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## REMARKS ON THE VEGETABLE CATHARTICS OF THE U. STATES.

BY JOHN C. ALLEN.

I OBSERVED with pleasure, in a late number of the Journal, an article on the vegetable emetics of the United States; and believing that any notice which may tend to attract the attention of the profession towards our indigenous productions, may be productive of advantage, I have been induced to offer a few remarks on the native and naturalized cathartic plants found in the United States, in hopes that others possessing better means of research will pursue the subject, and rescue it from the state of uncertainty in which it now remains.

In considering this class of remedies, the plants furnishing them will be spoken of according to classification of the natural orders, as given by Professor Lindley.

We do not find any native plant, said to possess cathartic properties, until we arrive at the third order, or the *RANUNCULACEÆ*, most of which, in a fresh state, are remarkable for their acridity, causticity, and poisonous qualities. These properties, however, are generally lost by the process of drying, or in watery infusion.

The only indigenous plant in this order known to possess cathartic powers, is the *Helleborus fœtidus*; the root of which is stated by Allioni and others to be powerfully cathartic, emetic and anthelmintic; it is, in fact, the most active and energetic plant of the genus. Schœpf says it is found in Virginia, and although not used in the United States, it is much employed in domestic practice in Great Britain; from its violent, and even poisonous qualities, it is always a dangerous medicine, and requires great caution in its administration.

The next order, *PAPAVERACEÆ*, contains the *Sanguinaria Canadensis*. The emetic properties have been fully described in a former number of this Journal. Both Schœpf and Barton speak of its cathartic powers, but it is seldom administered as a purgative, not only on account of its uncertain action on the bowels, but also from the violence of its prior effects on the stomach.

The eighth order, *PODOPHYLLÆ*, contains the *Podophyllum peltatum*, the root of which is generally acknowledged as one of the best of our native articles of the cathartic class. Dr. W. P. C. Barton asserts, from actual experiments, that it is fully equal to the common jalap of the shops, and the authors of the United States Dispensatory say, "It is an active and certain cathartic, producing copious discharges, without much griping or other unpleasant effect." The dose is from fifteen to thirty grains.

There are no decided cathartic properties ascribed to any of our indigenous species belonging to any of the succeeding orders, until we arrive at the seventy-fifth, or the *AMYGDALÆ*, and even the purgative power of any of the plants composing it are very problematical. The leaves and petals of the peach, *Amygdalus Persica*, are, however, stated to act on the bowels in large doses, and the fruit, like all others of a saccharine character, possesses slightly laxative qualities.

The seventy-seventh order, or the *LEGUMINOSÆ*, is not only one of the most extensive, but also most useful of the vegetable kingdom. It presents several plants, among those which are native or naturalized in the United States, which are entitled to notice for their medical properties.

At the head of the list is indisputably the *Cassia Marilandica*, which, from the testimony in its favor, appears to form an excellent substitute for the Alexandrian senna; it, however, requires to be given in rather large doses. When intended for medical purposes, the leaves should not be collected until late in the summer, or about the time of the ripening of the seeds, as earlier in the season they are comparatively inactive.

The *Baptisia tinctoria*, according to Dr. W. P. C. Barton, is both emetic and cathartic in large doses, and this statement is confirmed by Thatcher; it is, however, very uncertain in its effects when administered internally, and its principal and important use is as application in decoction or poultice to gangrenous ulcers.

The *Colutea arborescens*, which is extensively cultivated in gardens as an ornamental shrub, also forms a good substitute for senna, and is said to be used for the purpose of adulterating this drug.

The eighty-seventh order, or the *JUGLANDÆ*, affords but one species possessing purgative qualities. This is the *Juglans cinerea*, an extract of the inner bark of which is a mild and efficacious cathartic in doses of from ten to thirty grains. In its action on the bowels it somewhat resembles rhubarb, but leaves them in a more open state.

The eighty-eighth order, the *EUPHORBIACÆ*, contains many plants possessed of decided cathartic powers. Most of the species of *Euphorbia* are medicinal, being endowed with purgative and emetic qualities, though they all have the disadvantage of being very uncertain in their effects. The most efficient and safest of our native species, with regard to purgative powers, is the *E. corollata*, but even this is very apt to create much gastric distress. The *E. lathyris*, which has become almost naturalized, also presents some claims to attention. The oil expressed from the seeds acts very similarly to the oil of tiglii, requiring, however, to be given in larger doses, and not being as certain in its effects.

The most important plant of this order, in a medical point of view, is indisputably the *Ricinus communis*, which although not a native, has become naturalized by cultivation. The oil procured from the seed of this plant is perhaps the best of the mild purgatives, and is used more universally than any other article of its class; it is too well known to render it necessary to remark further on its properties or virtues.

Order ninety-sixth, or the *RHAMNÆ*, possesses but one native species that requires notice, the *Rhamnus catharticus*, the berries of which are

an active purgative, but are seldom used, on account of their nauseous taste and unpleasant action on the stomach and bowels.

The one hundred and twenty-ninth order, *POLYGALÆ*, contains many medicinal plants, but the only one that possesses any purgative qualities is the *Polygala senega*, the root of which is extensively used as an expectorant and diuretic; in large doses it is also emetic and cathartic; the latter effect, however, is seldom obtained without emesis also taking place, a circumstance that precludes its use as a purgative, in most cases.

