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THE FRUIT OF *ILLICIUM ANISATUM*, LOUREIRO.

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From an Inaugural Essay.

The glossy brown-yellow seeds were removed, and the capsules reduced to a No. 80 powder. This powder, dried at 100°C., until it ceased to lose weight, was found to contain 10.36 per cent. of moisture and volatile oil. On incinerating this dried powder there remained 3.5 per cent. of ash, the acid solution of which showed that there were present the bases: K, Na, Fe and Al; also hydrochloric, sulphuric and phosphoric acids.

A proximate analysis of the drug gave the following results:

Portion soluble in petroleum spirit.—Twenty gm. of powder were exhausted with petroleum spirit by repeated maceration and decantation, and the petroleum spirit distilled off until 200 Ccm. remained. A portion of it was allowed to evaporate spontaneously, the residue amounting to 5.875 per cent. of the whole, which residue had the appearance of a thick oily dark-green liquid, of a strong distinct anise odor. On adding strong sulphuric acid to a solution of a portion of it in chloroform, it turned yellow, then brown, and rapidly deep red. These characteristic colorations, combined with its odor, proved it to contain oil of star anise.

To another portion of the liquid, 95 per cent. alcohol was added, which completely dissolved it. On adding to this alcoholic solution a solution of sodic hydrate, applying moderate heat, and shaking it, it failed to saponify, proving the absence of fixed oil,

The liquid was found to contain 4.675 per cent. of volatile oil. On heating in a water-bath at 100°C. a portion of the liquid, for eight hours, this volatile oil was all driven off, and then remained 1.2 per cent. of green wax, fusing at 51°C.

Portion soluble in stronger ether.—The residue from the petroleum spirit extraction, dried and freed from all traces of petroleum spirit, was exhausted with stronger ether by maceration and decantation, and the liquid then subjected to distillation until 200 Ccm. remained in the retort. This was allowed to evaporate spontaneously, and there remained a solid residue of 1.2 per cent. Of this residue 30 per cent. was soluble in water, and 70 per cent. soluble in absolute alcohol. The aqueous solution gave with ferric chloride an inky greenish black color; with gelatin no precipitate; with lead acetate a grayish precipitate; and with ammoniac hydrate a green color, immediately

changing to reddish-brown. From these reactions it may be inferred that the aqueous solution probably contained gallic acid. The portion soluble in absolute alcohol was found to be a resinous substance, partially soluble in aqueous solution of caustic potassa.

Portion soluble in absolute alcohol.—The residue from the ether extract, dried, was exhausted with absolute alcohol, and from the tincture the alcohol was distilled off, until 200 Ccm. remained. This was allowed to evaporate spontaneously and left a residue amounting to 3.75 per cent. This residue was completely soluble in distilled water. The aqueous solution of this residue was then made acid in reaction, and successively shaken up with petroleum, benzol, ether and chloroform, but gave no noteworthy results.

After having removed from this aqueous solution all traces of the other solvents, it was made alkaline. Upon shaking this solution with petroleum, decanting the petroleum, and evaporating spontaneously, there remained a crystalline principle of very strong musk odor, but which corresponded neither to the reactions of an alkaloid, nor those of a glucoside. Subsequent shakings with benzol, ether and chloroform, showed nothing of value.

Portion soluble in distilled water.—The residue from the alcohol extraction dried, was exhausted with distilled water by maceration and on evaporation, and drying a portion of this liquid in a water-bath, the residue amounted to 0.94 per cent. A portion of the aqueous extract was acidified and successively agitated with petroleum, benzol, ether and chloroform; but on evaporating these several shakings no crystalline residue was observed. This same portion was then carefully heated to expel all traces of the other solvents, and was then made alkaline. Here likewise, no results were obtained by agitating with the same solvents.

To 20 Ccm of the aqueous extract, 35 Ccm. of alcohol (95 per cent.) were added, and allowed to stand in a cool place for twenty-four hours. It was found that all the gum had been precipitated, which precipitate was then removed to a filter, and washed with alcohol of 66 per cent, carefully dried to a constant weight, the gum was found to amount to two per cent. of the whole. It was completely soluble in water, and formed a mucilage therewith.

