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Botanical Medicine Monographs and Sundry

FALSE SENEGA.

BY JOHN M. MAISCH.

In 1876 ("Proceedings Amer. Phar. Assoc." 1876, p. 661) Mr. Wm. Saunders directed attention to a root of which large quantities were then in the market, and which was sold as senega, but was deficient in acidity. In endeavoring to ascertain its origin, I was able to trace one lot of it to Greene county, Mo., where it was said to have been collected ("Amer. Jour. Phar.," 1877, p. 517), but did not succeed in obtaining either specimens of the root collected in that locality or of the plant. My attempts to solve the question, with the aid of several pharmacists near the locality named, were likewise unsuccessful. In the meantime the drug continued to appear in the market, and on inquiry it was usually said to have come from Texas, or another of our Southern States.

The same root has likewise been noticed in Europe; among others, it was described by Mr. Thos. Greenish ("Amer. Jour. Phar.," 1878, p. 522), who regarded it as young and immature senega, a conclusion which did not agree with my observation (Nat. Dispensatory, 1st edit. p. 1251; 2d edit., 1286). E. Siebert ("Amer. Jour. Phar." 1880 p. 469) suggested that this false senega might be derived from one of the numerous Central American species of *Polygala*.

Recently Dr. J. H. Gunn, of Calera, Ala., sent to the editor of "New Remedies" a plant which had been successfully used in place of senega, and this plant was recognized as *Polygala Boykinii*, Nuttall ("New Remedies" July, 1881, p. 208).¹ No allusion having been made to the character of its root, I applied to Dr. Gunn for a specimen of the plant, with root, and was kindly supplied by him. The root closely resembles senega root, but is entirely destitute of the keel-like line of the latter, and in all its parts has a woody column circular upon transverse section. On comparing the root with the specimens of false senega in my

¹ See AJP_1889_No_9.pdf in this series, where it was finally established that the main "False Senega" was *Senega alba*

collection they proved to be identical, and the microscopic structure agrees with that previously described by Thos, Greenish, and more recently by Geo. Goebel, Jr. (see last number, p. 321).

Dr. Gunn writes that the plant was brought to his attention a few years ago by an irregular practitioner, who thought it was *Polygala senega*, and who has been quite successful in treating chronic bronchitis with it in compound infusion.

The plant is one of the herbaceous perennial species of *Polygala*. Several slender stems are produced from the same root, and rise to the height of 12 or 18 inches without branching. The leaves are in whorls of about five, attain a length of about an inch, and vary between lanceolate and obovate in shape, the upper ones being even linear and sometimes alternate. The flowers are in terminal, slender, rather dense spikes, and are of a whitish color, with roundish, partly green wings. The seeds are hairy and have a caruncle of about two-thirds the length of the seed. The plant flowers from May or June to July or August, and grows in rich calcareous soil in Georgia and Florida and westward.

It would be of interest to examine the roots of the other perennial species of *Polygala* of our Southern and Southwestern States, to ascertain whether, in appearance and properties, they likewise resemble *senega*. Although the root of *Pol. Boykinii* undoubtedly possesses remedial properties, it is milder than true *senega*, and cannot be regarded as an equally efficient substitute for it.

ASPIDIUM RIGIDUM.²

BY WILLIAM J. BOWMAN, PH.G.

From an Inaugural Essay.

This fern is indigenous to the Pacific coast, where it is found in rocky canons and on hill-sides. It is confined principally to the eastern slope of the coast range, extending northward to Oregon and southward to Mexico. The following description of the plant is given by Professor Eaton: Root-stock short, stout, ascending or erect; fronds in a crown, on chaffy stalks, half evergreen, firm-membranaceous, smooth and green above, paler and more or less glandular beneath, 1 to 3 feet high, ovate-

² I have no idea the current nomenclature for this fern. *A. rigidum* is now *Dryopteris villarii* or *D. submontana*, but it only grows in Europe.—MM

lanceolate or triangular-lanceolate, usually fully bipinnate; pinnae broadly oblong-lanceolate, the lowest ones broadest and scarcely shorter than the middle ones; pinnules oblong, incised or doubly serrate, with spinulose teeth, conspicuously veiny; sort large, nearer the mid-rib than the margin; indusia firm, convex, orbicular, with a very narrow sinus, the edge bearing short-stalked glands.”