The great order of *VIOLACÆ* and the beautiful *PASSIFLOREÆ*, as well as the beautiful *SARRACENIÆ*, and many others of the succeeding orders, are not known to contain any native plants whose purgative powers are worthy of notice.

In the one hundred and fifty-fourth order, *PHYTOLACCEÆ*, the *Phytolacca decandra* is the only plant possessing cathartic properties. In this species, however, they are of a high order, although it is difficult to administer it without also producing emesis. Some caution is necessary in its use, as it is liable, when given in large doses, to produce convulsions and unpleasant narcotic symptoms.

The one hundred and ninety-first order, *CAPRIFOLIACÆ*, comprises a number of plants, which, whilst they form the delight of the florist, are also of great interest to the physician. The root and inner bark of the *Sambucus Canadensis* are said to be drastic purgatives. This is also the case with the leaves, especially in a young state; they are always unsafe, from their uncertainty of action, sometimes operating so violently as to produce great distress.

The root of the *Triosteum perfoliatum* is a mild cathartic in doses of twenty or thirty grains, but in larger quantities is apt to affect the stomach.

In the one hundred and ninety-fifth order, or the *ASCLEPIADEÆ*, almost all the species are possessed of acrid and stimulating qualities, though few of them act on the bowels; some of our native species, however, are slightly purgative, in addition to their other powers.

The one hundred and ninety-seventh order, *GENTIANÆ*, although generally characterized by the tonic properties of the species composing it, contains a native plant that has attained some celebrity in domestic practice as a cathartic. This is the *Frasera Walteri*, the root of which, in a fresh state, acts in a prompt manner on the bowels, and is often substituted for rhubarb. When dried, it loses its purgative powers, but forms a valuable tonic bitter.

The one hundred and ninety-eighth order, *SPIGELIACÆ*, is more remarkable for its vermifuge than its purgative qualities, though when administered in large doses the *Spigelia Marilandica* will act on the bowels: it is generally necessary to combine some more efficient article with it to ensure that effect.

The two hundred and eleventh order, *SCROPHULARINÆ*, includes many acrid and suspicious plants which act on the bowels. The *Gratiola aurea* possesses all the properties of the *G. officinalis* of Europe, but is seldom used. In small doses it is an active and a safe purgative; but in large ones it is apt to excite nausea and vomiting.

From the foregoing remarks, it may be perceived that but few of our indigenous vegetables can be depended on as cathartics; a few among

them, however, are deserving the attention of the physician, and in case of need may be substituted for the more expensive foreign drugs. Thus the roots of the *Podophyllum peltatum* form a good succedaneum for jalap; the extract of the bark of the *Juglans cinerea* for rhubarb; whilst the leaves of the *Cassia Marilandica* are identical in their effects with the imported senna.—*Jour. of the Phil. Col. of Pharmacy.*

AN ESSAY ON THE DISEASES OF THE HEART, CONTAINING A NEW  
HYPOTHESIS BY WHICH THE PHYSICAL SIGNS ARE EXPLAINED.\*

BY CHARLES HOOKER, M.D.

[Communicated for the Boston Medical and Surgical Journal.—Continued from p. 363.]

PERCUSSION.

**PERCUSSION** is the examination of the interior of the body by striking lightly on the surface of the part to be explored, for the purpose of observing the sound thus elicited.

When percussion is applied over any part of the body distended with air, as the lungs, stomach or intestines, it elicits a clear, hollow sound; on the contrary, when applied over a solid, as the heart, or liver, it elicits an obscure or dead sound.

This important method of investigation was first proposed, about the middle of the last century, by Avenbrugger, a native of Styria, and a graduate of the University of Vienna, who published a treatise on this subject in 1763. His discovery was slightly noticed by Van Swieten and Stoll; and a translation of his Treatise was published in Paris in 1770: but the subject seems to have attracted little attention, until revived by Corvisart, whose translation of the Treatise of Avenbrugger, in 1808, with his own investigations, gave the art a general celebrity.

This art has lost none of its importance, but, on the contrary, is rendered more valuable, by the discovery of auscultation. The two methods mutually aid each other, and together afford certain and clear indications in many cases, which, with either one singly, would be doubtful and obscure.

The manner of percussion recommended by Avenbrugger and Corvisart, is to strike suddenly, though lightly, with the ends of the middle three fingers—the fingers being pressed closely together, and striking with the last phalanges perpendicular to the surface of the part percussed. An improvement in percussion has been proposed by M. Pi-orri, a physician of Paris, which consists in laying upon the surface to be percussed a thin plate of ivory, wood, or stiff leather, on which the stroke is inflicted.

Percussion is, therefore, like auscultation, of two kinds—*direct* or *immediate*, and *mediate*.

*Direct* or *Immediate Percussion* is performed by striking directly against the surface of the body. It is not necessary, however, that the

\* When this Essay was commenced, it was the intention of the writer to restrict his remarks, as implied by the title in the former numbers of the Journal, chiefly to *Auscultation as applied to Cardiac Diseases*; but, at the suggestion of several friends, he is induced to give a brief view of the physical signs, and the symptoms generally, and also the treatment of this class of diseases.