The acrid taste of the aqueous extract, and its frothing, when shaken up, indicated the possible presence of saponin, hence the necessary tests were made as follows: To a portion of the aqueous extract, baryta-water was added, and this allowed to stand in a cool place for forty-eight hours. This caused quite a large precipitate, which was removed to a filter, and repeatedly washed with saturated baryta-water. The precipitate was then removed from the filter, mixed with a little distilled water, and carbonic acid gas passed into it. This broke up the compound, which had been formed with the baryta, and the principle remained in solution. The filtrate was shaken up with chloroform, which took up the principle from its watery solution, and on evaporating left it in an amorphous condition. In contact with a few drops of concentrated sulphuric acid, after some time it gradually assumed a reddish color. A portion of the principle in solution was boiled with a little acid, and then treated with freshly prepared Fehling's solution; the blue color immediately changed to green, and a

brownish-red precipitate, consisting of Cuprous oxide resulted. A portion of the solution formed an insoluble compound with basic acetate of lead. All these reactions go to show that the principle in question was the glucoside saponin.

Syzygium Jambolanum, De Cand. The fruit of this tree is stated by Banetralla to have been used with good results in glycosuria, causing within 48 hours after its administration a considerable decrease in the amount of urine, and a complete disappearance of sugar. The rind of the fruit is said to contain the active principle ("Rev. de Thérap.;" "Lond. Med. Record").

The medicinal uses of this tree have been briefly referred to in this Journal, 1882, p. 351. Its leaves differ from those of most other myrtles in not being pellucid punctate; they are short petiolate, 3 or 4 inches long, smooth, leathery, varying between oval and obovate-oblong, and between acuminate and very obtuse the West Indian form being rounded at the apex. The flowers are in lateral paniculate cymes, clustered and have the calyx limb truncate or nearly entire. While the ovary is two-celled and multiovulate, the berry is one-celled and contains only one or a few seeds. The seed is globular and the embryo consists of two fleshy hemispherical peltate cotyledons, the short radicle being attached to their lower half, and concealed between them.

J.M.M.

MATERIA MEDICA OF THE NEW MEXICAN PHARMACOPOEIA. Part 5

BY THE EDITOR.

Cardo santo, *Cirsium mexicanum*, De Cand.; Compositae. The leaves and flowers are used in place of the European blessed thistle, and possess stomachic, febrifuge and sudorific properties; the flowers also that of coagulating milk.

Carrizo, *Arundo Donax*, Lin.; Graminaceae; grows in Mexico and other countries. The rhizome is sudorific and diuretic.

Cascalote, *Caesalpinia coriaria*, Willdenow; Leguminosae; in hot and humid regions of the western slope of the Mexican Cordillera. The fruit, which, according to P. Alcocer, of Mexico, contains 30 per cent. of tannin and 17 per cent. of gallic acid, is used for tanning, and in medicine as an astringent.

Cebadilla de Tierra caliente, *Veratrum officinale*, Schlechtendal (*Asagraea tenuifolia*, Martius et Galeoti). The capsules are three-celled, papyraceous, light reddish gray, the cells several seeded, and the seeds blackish, sword-shaped, rugose, sharp-pointed, of a bitter and acrid taste, and produce a copious flow of the saliva.

Cebadilla del Interior, *Veratrum Sabadilla*, Retzius (*V. virescens*, Mart. et Gat.). The fruit differs from the preceding in being more rounded and like the seeds of a darker color.

Cebadilla del Valle de México, *Veratrum frigidum*, Schlechtendal. The capsules are much larger and longer, and of a lighter color, like the seeds, which assume a yellowish tint and are collected before completely ripened.

The bulbs of the three plants are known in Mexico as **cebolleja**, **cebolleta** or **cintul**, are used like the fruit, and are believed to possess identical properties, but they have not been analyzed. The fruit is rarely employed internally; the powder is used as an insecticide and errhine, and the tincture as a stimulating embrocation. The capsules, of *Pentstemon barbatus* and other species, known as **chilpantlacol**, are sometimes fraudulently substituted for the former, but are easily distinguished by the grayish yellow color, a somewhat horny texture, and the numerous seeds, which are not sword-shaped. The more important botanical distinctions between the two fruits are as follows: The capsules of the veratrums become three-lobed, and separate into three carpels, opening by their ventral sutures, while the capsules of pentstemon are two-celled, have a central placenta, and open by four valves.