The rhizomes which I have seen are from 4 to 10 inches in length, closely covered with the remnants of stipes, and with these from an inch to an inch and a half thick. They are covered with a brown chaff, and densely beset with wiry rootlets. The rhizomes deprived of the stipes are from one-half to nearly an inch in diameter, and show, upon the transverse section, an arrangement very similar to that of *Filix mas*, the main difference being that the vascular bundles, found in a circle, are about six in number. It has a peculiar aromatic odor and a sweetish taste, which becomes acrid, bitter and astringent.

This California fern has as yet established only a local reputation as a medicinal agent, but, judging from the verdict of several physicians who have employed the drug, it deserves a more extended use. Prof. H. Behr, of San Francisco, has long used the *Aspidium rigidum* in this practice in the treatment of tænia, and with better results than he has been able to obtain from any other vermifuge. In 1863 he called the attention of the late Dr. J. B. Trask to its medicinal value, and for many years the doctor used it in his practice, and with such good results that he considered it a specific in the treatment for tape-worm. Prof. Behr employed the fresh rhizome, which he found more effectual than the dried. The fact of its having been used in the fresh state may, in some degree, account for the superior effects obtained from it.

Believing an analysis of the rhizome of this fern desirable, in order to establish the relation of its medicinal constituents to those existing in *Filix mas*, I have made some investigations, of which the following is an account: From a quantity of the rhizome, carefully dried, the stipes and all the outer brownish portions were removed, and the powdered rhizome exhausted with ether, sp. gr. .750. The ethereal solution was of a reddish-brown color with a greenish tinge. The greater part of the ether having been distilled off, and the residue exposed in a capsule until the remainder of the ether had evaporated, an oleoresin of thick oily consistence was obtained, having a greenish-brown color, an aromatic odor and the bitter, nauseous and somewhat acrid taste of the

drug. On standing, it soon deposited a resin, which was separated and treated with alcohol. After evaporation of the alcohol the resin was of a reddish-brown color, but darkened on long-exposure to air, and became hard and brittle; it possessed an aromatic odor and disagreeable bitter taste, was readily soluble in ether, alcohol, turpentine, ammonia, potassa and carbonate of potassium, and was heavier than water. The alcoholic solution gave an acid reaction,, and the resin was evidently similar to that obtained by Luck from. *Aspidium filix mas*.

The ethereal extract of the rhizome, after standing a few days,. deposited yellow crystals on the sides of the containing vessel. A portion of the extract with the contained yellow crusts was diluted with, ether-alcohol, then with two measures of water at about 40°C., and ammonia water added until the liquid smelled of ammonia; the whole was then shaken. After allowing it to stand, the lower brown layer was separated from the supernatant oil, filtered and precipitated with hydrochloric acid, the precipitate quickly balling together to a soft, plaster-like mass. This was kneaded with warm water, and crystallized from boiling stronger alcohol, the crystals washed with alcohol of 80 per cent., and purified by dissolving them in ammonia watery-precipitating with hydrochloric acid, washing with alcohol of 80 per cent., and finally recrystallizing from boiling stronger alcohol. The result was a light bright yellow crystalline powder, having a slight nauseous taste and in ethereal solution an acid reaction. When heated it yielded an oily distillate, smelling of butyric acid. It burned with a luminous flame when heated on platinum foil, and left a shining-charcoal. Heated with ammonia water it quickly assumed a dark brown-yellow color. It was insoluble in water, sparingly soluble in aqueous alcohol, soluble in boiling absolute alcohol, in fixed oils, and very soluble in sulphide of carbon and volatile oils. It is probably identical with Luck's filicic acid.

