

GROUP VIII.

Agents Used for Their Influence Upon the Skin.

JABORANDI
SERPENTARIA
CAMPHORIC ACID
NITRATE OF SILVER
PICRIC ACID
CANTHARIDES
YOHIMBE
THAPSIA
ZINC OXIDE
LANOLIN

PILOCARPUS.

Pilocarpus jaborandi.

Synonym—Jaborandi.

CONSTITUENTS—

Pilocarpine, jaborine, volatile oil, tannic acid, volatile acid, potassium chloride.

PREPARATIONS—

Extractum Pilocarpi Fluidum. Fluid Extract of Pilocarpus. Dose, from five to sixty minims.

Specific Medicine Jaborandi. Dose, from one-fourth of a minim to three minims.

Administration—In the administration of this agent the characteristic results may be obtained almost equally well, either from an infusion of the leaves, or from any of the preparations named. The hypodermic administration of the alkaloid pilocarpine, is preferable in many cases, especially where the promptness of its action is desired. The liquid preparations are often unacceptable to a disordered or sensitive stomach and then minute doses of the alkaloid in pellets or granules will be, found a most desirable form for administration.

The action of the fluid extract or tincture of *jaborandi* and impure pilocarpine is sometimes disappointing, failing entirely to produce their characteristic influence and perhaps producing results contrary

to those anticipated. This is due to the presence of the alkaloid, jaborine, which acts antagonistically to pilocarpine, having in its therapeutic influence many of the characteristics of atropine, an antagonist of pilocarpine.

The **nitrate and hydrochlorate of pilocarpine** carefully prepared are free from jaborine and are thus reliable in their action. Solutions of pilocarpine should be made fresh when needed, as the salts decompose in aqueous solution. They are not permanent but will precipitate at once in alkaline solutions.

Physiological Action—Near the point of the administration of a hypodermic injection of the alkaloid, a few drops of sweat appear within from four to six minutes after the injection, to be immediately followed with moisture on the forehead, neck and chest, and in quick succession the entire body is bathed with a most profuse perspiration.

It is a powerful anti-diphtheritic and sialogogue, acting profoundly as a stimulant upon the secretions of the entire glandular system. No one known remedy stimulates every secretion of the body simultaneously as profoundly as does this agent.

The depression of the agent should not be allowed to progress; after the sweating has continued a few minutes profusely, a little whisky, brandy, tincture of *ginger*, or tincture of *capsicum* should be given in hot water, and occasionally repeated while the transpiration progresses. If the heart shows the influence of the depression, a hypodermic of strychnine may be given, or a few drops of the tincture of *cactus*, *strophanthus*, *digitalis*, or *nux vomica*. If it is desirable to stop the sweating abruptly, atropine hypodermically may be resorted to.

The extreme effects of the agent need not be obtained in many cases, but owing to the susceptibility of some cases a small dose will sometimes produce extreme results. It is safe to obtain these results in extreme sthenic cases—in robust patients. The reaction will be prompt and satisfactory.

Most observers state that it is best to quench the thirst with weak coffee or milk and not with-cold water. It is undesirable that the patient swallow the saliva when the agent is administered after the bite of venomous snakes or in threatened hydrophobia or if given as an

antidote to poisons.

When the agent fails to act upon the skin it often expends its force upon the salivary glands, kidneys, stomach, intestines or lungs, producing extreme secretion or excretion from these organs. In some cases this agent produces nausea, vomiting, diarrhea, contracted pupil, extreme weakness, dimness of vision, sighing respiration, palpitation and collapse; but these symptoms of alarming nervous depression rarely occur and are easily combated with atropine.

Specific Symptomatology—The direct indications for this agent are acute suppression of the secretions, especially of those of the skin in sthenic conditions usually with distress, elevation of temperature, sharp, hard pulse, dry skin, dry mucous membranes, constipation, and small quantity of urine with dark color and high specific gravity.

Kinnett gives the specific indications for its use, as dry hot skin, dry parched mouth, pulse full and very strong, patient restless and uneasy, suppression of the secretions, especially of **the kidneys**, which seem to be unable to act properly. His contra-indications are feebleness, weak pulse, weak heart action, tendency to depression.