Cedro colorado, *Cedrela odorata*, Lin.; Meliaceae; in hot localities of Mexico. The bark is very bitter, and is reputed to be febrifuge and anti-epileptic; the decoction of the leaves is used for curing toothache, and the resin is employed in bronchitis.

Cedron, *Lippia citriodora*, Kunth. See July.

Ceiba, Ceibo, *Eriodendron (Bombax) anfractuosum*, De Cand.; Bombaceae; in Tamaulipas, Yucatan and other hot and damp regions of the Republic. The cotton investing the seeds is used for stuffing cushions, etc.

Cera de Campeche is obtained from different Mexican bees of the genus *Melipona*; particularly from *M. domestica*, commonly known as **Abejaalazana**, etc. It is seen in commerce in lumps of several kilos in weight, or in oblong cakes, wrapped in maize leaves, and weighing not over 500 grams. It is opaque, yellowish, or after exposure to the air gray, internally of a much lighter yellow and fallow tint; though of a rather soft consistence, it preserves its shape, but may be moulded between the fingers and becomes adherent; it has a peculiar odor and aromatic taste, melts at 53°C., and burns with a bright and sooty flame. Ether dissolves from this wax, besides the aromatic principle, a yellow substance, which is softer, more adhesive, and more readily fusible than the wax; the residue insoluble in ether is waxy, white, hard, brittle and less readily fusible. The wax is adulterated with suet, acquiring thereby a lower melting point and greater adhesiveness; and with resinous substances, which increase the melting point, render thin layers of the wax brittle, and are mostly soluble in alcohol. The wax is used in ointments and plasters.

Ciprés comun, *Cupressus sempervirens*, Lin., and **Ciprés de México**, Cupr. Bentbami, Gordon. The astringent cones are, incorrectly called "agallas" (nutgalls) and enter into several pharmaceutical preparations.

Ciruelillo, *Bunchosia lanceolata*, Boller; Malpighiaceae; in the State of Vera Cruz. The root bark yields an astringent extract resembling kino.

Cirueloagrio, *Spondias Mombin*, Lin.; Anacardaceae; in hot regions of Mexico. The

comestible fruit has an acidulous and resinous taste.

Ciruelo de México, *Spondias purpurea*, Lin. The fruit is smaller than the preceding, and has a sweet, somewhat acidulous, resinous and balsamic taste; comestible.

Clavillo, *Juliana (Amphipterygium) caryophyllata*, La Llave; Anacardaceae (Julianaceae); in Tlalpam and other localities. The leaves are stimulant.

Coclearia, *Cochlearia officinalis*, Lin.; Cruciferae. In its place, *Lepidium latifolium*, Lin., is used in Mexico as an antiscorbutic, the expressed juice being given in doses of 60 to 150 Gm. a day.

Coco, *Cocos nucifera*, Lin.; Palmae; in hot districts of Mexico. The roots are used in diarrhoeas for their astringent properties, the pith and terminal bud for food, the flowers for their pectoral properties, and the green fruit as a hemostatic; the fermented juice furnishes a very agreeable liquor. The uses of the cocoa nut and of the oil are well known.

Colchicum alpinum, De Cand.; is met, with in Mexico, according to Oliva, and appears to have the same properties as *Colch. autumnale*.

Colorin, *Erythrina coralloides*, Flor. Mex. ined.; Leguminosae; in Mexico and South America. The seeds are elliptic, smooth, glossy, coral-red, with a salient longitudinal line on the back, and with a white hilum, surrounded with a black border. The analysis by Rio de la Loza showed these seeds to contain 13.35 solid and liquid fat, 0.32 resin soluble in ether, 13.47 resin soluble in alcohol, 1.61 *erythrocoalloidine*, an alkaloid, 5.60 albumen, 0.83 gum, 1.55 sugar, 0.42 organic acid, 15.87 starch, 7.15 moisture and 39.15 inorganic matter (and cellulose?). The seeds are very poisonous. The flowers are used for food and the white wood for bungs, and in San Luis Potosí for making various figures.

