

AMERICAN MEDICINAL PLANTS.

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Each Plant
Illustrated From Nature by
Photographs by Professor Moritz Fischer.

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INTRODUCTION.

A series of articles on American medicinal plants, by Harvey Wickes Felter, M.D., illustrated with photographs by Professor Moritz Fischer, now appearing in the *Eclectic Medical Journal*, has attracted wide attention, impressing everyone as being the most important contribution of recent years, in the direction of plant remedies.

Professor Felter needs no introduction to any member of the American medical profession, regardless of school relationship or medico-political position. To say that he has for decades been a recognized authority on the uses of the vegetable Materia Medica, that he has long taught Materia Medica in the Eclectic Medical College, the oldest school in America making a specialty of plant therapeutical preparations, that he is the author of several works in connected lines, that he was the reviser of the great, two-volume American Dispensatory, and is now editor of the Eclectic Medical Journal, and that he is a physician of extended practice, is but a conservative statement of fact that scarcely needs be recorded. The illustrations are by Professor Fischer, whose field is that of an educator, outside of medicine. They speak in their own behalf.

We consider ourselves fortunate in having the opportunity of reproducing their work in the present booklet, and of presenting this contribution of both these authors to our circle of physician friends. The present pamphlet will include 16 pages, which will be followed by the continuation as it appears. It will be distributed gratis to our medical friends and patrons, but if you wish subsequent parts, do not fail to fill out and return to us the enclosed slip.

LLOYD BROTHERS,

Cincinnati, Ohio.

AMERICAN MEDICINAL PLANTS.

We purpose to publish in the Eclectic Medical Journal an innovation by way of illustrations of American medicinal plants. These illustrations differ from and excel the majority of such illustrations in being reproduced from photographs of the plants in situ in their native habitats. Their excellence and naturalness, we think, our readers will appreciate. Except rarely our pictures will represent those plants found abundantly in America, though some of them may grow elsewhere in the world. It is our purpose to present one plant portrait each month, together with a brief drug study indicating its general and specific medical scope rather than a full article dealing with its life history and all the virtues that have been justly or unjustly ascribed to it. To the older practitioners these uses are more or less familiar, but the younger generation of physicians has less opportunity, perhaps, to study these plant drugs in this manner; and it is, therefore, for these that these pictures and studies have been introduced. While not able in the short spaces we can devote to this subject to give full plant biographies, we do want to indicate possible new lines of study, as well as a restudy of known plant activities, with a view to strengthening our materia medica by the addition of new and valuable medical uses and the deletion of apochryphal statements and unwarranted claims that have crept into our therapeutic literature.

For these splendid drug portraits we are indebted to Mr. Moritz Fischer, a teacher in the public schools of Cincinnati and a scientific explorer of our flora and geology, who has spared no pains to secure the most lifelike photographs obtainable in our local fields and woods. For these we heartily extend our thanks. The photographs from which our half-tones are made are exceedingly beautiful and twice the size (8 x 10) of our reproductions. These are valuable for school work and museums, naturally being more vivid and perfect than reproductions, which necessarily lose in sharpness and detail by reduction. Photographs or lantern slides of any or all of this series may be secured at reasonable rates by communicating with Mr. Fischer, care of the Twenty-eighth District School, Cincinnati, Ohio.

MACROTYS.

The plant figured in our plate is the *Cimicifuga racemosa*, better known in Eclectic medicine as *macrotys*. Its best known common names are Black-cohosh, Black snake root, and Rattleroot or Rattleweed. It is a tan perennial of strong beauty, with large dark-green ternately decompound leaves, composed of smaller leaflets, and the flowers are borne in a conspicuous, feathery raceme of wand-like beauty. It grows in fence corners, on side hills, and in rich woods, blooming from the latter part of June to August; and is distributed from the Indian Territory to the Atlantic and from the Great Lakes nearly to Florida. Its center of distribution is in the Ohio valley. The medicinal part is the rhizome; the chief constituent an admixture of resins called *macrotin* or *cimicifugin*: and its best preparations are the alcoholic. Specific medicine *macrotys* is the most representative preparation of the drug.

