

TEA.—Fifteen samples of tea have been examined, and were all ascertained to be adulterated. Seven of these are black and the others green teas.

Black Teas.—The black teas are faced with graphite or iron oxides, and in one case manganese ore (*wad*). This last is an adulterant not hitherto observed in tea. All these substances are quite innocuous. I think that iron oxides generally accompany the graphite here, and are sometimes combined as tannate of iron.

The ash in every case has been estimated, and it has not in any case been notably high; 7 per cent. being the highest yield of inorganic matter against about $5\frac{1}{2}$, which is the quantity contained in the fresh leaves of the tea plant.

Green Teas.—The green teas were all faced with some mineral compound. These were usually ferrocyanide of iron (Prussian blue) and a yellow-coloured lead compound (probably chromate of lead). In one case comparatively a large quantity of Prussian blue was found, no less than 2.44 per cent., as calculated upon the amount of iron present, which I have every reason to believe is wholly combined in this form. This tea differed from the other tea in having a bluish-green colour, while the others are of a dull-green colour; but all the green teas are in a compressed form, as if they underwent manipulation in their manufacture. There is only a trace of lead compounds in this bluish-green tea, a circumstance which helps to explain its bluish colour. In these dull-green teas, at any rate, the proportion of Prussian blue is not so large as to exercise any immediate injurious effect upon the health of those using teas of this description; but as lead compounds are poisonous and can accumulate in the system, these green teas are undoubtedly dangerous to partake of habitually.

Only a small proportion of leaves not of the tea plant were found in these samples.

Coffee.—I have not been able to accomplish much in respect to the coffees;—this partly from lack of microscopic examination, partly from the extreme variability allowed by law, and required to suit different tastes. However, I have not been able to detect anything unwholesome in them, or any earthy substance added for weight or colour. The following are the weights of coffee found in three tins of this, from three houses in this city:—

lb.	oz.	dwt.
0	12	8
0	12	8
1	0	8

Cocoa.—The only cocoa of undoubted quality I have been able to collect for testing is that known as Van Houten's; it is sold in tins of different sizes. The eight-ounce tins I have always found to be of full weight,—the net weight of the cocoa being generally about $\frac{1}{4}$ ounce over the eight ounces. The other cocoas I have examined are what they profess to be—mixtures of cocoa with starch and sugar.

FARINACEOUS SUBSTANCES.

Flour.—Our wheat flours are frequently infested with the *Acarus farinae*, but I have not been able to detect any admixture of them with the flour of other grain.

Oatmeal.—All the oatmeals I have examined are unadulterated, while our starches are of fair quality.

Jams.—Several brands and varieties of jams in tins have been examined, especially for presence of metallic substance; and it has been ascertained that in the majority of cases iron and tin were present (in the fruits), and this to a greater extent in those jams of an acid nature, as gooseberry and currant. As would be expected, the older these jams the more of these metals was dissolved therein. In no case, however, were these metals found in sufficient quantity to exercise any injurious effect upon those partaking of it in such amount as it is ever likely they would.

The only English brand of jams I examined was quite as pure as any of the others, and of better quality. Generally, the tins of jams now in the market weigh gross more than the avoirdupois pound, but do not contain a pound of jam. I would not like to strike an average weight for each brand examined, as my weighings are not sufficiently numerous to give any numbers which I could get out for this of any real value; but I believe that the English jams sold by James Keiller and Sons will mostly give 6,800 to 6,900 grains of jam, and the other jams not more than 6,500 grains. The English jams examined are of two brands, and the others from Hobart Town.

I may state, none of the tins had anything attached stating weight, but I believe retail buyers as a rule suppose they contain one pound of jam.

Bottled Fruit.—Three samples of bottled fruit, especially selected as those most likely to contain a metallic substance, were carefully examined for such, but with negative results.

Pickles.—Several of our pickles were examined, especially for copper and lead, but in no case was either of these metals found.

Vinegars.—Five vinegars have been tested in regard to their strength and freedom from substances of a noxious character. The result of this is detailed in Table I. attached, from an inspection of which it will be seen that in all cases the vinegar is of good strength, the acetic acid (the amount of which determines their value) ranging from nearly 5 per cent. to a little over 9 per cent. by weight. All are quite free from substances of a deleterious nature. No. 4, however, contains a little chloride of sodium (common salt). In regard to the sulphuric acid, it will be seen that in none of the samples is it present in nearly so great a quantity as that which is allowed by Act of English Parliament: one part to 1,000 of vinegar.