Colorinchiquito, *Rhynchosiaprecatoria*, H. B. K.; Leguminosae; in Cuernavaca and other hot districts. The seeds are reniform, somewhat compressed at the base, and from the hilum partly red and partly black. They are popularly supposed to act upon the brain, producing loss of memory; but, according to Dr. Altamirano, of Mexico, who experimented with the alcoholic extract, this belief is unfounded, although toxic principles appear to exist in these seeds.

Colorin de peces, *Piscidia Erythrina*, Lin.; in the State of Guerrero. The tincture of the root bark is recommended for toothache. The practice of stupefying fish by means of this plant should be prohibited.

Cominos rústicos, the fruit of a Mexican umbelliferous plant; aromatic and resembling fennel. It is referred to *Thapsia Asclepium*, Lin. (?); but Oliva regards as identical with it the fruit which in Jalisco is called **acocote**, and is derived from *Pentacripta (Arracacia) atropurpurea*.

Contrayerba, *Dorstenia Contrayerba* and *D. Houstoni*, Lin.; Moraceae. The former grows in the State of Vera Cruz and other localities, and is known as **barbudilla**; the

latter is found in Campeachy and seems to be Drake's root. Both roots are stimulant, diaphoretic and antiperiodic. The root of *Asclepias sestosia*, Benthams, is known as **Contrayerba de Julimes**, and, according to Cal, possesses the same properties and even appears to be superior to the preceding.

Copal, Goma de limon, from *Bursera copalliferum*, Flor. Mex. ined.; Burseraceae; in the hot regions of the western part of the republic. The resin is obtained by incisions made on the shrub, and is met with in commerce in semicylindrical pieces, brittle, glossy, transparent on the flat side, opaque on the convex side, and covered with earth; it has a balsamic odor and an aromatic taste, softens between the teeth like mastic, melts at 74°C., and gradually loses its transparency and becomes yellow. It has the balsamic properties of similar resins, but is not used in medicine except as a substitute for elemi in ointments.

Copalchi, the bitter bark of various trees, generally called **campanillo**. The bark most commonly met with is that of *Croton niveum*, Jacquin, s. *C. Pseudochina*, Schiede, which grows in Oaxaca, Plan del Rio, Tampico, Tehuantepec, between the Laguna verde and Actopan (where it is known as **quina blanca**, according to Schiede), in the Sierra de San Pedro, etc. Also *C. reflexifolium*, H. B. K., which grows in Acapulco, Huasteca, Paso del Correo, on the river Teculata, etc., and is often confounded with the preceding species. Another larger and more bitter bark has been referred to *Croton suberosum*, Kunth. According to Oliva, *Coutarea lateriflora*, De Cand., Rubiaceae, is known in Autlan as **campanillo**, and its bark is the **copalchi** of Guadalajara; and Jimenez states that *Hedwigia (Tetragastrus) balsamifera*, Swartz, is called **copalchi** in Orizaba.

Corteza de Drimis. *Drymis mexicana*, De Cand., grows in hot regions of the western slope of the Mexican cordillera; *Dr. granatensis*, De Cand., in Nueva, Granada. The bark is stimulant, tonic and aromatic. Dose, in powder, 1 to 8 Gm.; the infusion, 8 Gm. to a liter of water; the tincture, 10 Gm.

Costomate, Capuli, *Physalis Costomatl*, Mociño et Sessé; Solanaceae; in temperate sections of Mexico. The fruit is comestible, and the leaves are diuretic.

Crameria. Besides the Peruvian *Krameria triandra*, the two Mexican species *Kr. pauciflora* and *secundiflora*, Ft. Hex. ined., are mentioned as the principal sources of this drug, which, however, is not described.

Cuajilote, *Parmentiera edulis*, De Cand.; Bignoniaceae; in Yautepec and other hot districts. According to Oliva the root is diuretic, and a decoction of the leaves is useful in external otitis.

