

13 of cold rectified spirit; 1 in 10 of solution of potash. The alkaline solution reduces Fehling's solution. Leaves no residue on burning. Gives no precipitate with mercuric chloride, palatinic chloride, or tannic acid. Dissolves in sulphuric acid with pale saffron color.

Dose.— $\frac{1}{10}$ to $\frac{1}{5}$ grain.

SODIUM BENZOATE.—Prepared from benzoic acid and carbonate of sodium, evaporating to dryness. White, slightly crystalline or amorphous powder; odorless or having faint benzoic odor, sweet taste, faintly alkaline reaction. Very soluble in water; soluble 1 in 24 in cold rectified spirit, 1 in 12 in boiling. Incinerated, ten grains leave 3.68 grains residue, requiring 69 to 70 grain measures of oxalic acid to neutralise. Gives a yellowish or pinkish precipitate with ferric salts.

Dose.—10 to 30 grains.

SODIUM NITRITE.—White, or yellowish-white deliquescent crystalline salt. Very soluble in water. Neutral or slightly alkaline, evolves red fumes with sulphuric acid on contact with air. Gives deep brown color when mixed with solution of ferrous sulphate and acetic acid. One grain of salt dissolved in water, and introduced into a nitrometer, should liberate 325 grain measures of nitric oxide, when treated with iodine of potassium and diluted sulphuric acid, the gas being entirely absorbed by strong solution of ferrous sulphate, equivalent to not less than 95 per cent. of nitrite of sodium. Should not give more than traces of precipitate with calcium chloride.

Dose.—2 to 5 grains.

SULPHONAL.—Colorless, odorless, nearly tasteless crystals; melts at 258° F.; neutral; soluble 1 in 15 of boiling water; 1 in 450 of cold water; 1 in 50 in cold rectified spirit; very soluble in boiling alcohol; readily so in ether. Burns without leaving ash. Heated with cyanide of potassium evolves the odor of mercaptan, and when this is treated with water and an excess of hydrochloric acid and ferric chloride added, a reddish color is developed.

Dose.—15 to 40 grains.

CRUDE DRUGS.

Of these there are ten included in the new work; wool fat, eucalyptus gum, euonymus bark, gelatine, hamamelis bark, hamamelis leaves, hydrastis rhizome, oil of cade, stramonium leaves and strophanthus. Although most of these articles are familiar to our readers, it is well to briefly enumerate the official characters.

WOOL FAT.—The purified cholesterol fat of sheep's wool. Yellow, tenacious, unctuous, almost odorless, melts from 101° to 111° F.; readily soluble in ether and chloroform, sparingly in rectified spirit. Ten grains entirely dissolved in fourteen fluid drachms of boiling alcohol, the greater part separating on cooling. Leaves but a trace of ash on burning. Fifty grains dissolved in ether and two drops of

solution of phenol-phthalein added should not require more than two grain measures of standard soda solution to produce red coloration. Chloroformic solution gives a red color with sulphuric acid. Evolves no ammonia with soda.

EUCALYPTUS GUM.—A ruby red exudation from bark of *Eucalyptus rostrata* and some other species.

From 80 to 90 per cent. soluble in cold water; solution neutral; almost entirely soluble in rectified spirit.

Dose.—2 to 10 grains.

EUONYMUS BARK.—The root bark of *Euonymus atropurpureus*. In curved quilled pieces from $\frac{1}{2}$ to $\frac{1}{4}$ of an inch thick; outer surface light ash gray; dirty white where rubbed; soft and friable. Inner surface, when free from white wood, is pale, tawny white, and smooth. Fracture finely fibrous, middle layer laminated; longitudinal fracture smooth. Odor faint; taste at first mucilaginous, then slightly bitter and acrid.

GELATINE.—Produced by action of boiling water on gelatinous animal tissues. In transparent sheets or shreds. Solution in hot water colorless and odorless, setting to a jelly on cooling. It dissolves in acetic acid. Aqueous solutions not precipitated by dilute acids, alum, lead acetate, or ferric chloride; precipitated by tannin.

