

PHARMACOPCEIAL VEGETABLE DRUGS.

Caucasus, Persia, throughout Asia Minor, Northern India, and even in Siberia. It has been naturalized in North America and Brazil, and in England is a common weed. Dioscorides (194) mentions it among medicinal plants, and under the name *Henbane* it has been employed in domestic medicine throughout Europe from the remotest times. Anglo-Saxon works on medicine in the eleventh century give it a place. During the Middle Ages the seeds and roots were much used. Its re-employment and introduction to modern regular medicine, after it had fallen into disuse, came through the efforts of Störck (617). Its qualities were well known to the Arabians, as is witnessed in numerous references thereto in the "Arabian Nights" (88), of which the following is a sample:

"Presently he filled a cresset with firewood, on which he strewed powdered *henbane*, and lighting it, went round about the tent with it till the smoke entered the nostrils of the guards, and they all fell asleep, drowned by the drug." (88) History of Gharib and his Brother Ajib, Vol. VII, p. 7.

Had Herodotus not said *tree*, it might have been accepted that the volatile intoxicant mentioned by him referred to this drug. Indeed, the presumption would not have disturbed an author who made errors more pronounced than the distinction between an herb and a tree, and who qualified his statement by "it is said." However, as shown in our article on *Matico*, that plant was originally described as "Soldier's Herb or Tree."

"Moreover it is said that other trees have been discovered by them which yield fruit of such a kind that when they have assembled together in companies in the same place and lighted a fire, they sit round in a circle and throw some of it into the fire, and they smell the fruit which is thrown on, as it burns, and are intoxicated by the scent as the Hellenes are with wine, and when more of the fruit is thrown on they become more intoxicated, until at last they rise up to dance and begin to sing." Herodotus (Macaulay), Book I, p. 99.

In this connection, through tradition probably, its uses in the same manner came to popular uses. The grandmother of the writer, afflicted with asthma, found her greatest relief in smoking stramonium leaves mixed with small amounts of henbane leaves. This was an heirloom of primitive medication transplanted to the Western American wilderness.

IPECACUANHA

The beginning of the history of ipecacuanha root and the first study of its virtues is clouded in mystery and fable. It is stated that the South American Indians were acquainted with the medicinal properties of the plant, having gained their experience from observing the habits of animals (409).* A vague yet probably the first source of information on the subject of ipecacuanha root is found in a work published in London in 1625, named "The Pilgrimes," by Samuel Purchas (527), which in five volumes gives an account of many travels and the natural history of foreign countries. In Vol. IV, page 1311,

*This fable has a parallel in the quaint description given by Clusius concerning the discovery of the healing virtues of *nux vomica* bark in cases of snake bite.

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where Brazilian plants and their uses are considered, the following passage occurs:

"*Igpecaya* or *pigaya* is profitable for the bloudie fluxe. The stalke is a quarter long and the roots of another or more, it hath only four or five leaves, it smelleth much wheresoever it is, but the smell is strong and terrible."

The subsequent description of its medicinal virtues bears further evidence that we have here a plant at least closely related to official ipecacuanha. According to a printed note at the head of that chapter, the author is believed to be a Jesuit by the name of Manoel Tristaon (651a), who probably wrote the treatise in the year 1601.

The first definite information we have of ipecacuanha dates from the publication of a work by Piso and Marcgraf (511), called "Historia Naturalis Brasiliæ," Amsterdam, 1648, chapter lxiv being entitled "De Ipecacuanha ejusque Facultatibus." Two species are described, a white and a brown species, the latter evidently being the true ipecacuanha plant. An illustration of the plant is added, which Mérat considers quite a creditable reproduction of the true ipecacuanha. The entire chapter was reprinted, with French translation, by Mérat (422), and inserted in his "Dictionnaire," as a testimony of the extreme exactness of the description given by Piso (511).

The root first came to Europe in 1672 through the agency of Le Gras (422), who sought to introduce it into medical practice. Keeping a stock supply in the care of an apothecary by the name of Claque-nelle in Paris, he associated himself with J. A. Helvetius (309), a physician of German descent, who had graduated under the medical Faculty at Reims. However, the venture was at first a failure, owing to the employment of too large doses.