Contra-Indication—*Jaborandi* should be avoided in asthenic conditions, or where there is feeble or dilated heart, and used with care in old people and young children. Except in its influence on laryngeal and bronchial disorders, and in the sthenic stage of diphtheria when it loosens the membranes.

Therapy—At the onset of **acute** febrile and **inflammatory conditions**, especially if there be rigors, hot, full head, and a bounding, hard pulse, a foot bath of hot water and a full dose of *jaborandi* with proper supportive treatment subsequently will often end the attack abruptly. The stage following the influence of the agent if the temperature has subsided, has all the conditions in which quinine works to its best possible advantage.

Several recent writers have written enthusiastically on the action of *jaborandi* or pilocarpine in establishing a **favorable crisis** early in the severe forms of acute disease. **Pernicious malarial fever, typho-malarial fever, inflammatory rheumatism**, and other of the severer forms of inflammatory disease they claim may be aborted by the use of

full doses of this remedy. Where *jaborandi* can be administered by the mouth, it is preferable, although some claim that pilocarpine hypodermically invariably produces better results.

A number advise the use of this remedy in comatose, delirious and colliquative forms of **pernicious intermittent fever**. These writers agree upon the surprising influence of the remedy, where at the onset of this disease or of other acute specific fever there is great **excitable mania**—extreme violent delirium, which in its seriousness overtops all other conditions. The above indications of Kinnett will usually be exaggerated at these times. If an eighth of a grain of pilocarpine be administered hypodermically, the delirium disappears **at once**, quiet and restfulness obtain without the occurrence of the physiological action of the remedy upon the skin or salivary glands. There is a disagreement of opinion as to its value in the treatment of convulsions. Kinnett claims that where the intestinal tract is overloaded with irritating material, it produces both emesis and active free bowel movement, at the same time stimulating the action of the kidneys and skin.

In a case of **extreme malarial poisoning**, in a strong man, the bowels had not been moved for three days, nor the urine voided for eighteen hours. The temperature was 107 degrees, and the pulse 140, full and bounding. The skin was of a jaundiced appearance and the conjunctivae was distinctly yellow. One-half grain of pilocarpine hypodermically, caused salivation in three minutes, perspiration stood on the neck and forehead in great drops, the face and skin became extremely red at first and pale as the perspiration advanced. He immediately passed a large quantity of dark-colored, highly offensive urine. He vomited, and had a movement from the bowels, large and copious. The doctor claimed that more was accomplished by this one dose of medicine in one hour in the way of elimination, than he could have accomplished otherwise, in forty-eight hours. Vomiting from pilocarpine is not at all severe. There is no violent straining. The act is more like one of regurgitation.

This agent can be used to good advantage in **alcoholism**. Administered hypodermically, it has a prompt sobering effect. It induces sleep, from which the patient awakes rational and subdued. The transformation in the physical appearance of the patient is marked. The tense red, bloated countenance, the bleared congested eyes, the general

repulsive facial aspect pass away, and the skin assumes a clean and soft appearance, the features are calm, and the eyes clear. It has been used with good advantage in the treatment of **gall stones**, one-eighth of a grain three or four times a day has relieved severe cases.

In **inflammations**, of the **lungs** or **pleura**, with exudation, it promotes resolution and quickly removes the exudate. In **bronchitis** with dry, irritable, or hoarse cough, with imperfect secretion, it acts admirably as an expectorant. It lessens the cough as well as influencing the temperature. In **laryngitis**, **tonsillitis** or **diphtheritis** it is used by many physicians as the most important factor in the treatment. It is especially indicated in **stridulous laryngitis**.

In the treatment of **epidemic influenza** it has been given in small doses with persistency. It is said to render important service in the cure by restoring secretion.

In laryngeal **diphtheria** and in **membranous croup**, given in doses of from two to five drops every two hours, in conjunction with antiseptic treatment, it increases the mucus and salivary secretions and loosens the membrane and causes its exfoliation promptly and satisfactorily. It can be relied upon if the forces of the system can be sustained and if it does not produce too great prostration. Feeble children will not do as well under this treatment as robust and vigorous ones.

In **bronchial asthma** or in dyspnea, from acute pulmonary engorgement, it gives prompt relief.