Treatment with Alcohol.—The drug, exhausted with ether and dried, was next macerated and percolated with alcohol. The alcoholic percolate was of a reddish-brown color, and had an acid reaction. The greater portion of the alcohol was distilled off, and the residue evaporated over a water bath to the consistence of honey. The liquid obtained was transparent, of a reddish color, and had a sweet and strongly astringent taste. An endeavor was made to crystallize cane-sugar from the solution, but was unsuccessful. The syrupy liquid was dissolved in water, filtered, and a portion of the filtrate treated with a dilute solution of gelatin, which gave a milky precipitate; another portion gave a greenish-black

precipitate with ferric chloride. The remainder of the solution was precipitated by acetate of lead, and filtered, the excess of lead removed by H₂S, and the filtrate tested for glucose by Pehling's solution, a brick-red precipitate of cuprous oxide indicating its presence. The precipitates by ferric chloride and by gelatin denote the presence of tannin.

Treatment with Cold Water.—The drug, after having been treated with ether and alcohol, was dried and macerated with water for several days, and strained. A turbid liquid, having a slight acid reaction, was obtained. On boiling, filtering, concentrating and adding alcohol, a flocculent precipitate of gum separated, which was soluble in water, and was precipitated from the aqueous solution by acetate and subacetate of lead.

Treatment with Boiling Water.—The drug, after having been exhausted with cold water, was next treated with boiling water. The liquid, strained and evaporated to a low bulk, deposited on cooling a brown jelly-like substance, which was insoluble in cold water, and is probably pectin. A portion treated with iodine gave a distinct blue color, showing the presence of starch.

The constituents, the presence of which was ascertained, are resin, filicic acid, fat, tannin, glucose, gum, pectin and starch.

THE BOTANICAL RELATIONS OF *ILLICIUM RELIGIOSUM*, SIEB., *ILLICIUM ANISATUM*, LOUR.³

BY J. F. EYKMAN.

The question as to the identity of the true star-anise, *Illicium anisatum*, Lour., with the "shikimi," has been repeatedly discussed, but cannot be finally settled until the parent plant of the former is well known and has been carefully compared with that of the latter.

Probably it would not be undesirable if I add here some general remarks upon both plants.

JAPANESE PLANT.—*Illicium religiosum*, Sieb. (1837); *Illicium*

³ Translated from the "Mittheilungen der Deutschen Gesellschaft für Natur- und Volkerkunde Ostasiens," vol. xxiii. (Yokohama, 1881.)

Japonicum, Sieb. (1825); *Illicium anisatum*, .L., Jap. “Shikimi no ki”; “Hana Shik mi” (“Shikimi” also written “Sikimi” and “Skimi,” appears to be derived from “Ashikimi” — Evil Fruit); “Moso”— *Chin.* “Mang-tsao.”

According to Iwasaki Jose, author of the “Honzo Zofu,” it is also called “Hana no ki” (in the province of Harima) and “Koshiha” (in the province of Enshu — Totomi).

According to Yamamoto Boyo, author of the “Hiakushinko” (Description of a Hundred Drugs), *Illicium religiosum*, Lour., both in China and Japan, is called “Dai ui Kio.” According to Ito Keisuke it is also called “Irisshi ya mu.”

Illicium religiosum, Sieb., has been imported into Japan from China, and probably also from the Korea, since the earliest times of the Buddha priests. In the present day it is still looked upon as a sacred plant, and therefore often cultivated near Buddhist temples, and displayed in consecrated vessels at religious feasts. It is also found near graves, a use which is due to the general veneration for it, perhaps also on the ground that as a poisonous plant it has the reputed power to keep insects, etc., at a distance from the dead.

The powder of the bark and leaves also is used in long thin cylindrical pastilles (“sen-ko”) as incense in the Buddhist temples and in religious services. Formerly such straight or circularly bent cylinders, which when lighted burned regularly, were used as time measures.

The plant grows wild now in Japan everywhere, on the mountains and in the valleys. It was found in the neighborhood of Nagasaki (Oldham), in the centre of Nippon, near Tokio (Thunberg), upon the Iwaya mountains (Siebold), near Yokosuka (Savatier), in large quantities upon the island of Hachijo, in the province of Izu (Iwasaki Jose), and in the provinces of Sagami, Enshu, Tamba, Musashi,. Hizen, Chozhu, etc.