Cuajote, *Rhus pernicioso*, H. B. K.; Anacardaceae; in Tepecacuilco, and other hot districts. The gum resin, which exudes spontaneously, is commonly known as **goma archipin**. It is seen in globular masses, in tears or in irregular fragments, and varies in color between milk white, yellowish, reddish-yellow and brown, sometimes with greenish or bluish green spots; fracture glassy; spec. grav. at 18°C. 0.9383; inodorous, persistently bitter; readily emulsified with water; when thrown in the fire, decrepitates and gives a slight smoke. Rio de la Loza found it to contain 34 gum and

44 bitter resin soluble in alcohol and ether, the remainder consisting of moisture, salts of calcium and magnesium and of extraneous matter. It is used as a purgative and diuretic (dose?) and the thick emulsion as a cement for ivory, glass, porcelain, etc.

Cuasia. *Quassia amara*, Lin., and *Picraena excelsa*, Lindley, are used, but the wood of *Rhus Metopium* is also sold under this name and is distinguished by its gray color with black spots, and by the precipitate of its aqueous infusion with sulphate of iron.

Cuautecomate, *Crescentia alata*, H. B. K.; Bignoniaceae; in Colima, Autlan, Acapulco and other hot districts. The fruit is a round, woody, smooth berry, marked with a circular suture from the peduncle, one celled, many-seeded, and filled with a pulp which in the fresh state is greenish white, but after drying is black, and then resembles the pulp of cassia fistula; it contains much sugar, a notable quantity of gum, tannin and woody fibres. The pulp is recommended as an excellent remedy for allaying cough and in contusions. The leaves are astringent, and are used in diarrheas, also for promoting the growth of the hair and preventing its falling out.

Cuauchalata, *Rajania subsamarata*, Ft. Hex. ined.; Dioscoreaceae; in Matamoros, etc. The bark is astringent.

PHARMACEUTICAL PREPARATIONS OF THE MEXICAN PHARMACOPOEIA. Part 3

BY THE EDITOR.

Harinas emolientes, *Farinae emollientes*.—Powdered flaxseed and mallow herb, equal parts.

Hidralcohol aromático, *Hydralcohol aromaticus*.—Digest for ten days aromatic species 100, alcohol (85 per cent.) 200, water 800, Cologne water, 50, express and filter. A substitute for aromatic wine.

Inyeccion con Subnitrate de Bismuto, *Injectio cum Subnitrate bismuto muthico*.—Bismuth subnitrate 15, gum arabic 10, water 100.

Inyeccion con Tanino, *Injectio cum Tannins*.—Tannio 1, water 100.

Inyecciones subcutáneas.—Full instructions are given for applying hypodermic injections; the dose is stated to be for aconitine 0.5 to 2 mgm.; veratrine 0.5 to 1 mgm.; colchicine, 2 mgm.; digitalin 1 to 3 mgm. The formulas direct the solutions to be made from 1 part of morphine hydrochlorate or sulphate, atropine sulphate or strychnine sulphate in 100 parts of water. The injection of quinine sulphate is made in the proportion of 1:10 with the aid of a little sulphuric acid. The injection of ergot is made from the aqueous extract, by precipitating with strong alcohol, decolorizing the filtrate by means of animal charcoal, evaporating the alcohol, and adding water to make the weight equal to that of the ergot used; the solution is preserved by dissolving in 100 gm. of it 0.15 gm. of salicylic acid.

Jabon animal, animal soap, is the soda soap of ox-marrow, and **Jabon medicinal** the soda soap of sesame oil; the latter is intended for internal use in the dose of 0.5 to 4.0 gm.

The syrups with the exception of those containing alcohol or acidulous juices, have at 15°C. a density ranging from 1.261 to 1.321. The following differ more or less from the syrups ordered by other authorities.

Jarabe atemperante (temperante), *Syrupus temperans*.—Equal parts of the syrups of red poppy petals and of lemon juice.

Jarabe balsámico, *Syrupus de Balsamo tolutano*.—Dissolve tolu 60, in alcohol 50, and impregnate with this solution cotton 17; then mix intimately with cotton 33, loosen the cotton by picking, and expose to the air until the alcohol has been evaporated; now digest for two hours in water 500, express and again digest in the same quantity of water; mix the infusions, filter after cooling, and in every 100 parts of the filtrate dissolve 190 parts of sugar.

The syrups of benzoin and of storax are prepared in the same manner.