The agent in doses of from one-half to one drop often repeated during the afternoon or evening has controlled most satisfactorily the **night sweats** of slow convalescence and of pulmonary phthisis.

Dr. Standlee gave **jaborandi** for stiffness of the joints, five drops with one drop of **rhus** in a teaspoonful of simple elixir, three times a day.

Dr. Lass gave **jaborandi** for pruritus as a functional affection of the skin with itching, burning and prickly sensations, especially winter itch, so-called, or frost itch with curative results.

Jaborandi in diphtheria and in membranous croup must be used constantly to be appreciated, but it certainly is a very efficient agent. It

removes the membrane sometimes in a few hours, and given with *echinacea* or inhalations of *eucalyptus* and turpentine in the early stages, no membrane will be formed.

The agent is a **heart sedative** of acknowledged ability and is reliable. It controls the heart's action, the pulse, and the temperature similarly to *aconite* or *gelsemium*, with either of which it may be well combined and its influences heightened by the combination. In febrile conditions where nervous complications are anticipated, and where spasm has occurred, it has a sedative and direct anti-spasmodic influence, operating synergistic ally with gelsemium or the bromides.

Webster lays great stress upon the specific sedative properties of this remedy. He also believes that in certain cases it has a place distinct from that of *aconite* or *veratrum*. He believes that it can be adjusted even to asthenic cases. It imparts a cooling sensation to the skin, relieves headache arising from the fever, calms nervous irritation, and soothes local inflammatory action. It dissipates the surface heat, and acts immediately upon the secretion of saliva and overcomes sordes very quickly, cleaning the mouth completely, restoring all secretions.

In inflammatory diseases of the chest he believes that it does all that *asclepias* does, and more. He combines it with *echinacea* in **erysipelas**. He believes that it relieves irritability of the heart and blood vessels, and induces normal equilibrium. The dosage for these purposes is invariably small—not to exceed one or two minims, and frequently repeated.

The agent has been used in **hydrocephalus**, and in other effusions into the membranes of the brain or spinal cord, but there are apt to be contraindications and it must therefore be used discreetly, and combined with other agents as indicated, and the strength of the patient supported.

It is useful in all local or general **dropsies** with discriminating judgment in its administration.

In acute inflammatory **rheumatism** or in rheumatic fever it should not be neglected as few agents will take its place. A single sufficient dose of pilocarpine will often relieve the pain, at the onset, promptly. It will be indicated during the course of chronic rheumatism as its influence

in eliminating urea, uric acid and other morbid products is of excellent service here. It may be given in full doses once or twice each week or oftener, in much the same manner as a Turkish bath would be administered. Its influence is much wider than any baths.

In **acute mastitis** with suppression of milk after confinement it quickly relieves congestion and restores the lacteal secretion. It is a prompt and efficient **galactagogue** at any time. Sufficient doses to induce active transpiration need not be given, but five to ten drops of the tincture four times daily for a few days will accomplish the result. If the milk is entirely suppressed it may sometimes be restored if this remedy is administered immediately. In such a case a full dose should first be given, followed subsequently by smaller doses at longer intervals.

It has been used to advantage also in acute orchitis, and it will serve a good purpose in some cases of acute **ovaritis** or **metritis**.

A writer in the Medical and Surgical Reporter says that having observed that **parturition** progresses most favorably when there is diaphoresis, he now produces that condition early by the use of **jaborandi**; he gives onethird of a teaspoonful of the green fluid extract in half a wineglass of water every half hour until perspiration occurs. The effect is a soothing one, often relieving the severity of the pains. The os rapidly dilates, the soft parts assume a more favorable condition, and the labor is soon terminated favorably. He has seen only good results from its use. Many writers agree on the action of the remedy in **rigid os uteri**, where the pains are hard, the muscular system tense, and the skin dry.

If prostration occurs from the profusion of the perspiration the skin is thoroughly dried, the patient is given a stimulating drink and warmly covered, and there are no further unpleasant results. It does not necessarily increase the danger of post-partum hemorrhage unless the effect of the agent is severe, in which case a full dose of **ergot** at the completion of the second stage of labor or a hypodermic of strychnia will insure prompt uterine contraction.