The plant attains a height of from 6 to 20 feet. The leaves are shortly (about 1 centimeter) petioled, coriaceous, thick, feel waxy to the touch, evergreen, oblong or oblong obovate, acuminate, cuneate at the base, entire at the margins, free from hairs (like the whole plant), about 7 centimeters long and 3 to 4 centimeters broad. The flowers open in the spring, about April. The petals are greenish or very slightly yellowish white, and have a wax-like appearance; they are from 1 to 3 centimeters

long, 0.5 centimeter broad, and 12 to 20 in number. The stamens are 15 to 20. The fruit consists of about eight carpels, arranged side by side in a closed circle, which attains a diameter of 2 to 3 centimeters and a depth of 0.5 centimeter. Each carpel has on the upper side the persistent pistil. In the unripe condition the fruit is green, juicy, and contains much essential oil. When it commences to ripen, in the autumn, the carpel rapidly dries up, especially upon the dorsal side, shrivels, and becomes a red-brown color.

When ripe the fruit opens rapidly lengthwise along the upper side. I have frequently observed that the yellow-brown seeds, which are about 0.7 centimeter long, and 0.5 centimeter broad, provided with a hard testa, and occur one in a carpel, are hurled out with considerable force, often to a distance of three or four meters.

The bark of the tree has, as usually stated, an aromatic smell that is not disagreeable; the fruit, on the contrary, has a less agreeable odor and an unpleasant taste. The seed kernel tastes sweetish. The leaves smell like the essential oil present in them.

All parts of the plant are looked upon as poisonous by the Japanese, especially the fruit.

The “shikimi no ki” is indigenous in China, and grows there also in the valleys and on the mountains. It is called by the Chinese “Mang-thsao” (*mang* — mad; *thsao* — herb: Jap. “*moso*”), because it is said to cause paroxysms of frenzy in human beings.

The different parts of the plant are used in China similarly as in Japan. According to the “Penthsaokang-mu” (Chinese Natural History), the dried leaves are used in medicine. Powdered and mixed with rice or barley flour, they are used to kill fish, which, however, form an innocuous food.

TRUE STAR-ANISE.—*Illicium anisatum*, Lour.; *Anisum peregrinum*, Bank. Chin. “Hwai hiang” (Jap. “Kai-Ko”); “Pah-ko-hwui-hiang” (Jap. “Hakkaku uikio” — octagonal anise).

“Ta hwui hiang” (Jap. “Dai uikio” — greater anise, to distinguish it from “Sho uikio” — smaller anise — *Foeniculum vulgare* or *Anethum*

graveolens, in Jap. “Inondo” and Chin. “Jira”).⁴

In Japan the true star-anise is also called “Haku uikio” (— foreign anise).

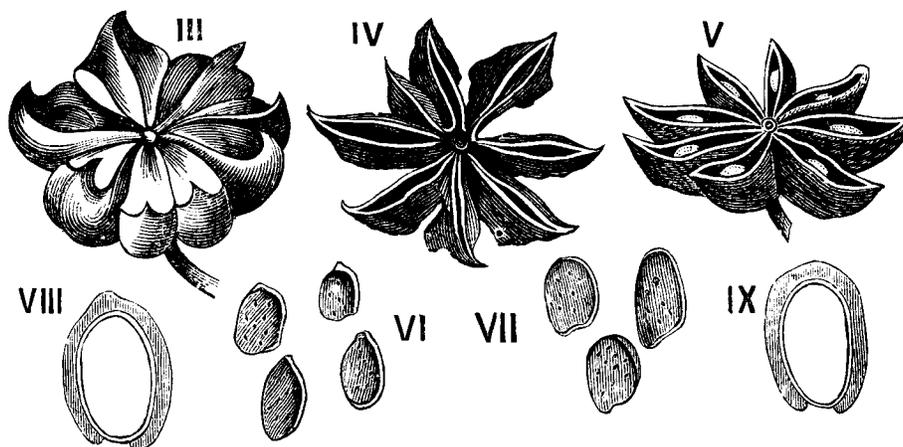
This plant is indigenous in Cochin China, Siam and the Southwest provinces of China, as Yunnan. The fruit of this plant, the true star-anise, is imported into China and Japan. To Europe and India it is generally sent via Hong-kong.