Macrotys is pre-eminently a remedy for *pain*. In fact, in many conditions it may well supplant opium and its alkaloids, though of course it is far less powerful than these agents. However, it is safer and does not produce a habit. The primary action of *macrotys* is upon the nervous system. Secondarily the organs of secretion and reproduction are impressed. Therefore it becomes a very important medicine where pain and lack of secretion and muscular debility exist.

Not all kinds of pain yield to *macrotys*. The type of pain is the dull, tensive muscular and the dull growling neuralgic. Most of the pain encountered that is relieved by *macrotys* is muscular; most of the neuralgias will be associated with reproductive wrongs. So well defined has become the symptom of pain in relation to the selection of *macrotys* that we seldom fail in getting good therapeutic results from its use. The *macrotys* pain is best described as *rheumatoid*. It may accompany genuine rheumatism-acute articular rheumatism-then *macrotys* will aid only to help relieve the pain and protect the heart. The salicylates are superior here. But in the tensive, drawing pain of conditions-actively non-inflammatory in character-passing current under the name rheumatism-it is the best remedy we possess. In this category come some conditions with or without fever or with or without mild inflammation-myalgia, torticollis, lumbago, rheumatoid arthritis, intercostal rheumatism or neuralgia, rheumatoid sore throat and dull rheumatoid pain in the uterus and ovaries (ovarian and uterine neuralgias). It is the best agent for so-called chronic rheumatism. None so safe is superior to relieve the muscle pains of la grippe; while the neuralgic pain of la grippe may yield to it and gelsemium or rhus. Depressing pain about the heart with precordial oppression and feeble pulse indicates *macrotys*. Personally we believe aconite (in minute doses) and

macrotys (in moderate doses) are the best protectives of the heart muscle during acute rheumatism; while upon the rheumatic process in general it is only relatively useful.



MACROTYS
(CIMICIFUGA RACEMOSA)

Photo by Moritz Fischer

Macrotys favorably influences the reproductive organs, relieving pain and muscular weakness. Few agents are better in amenorrhea with feeble circulation and in dysmenorrhea, marked by tensive aching pain and scant secretion. Macrotys acts upon the unstriped muscular fibers of the womb and during parturition may initiate

contractions and accelerate them when tardy. It is a good partus preparator. The contractions during labor, unlike those produced by ergot, are regularly intermittent like those of normal parturition. For after-pains and for subinvolution it has a well-deserved reputation; while for the nervousness often following childbirth, it and pulsatilla are the most frequently indicated drugs. This is particularly true of puerperal hypochondriasis.

In nervous diseases and disorders we believe macrotys is too often overlooked; and its value as a heart stimulant is greatly overshadowed by others-as digitalis. Yet in both classes of therapy it is deserving of a far wider application. For chorea at the time of puberty it challenges most other drugs employed; most of them unsafe and less efficient. While for the depressing, painful neuritis preceding and often following zoster it is worth far greater consideration than has been heretofore accorded it.

Let us urge then a renewed interest in macrotys. It is an American plant drug; therefore it can be obtained in its best condition for use. It deserves further study. in heart therapeutics, and will be found to have a far greater and safer range of usefulness in nervous disorders-both functional and organic, than has yet been credited to it.

Muscular pain, muscular debility, weak heart, and weakened nervous function with rheumatoid pain-in these macrotys has no peer.

COLLINSONIA.