These facts are especially true if during confinement the skin is hot and the os unyielding, rigid and painful, the pains hard and unsatisfactory, the pulse sharp and hard, and perhaps the temperature rising. A full dose of **jaborandi** will often change the entire condition, at

once producing relaxation of the os, free secretion, more expulsive and less irritating pains and a general soothed and quiet condition.

Many writers confirm the value of this agent in **puerperal eclampsia**. A French authority treated ten consecutive cases with satisfactory results, with the hydrochlorate of pilocarpine. He concludes that feebleness of the pulse, as long as the convulsions reappear, is not a contra-indication to a repetition of the dose.

When permissible it should be given in a single, full, prompt dose. Its best influences are directed toward elimination of the urea, thus relieving the uremia and reducing dropsical effusions. Its anti-spasmodic influence, while not always, perhaps, to be depended upon alone, is exercised harmoniously with the indicated anti-spasmodic, whether it be *veratrum*, chloral, the bromides, morphia, *passiflora* or *gelsemium*.

In **exanthematous fevers** of all kinds *jaborandi* in small doses is the remedy *par excellence*. In robust cases, with scarlet fever, the determination to the skin and the elimination from the skin is so prompt and efficient that post-scarlatinal nephritis need not be anticipated.

Waugh is authority for the statement that the agent is efficacious in acute **sthenic erysipelas**. It may be given in twenty drop doses, every four hours, and any prostrating influences antagonized. Local applications should not be neglected, but should be selected with care, and prompt tonics and restoratives should be administered in conjunction. In asthenic cases the agent should not be unqualifiedly discarded, but it may be adapted in small doses to the case in hand.

Pilocarpine has a selective action for the skin, and is prescribed by specialists in a number of skin diseases, notably in pruritus, eczema, prurigo, and in hyperhidrosis pedum. It is given in small doses long continued.

Its continued internal use for other conditions has been known to result in an increased growth of the hair with **restoration** of the original color of **gray hair**.

Pilocarpine in the proportion of two grains to the ounce of lanoline is a

common application to the scalp to restore the hair and prevent baldness. It may be combined with *cantharides*.

Ophthalmologists claim excellent results from its use in a number of diseases of the eye. In iritis it overcomes inflammations and removes adhesions. It causes rapid absorption of all exudates. It is of benefit in detachment of the retina and in optic neuritis. In all inflammatory conditions it is of service. It is beneficial after extraction of the lens, and is said to promote the absorption of opacities in the vitreous humor which have resulted from recent infiltration. It acts upon the pupil much after the manner of eserine.

Dr. Kent O. Foltz employed the drug regularly in **iridocyclitis**, in plastic and **traumatic iritis**, in **rheumatis iritis**, in **hylatis**, in simple **glaucoma** and in some cases of **optic neuritis**; also in traumatism of the eye, where there is effusion of the blood into the aqueous or vitreous humors, in **retinal hemorrhage**, in **chorio-retinitis**, and in detachment of the retina. It has been beneficial in beginning atrophy of the optic nerve. In **interstitial keratitis**, and in chronic **conjunctivitis**, also in **croupus** and **diphtheritic conjunctivitis**.

In the treatment of ear disease, it has a more limited use. In dry **catarrh** of the **middle ear**, and in **eczema** of the external auditory canal it has some beneficial influence. In effusion into the labyrinth it facilitates absorption. In **atrophic rhinitis**, and **pharyngitis**, it increases the activity of the glands, and produces general salutary results.

A few doses of from twenty to thirty drops of *jaborandi* are given internally in cases of severe *rhus* poisoning, combined with proper external applications.

In the treatment of the **bite of venomous snakes** and in anticipated hydrophobia, and in poisoning from canned fish and other meats—in ptomaine poisoning, the salts are administered in maximum doses.

The patient will show but little of the prostrating influences of the drug. It is eliminative in its influence, only the poison must be antidoted by the proper remedy, and in organic poisons the permanganate of potassium is an efficient remedy.

SERPENTARIA.

Aristolochia serpentaria.

Synonym—Virginia Snakeroot.

CONSTITUENTS—

Volatile oil, aristolochine (bitter principle), resin, gum, starch, albumen.

PREPARATIONS—

Extractum Serpentariae Fluidum, Fluid Extract of Serpentaria. Dose, from ten to thirty minims.