Jarabe de Belladona, *Syrupus de Belladonna* is one-half the strength of that of the French Codex and is made with tincture of belladonna 75 and simple syrup 1925.

Jarabe de Acónito is four times stronger than the French preparation, and is made by mixing tincture of fresh aconite leaves 100 and simple syrup 900.

Jarabe de Cuautecomate, *Syrupus de fructibus Crescentiae alatae*.—Pulp of the fruit 100, water 300; macerate for twelve hours with frequent agitation, express, strain and boil with sugar 500 until the boiling syrup has a density of 30°B.

Jarabe de extracto de Opio, *Syrupus cum extracte Opii*, contains in 1,000 parts, 2 parts of extract of opium, and is just four times stronger than the **Jarabe diacodion**.

The fruit syrups of quince, pomegranate, lemon, mulberry, blackberry, pineapple and of *Bromelia Pinguin* are prepared by dissolving sugar 1750 in 1,000 parts of the clarified juice.

Jarabe de Narceina, *Syrupus cum Narceinâ*—Narceine 1, water (containing 0.6 gm. of hydrochloric acid sp. gr. 1.16) 100, distilled water 250, sugar 650; dissolve.

Jarabe depurativo de Chavert, *Syrupus depurans ex Chavert*.—Boil sarsaparilla 180 and China root 60 with water 4000, suspending in the liquid powdered black antimony 60, enclosed in a piece of linen; when the liquid has been reduced to 1,500 macerate it with orris root 60, round aristolochia root 60 and senna 120, strain, add sugar 2,000 and honey 2,000, form a syrup and mix with the tincture prepared from jalap 30, sassafras bark 60 and alcohol (60 per cent.) 375.

Leche para niños, *Potio Rosarum composita*.—Rose water 120, magnesia 2, powdered soap 0.006, syrup of orange peel 15; mix. As an antacid for babies in doses

of a spoonful.

Leche virginal, *Tinctura de Benzoino composita*.—Benzoin 120, Ceylon cinnamon 30, cloves 30, mace 30, alcohol (80 per cent.) 2,000; macerate for 8 days, add balsam of Peru 30, again macerate for 8 days and filter. Used as a cosmetic, a little of the tincture added to water forming a milky mixture.

The fixed oil directed for the various liniments is sesame oil. The following may be mentioned:

Linimento de Cloral, *Linimentum cum Chloralo*.—Powdered chloral hydrate 6, sesame oil 30; dissolve with trituration and by the aid of a moderate heat.

Linimento de Jabon (de Goulard), *Linimentum Saponis ex Goulard*.—White animal soap 500, water 2,000; dissolve by means of a gentle beat, stir well while cooling and incorporate with it a mixture made of sesame oil 250 and subacetate of lead 120.

Oleosacaruros, *Oleosaccharureta*, are made from 1 part of volatile oil and 72 parts of sugar.

Opiata de Copaiba compuesta, *Opiatum Copaibae compositum*.—Mix equal weights of copaiba, powdered catechu and powdered cubeb.

Pastillas de Cuautecomate, *Pastilli de fructibus Crescentiae alatae*, Aqueous extract of the pulp of *Crescentia alata* 50, gum arabic 50, sugar 200. Each lozenge is to weigh 1 gm.

Pildoras de Boncio, *Pilulae ex Bontius*.—Barbadoes aloes, gamboge and ammoniac, of each 10 gm., white vinegar 60 gm.; heat gently, strain the liquid, evaporate to a pilular consistence and form into 150 pills.

Pildoras pacificas, *Pilulae Opii compositae pacificae*.—Powdered opium 30, nutmeg 6, saffron 6, benzoic acid 4, oil of fennel 0.006, oil of nutmeg 0.006, honey 20; make into 1,344 pills, each of which contains approximately 0.022 gm. of opium.

Polvo de contrayerba compuesto, *Pulvis Dorsteniae compositus*.—Powdered contrayerva root 60, root of *Dictamnus albus* 60, mistletoe 60, calcium phosphate 104, hydrated ferric oxide 3; mix. Recommended in various nervous affections; dose 0.6 to 4.0 gm.