According to Rondot, the best kind is brought from Foukien to Canton and from thence exported through Tsiouen-tchou-fou. The fruit is also collected in Kiang-si and Kuang-tung. A perfectly exact description of this plant is at present wanting. It is said (Loureiro) that it differs from the Chinese and Japanese *Illicium religiosum*, Sieb., in its inferior height (about 8 feet), its smaller and more oval leaves, which are not, like the “skikimi,” acuminate at both ends, but rounded, and in its greater number of stamens (up to 30). The fruit of the true star-anise differs from that of the Japanese in its distinctly sweetish agreeable, strong anise or fennel-like odor and taste, and further in not being poisonous.⁵

Distinctions in odor, taste, chemical composition (the different amounts of fats present, the poisonous constituent, etc.), and physiological action, cannot, from the point of view of the systematic botanist, contribute to characterize two plants as different species, since these properties, which possibly are due only to quantitative differences, may depend upon climatic conditions. Yamamoto Boyo, author of the “Hiakushinko” (1843), remarks upon this as follows: “The Japanese fruit resembles exactly the ‘hakkaku uikio’ (true star-anise) except in the smell; this difference is, however, a result of the influence of locality and climate, exactly as in the case of Chinese cinnamomum. Planted in Japan this tree loses its pungent taste and acquires moreover the aroma of ‘shikimi’” There remain consequently only the few morphological differences.

4 Older naturalists probably also name *Foeniculum vulgare* (Jap. “Kure-no-omo”) “Dai-ui-kio.” Li-si-chin, a Chinese naturalist, calls only the fruit of *Foeniculum vulgare* exported from Nehia “Dai-ui-kio”; all other commercial kinds of *F. vulgare* he calls “Sho-ui-kio.”

5 The Leeuwarden Commission states upon this point that the injection of the extract of the true star-anise into frogs and rabbits did not induce the slightest abnormal symptoms.



ILLICIAM RELIGIOSUM.—III, Unripe Fruit. IV, Ripe Fruit. VI, Seeds. VIII, Section through the testa.

ILLICIAM ANISATUM.—V, Fruit. VII, Seeds. IX, Section through the testa.

The author refers to the characters given by different writers for distinguishing the fruits of the two trees, and shows that the differences are probably connected with the age, the manner and time of collection, the conveyance, climate, etc. Meanwhile we cannot go further than to consider the Japanese “shikimi no ki” as a poisonous—probably only as a more poisonous—variety of *Illicium anisatum*, Loureiro.

But from a hygienic point of view a distinction must be made between the Japanese and Cochin China star-anise as a commercial drug. For pharmacognostically distinguishing the true star-anise from the fruit of “shikimi” the following characters can be taken in consideration:

TRUE STAR-ANISE.

Taste sweet, anise-like; odor faintly of anise.

Somewhat larger than “shikimi” fruits. Surface more resembling cork. Beak short, horizontal, or slightly bent upwards, pointing outwards. Carpels less woody, shriveled in one upon another, and wrinkled. Seed mostly dark brown with rounded apex.

SHIKIMI FRUIT.

Disagreeable taste, not sweet or like anise. Smell not like anise, but faintly resembling laurel, clove and nutmeg.

Somewhat smaller than true anise. Surface more shining, red-brown. Beak thin, frequently bent strongly upwards or crooked backwards. Carpels more woody, much shrunk in upon one another, wrinkled. Seed mostly yellow-brown, with a stout keel and a raised apex.

—Abstract from *Phar. Jour. and Trans.*, June 25.

VARIETIES.

