

they may not vegetate; leaves and flowers, of a more corruptible nature than roots, by being beaten with about thrice their weight of fine sugar to prevent their corruption, and kept in a close vessel.

Plants which bear drying are commonly hung in a warm airy place, defended from the sun. The colours of herbs and flowers are for the most part changed or destroyed, in drying, by the sun's beams; but that their medicinal virtue suffers a like diminution, does not appear. Thus much is certain, that a heat of culinary fire, equal to that of the sun in summer, does them no injury in either respect: And that both flowers and leaves, when thus hastily dried by the fire, preserve the liveliness of their colour, and their smell and taste, more perfectly than by slow exsiccation. The leaves of moderately juicy plants are reduced, by drying, to about one fourth of their original weight.

Some roots, and some other parts of vegetables, how thoroughly soever they have been dried, are liable, in keeping, to grow mouldy and carious. This inconvenience might probably be obviated by dipping them, when dried, in boiling spirit of wine, or exposing them to its vapour in a close vessel. It is said, that some of the oriental spices are made less perishable, by being dipt in a mixture of lime and water.

The pulps of fruits are separated from the seeds and membranous parts, by forcing them through a strong hair sieve. If the fruit is unripe and hard, or if it is dry, it should be previously softened by boiling in a little water; and the pulp, after passing through the sieve, is to be inspissated over a gentle fire, with care to prevent its burning.

The concrete gummy-resinous juices brought from abroad, which have usually a considerable mixture of bits of stalks, leaves, seeds, &c. are purified, by adding so much boiling water, as will so far soften or dissolve them, that they may be pressed, whilst hot, through a strainer; and then inspissating the strained liquid, in a gentle heat, to the original consistence of the gummy-resin. If the quantity of water is considerable, the resinous part commonly separates and subsides, and in this case is to be kept by itself till towards the end of the inspissation of the gummy, at which time they may be easily united again together into an uniform mass. Some of the gummy-resins, exposed to the heat of boiling water, melt thin enough, without any addition, to be pressed through a canvas strainer. In either process, the operator must be careful to prevent as much as possible, the dissipation of the more vo-

latile parts; an injury which cannot be wholly avoided, especially when the subjects are dissolved by water. The finer tears unpurified are in many cases preferable, for internal use, to those that have been strained.

Pulverable bodies of an earthy texture; or such as are brittle and not dissoluble in water, after being reduced to a powder of moderate fineness, are brought to an impalpable or very volatile state, by grinding them with a little water on some hard smooth instrument: The matter is commodiously dried on a chalk stone, or rather on a cake of plaster of Paris, which equally absorbs the moisture, without adhering to the powder like substances of the chalky kind. Powders thus levigated are still found to contain a quantity of gross parts; which may be separated by shaking the matter with water, till it is diffused through the fluid, and then suffering it to settle: The grosser parts soon subside; and the turbid liquor, being now poured off, deposits more slowly the finer powder. By this process, powders may be obtained of any degree of fineness; the tenuity being in proportion to the length of time that they remain suspended in the fluid. On the same principle, the solar earths may be separated from the gritty matter naturally mixed with them, metallic bodies from those of the earthy kind, and the calces of metals from metallic particles uncalcined.

Salts are purified from indissoluble admixtures, by solution in water and filtration through paper. Water dissolves, in a boiling heat, a much larger quantity of most kinds of salts than it can retain when cold: Thus, of nitre, it dissolves when boiling near three times its own weight, but in cooling a part of the salt gradually separates, till at length, when grown thoroughly cold, in frosty weather, it does not retain one eighth its own weight, or one twenty-fourth of the quantity of salt at first dissolved. The neutral salts, or those composed of an acid and an alkali; several of those which consist of an acid and an earthy or metallic body; and many of the acid salts of vegetables; in this separation from their solutions, concrete, unless too hastily forced together by sudden cooling, or disturbed by agitation or other causes, into transparent masses, of regular figures peculiar to each particular kind of salt, and thence called crystals.— There are two general methods of recovering salts from their solutions in a crystalline form; one adapted to some salts, and the other to others. The one is, by keeping the solution in a gentle and equable warmth, that the water may gradually exhale,