Collinsonia canadensis, best known in pharmacy as Stone root. It is also known by several other names, as Richweed, Richleaf, Horsebalm, etc. It is a handsome perennial growing from two (2) to four (4) feet high and found chiefly in damp, shady situations and in rich, moist woods. It is widely distributed, being found from Canada to Florida. The whole plant is aromatic, of a somewhat balsamic and lemon-like fragrance, not altogether agreeable to most persons. The root, the part chiefly valued in medicine, is extremely hard, requiring great force to crush it; hence, the common name Stone-root. Collinsonia is named for Peter Collinson, an English merchant, botanist, and antiquarian, who, through the aid of John Bartram and others, introduced many American trees, shrubs, and plants into English gardens.

Collinsonia root yields its virtues to alcohol and water; but boiling destroys its evanescent, active constituent. A tincture of the herbaceous portion has also been advised by some physicians.

Many uses have been recorded for collinsonia, some of them well worth preserving, while others might well be forgotten. Above all, it is a remedy to correct conditions dependent upon relaxed venous tissues resulting in congestion and stasis. When such states

give rise to excessive irritability of parts, it is also of much value: Thus it is of distinct worth in relaxation of the parts concerned. in defecation, particularly the rectal area, relieving congestion and sluggish circulation resulting in venous sacculaton. For this purpose



it should be used in moderately small doses, not exceeding ten drops of specific medicine collinsonia, repeated every three hours, and early in the history of the disorder. When piles of a pronounced type have resulted it is less valuable than when used for the pre-hemorrhoidal

venous disturbance. *A sense of constriction*, as if a foreign body were lodged in the rectum, is the distinct specific call for collinsonia. In large doses collinsonia has been one of the most effectual remedies for "minister's sore throat," so-called. It is really a sluggish and subacute laryngitis, accompanied by relaxation of tissue and venous stasis, and induced chiefly by over-use of the voice in speaking and singing. The syrup is used prescribed as follows: ℞ Specific medicine collinsonia ʒii to ʒi; simple syrup, q. s. ʒiv. Misc. Sig.: Teaspoonful every three or four hours. Thirdly, it is of marked value in atonic dyspepsia dependent upon or associated with the type of venous disorder mentioned—relaxation of the venous circuit, rectal engorgement, subproctitis, torpid portal circulation, and muscular laxity. Such conditions give rise very often to various types of irritation, gastric, intestinal, and even pulmonary. It is for such cases that collinsonia may be confidently prescribed.

Don't expect collinsonia to heal extensive bleeding piles, rectal fissures, anal fistulae, or tuberculosis of the larynx. It has been suggested as a remedy for heart lesions, but that is a field for further investigation, as is the use of it in middle ear inflammation prior to the formation of pus.

Vascular engorgement of the pelvic viscera with sense of sphincter constriction, hard scybalous feces, and sense of constriction or foreign body in the rectum; sense of constriction in the throat with tickling and cough upon attempt to use the vocal organs; and gastric indigestion due to venous engorgement of splanchnic area—these are the known states in which collinsonia is definitely specific.

Asthma, the cough of heart disease, rheumatic heart troubles, gastric catarrh, congestive ovarian and uterine disorders, etc., are conditions in which a further investigation of collinsonia is needed before it can take its place as a curative or even palliative agent for such disturbances.

SERPENTARIA.

The *Aristolochia Serpentaria* or Virginia snakeroot is official under the name serpentaria. Owing to the scarcity of this plant, once abundant, the Red River snakeroot (*Aristolochia reticulata*) is also included in the commercial batches of serpentaria. The serpentaria is an herbaceous perennial having an extremely knotty, fibrous root, and sending up several stems bearing arrow-shaped leaves. The flowers are peculiar, lie close to the ground, curving downward, and have a stiff, leathery texture and dull purplish-brown color. The calyx consists of a long, contorted tube, shaped like a pipe or letter S, swelling at its two extremities, having its throat surrounded by a brim and its borders expanded into a broad, irregular margin, forming an under and upper lip, which are closed in a triangular manner in the bud.