TUPELO TENTS FOR DILATING THE UTERUS.—Dr. Landau (“Medical Times and Gazette,” vol. i, 1881, p. 327; from “Volkmann's Samml. Klin. Vorträge”), in a lecture on methods of dilating the cervix uteri, strongly recommends the tupelo tent, made from the root and stem of the *Nyssa aquatica*. He says these tents expand more uniformly than laminaria tents, and their coefficient of expansion is somewhat greater than that of any other tent. In expanding they produce the same softening and infiltration of the uterine tissues as other tents. They do not tend to septic infection; and therefore antiseptic precautions need not be rigidly carried out where they are used. One tent may be kept in three or four hours, and then replaced by another. The cavity of the uterus may thus be made accessible to the finger within twenty-four hours. In two years' use Dr. Landau has seen no ill effects from their employment.—*Phila. Medical Times*, June 4.

SLIPPERY ELM ROOT DILATORS.—Dr. L. B. Tuckerman, of Austinburg, Ashtabula county, O., gives the following information about the making of these dilators in the Boston “Med. and Surg. Journal,” Jan. 13, 1881:

“The fresh root is cut into lengths, and can be bent at any desired curve, and thus dried. When thoroughly dry, the rough exterior is scraped off. The end is dipped about two inches into water, and heated over a lamp. A series of parallel longitudinal cuts is then made, nearly perpendicular to the bark, and through it to the wood beneath. The cuts are from one-eighth to one-twelfth of an inch apart, and reach from the end of the stick about one inch to an inch and a half back. The end, so far as the cuts run back, is again dipped into water and heated. The strips of bark made by the cuts are lifted from the wood, care being taken not to break them from their attachment at their base. They are again dipped and heated, when they can be bent back at right angles, to allow the end of the wood to be cut off nearly as far back as the bark is slit up. The end of the wood is trimmed to a conical shape. It is again dipped and heated, and with a strong twine the bark, now a hollow cylinder, is wound down firmly to the conical end of the wood, and beyond it into a solid cylindrical tip. When thoroughly dry, the tip is rounded and the whole surface of the root finished with sand-paper. It is ready for use by soaking about five minutes in carbolized water.

“If it be desirable to use the same dilator again, it is to be wiped immediately after using, and when dry finished again with sand-paper. This can be repeated so long as the tip remains. The smaller sizes can be bent when seasoned, by wetting and heating, but not so readily as when green. The roots are almost perfectly cylindrical, and are found of any size from two inches in diameter down.”

AN EXHILARATING MIXTURE.⁶ —Professor Luton, of Rheims, relates (“Bulletin de Therapeutique”) that having administered to a patient a mixture of tincture of ergot and of phosphate of sodium, he was greatly surprised to find it after a while produce the most exhilarating effects, exciting loquacity and irresistible laughter, which lasted for several hours and much resembled the slight intoxication produced by light wines and champagne. The mixture was tried on some other persons, always with the same effects, these being producible, however, only in women, especially those of a nervous temperament. Men resist its effects, probably requiring, as the author supposes, stronger doses in consequence of their being more accustomed to alcohol. The formula employed in the production of these curious effects was for a medium dose, in a person sufficiently excitable, as follows : Tincture of ergot five grams, and solution of phosphate of sodium (at one-tenth) fifteen grams. This is poured into a little sugared water and taken fasting. As a therapeutical agent. Prof. Luton suggests that it might prove useful in some cases of hypochondriasis and in the algidity of hysterical subjects and those who are very liable to spasm. The algidity of the early stage of fever or cholera might also be favorably influenced. So also in various cases of anemia and adynamia, the mixture, in reduced doses, so as not to excite excessive hilarity, might prove useful.— *Mod. Times and Gazette; Louis. Med. News*, June 18.

SOME RECENTLY DISCOVERED MEDICINAL PLANTS.—If a very little of what is heralded as the medicinal virtues of plants turned out true, it would be a most gratifying fact. However, it is well to record all for trial.

Hieracium venosum.—Observations are given by Dr. W. Stump Forwood in the “Quarterly Transactions of the Lancaster (Pa.) Medical Society,” April, 1881, to show that this may prove of value in phthisis. At least, it seems to have a well-deserved reputation for that disease

⁶ Sounds familiar—MM

among cattle. The infusion is used.

