

## Chilian Remedies.

Some specimens of native remedies in common use in Chili, brought by a resident in that country to England, have been recently presented to the Museum of the Pharmaceutical Society by Mr. A. C. Abraham. Three of these are already well known in this country, as well as on the Continent and in the United States. These are Boldo, Cheken and Piehi. The others have not yet been introduced into European medicine, but one of them, Paico (*Chenopodium ambrosioides*), is used as a vermifuge in the United States. As they are extensively used in Chili, and may at any time appear in the London drug market, it may be useful to record, for purpose of reference, a brief account of their properties and uses, and the characters by which they may be recognized.

**BALAHUEN.** *Haplopappus Bahlahuen*, Remy (*Composita*). The specimens received consist of a woody stem with somewhat crowded coriaceous leaves less than one inch long and oblanceolate in outline, the widest portion of the leaf being less than half an inch across. In the broadest part, which is above the middle, the leaf has two or three short triangular teeth, and it tapers below into a slightly amplexicaul base. Both the stem and leaves present a varnished appearance, due to exuded resin. The taste is faintly aromatic, resembling slightly that of patchouli, but without bitterness. The plant is a native of the high Cordilleras of the province of Coquimbo. Its medicinal properties appear to be due to the presence of the resin. Internally it is employed in the form of an infusion as a stimulant in weak digestion. It is also reputed to possess emmenagogue properties. Externally it is applied for healing the wounds of animals. The plant is described in Gay's "Flora of Chili," vol. iv., p. 12. According to Baile it has been found useful in diarrhoea and acute and chronic dysentery.

**CEPACABALLO.** *Acaia splendens*, Hook. et Arn. (*Rosaceae*). The drug consists of dark brown woody stems, forked at intervals of several inches, and densely covered with the somewhat rigid bases of the crowded leaves. The leaves are imparipinnate with entire, linear, lanceolate silvery leaflets, which bear some resemblance to those of *Alchemilla alpina*. The leaves, however, owing to the slender petiole, are mostly broken off. The leaf bases are erect and imbricate, or recurved at the apex, and although covered with silky hairs have not, owing to their brown color, the same silvery appearance as the leaves. The taste is astringent and slightly bitter. The plant has no perceptible odor. It is described in Gay's "Flora of Chili," p. 291, and in the *Botanical Miscellany*, p. 306. It is found in the Cordilleras of Santiago, San Fernando, etc., ascending to a height of 5-600 feet. The whole of the plant is used in medicine in the form of infusion, and is given in the liver complaints common in the northern and central parts of Chili.

It acts also as a slight diuretic and is employed as an emmenagogue. Another species known as Pimpinela (*Acaia pinnatifida*, R. P.), is also employed as an emmenagogue. In this species the leaves are glabrous.

**NATRI.** Three species of *Solanum* appear to be used under this name in Chili, viz., *Solanum crispum*, R. et P., *Solanum Gayanum*, Remy, *Solanum Tomatillo*, Remy. The drug received appears to belong to the last-named species. The stems are cylindrical and longitudinally wrinkled, more or less forked, with erect branches, the leaves alternate, linear lanceolate  $1\frac{1}{2}$  to 2 inches long, and  $\frac{1}{4}$  to  $\frac{1}{2}$  of an inch in diameter, coriaceous, brittle, and minutely wrinkled. The taste is persistently bitter.

Chemical investigation of the plant has been made independently by Drs. Miranda and Larenas. They found an alkaloid to which Dr. Miranda gave the name of natriina and Dr. Larenas the name of witheringina. Both agree that it possesses the following properties:

It forms crystalline salts with the mineral acids, gives an orange-red precipitate with the reagents of Mayer, Bouchardat and Dragendoff. The last named reagent gives a precipitate in a solution containing  $\frac{3}{1000}$  parts of natriina. The alkaloid is soluble in alcohol and in boiling water, but insoluble in ether and chloroform. When heated it melts and then chars, giving off an odor like burnt horn. Concentrated acids give to it a red colour. The sulphate, according to Dr. Larenas, crystallizes like sulphate of quinine. Natri is stated by Messrs. Miranda and Larenas to afford 1.9 p. c. of the alkaloid from the stem and 2 per cent. from the leaves. The process adopted by Dr. Larenas for the extraction of the alkaloid consists in exhausting the leaves by water acidulated with sulphuric acid, concentrating the liquid by evaporation, and precipitating resinous and colouring matter by subacetate of lead, freeing the solution of acetate of natriine from lead by hydrogen sulphide, and precipitating with sodium carbonate.