Specific Medicine Serpentaria. Dose, from one to sixty minims.

Therapy—The action of *snakeroot* in restoring secretion after a severe cold, in sudden, acute inflammation, and in the early stages of acute fevers, is most strongly marked. It is valuable, also, in the advanced stages of fevers where there is persistent suppression of secretion, and where the prostration contra-indicates active diaphoretics, etc. It exercises a tonic effect on the nervous system, while it promotes secretion. It is of much value during the progress of typhoid fever.

In **scarlet fever** and **measles** and in **small-pox** it is a useful remedy. It hastens a tardy eruption, and restores the eruption promptly if it has receded. It must be given in full doses up to a dram of the tincture. It acts as a mild restorative tonic at the same time.

It was popular among the older physicians as an active eliminative agent. It was used in **chronic ague** as an antiperiodic and tonic. It was claimed to supersede quinine in some cases; **cynanche maligna**, has been cured by it; **scrofula** and evidences of blood dyscrasia are benefited by it. It is of use in **chronic rheumatism**, and combined with more active agents, in acute cases. It stimulates digestion in enfeebled cases, and encourages a better action from all the glandular organs.

ACIDUM CAMPHORICUM

Synonym—**Camphoric Acid.**

Administration—Dose, from one to twenty grains. Large doses are necessarily given in capsules unless dissolved in a large quantity of

water.

Therapy—The agent acts specifically upon the skin and mucous membranes, controlling **excessivesecretion**. Twenty grains of the acid taken an hour before going to bed will control some of the worst cases of night sweats. It is especially applicable in phthisis, but is also valuable in the profuse sweating that occurs during the recovery from prostrating fevers.

In **excessive mucous discharges** from whatever cause, it is a valuable remedy. A one per cent solution may be used in **nasal catarrh** as a douche, in **laryngitis** and in **bronchitis** and as an application in mild forms of sore throat.

ARGENTI NITRAS.

Formula— AgNO_3 ,

Synonyms—Silver nitrate, nitrate of silver, lunar caustic.

Therapy—Under the present enlightened condition of therapeutics, the use of this and similar agents internally, is unjustifiable, and is practiced only in ignorance of better remedies. It has been employed in small doses in ulceration of the stomach, and in catarrhal conditions of that organ and the intestinal canal. It is said to give relief in chronic gastric pain and to be of benefit in some forms of dyspepsia.

As a local application, for external use, the agent is manageable and of much service. It is applicable to **chronic ulceration** of whatever character, especially of mucous surfaces. Carefully applied to **ulceration** of the os or **cervix uteri**, after these parts have been well cleansed, much benefit results.

In unhealthy granulation of wounds, known as proud flesh, this caustic is curative. In the proportion of from one to five grains in an ounce of water it is useful in **ophthalmia neonatorum**, and in **gonorrhoeal ophthalmia**. It is also used in granulation of the eyelids and in some cases of **purulent conjunctivitis**.

It has been applied to **erysipelatosus** surfaces, but the tincture of iron is

a superior agent.

It is serviceable in dilute solution in the treatment of **leucorrhoea** of a specific or non-specific character, and in **gonorrhoea**, whether in the male or female.

It is also applicable to **abnormal growths**, some simple forms being aborted by it. It has been applied to felons in their early stages and to boils, before suppuration, with good results.

ACIDUM NITRICUM.

Synonyms—Picric acid, carbazotic acid, trinitraphenol.

Occurrence—This acid is obtained from the action of creosote upon nitric acid, or by dissolving pure crystallized carbolic acid in sulphuric acid and treating this product with nitric acid or with sodium nitrate.

Description—It is crystalline in character, light yellow in color, bitter, freely soluble in water, sublimes without decomposition, and explodes upon heating. Its salts of potassium and sodium are too unstable for use in medicine, being violent explosives, the ammonium salt alone being in common Use.

Physiological Action—It acts as an irritating depressant. In poisonous doses, there is a reduction of temperature and blood pressure, shallow breathing, rapid, feeble heart action, great weakness, profuse diarrhoea with pain in the stomach and bowels, and collapse. In some cases convulsions occur followed by death.

It colors the serum of the blood, materially increases the white corpuscles and alters the character of the red blood cells. The action of the agent as a medicine is considered in the action of the picrate of ammonium.