Euphorbia villosa.—In the Ukraine and Galicia this plant is said to be regarded as an unfailing remedy against hydrophobia, provided it is taken within five or six days of the infection. Unusually good evidence seems to be in its favor.—*Allg. Med. Cent. Zeitung*, March 26, 1881.

Convallaria majalis.—Clinical and physiological experiments with this herb are reported in the “Centralblatt für Klin. Med.,” by Dr. Bojojawlensky and Troitzky (No. 47, 1880; No. 1, 1881). In organic heart disease its effects equal those of digitalis; the urine is increased, serous deposits are rapidly absorbed, nervousness is diminished; cumulative effects were not observed.—*Med. and Surg. Rep.*, June 4.

ADVANCE IN THERAPEUTICS IN 1880.—New remedies many, a few good, many bad, most indifferent. Tonga valuable in facial neuralgia; sulphide of calcium in suppuration—its action marked and reliable, grain doses now admitted; the nitrites of potassium and sodium have the action of amyli nitrite, but milder; ergot (again?) found useful in diabetes; pilocarpin useless in hydrophobia, which still defies all treatment; this last drug, tried in many directions, gave meagre results; benzoate of sodium commended in scarlet fever and gonorrhoeal ophthalmia; salicylate of sodium, according to Dr. Greenhow, mitigates but little the complications of rheumatic fever, while it maybe a positive injury to the heart; salicin is inefficacious, while salicylate of quinia is highly praised by Dr. Hewan; the value of cold baths in typhoid fever have become more than doubtful.—*Chicago Med. Jour. and Exam.*, April.

PSYLLIUM SEED IN CONSTIPATION.—We read in “Paris Medical” that Mr. Noel Gueneau de Mussy proposes using psyllium or sarragota seed, besides white mustard seed, the use of which is excellent, or flax seed in the natural state.

Psyllium is a species of plantain, commonly called fleawort, because of the appearance of its seeds, which are quite small and very mucilaginous. A tablespoonful in half a glass of water is taken before dinner. He says that with a number of persons this method has proven as successful as with the Spanish lady, from whom he obtained it. In other cases, however, he was obliged to alternate with more powerful laxatives, such as aloes or rhubarb, so as to keep up the effects. It is

probable that psyllium seed, like others of its kind, is not persistent in its effects, although in a number of cases it seems to have been so.—*Med. and Surg. Reporter*.

JUGLANS NIGRA IN DIPHTHERIA.—Dr. C. R. S. Curtis, of Quincy, Ill., reports to the Boston “Medical and Surgical Journal” of March 10 the results of his trials of black walnut leaves in the treatment of diphtheria. He was led to employ them by reading of Neaton's success with the leaves and bark of the European walnut as a topical application in malignant pustule. Not having access to the European species, he substituted for it a strong decoction of the leaves of the native black walnut in a bad case of diphtheria, to be used as a gargle, and, to his agreeable surprise, with very good effect. Since then he has used the remedy in about thirty cases, many of them bad ones, and all have recovered, a result he is inclined to attribute in great part to the walnut decoction. He has used the remedy in the form of a preventative, in spray with the atomizer, as well as in a gargle. Besides the leaves he employs the hulls of the green walnuts, which make the decoction still stronger, and he finds it not painful or especially disagreeable to his patients. The remedy is so readily accessible to most physicians that further reports may be expected as to its utility in diphtheria and allied troubles.—*Chicago Med. Rev.*, April 5.

JAMAICA DOGWOOD.—The use of Jamaica dogwood as a substitute for opium has been highly recommended by those who have investigated its properties. It is more decidedly hypnotic than opium, produces no anorexia headachie and does not constipate the bowels or interfere with digestion It acts rapidly, but its effect is less durable than opium, and requires to be given more frequently. The dose is 20 minims of the fluid extract every three hours.—*Southern Med. Record*.

EDITORIAL DEPARTMENT.