HAMAMELIS BARK.—Bark of *Hamamelis Virginica*. In curved or quilled pieces from two to eight inches long, and about one-tenth of an inch thick; covered with silvery grey or whitish, easily detached, scaly outer bark, marked with lenticels. Internally, cinnamon brown, finely striated; fracture, coarsely fibrous; tough; slightly astringent.

HAMAMELIS LEAVES.—The dried leaves of *Hamamelis Virginica*. Petiole short, lamina from 4 to 6 inches long, oval, obtuse, wavy, crenate, narrowed below. Oblique and slightly heart-shaped at base; pinnately veined veins on underside prominent. Odor, tea-like; taste, astringent and bitter.

HYDRASTIS RHIZOME.—Rhizome and rootlets of *Hydrastis Canadensis*. From one half to one and a half inches long and from one eighth to half an inch thick, irregularly twisted; upper surface marked with scars from stems, lower surface gives off rootlets; color, yellowish-brown; fracture resinous, with bright yellow centre.

OIL OF CADE.—A tarry, oily liquid, obtained by destructive distillation of wood of *Juniperus oxycedrus* and other species. A reddish brown or black viscid oily liquid, with empyreumatic-odor and bitter acrid taste; sp. gr. about 0.990. Soluble in ether and chloroform; partly soluble in cold, almost wholly in hot rectified spirit; sparingly soluble in water. The filtered aqueous solution is almost colorless and is acid.

STRAMONIUM LEAVES.—Dried leaves of *Datura stramonium*. Ovate-petioled about six inches long, smooth-pointed, un-

equal at the base; one side decurrent down petiole; coarsely angular; toothed, minutely wrinkled; odor, faintly narcotic; taste, bitter.

STROPHANTHUS.—The mature ripe seeds of *Strophanthus hispidus* var. *Kombe*, freed from awns. Oval, acuminate, about three fifths inch long and one-sixth inch broad; base narrow and blunt; apex, when perfect, tapering to a fine extremity; sides flattened, the dorsal surface convex, color greenish fawn, covered with appressed silky hairs, one side with longitudinal ridge from centre to apex. Kernel white and oily, consisting of two straight cotyledons; albumen thin; taste very bitter; seed coat easily removed after soaking.

GALENICAL PREPARATIONS.

Of these seven out of twenty-three are adapted from the Unofficial Formulary of the British Pharmaceutical Conference. One or two of the others are familiar to all pharmacists, notably the "scidlitz powder," which is now designated *Pulvis sodæ tararata effervescentis*. A new feature is the inclusion of effervescent granular preparations. As these articles are increasing rapidly in demand it is well to have some official and definite formulae for them. Probably in the next Addendum this class might be still further increased.

ACETUM IPECACUANHA.

Take of

Ipecacuanha in No. 20 powder... 1 oz.
Diluted acetic acid sufficient to produce 20 fluid ozs.

Moisten, macerate 24 hours, then percolate to required volume.

Dose.—5 to 46 minims.

(The strength of the acetic acid is slightly altered from the original B. P. C. formula, from 1 to 9 to 1 to 7. The preparation now, however, remains very unsightly, inelegant, and unstable, although it is medically active.)

ADIPS LANA HYDROSUS—("Lanoline.")

Take of

Wool fat 7 ozs.
Distilled water 3 ozs.

Melt the wool fat in a warm mortar, stirring in the water gradually.

When heated it separates into an upper oily and a lower aqueous layer. Should not lose more than 30 per cent. when dried. Residue should answer the tests for wool fat.

EMP. MENTHOL.

Take of

Menthol 2 ozs.
Yellow wax 1 oz.
Resin 7 ozs.

Melt the resin and wax together, and as the mixture cools stir in the menthol until dissolved.

EXTRACTUM EUONYMI SICCUM—(EUONYMIN.)

Take of

Euonymus bark 1 lb.
Rectified spirit }
Distilled water } .. of each a sufficiency.
Sugar of milk }

Moisten the bark with equal parts of