It has no corolla, twelve. stamens growing deep in the bottom of the calyx, attached to the style and covered by a spreading convoluted stigma. This singular flower is interesting as a type of the most primitive of the means of plant fertilization, the flower as may be observed in the engraving, lying conveniently accessible to crawling bugs, through whose agency the fertilizing pollen is carried from plant to plant. *Serpentaria* grows in rich



Photo by Moritz Fischer

SERPENTARIA
(ARISTOLOCHIA SERPENTARIA)

woods, hedges, and thickets, from Connecticut to Illinois, and southward to Louisiana. It is found most commonly in the Alleghanies, and flowers from April to July. The rhizomes and rootlets, the medicinal parts, have a warm, bitter, camphoraceous taste, and the odor is likewise aromatic and camphor-like. Water and alcohol extract its virtues. Long boiling impairs it. It contains a volatile oil composed of a solid, camphor-like *borneol* and a *terpene*. *Serpentaria* was one of the earliest figured American medicinal plants, having been painted by Catesby for his celebrated work.

Serpentaria is a neglected drug. While capable of pronounced physiologic effects when given in large doses, or for a long time-occasioning nausea, vomiting, purging, headache, tenesmus, and loss of sleep-yet it is an important agent for atonic states requiring gentle stimulation and increase of secretions. Its value to determine eruptions to the skin in the exanthemata is unquestioned. In small doses the tincture is useful in restoring tone to the digestive tract after debilitating spells of illness. When, through contracting a cold, the renal function is suppressed, serpentaria in infusion is useful to restore it. As a rule, serpentaria is contraindicated in active febrile and inflammatory conditions, and is preferable in torpid and atonic states. Yet there is one affliction in which it is pre-eminently useful and for which alone it is worth retaining among our medicinal resources. This is in the sluggish form of fetid sore throat of the type found some-times in scarlatina and in some cases of diphtheria, notably the former. There is a tendency to destruction of tissue, to ulceration, the soreness is intense, and the odor intolerable. For this purpose a gargle is most valuable. Think of serpentaria when there is need of a cutaneous stimulant, weight in loins with scanty urine, or urine containing triple phosphates; visceral disorders from cold; fullness of the chest, with dyspnea, and sluggish, painful, stinking sore throat.

BRASSICA.

Brassica nigra, or Black mustard, is a common plant, indigenous to Europe, but naturalized extensively in this country. It and the *Brassica alba*, or White mustard, is so abundant in many localities as to deserve the name of a pernicious weed. This species is annual, from 3 to 6 feet high, and bearing small sulphuryellow flowers. The fruit is a pod containing blackish-brown seeds, the latter constituting the medicinal *Sinapis*. While sometimes cultivated, this plant, in this country, is found mostly as a vagrant in waste places and old fields, flowering in June and July.

Mustard is irritant, stimulant, rubefacient, vesicant, and diuretic according to the manner of its use. As a stimulant to digestion in atonic conditions its use is sometimes advisable. In large doses it constitutes one of the most efficient emetics for cases of narcotic poisoning, where its stimulant qualities give an added value to its emetic force. Used with care, a sinapism is useful as a counter irritant, but too long or too strong an application is liable to produce vesication, if not gangrene of the parts. In such a form it is especially advised in certain cases of obstinate vomiting (applied to epigastrium) and in headache, with cerebral fullness (applied to base of occiput) and other forms of localized pain without surface inflammation. The too common use of mustard in baths for children's ailments is generally to be condemned, for such baths, except in rare instances where a revulsive is required, are most commonly employed during convulsions, when heat and moisture are alone sufficient to produce relaxation.

Mustard may in such cases provoke suppression of the urine, or strangury. At all events, it is seldom required, and such use is largely a relic of by-gone medical officiousness that may well be dispensed with.

Following an almost invariable truism in therapeutics, that agents which are strongly stimulant in large doses are sedative in



minute doses, mustard appears largely to have been overlooked in this respect, for in many instances its beneficial action in torpid renal activity and sluggish digestion might prove potent when specifically indicated.

RHUS.