Therapy—Picric acid is used in the treatment of **superficial burns** by a number of eminent authorities, but in the treatment of extensive and deep burns, there is danger of poisoning. Sterilized gauze is soaked in a five per cent solution of picric acid and laid over the entire burned surface, a light dressing is laid over this and the whole is retained by a light bandage. After three days it may be thoroughly moistened with a

solution of the acid as it will become very dry, and may be removed. A second dressing may be applied as the first. It controls pain and rapidly promotes healing. When granulation is progressing, and pus no longer forms, it may be replaced by a simpler dressing.

In some cases the solution is simply brushed over the surface thoroughly, and gauze placed over it for a few days.

Stains from the use of picric acid may be removed by alcohol, a solution of boric acid, or a strong soap.

CANTHARIDES. *Cantharis vesicatoria.*

Synonyms—Spanish Flies, Blister Beetle.

CONSTITUENTS—

Cantharidin, extractives, salts and fat.

Cantharidin is a crystalline body obtained by exhausting the powder with chloroform. The crystals are colorless prisms, soluble in alcohol, chloroform, ether and in volatile oils, and to a limited extent in water. It is the irritating, blistering constituent of the powder.

PREPARATIONS—

Tinctura Cantharidis, Tincture of Cantharides. Dose, from one to ten minims.

Specific Cantharis. Dose, from one to five minims in water.

With many physicians the agent is always prescribed in small doses frequently repeated—from five to fifteen drops in four ounces of water, a teaspoonful every one, two or three hours.

Ceratum Cantharidis—Cantharides cerate, made of cantharides, yellow wax, lard and turpentine.

Physiological Action—Internally the agent will produce gastrointestinal irritation, pain, nausea, vomiting, bloody stools, suppression of urine, with irritation in passing, strangury, swelling of the external genitals, general depression, convulsions and death. It increases sexual desire, and is an active emmenagogue and abortifacient.

Applied externally the agent produces at first, local stimulation, a

reddening of the skin and subsequent vesication, the vesicles filling with serum, producing prompt and marked derivation and general depression.

Therapy—In small doses this agent is in use in the treatment of **cystitis** and **bladder irritations**, accompanied with tenesmus and constant desire. It is serviceable in **enuresis** when there is **relaxation** of the **bladder walls**, and lack of control of the sphincter, especially in that common to relaxed plethoric women, when upon their feet, and when coughing.

It is of some benefit in the treatment of **dropsies**, especially of those following scarlet fever, and diabetes in its later stages.

It is occasionally beneficial in **eczema** and **acne**, when accompanied with uterine or vesical irritation, or with **amenorrhoea**. In small doses it is prescribed in **sub-acute** or chronic **gonorrhoea** or **gleet**.

As a vesicant, or blistering agent, cantharides has long been used in the treatment of **local inflammations** of all characters, usually in sthenic stages, as its derivative influence produces debility. **Diseases of the brain** and **spinal cord**, and their meninges, have been treated with extreme derivation from its, action and often with good results. As a local stimulant in **hypostatic congestions** the agent has been much used, being applied in such cases short of vesication.

Strangury induced by the use of this agent may be treated by the use of a solution of potassium hydrate in frequent doses from ten to twenty drops freely diluted.

Very small doses of the tincture of *cantharides*—one drop diluted in eight ounces of water—will be of sufficient strength when a patient complains of **pain in passing water**, or when there are intense, burning, cutting, scalding sensations in the urethra. There may be tenesmus and urgent desire almost constant to urinate with a passing of only a drop or two at a time, which burns like fire. There may be hematuria also.

An old German treatment for **cancers** was made by the use of the tincture of *cantharides* in a medium sized dosage, prepared in the wine of camphor with mucilage of **gum arabic**. A number of cures were

attributed to this.

Homeopaths give this remedy in minute doses when there is **delirium** with paroxysm of rage, **profanity**, greatly **increased sexual excitement**, or sexual furor.

A prominent French writer advised *cantharides* in very small doses in **acute nephritis** where there was at first **anuria** and **oliguria**. He gives this in medium sized doses, claiming a rapid increase in the amount of sugar, and disappearance in the edema.