THE NEXT ANNUAL MEETING OF THE AMERICAN PHARMACEUTICAL ASSOCIATION, which will convene at Kansas City, August 23d, promises to be very largely attended, not only from the Western States, but on account of the low railroad fares at present prevailing a large number of delegates and members from the Atlantic States will undertake the journey. The round trip from New York, Philadelphia and farther south will not exceed in cost \$28. Two routes

have been selected, one passing by way of Niagara Falls through Canada, the other through Washington City, along the Potomac and crossing the Alleghenies into the Ohio Valley, stopping over night at the Grand Hotel, Cincinnati, and over Sunday at the Southern Hotel, St. Louis. The various lines between St. Louis and Kansas City offer very low fares, and special accommodations have been offered by the Chicago and Alton Railroad, both from Chicago and St. Louis. Reclining chairs will be provided for all who, going by way of Chicago, will notify Mr. R. H. Cowdrey, of that city, and those going by way of St. Louis notify the Permanent Secretary. These trains are also provided with hotel cars. The fare for the round trip between Chicago and St. Louis will not exceed \$10. Particulars concerning the reduction secured by the Local Secretary, Mr. William T. Ford, may be obtained by addressing him; these reductions from the regular fares apply to all, or nearly all, the railroads west of the Alleghenies, and are secured for the return trip upon a certificate from the Local Secretary.

This will be the second time the Association will meet in the Mississippi Valley. Since the very successful meeting in St. Louis, in 1871, ten years have elapsed, and the Association, very properly, enters upon new territory, several hundred miles further west, to hold its meeting on the western border of Missouri; and with the view of invading still farther western territory, the Kansas Pharmaceutical Association delegated Messrs. Robert J. Brown, of Leavenworth and George Lets, of Lawrence, to arrange an excursion which is to take place after adjournment. The route of this excursion will be through Kansas, Southern Colorado and Northern New Mexico to Santa Fe, and will occupy not over ten days; the fare for the round trip, including Pullman cars, will be \$30. Concerning the attractions of this excursion, we copy the following from a Western paper:

“No other locality on the Western Continent offers such inducements to an expedition of this kind as does New Mexico. In addition to the cool, bracing and invigorating air of these dry and elevated regions— which acts as nature's tonic and not only restores the invalid to health but wonderfully invigorates and rejuvenates the strong and healthy—there is here found a vast region which is almost a terra incognita to science. The vegetable productions of New Mexico are peculiar and strongly marked, the dryness of the climate giving greater aroma and pungency to plants than is found elsewhere, and producing a large number of strikingly original forms of vegetation. There are in these mountains and elevated valleys many plants and herbs supposed

to possess wonderful medical virtues which are unknown to the medical fraternity, and we shall look for some valuable discoveries to be made by the botanists, chemists and other scientists of the expedition.⁷

“New Mexico is at once the oldest and the newest region of America and is peculiarly the land of wonders. Here are found the latest and fullest remnants of the wonderful Aztec and Toltec civilization, the ruins of their ancient cities offering an inexhaustible field of research to the archaeologist and of speculation to the thoughtful student of history. Long ere the white man had planted settlements even at Plymouth Rock and Jamestown, the Spanish Jesuits had commenced building churches among the Indians of this region, some of the oldest buildings on the continent being still standing in excellent preservation. It was from New Mexico that Coronado started on his wonderful expedition, in the year 1543, in search of the seven fabled cities of Cibola, and the details of the historians of his great march show that even then the Spaniards had made a permanent lodgment and considerable progress in settling this region. Here, too, may now be seen the civilization of centuries ago, the forked stick plow and the most primitive methods of working and living.

“The mineral productions of New Mexico are well known to be varied and include many rare varieties and unique specimens.”

⁷ What a joke: the good pharmacists would have stayed at the La Fonda Hotel on the Plaza in Santa Fe, bought some trinkets from the Pueblo Indians in front of the Palace of the Governors, maybe visited an Anasazi ruin, and no-one (least of all the railroad “chaperones”) would have had the knowledge to take them up the Acequia Madre to talk to some curanderas or médicas, filled with knowledge the PH.G.s could have REALLY used. Ah well.—MM