Rhus Toxicodendron, which is too familiar a pest in the United States, takes two forms, one a bush-like, low vine, and the other climbing convenient supports. The plant is a well-known poison known as Poison ivy, Poison vine, and Poison oak. It is to be distinguished from the common woodbine (*Ampelopsis quinquefolia*) by having but three leaflets to each compound leaf; whereas the woodbine has five. The plant is found everywhere in fields and along fences, bearing clusters of greenish white flowers, followed by berries of a somewhat similar color. In the autumn the plant is conspicuous for its rich coloring, running all the way from pale yellow to bronze, and russet and scarlet. The plant, when broken, exudes a -juice which stains black and contains the poisonous element, which is probably *toxicondrol*. Where it grows without support it forms a low, bush-like vine on the ground, but when it finds convenient support it climbs over fences or sometimes to the top of tall trees.

To most individuals *Rhus Toxicodendron* is known only as a noxious poison. Many doctors have but little more knowledge concerning it. Notwithstanding the fact that its virtues as a medicine were known over a century ago, when it was strongly urged in the treatment of paralysis, it is only in very modern years that it has earned an established field in medicine. Subsequent to this early indication of its usefulness it drifted away from medicine until it was developed as a medicinal agent first in the Homeopathic practice and lastly and most completely in Eclectic therapy. Now it is a prime favorite with specific medicationists.

Rhus Toxicodendron, a typical American medicinal plant, is essentially a remedy for nervous manifestations, and employed strictly according to the well-worked-out indications, is excelled by no other agent. It is a conspicuous example with which to illustrate the specific action of medicines. Its power over the nervous system, as above stated, was recognized over a hundred years ago.

Rhus is a remedy for nervous irritation and nervous unrest. The rhus patient starts out of sleep as if frightened, and if a child, will utter a shrill cry-the brain cry, a cry that once heard is not easily forgotten. We can best summarize its many uses by succinctly epitomizing its specific indications. Used according to the indications enumerated below, it is a valuable agent in febrile and inflammatory disorders, in vomiting, cholera infantum, cerebrospinal meningitis, scarlet fever, measles, neuralgia, rheumatism, diarrhea, dysentery, and herpes and erysipelas and other forms of skin diseases. Its most pronounced value is in children's disorders, involving the nervous system, and in typhoid fever. If limited to one remedy in the treatment of typhoid fever, our selection would be rhus. The chief and most direct indication for it in all disorders is the long pointed tongue with prominent papillae, associated with burning heat, and redness and great unrest. Others are: The moderately quick small sharp pulse, sometimes wiry, sometimes vibratile; great restlessness with or without vomiting; child starts from sleep with a shrill cry as if from fright; tongue red and irritable, exhibiting red spots; strawberry tongue; pain over left orbit; burning pain; rheumatic pain aggravated by warmth; pinched countenance; burning pain in the

urethra with dribbling of urine; acrid discharges from the bladder or bowels; tympanites; brown sordes; bright, superficial redness of the skin with burning, itching, or tingling; red glistening erysipelas," with burning pain; redness of mucous surfaces; conjunctival inflammation



Photo by Moritz Fischer

RHUS
(RHUS TOXICODENDRON)

with pain, photophobia, and burning lachrymation; inflammation with bright-red tumid surfaces and deep-seated burning pain; tumid red swellings; inflammation with ichorous discharges, the tissues seemingly mel tingaway; oled ulcers with shining red edges; induration of the submaxillary glands.

ACHILLEA.

Achillea Millefolium, known as Yarrow, is a common wayside perennial herb. It is also known, from the thousand-parted appearance of its leaves, as Milfoil and Thousand leaf. It is found largely growing wild in fields, dooryards, pastures, and waste places in this country, as well as in the Old World. It is a most troublesome pest in blue grass pastures for there is no practical way to get rid of it. It is one of the few weeds that sheep or other stock will not eat. The farmers call it (erroneously) wild tansy. Yarrow grows from one to three feet high, bearing crowded dark-green alternate finely cut leaves-leaves almost fern-like in appearance. A flat-topped head presents the small corymb of grayish-white flowers (sometimes rose-tinted). The odor of the plant is aromatic and distinctive, somewhat suggestive of chamomile; and the taste is sharp, bitter, astringent, and slightly saline.