Dr. Wark reports a case of fistula in a boy of sixteen which was cured with a cerate of *cantharides* to which he added a small quantity of the tincture filling a long fistula full of this. By this means he blistered off the pyogenic membrane of the fistula, and by simple measures healed the fistula completely.

An application is made of a mixture of one-half of a dram of tannic acid, one dram of tincture of *cantharides*, five drops of the oil of *capsicum* in two ounces of glycerine rubbed thoroughly into the scalp twice a day to prevent the falling of hair.

Dr. Thornton of Mississippi combined cantharidin and collodion and used it in his ears for chronic deafness with excellent results.

Note—Powerful vesication is seldom deemed advisable by our physicians as local stimulation by heat or *mustard* is usually found sufficient. The formation of large blisters or blebs is deprecated, as inducing depression and local pain and general irritation, usually out of all proportion to the benefit derived. The abstraction of the serum from the blood, which contains almost as much albumin as the blood itself, amounts to but little less than actual blood letting. Extreme blistering, even by physicians addicted to most heroic measures is largely relegated to the past.

When counter irritation, derivation, or local stimulation seems to be needed, we have recourse to local heat, dry or moist, always short of burning, *mustard*, *capsicum*, and other agents named in other chapters for their revulsive action, as *croton oil*, and other oils, chloroform, ether and ammonia, confined, and dry cupping.

YOHIMBE.

Corynanthe yohimbe

Part Employed—The bark of the yohimbeye tree.

CONSTITUENTS—

Spiegel obtained an extract of the bark, which contained a pigment that forms, on standing in alkaline solution, two alkaloids, yohimbin and an amorphous substance. The former crystallizes in white needles with silky lustre, and is soluble to the extent of two per cent in water, and dissolves also in alcohol and chloroform.

The agent may be given in **infusion**, in the form of a **powdered extract**, or the **alkaloid yohimbin**. A **liquid extract** is also prepared. The dose is from .001 gm. to .015 gm, of the alkaloid—from the $\frac{1}{60}$ to the $\frac{1}{4}$ of a grain.

Physiological Action—The action of this agent seems to be exercised directly upon the sexual centers of the spinal cord, increasing tonicity and reducing excitability.

Oberwarth and Lowy made physiological experiments on animals with the alkaloid. After injections of 0.005 to 0.015 gm. in rabbits they observed a swelling of the testicles and epididymis and their descent into the inguinal canal. In dogs and cats the swelling affects rather the penis and may go so far as to cause painful erections.

The **hydrochlorate of yohimbin** is a local anesthetic, of considerable value. Used in a two per cent solution it benumbs the mucous membranes in two minutes. In five minutes they are markedly anesthetic, and in ten minutes the maximum degree of anesthesia is obtained. The anesthesia lasts from one-half to three-quarters of an hour and sensation is completely restored in an hour and a half. It does not act upon the skin when applied. It must be injected.

Therapy—The current therapeutic journals of Austria and Germany have contained articles on the action of this remedy for the relief of impaired sexual function. Spiegel has made some important observations on its action. It has long been used in the form of a decoction by the natives, to increase sexual appetite. Impotence of functional origin seems to be directly influenced by it. Silberstein of

Vienna says that in so-called **hypocondriacal impotence**, due to morbid stimulation of the inhibitory paths, as well as that produced by diminished excitability of the sexual centers, the agent is successful. Patients so afflicted become violent, and may be driven to desperation. In cases where there is a sudden failure of power, producing despondency, foreboding and general mental depression, in young married men, it is satisfactory. The knowledge of weakness has an inhibitory effect upon the exercise of the normal functional action of the organs in every field of their operation.

Impotence from onanism, or persistent **nocturnal emissions**, with loss of appetite, was cured by this remedy in a short time. Several other cases of a similar character were experimented on satisfactorily. In cases where the same weakness was present with **chronicalcoholism**, resulting in chronic **disease** of the **stomach** and enlargement of the liver, the agent had a satisfactory influence. Another case was cured, who, from **sexual neurasthenia**, had persistent headaches.