According to Dr. Navarette, the infusion of natri lowers the temperature and slows the pulse, whilst it produces a stimulant action upon the stomach and, after it has been taken a few days, exerts a slight aperient action. Natriine, according to Dr. Miranda, produces nausea, vomiting and purging, and acts as an irritant, whether employed in the form of enema or hypodermically injected. Dr. Murillo remarks that although natriine is a less powerful antipyretic than quinine, it is a simple and innocent remedy which is certainly effectual in fevers of typhoid type. It would seem, therefore, that the drug might be worthy of trial in cases in which quinine is not well borne. A further investigation of its alkaloid might also prove of interest from a chemical point of view.

**PAICO.**—*Chenopodium ambrosioides*, L. (*Chenopodiaceae*). The use of this plant

as a vermifuge, for which purpose it is given in the United States, appears to be unknown in Chili, where it is employed as a stimulant to digestion, and as an emmenagogue. In cholera epidemics it is also extensively used instead of mint. Dr. Murillo remarks that he knows of no better carminative remedy in the treatment of the diseases of infancy.

**PANUL.** *Lipstickum Panul*, Bert. (*Umbelliferae*). The drug consists of the fruiting tops, only fragments of leaves being present. The umbels are compound, the partial umbels consisting of few flowers. The fruit is small, and in shape and appearance bears some resemblance to conium, but has two broad vittae on the commissural surface, and there is neither general nor partial involucre. The umbels also are generally arrayed in threes. The leaves under a good lens are seen to be covered, especially on the margins, with minute rough points. In shape the leaf segments resemble those of conium. The stem is hollow and strongly furrowed, and about two lines in diameter, the peduncle of the umbels being only about  $\frac{1}{4}$ — $\frac{1}{2}$  line in diameter. The odour of the herb faintly resembles that of fenugreek or of lovage, and the taste is slightly aromatic, leaving after a time a sensation of warmth in the mouth. The Chilians employ the plant in skin diseases and to arrest or reduce perspiration in phthical patients; for the latter purpose it is given in decoction. A tincture mixed with water and drawn up through the nostrils is used to relieve headache. The plant is described in Gay's "Flora of Chili," vol. iii., p. 131.

**SABNELLA.** *Margyricarpus setosus*, R. et P. (*Rosaceae*). The drug consists of woody densely branched slender stems having a more or less scaly appearance, due to the sheathing bases of the petioles, which are only their own length apart, and thus give a flexuose appearance to the stem. The leaves are imparipinnate, and the leaflets, which are mostly broken off, are small and linear subulate. It has very little taste and no odour, and is only faintly astringent. According to Dr. Murillo, it has proved useful in the treatment of mucous discharges.

**TE DE BURRO.** *Eritrichium guaphalioides*, D. C. (*Boraginaceae*). This consists of the woody stems, which are from one to two lines in diameter, with erect-patent branches at intervals of about  $\frac{1}{2}$  inch on the main stem. The thin, dull, chalky white bark readily serves as a distinctive feature. The leaves when present are linear, sessile and entire. The plant bears the name of tea of the Cordilleras and is very commonly used in the province of Atacama, where there is said to be hardly a house which does not keep some branches of the plant ready for use. It is employed in the form of tea for indigestion and diarrhoea. The taste is pleasant but slightly acid, and the drug produces for a time a sialogogue effect followed by astringency. - *Pharm. Journal*.