The herb flowers from May to October, and should be gathered during the blossoming period (preferably in July), when, after rejecting the coarser parts, it should be carefully dried. Yarrow imparts its qualities to alcohol and water. It is an ancient medicine, named after Achilles, upon whom It IS said to have been used as a vulnerary, and has a long and classic history.

Yarrow is but little-too little-used in present-day therapeutics. It could often be selected to advantage where other agents of less safety are employed. It is notably astringent, and more than that, it relieves irritation of mucous membranes, and in some manner acts upon the venous blood current, restraining bleeding. The hemorrhages controlled by it are of a passive character, such as are best exhibited in bleeding from the mucous surfaces. The oozing is small in quantity, often amounting to but slow and irregular seepage. Among the conditions in which the best results have been obtained from its use are hematuria, especially that of malarial origin, and chief of all, in passive menorrhagia not due to growths, or other surgical conditions. If selected for no other purpose, yarrow should be more widely used in the latter disorder, from which so many suffer during the menopause. Infusion of yarrow once had a deserved reputation in the treatment of intermittent fevers; but by no means comparable to that of cinchona and quinine.

VERBASCUM.

Verbascum Thapsus, or Mullein, is a common biennial plant found plentifully in the United States and, like most of our troublesome weeds, was introduced from Europe. It is familiar as a tall, straight, and generally single-stemmed plant, bearing heavy woolly leaves (technically densely tomentose), of a light greenish-gray color and fleecy in texture, and reaching a height of from three (3) to five (5) feet. The flowers are bright yellow, and nearly sessile, and coming into bloom a few at a time in a dense, spiked club-shaped head or raceme. Mullein is common in pastures, newly cleared land, along roadsides, and in uncultivated fields, flowering from June to August. It is often a troublesome weed to the farmer, for it produces millions of minute seeds and spreads rapidly. No stock will eat it. The leaves and the flowers are the medicinal parts and have a faint, peculiar odor, suggesting a narcotic action. The taste is bitterish and albuminous. They yield their virtues best to water. The woolly hairs of the plant are sometimes irritating to the skin of sensitive individuals.

Mullein is listed as demulcent, diuretic, anodyne, and antispasmodic, all of which is more or less true. Locally, it gives relief when applied as a hot poultice to inflamed parts. This anodyne action may be largely due to hot water, but some virtues must certainly be accorded to the mullein. In this way it alleviates the distress of piles, tumefactions, mumps, tonsillitis, and other forms of sore throat with, painful swelling.

Internally, in infusion, either in water or milk, it proves somewhat diuretic, but is more properly a genito-urinary demulcent, soothing renal irritation and helping to control the frequent desire to urinate. It has given a good account of itself in chronic cystitis and in nocturnal enuresis, and has ameliorated the irritation and pain consequent upon the presence of gravel. The oil (prepared by steeping the flowers in oil in the sunlight) is also used for the same purpose, and has an exaggerated reputation for the relief of deafness-

. fact which is as obvious as the term deafness is itself indefinite and relatively and pathologically meaningless.

The best results from mullein, in our opinion, come from its use in the alleviation of irritating coughs where the larynx and trachea are the seat of the irritation. A syrup of mullein and lemon is a popular and by no means to be despised. concoction for this purpose. Its demulcent properties, its light anodyne effects, and its control over local nerve disturbance make it a useful cough remedy to be thought of when the usually employed remedies fail. Briefly then, mullein is to be considered as useful "to quiet nervous irritation, bronchial irritation and cough, and urinary irritation with painful micturition."



Photo by Moritz Fischer

VERBASCUM
(VERBASCUM THAPSUS)