In 1680 a merchant by the name of Garnier in Paris, well acquainted with the medicinal virtues of the root, sent for a supply, obtaining 150 pounds from Spain. Through this gentleman, directly or indirectly, Helvetius (309) secured a new lot of the drug, which he skillfully managed to exploit by extensively advertising it as "radix anti-dysenterica," the origin of which, however, he kept a secret. Finally the fame of the remedy came to the notice of Minister Colbert, who ordered that the remedy be given an official trial in the Paris municipal hospital.

In 1688 Helvetius (309) obtained the sole license for the sale of the drug, which proved to be an efficient, or at least popular, remedy among the members of an aristocratic patronage, including no less a personage than the dauphin. King Louis the XIV then bought the secret from Helvetius for one thousand louis d'or, and made the remedy public property. He was induced to do so by the combined influences of his physician, Ant. d'Aquin, and of Franç. de Lachaise, confessor to the king. Garnier, the merchant, however, brought suit in order to obtain his share of profit in the transaction, but was unsuccessful in his efforts.

After the use of the drug had thus been established in France, the remedy was introduced into other countries, e. g., by Leibnitz (378a)

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(1696) and Valentini (656b) (1698) into Germany, and 1694 by Fried. Dekker into Holland.

During the first part of the eighteenth century the drug was in frequent use in the various pharmacies of Germany, as is evidenced from its being mentioned in several old documents of that age. It is, for example, mentioned in the authoritative drug list of the Silesian town of Strehlen in 1724.

However, during the increasing employment of the drug, in the latter part of the eighteenth century, much confusion arose as to its botanical origin, insomuch that it became the habit to designate as ipecacuanha any emetic plant, regardless of its botanical source. A long list of such plants is enumerated, for example, in Martius (409). In this manner the characteristics of the plant furnishing true ipecacuanha root became almost forgotten, other plants being substituted for it. Ray, for example, held it to be a species of *paris*, and no less an authority than Linnæus himself thought *viola ipecacuanha* now known as *ionidium ipecacuanha* (684), to be the true ipecacuanha root.

In 1764, Mutis, a celebrated botanist in Santa Fe de Bogota, sent the younger Linnæus a Peruvian emetic plant with description, which he thought was the true ipecacuanha root. Linnæus fil. (385) accepted the statement of Mutis as correct and, moreover, believing the illustration given by Piso (511) of the true ipecacuanha plant to represent the specimen he received from Mutis, in 1871 gave it the name *psychotria emetica*, Mutis.

To Dr. Gomez (271, 272), who in 1800 returned from Brazil, is finally due the credit of having corrected this error. He re-established the nearly forgotten botanical character of true ipecacuanha in his memoir published at Lisbon in 1801, wherein he describes and figures the plant, and especially distinguishes it from *Psychotria emetica*, Mutis.

Having donated some specimens of the plant in his possession to his fellow countryman, F. A. Brotero (100), professor of botany, Coimbra, the latter published an account of it (1802) in the *Trans. Linn. Soc.*, naming it *Callicocca ipecacuanha* (100), but without giving credit to the source of his information, which chagrined Gomez considerably (422). Twelve years later Brotero left a copy of his article with a botanist by the name of Hectot, of Nantes, who communicated it to M. Tussac (656a), and the latter, in publishing it, gave it the name *Cephaelis ipecacuanha*, also laying stress upon its distinction from *Psychotria emetica*, Mutis, perhaps without having had any knowledge of Gomez's paper written twelve years before.

In 1820 A. Richard (550) again called attention to this distinction, but, as it seems, also without giving proper credit to Gomez, with the result that later authorities frequently quote the true ipecacuanha root under the name of *Cephaelis ipecacuanha*, A. Richard.

JALAPA

The purgative tuber known under the common name jalap, *Exogonium purga*, is a gift of Mexico, and by reason of its cathartic