It has been useful in operations upon the eye, nose and throat. A one per cent solution injected is non-toxic. A writer in the Standard says that if a two per cent solution be dropped into the conjunctival cul-de-sac, from five to six times in fifteen minutes, it will produce both corneal and conjunctival anesthesia. The corneal anesthesia is more pronounced and lasts much longer than the conjunctival. The eye becomes immediately suffused and continues red for more than an hour after the last instillation. There is moderate but marked dilatation of the pupil, which will last from fifteen to twenty minutes. It will be found valuable in cataract extractions and iridectomy. It has also been found useful in the removal of the nasal turbinals, and granulations, and of polypi, from the post-nasal surfaces or from the ear.

Its great advantage is in its non-toxic properties, and that it does not cause the tissues to contract. The hyperemia it induces, however, is a disadvantage in some cases. It does not keep well and there is some danger of hemorrhage after an operation.

We should confirm or disapprove the observations that have been made of this remedy. If confirmed, the agent will be a valuable addition to our resources.

THAPSIA.

Thapsia garganica.

Part Employed—The root.

Physiological Action—The agent is a prompt vesicant and an exceedingly active counter-irritant. In certain cases it is singularly valuable, but the plaster must be an active one and its full influence should be obtained in from four to six hours. If it acts mildly and slowly much less good will result.

There is no pain, but in most cases an intolerable itching and if the surface is not scratched or irritated there is no spreading. It is sometimes necessary to cover the surface to prevent irritation, which may be allayed in a short time by the application of a starch paste, or by the use of the glycerole of starch.

Therapy—In stubborn, **bronchial disorders** *Thapsia* has produced immediate and permanent benefit. It is valuable in **chronic lung troubles**, especially where there is effusion or probability of suppuration. If the plaster is of French manufacture, six hours is a sufficient time in which to obtain its full effects, but if of American manufacture, it will require a longer time, but may be equally satisfactory. It can be relied upon wherever a strong, revulsive influence is required, and can be used in chronic inflammation of any organ, or, in fact, wherever *cantharides* is indicated this remedy will induce better results, without the drain upon the system induced by the latter named agent.

The application of a *thapsia* plaster will often cure persistent cases of **sciatica**, even when other measures have signally failed. in **neuralgia** of any kind it is of service and will be found beneficial in some cases of muscular rheumatism.

Because of the exceedingly irritating character of this agent, but little use has been made of it internally, and yet some excellent authorities claim much benefit from its action. Dudgeon speaks of this agent as a remedy for certain urinary conditions. He says it is a powerful anti-hemorrhagic and has a marked influence in correcting the uric acid diathesis. Rademacher prescribed thirty drops of the tincture five times daily in a case of **dropsy** with **haematuria**, both conditions disappearing promptly with the discharge of a large quantity of renal

sand with the urine which was greatly increased in amount. A pupil of Rademacher gave the same dose to a woman suffering from **strangury**. She could not retain the urine, which was turbid, containing a red sediment and there was constant pain in the urethra, a cure resulting within one week.

Jousset has found the remedy useful in many forms of hemorrhage. Herr used it with success in the **painful urination of old people**, both with and without spasmodic retention. It apparently acts more satisfactorily where there is an excess of uric acid and in these cases it deserves further trial.

UNGUENTUM ZINCI OXIDI.

Synonym—Ointment of Zinc Oxide.

Therapy—It is useful in **cutaneous eruptions** of all character, as it is non-irritating and promotes rapid healing. In **ulcerations**, in **burns**, and in **excoriation**, or in bruised conditions of the skin it is valuable. An ounce of this ointment combined with two drams of bismuth sub-nitrate is a most valuable dressing for **sore nipples**. It is excellent, also, applied to fissures, oozing surfaces, **eczema**, and ulcerations of the anus and rectum, and to **piles**, especially if of recent origin.

LANOLIN.

Synonyms—Adeps Lanae Hydrosus. Hydrous wool fat.

Therapy—As an ointment base, this substance is absorbed by the skin more rapidly than any other known base, facilitating also the absorption of the medicinal constituents of the ointment of which it forms a part. This author has proven this to his complete satisfaction in hundreds of cases, notwithstanding the statements of foreign experimenters, that it has no superior influence. It is soothing to the skin and healing to a remarkable extent and perceptibly promotes the growth of hair. An ointment, of which this is the base, applied to a given surface for thirty days will show a marked increase in the growth of the hair as compared with that on the surrounding surface.