

These granules differ in character in different plants. In the majority of the corn tribe, the granules are flattened and rounded discs, of moderate size, are obscurely marked with a number of concentric rings. Beans, and Peas, deprived of their seed covering, possess a structure altogether analogous to the grain of corn; the granules in the pea and bean are large, oval, sometimes uniform, and the central cavity is of an elongated shape presenting the appearance of a furrow under the microscope. The structure of the potato resembles, to a great extent, that of the corn, pea, or bean; after boiling, the cells readily separate from each other. These cells present a somewhat fibrous appearance, and are of course much larger than the starch granules, many of which are contained in each cell. The granules, as seen in potato flour, are large, oval, and beautifully marked with concentric rings; but in the boiled potato, they lose much of their form and beauty, and become generally misshapen and collapsed.

To detect roasted corn, peas or beans, in coffee, make an infusion of the suspected coffee, decolourizing it as much as possible by means of animal charcoal, and testing the cold liquor with an aqueous, or an alcoholic solution of iodine, which, in that case, will produce the characteristic blue colour indicative of the presence of starch.

Another method of detecting the presence of *chicory* in ground coffee, is to moisten a little of the suspected coffee and roll it between the fingers; it will, if any quantity, form a little pellet or ball, whilst the pure coffee treated in the same manner, cannot be agglomerated, and remains in powder. Or, throw a portion of the suspected coffee into a glass of water without stirring the coffee remains for a while floating on the surface, but the ground chicory absorbs the water immediately, and falls to the bottom of the vessel, imparting a yellowish or brownish yellow colour to the liquor. If the coffee under examination, instead of being thrown into a glass, be put into an inverted bottle from which the bottom has been removed, or into a funnel, the chicory which falls down first may be at once separated by adroitly removing the cork, and collecting the chicory in any convenient vessel placed underneath, after which it may be easily identified by its taste and pastiness. If torrefied *ground rice, corn, roasted biscuit, or bread*, be mixed with the coffee or chicory; the chicory absorbing water more rapidly, will fall to the bottom first, and may be separated by the means referred to.

As the ashes of all vegetable substances are white or nearly so, should the ashes of burnt coffee appear red, or a rusty red colour, it is a sure sign that a mineral, such as venetian red, ruddle or some other analogous substance has been mixed with the coffee. See the *Lancet, Normandy's Commercial Hand-Book, &c.*