Polvo de Jalapa compuesto, *Pulvis Jalapae compositus*.—Jalap Root 34, jalap resin 4, scammony 4, potassium nitrate 12, potassium sulphate 12, oil of anise 0.013; mix. Dose 1 to 4 gm.

Polvo de Rosa compuesto, *Pulvis Rosae compositus*.—Rose petals 125, linaloe 45, cinnamon 15, cloves 15; mix. Used as a tonic application to ulcers.

Polvo dentrífico de Comoto, *Dentifricium ex Comoto*.—Cream of tartar 25, cochineal 50; mix the powders, moisten the mixture with sufficient water to form a

paste, dry, reduce to a fine powder and mix with powdered cloves 6 and calcium phosphate 150.

Polvo galactóforo, *Pulvis Foeniculi compositus*.—Powdered fennel 125, sugar 125, calcium phosphate 375, origanum 125, hydrated oxide of iron 5; mix. Dose 4 to 15 gm.

Pomada de Cloral, *Pomatum cum Chloralo*.—Chloral hydrate 6, lard 30; dissolve in a wide mouth vial with the aid of heat.

Pomada de Sulfato de quinina, *Pomatum cum Sulfate quinico*.—Quinine sulphate 3, tartaric acid 2, water 4; dissolve and mix with benzoinated lard 30.

Pomada de Toronjil, *Pomatum cum oleo volatile Cedronellae mexicanae*.—Oil of cedronella 15, lard 500. As a cosmetic for the hair.

PRICKLY PEAR IN AMERICA.

In some recently published Consular reports of the United States the following interesting paragraph on the nopal, or prickly pear (*Opuntia cochinillifera*) occurs: "The plant abounds in the whole territory of Mexico, Texas, New Mexico, Arizona, and California, and extends much further north. It has flat oval leaves, about six inches long and nearly half an inch thick, covered by long sharp thorns, and bears a fruit of a purple color resembling a pear, filled with numerous small seeds. The plant grows from three to six feet high. Its fruit is eaten freely by cattle, and the leaves, after having been burnt in a fire to get rid of the thorns, are thrown by the cartmen in place of fodder to their oxen by means of a long sharp-pointed stick, especially when on a road where there is no grass. It also makes an excellent hedge, and once planted will last for ever. There is another species of nopal called nopal de castilla, which has no thorns, and which is cultivated for the sake of its fruit. This nopal has much larger leaves than the wild species, and grows to the height of ten and twenty feet, and the fruit is much larger. Of this species there are a great many different kinds, each having its distinct name. They are of different colors—green, red, yellow, white, and purple. The fruit is delicious, and in the interior of Mexico forms one of the principal means of sustenance for the inhabitants. From the purple tuna a liquid is made called *colonche*, and a sort of sweet cheese (*queso de tuna*). There is a small red tuna growing wild in the mountains near to Zacatecas, called *cardona*, which is highly prized on account of its fine flavor and digestible qualities, and several cartloads of which are sold daily in Zacatecas. They are sold at six cents for four dozen. Besides serving for food for men and beasts, its leaves form the food of the cochineal insect." —*Phar. Jour. and Trans.*, June 27, 1885; from *The Gardener's Chronicle*, June 20.

NOTE BY THE EDITOR.—The Mexican Pharmacopoeia describes a product of these plants under the designation of *goma de nopal*, also improperly called *tragacanto del país*. It is produced by different Mexican species of *Opuntia*, such as *O. Tuna*, Hiller, *O. rosea*, De Cand., *O. Hernandezii*, De C., and others, the plants being called *nochtli* 1 in Mexico, *pari* in Tarasco, *raquette* by the French and *nopal* by the English and Spaniards. The gum is in vermicular or roundish pieces, horn-like, yellowish white, translucent or opaque and insipid. Immersed in water it swells, becomes white, does,

not form a mucilage and leaves a farinaceous residue. With iodine it becomes blackish blue. The microscope reveals groups of thin needle-shaped crystals of calcium oxalate, by the presence of which this gum is easily recognized if used for adulterating tragacanth. It is employed for similar purposes as the latter.

Nopalillo, *Opuntia Nopalillo*, Karwins, is a Mexican cactus, of which the root is employed in the form of infusion, in dysentery, diarrhoea, haemoptysis and metrorrhagia.