

phuric acid ; the first turns the fragments of a reddish hue, and the latter restores the colour.

Adulterations in green tea may, in many cases, be detected as follows : Put a sample of the suspected tea in a sieve, hold it under a gentle stream of cold water flowing from a tap four or five minutes ; if the tea be painted, it will change its colour, and upon drying, with a very gentle heat will gradually assume the appearance of ordinary black tea ; the residue washed off will generally be found, on microscopic examination, to be *Prussian blue, turmeric and French chalk*. A more simple test still, is to rub a little of the suspected tea, moistened, between your hands ; if it is coloured it will soon impart some of the colouring matter to your hands. Other methods of detecting adulterations are the following : If the leaves be coated to any considerable extent it will be sufficient, simply to view one or two of them as opaque objects with a glass of one inch focus, when the colouring matter entering into the composition of the facing will be detected as minute specks, each reflecting its appropriate tint.

Another method is, to scrape gently two or three of the leaves on the surface with a pen-knife, when, if they be faced, the colouring matters may be detected in the powder, thus separated, viewed as an opaque object. A third method is, to place five or six leaves on a slip of glass, moistening them with a few drops of water, and after the leaves have become softened, firmly squeezing the water out between the finger and thumb ; this will then be found to contain more or less of the ingredients forming the facing, should such have been employed. Or should it be desired to obtain the results on a larger scale, one drachm or so of the leaves may be agitated in a little water for a few minutes, which will detach much of the facing without unfolding the leaves, and which facing will collect as a sediment at the bottom of the vessel, as explained above.

Having, by any of these processes, determined whether the sample of tea be faced, the next thing to be ascertained is the nature of the adulterating substances. The blue colouring matter has generally been found to be either *Prussian blue* or *indigo*. The former is recognized by the angular form of the fragments, and by their brilliant and transparent blue colour, but most decidedly by the action of the liquor potass, which quickly destroys the blue, turning the fragments of a dull reddish brown colour. This re-agent may be easily applied to the smallest particles of *Prussian blue* under the microscope. The latter is known by the irregular form of the particles, their granular texture and greenish blue tint, but chiefly by the fact that the colour is not destroyed by the liquor of potass. The yellow dyes commonly used are *turmeric powder* and *Dutch pink* ; the first of these is at once recognized by its microscopic characters, which have been already described,