

It is quite apparent that these samples are true mace, and not the Bombay or wild mace.

Two samples of Bombay mace supplied by a friend in Toronto, gave the following results:

	C	D
Petrolie ether extractive.....	31.32	28.44
Sulph. ether ".....	25.04	27.56
Total extractive.....	59.36	56.00

These samples gave positive reactions with the Liebermann and Schindler tests for Bombay mace.

The following work was done by Mr. Dawson upon a sample of commercial mace containing Bombay mace; and upon the components of this sample, separated as completely as possible, under the microscope.

	The Sample.	True mace.	Bombay mace.
	%	%	%
Non-volatile petrolie ether extract.....	20.96	24.07	22.43
" " ethyl " after petrolie.....	7.24	1.83	42.30
Total non-volatile ether extracts.....	28.20	25.90	64.73
Ash.....	1.75	1.70	1.37
Ash insoluble in HCl.....	0.10	0.07	0.07
Crude fibre.....	2.91	3.00	4.80

It must be borne in mind that separation of the components is only approximately exact. The sample contained adulterants, cereal starches, olive stones and turmeric, in addition to wild mace. The analytical results, especially as regards the ether extractive after petrolie ether, are sufficiently marked.

The percentage of Bombay mace present in a mixture with genuine mace may be determined from the formula,—

$$X \text{ equals } \left\{ \frac{E - G(100 - X)}{100} \right\} \times \frac{100}{B} \quad (1)$$

X is the desired percentage of Bombay mace.

E is the per cent of non-volatile ethyl ether extract after petrolie in mixture.

G " " " " " for genuine mace.

B " " " " " for Bombay mace.

If the maximum values of 5% for G and 35% for B, assumed as constants, then the formula becomes,—

$$X \text{ equals } \frac{10(E - 5)}{3} \quad (2)$$

In the majority of cases this formula will give results considerably too low. Applied to the above mentioned mixture, 7.5 per cent is indicated by formula (2), whereas 10 to 15 per cent was found by actual separation. However, if as found the value of 1.83 be given to G, and 42.30 to B, and E for the mixture is 7.24 using formula (1), then 13.3 per cent is indicated which is in good agreement with the results obtained by separation.