Table on the Influence of Drying on the Active Principles of Plants.

PLANTS, AND WHEN COLLECTED.	TINCTURE.	DISTILLATE.	RESIDUE ON FILTER.	EXTRACT.	TREATMENT WITH CaO AND ALCOHOLIC ETHER.
Atropa Belladonna. Leaves, June, fresh.	Dark green, bitter.	Almost inodorous and tasteless; no reaction.	Deep green, almost wholly chlorophyll.	Dark brown, faint odour, intense taste.	White, amorphous, alkaline, yields 0.53 grm.*
Dried.	Brown-yellow, bitter.	Inodorous, tasteless.	Brown, resinous, inodorous, soluble in ether.	Blackish, taste bitter and sweetish.	Crystallized with difficulty, but saturated same amount of acid.
Hyoscyamus niger Leaves, June.	Deep green, odour virous, taste acrid.	Odour and taste faint, no reaction.	Dark green, soluble in ether, apparently fat and chlorophyll.	Brownish, bitter.	White, amorphous. By SO_3 and $KOCO_2$ colorles needles—yield ·41 grm
Dried.	Deep brown, inodorous.	Inodorous, tasteless.	Black, pitch-like, soluble in ether.	Brown, inodorous, bitter.	Uncrystallizable, faint alkaline reaction.
Datura Stramonium. Herb, July.	Dark green, acrid and bitter.	Weak, disagreeable odour and taste.	Blackish, virous odour, fat, resin, and chlorophyll.	Light brown, bitter somewhat acrid.	Crystalline, bitter, acrid, yield 0·65.
Dried.	Brown, bitter.	Inodorous, tasteless.	Blackish, inodorous.	Brownish, bitter.	With difficulty crystallizable—same saturating power.
Solanum Dulcamara. Stems, late in Sept'r. The same results with the dried stalks.	Light greenish yellow, odour unpleasant, taste sweet, bitterish.	Disagreeable odour.	Dark green, slight odour.	Greenish-brown, sweet, bitter, and slightly acrid.	Amorphous; when re-precipitated from SO_3 and treated with alcohol: crystals of solania. The lime retained a yellow, amorphsus glucoside—probably piero-glycion.
Colchicum autumnale. Corms, November.	Yellowish, sweet and burning.	Acid reaction, slightly acrid.	Greenish, faint odour of benzoin.	Orange-yellow.	Alkaline needles intermixed with greenish amorphous acrid matter, acids and alkalies destroy alkaline reaction and crystalline structure.
Dried.	Darker, more bitter.	No reaction, odour, or taste.	As above.	Brownish.	White amorphous colchicia, without alkaline reaction.
Aconitum Napellus. Cultivated leaves, June.	Deep green, bitter, then acrid.	Acid reaction, burning taste; salts of Ag Au, and Pt, reduced.	Dark green, virous odour, taste slightly acrid and bitter.	?	The result treated like Dulcamara, yielded ·30 grm. needles (acouellina?) and about ·30 grm. oily aconitia, gradually becoming resinous.
Dried.	Brown, bitter acrid.	No reaction, odour, or taste.	Blackish, slightly acid and acrid.	?	Amorphous, resin-like.
Conium maculatum. Leaves, May.	Green, repulsive odour, very acrid.	Neutral, tasteless, faint, narcotic odour.	Green, oily, virous odour.	Light-brown.	0·35 grm. conia.
Dried.	Light brown, taste weaker.	Nearly inodorous.	Black, resinous, inodorous.	Brownish.	0·10 grm. conia, and products of decomposition.

* From 250 grammes of the fresh drug; the subsequent figures refer to the same weight.

MISCELLANEOUS.

Improved Preparation of Neutral Acetate of Copper.

Five kilos. of sulphate of copper are ground to a fine powder; this having been done, the powder is placed in a suitable vessel, and 7 5 kilos. liquor ammonia added thereto. After the solution is effected, 10 kilos. of acetic acid are added, and the vessel containing the copper solution placed on a water-bath; as soon as crystals are observed on the top of the liquid, the latter is strongly stirred, which promotes the formation of crystals. By this process about 4 kilos. of neutral acetate of copper are obtained from the above quantity of sulphate, while the mother liquor yields some sub-acetate of copper afterwards. —*Moniteur Scientifique.*

New Marking Ink for Linen.

M. Kuhr recommends the following preparation:—One part of hypophosphite of soda, and two parts of gum arabic, are dissolved in sixteen parts of distilled water. The tissue, linen, or cotton to be marked is thoroughly moistened with this liquid, and then left to dry. After having become well dried, the following liquid, composed of one part of nitrate of silver, and six parts of gum dissolved in six parts of distilled water, is used as marking ink, with a quill-pen. The mixtures here described are stated to yield an indelible and very deep black-colored ink.—*Comos, June,* 1869.

Color of Vermillion.

It is a fact well known to artists, that the splendidly bright color of vermilion (cinnabar, sulphide of mercury) has a tendency, especially if it has been mixed with white-lead to become blackish brown and very dark colored in a comparatively short time. This tendency of the vermilion is altogether obviated if, previous to being mixed with oil, it is thoroughly and intimately mingled with about one-eighth of its weight of flowers of sulphur.—*Chemical News.*

Brandy from Lichens.

Experiments lately made in Sweden on a large scale, upon the production of brandy from lichens, and especially from the reindeer moss, have, it is said, proved so successful as to warrant the practical application of the process.—*Chemical News.*

Alcohol from Garbage.

A company has been formed in Chicago, and will soon be in operation, for distilling alcohol and extracting soap grease from ordinary city garbage. The process is a patented one, and consists in taking the garbage just as it is hauled off in the city carts, dumping it into tight tanks, and boiling six hours at a temperature of 212 degrees. This dissolves the whole mass, which is run into fermenting tubs and worked with yeast. The soap grease and impurities rise to the top of the tubs, and are skimmed off, and the residuum is distilled in the regular way. It is estimated that each barrel of garbage will yield three pounds of soap grease and four gallons of proof spirits. The soap grease is, of course, as good as any other, but the alcohol betrays its origin by an odor which requires further processes for its removal. For many uses, however, it is as good as that derived from grain or molasses, and if its distillation is not too costly, will yield a considerable profit.—*Sun, July,* 1869.

Cocoa Nut Hair Oil.

Take of Oil Theobroma, one drachm.
Castor oil.
Alcohol 95 per cent., of each fifteen ounces.
Glycerine pure, two ounces, or a sufficient quantity.

Melt together, with a gentle heat, the oil of of theobroma and castor oil; transfer to a bottle, and gradually adding the alcohol, then the glycerine as much as it will take without becoming milky.

White Furniture Polish.

Is made by boiling ten parts of water with ten parts wax, and one part potash; afterward ten parts of water are added, and it is boiled till of a uniform thick consistency. It is therefore but a kind of soap, in which wax takes the place of fat; when dry, it becomes insoluble in cold water, which only washes the excess of potash from the surface and leaves wax, combined with a small amount of potash—a compound which, with a little friction, takes a fine polish.