'32
62640.. . . . .	0'88	0'92
64632.. . . . .	0'95	0'95

It will be seen that in most of these cases a somewhat higher apparent strychnine content is obtained with the older (and now no longer official) method.

There can be no doubt that most of the Liquid Extract of Nux Vomica now on the market has been assayed by the method given in the pharmacopoeia of 1898; and, indeed, in a strict sense this is the only method recognized by our Adulteration Act, in which Section 7 (a) specifically names the Edition of 1898.

Under these circumstances, and inasmuch as the collection of the samples now reported was restricted to two localities, I think it inadvisable that the names of dealers or manufacturers (as stated by the vendors) should be given.

Quite apart, however from this consideration the results of analysis are instructive, and serve to show that variations in the composition of the Liquid Extract of Nux Vomica exist, apart from the strychnine content.

The analytical results given in the following table were obtained by Mr. A. J. Landry, of this staff, working by the official method of the British Pharmacopoeia, Edition of 1914.

#### LIQUID EXTRACT OF NUX VOMICA.

Sample.	Total Solids. Grm. per 100 cc.	Alcohol. Vol. p.c.	Strychnine. Grm. per 100 cc.
64626.. . . . .	11'50	59'72	0'78
64627.. . . . .	13'90	59'72	1'32
64628.. . . . .	14'96	54'48	1'45
64629.. . . . .	17'07	50'98	1'35
64630.. . . . .	15'38	65'32	1'44
64631.. . . . .	11'00	36'16	0'91
64632.. . . . .	2'25	74'32	0'95
64633.. . . . .	16'26	64'98	1'44
64634.. . . . .	11'78	68'32	1'57
64635.. . . . .	15'92	58'96	0'78
64636.. . . . .	25'36	36'52	1'46
64637.. . . . .	15'42	56'92	1'31
62638.. . . . .	11'83	61'20	1'28
62637.. . . . .	13'50	67'56	1'32
62638.. . . . .	18'06	50'32	1'59
62639.. . . . .	9'70	.....	0'78
62640.. . . . .	12'02	.....	0'92
62641.. . . . .	9'44	46'44	1'43
62642.. . . . .	14'48	.....	0'76

Mr. Landry reports the usual difficulties attending the estimation of small quantities of alkaloids in solution with fats, vegetable matters of varying kinds and more or less vegetable tissue and colouring; and his duplicates indicate a variation of from 0.01 to 0.15 in strychnine found. Accuracy is only possible where the mean of several carefully conducted determinations is taken.

I know Mr. Landry to be a careful worker, and am convinced that the results given indicate within very narrow limits, the actual strychnine present. The *modus operandi* for preparation of the Liquid Extract is strictly defined by the pharmacopoeia; and, unless the crude drug varies greatly in its quality, it is difficult to account for the differences in total extractive matter, except on the assumption of carelessness in manufacture.