tive kind. Water extracts its virtues. The extract, which is the form in which it is used, has been long known and used in this country as an excellent cathartic. As it is naturally mild in its operation, its effect may be much increased by the addition of calomel. To obviate habitual costiveness, the butternut is perhaps the best laxative that can be used. The dose is from 10 to 30 grs.]

JUNIPERI BACCÆ ET CACUMINA. L.E.D.

(Juniperus Communis.)

Juniper Berries and Tops.

The principal constituents of these berries are mucilage, sugar, and volatile oil; in the latter of which their diuretic virtues reside. Forms of Exhibition. That of an infusion, made with ℥ij of the berries, to oj of hot water. Unless pains however are taken, by strong contusion, to bruise and break the seeds, the preparation will contain but little of the juniper flavour. The bruised berries may be also triturated with sugar or some neutral salt, and be thus exhibited in substance, Dose ℈j to ℈ij. Officinal Preparations. *Oleum Junip.* L.E.D. *Spirit Junip. Co.* L.E.D. The taste and diuretic properties of Hollands depend upon this oil; English gin is flavoured by oil of turpentine.

KINO. L.E.D. *Kino.*

(Pterocarpus Erinacea.* *Extractum.* L. Eucalypti Resiniferi. *Succus Concretus.* E. Butea Frondosa. D.)

There is very considerable obscurity with regard to the history and chemical constitution of this substance; three varieties of it are met with in the shops, viz. 1, *African Kino*, which bears the highest price, and has all the appearance of a natural production, slender twigs being often intermixed in its substance; it is of a reddish brown colour and has a bitterish astringent taste. 2. *Botany Bay Kino*, has also the aspect of a natural production, it is in more solid masses than the former species, is less brittle (for it contains a very small proportion of resin) and, with its astringency, has a disagreeable sweetish taste. 3. *Jamaica Kino*, this is the one most commonly met with; it has the appearance of a dry extract, is in small fragments, of a colour more nearly approaching to black than that of the others, and has an astringent and slightly bitter taste. There is also a fourth variety mentioned, viz. the *East India* or *Amboyna*, but this does not appear to differ from the African variety. Chemical Composition. In all the varieties the predominant principles are tannin and extractive. Solubility. The best menstruum is diluted alcohol. *Incompatible Substances*, vide *Gallæ* Mr. Thomson also states a fact which I have reason to consider quite correct, that the alkalies destroy the astringent properties of kino All the varieties are soluble in solutions of pure potass and no precipitation takes place on the addition of water. Medicinal Uses. It is principally employed as an astringent, but from its liability to vary in strength, it has been very generally superseded by Catechu.† Forms of

* The plant which yields Kino is at length satisfactorily proved to be the Pterocarpus Erinacea: the London College have accordingly made the alteration which I anticipated in the former edition of this work.

† Dr. Pemberton makes the interesting statement in relation to the operation of kino upon the system, that unless Diarrhœa be actually present, "it appears to have

Exhibition. Either in substance or in the form of watery infusion, or in that of tincture. Dose, grs. x to 3ss. Oeficinal Preparations. *Tinct. Kino.* L.E.D. *Elect. Catechu.* E.D. *Pulvis Alum. co.* E.

KRAMERIÆ RADIX. L. (Krameria Triandra *Radix.*)

Rhatany.

This root, although it has been for some time employed in medicine, has only lately found its way into the Materia Medica of the London Pharmacopœia. Its extract, which was some years ago imported into this country, is supposed to have been employed for giving astringency to Port wine. According to recent analysis the root contains a peculiar modification of Tannin, with only a trace of Gallic acid; Gum; Fecula; and certain salts of Lime. It may be used either in decoction, or tincture, the latter of which may be made by dissolving two ounces of the root in a pint of proof spirit. In all its forms it is eminently astringent. I have used it with much success in Leucorrhæa, and in uterine hemorrhages. The extract may be distinguished from Kino, to which it bears a great resemblance in appearance and taste, by being very fusible by heat, whereas Kino does not possess that character.

LICHEN. L.E.D. (Lichen Islandicus.) *Lichen.*

Iceland Liverwort. Iceland Moss.

Qualities. *Odour*, none; *Taste*, mucilaginous and bitter. Solubility. *The effect of water upon this vegetable substance is materially modified by temperature; if cold, the lichen absorbs nearly its own weight* by maceration, but gives out to the menstruum little or none of its virtues; if the water be warm, it soon acquires a bitter impregnation; by ebullition, a decoction is obtained, which, as it cools, gelatinizes. See *Decoct. Lichen.* Chemical Composition. Proust has shewn by analysis that 100 parts of this moss contain 64 parts of a substance bearing some analogy to vegetable gluten, 33 of a matter, soluble in hot water, and resembling starch, and 3 parts of a bitter principle. Medicinal Uses. This vegetable was introduced to the notice of the profession by Linnæus, who recommended its decoction, as having been administered with great success for coughs in Sweden. Upon its introduction into this country, its patrons bestowed so many extravagant eulogiums upon its powers, that the less sanguine practitioner at once abandoned its use in disgust, and it fell into unmerited disrepute. It would be idle to speak of its specific effects in phthisis; but, as a demulcent, it is certainly very superior to the mucilaginous mixtures in ordinary use, and its simple bitter principle at the same time tends to produce a tonic effect, which is frequently desirable in the debilitated condition which characterizes the latter stages of this disease. There are circumstances, however, which may render the removal of the bitter advantageous; in which case, maceration in suc-

no tendency to confine the bowels. In this drug, therefore," he adds, "you have a medicine which exerts its powers to restrain the discharges of the glands when they are secreting too much, without exerting any such powers over them when they are acting naturally." Practical Treatise on the various diseases of the abdominal viscera, p. 112, Am. Ed. Ed.