

ELECTRICITY.

Ohm: Represents the electric resistance which will be encountered by an electric current flowing through a column of mercury at 32 degrees fahrenheit; in other words at freezing point, 106 cm. long and 1 square millimeter in a cross section. The unit of resistance is therefore an "ohm." If a wire was too small for-volt pressure and ampere current of resistance of the wire would be overcome and become heated; perhaps get red hot and melt if above power was very great. The finer the wire the greater number of ohms resistance it has to the foot. If more wires are used resistance is not so great on each. Resistance varies in different metals. The greater the length of the circuit the greater the resistance.

Ampere: Represents the volume of a current which is produced by a pressure of one volt flowing through some conductor that has a resistance of one ohm. It is the electrical current itself and is the practical unit of measurement of rate of flow.

Voltage: Is pressure, that is push power, the force that impels it. Therefore is the practical unit of pressure.

Circuit: When two electric wires from a battery are connected together through any apparatus or instrument it is called a circuit. If only one wire is used and the other side connected with the earth, we have what is called a ground circuit.

Joule: Is the unit of work. If one volt causes 1 coulomb of electricity to pass through a circuit. The volt coulomb is the unit amount of work done independently of any factor. It is equal to 0.738 pounds.

The resistance offered by different metals in conducting electricity are various. Copper is taken as the unit of comparison or 1.

Metal.	Resistance.
Silver	0.77
Gold	1.38
Aluminum	2.29
Zinc	2.82
Iron	5.36
Tin	6.76
Platinum	7.35
Lead	9.96

German silver	10.09
Antimony	18.07
Mercury	47.48
Bismuth	64.52
Graphite	1106.00
Gas Carbon	2037.00

Coulomb: Is the unit of measurement of electrical quantity. The unit of quantity of electricity by 1 ampere in one second.

Watt: Is the unit rate of doing work when 1 volt causes a current of 1 ampere to flow, that is Watts (activity) is obtained by multiplying volts by amperes.

+ **Acid Anode:** Entrance of current into body.

— **Cathode:** Outlet of current into the body.

+ Generally stands for “Positive” Pole.

— Generally stands for “Negative” Pole.

E. M. F.: Stands for Electro motive force.

Electrolysis: When an electric current passes through any chemical substances that are in solution there is splitting up of the substances into their elements. Thus the salt is split up, acid being collected at positive pole, alkali at the negative pole. The freed elements at the positive pole are called “anions,” those of the negative “kations.” Strictly speaking electrolysis is galvano-chemical decomposition.

Water, pure, is a non-conductor , but the saline impurities make it a conductor. Oxygen (anion) appears at the positive pole and hydrogen (kation) at the negative pole.

To tell a positive from negative pole. Electrolysis. Bubbling of hydrogen from negative pole.

Galvanometer between poles’ needle will diverge towards the positive pole.

The human body has 20 times less resistance than water. Skin and the

sciatic nerve have the greatest resistance. Bone 20 times greater resistance power than muscles. Skin comes next in line, having more resistance power than any other part of the body except bones and sciatic nerve.

Galvanic current employed has generally from 1 to 500 volts interrupted or contains amperage 1 to 300 volts.

Faradic current pressure 100 to 300 volts according to core or coil with current volume of 1-10 to 1-1000 milliampere.

Static machines may have as high as 60,000 volts pressure current volume 1-1000000 milliampere.

Effects on skin, if wanted, use dry with metal brush.

Seventy-five per cent of the body is supposed to be saline water, which is a good conductor of electricity; therefore the more water in tissues the less resistance and vice versa.

Salt water increases conductivity.

Soapy water increases conductivity, doubles current.

Some Differential Points in Galvanism and Faradism.

Galvanic: Greater amperage. Will produce muscular contraction when Faradic fails. If used, on the head, spine, etc., should only be used for a brief time.

Faradic: Less amperage. Less likely to produce harmful effects. May be applied to head, spine, etc., for some time.

+ Positive:

Is acid.
Promotes a clot.
Repels soluble salts.
Has a drying influence.
Diffuses and attracts elements.
Lessens nerve irritability.
Is contracting.

— Negative:

Is alkaline.
Alkaline dissolves and absorbs a clot.
Attracts soluble salts.
Moistening.
Reverse.
Increases nerve irritability.
Is dilating.

Coagulating.
Denutritive.
Lessens inflammation.
Hardens.
Lessens menstruation.
Allays excitability.
In acute conditions.
Hyperaemia.

Liquifying.
Increases local nutrition.
Increases local vascularity.
Softens and absorbs.
Increases menstruation.
Increase excitability.
In chronic conditions.
In anemia.
Destroys and eliminates non-vascular tissue.
Dilates uterine canal.

In leucorrhoea with profuse secretion.

- Electricity is contra-indicated in fibrocystic or very soft myomas and fibroids complicated with purulent lesion in the pelvis.
- Electricity is also contra-indicated in active inflammation.
- Electricity is contra-indicated in any condition of anesthesia caused by embolism or hemorrhage.

To find place where nerve enters muscle place arm on positive pole and on upper surface, move or trace with negative pole, increasing current, starting with a light current until muscle contracts in some place. This is the motor point. Place positive under foot and trace with negative as above, on leg to find motor points.

Intra-uterine use of electricity is contra-indicated in all irritable conditions of the uterus.

A painful, tender uterus, if it bears a strong current, the pain being relieved while current is used shows that there is passive congestion. If the pain persists or is perhaps increased it shows that there is inflammation.

The electrical current in our body may be in excess or perverted. If in excess there is generally more of a condition of excitation, we find no wrong in the nerve centers, skin is constricted and dry which seems to be different from dryness of other causes. Hard brain work, confinement in very dry rooms, bad conductors of heat, as underwear are some of the main causes. Moist atmosphere, good ventilation and underwear that is a good conductor of heat usually corrects the trouble. On the other hand want of electricity is marked by want of tone, energy, easy exhaustion, relaxed skin, in fact a general condition of relaxation not the result of

local or general condition. Moist and poorly ventilated rooms, excess of moisture where working, excessive perspiration, overindulgence in sexual intercourse, excessive urination, excessive moisture in air where working and wearing conductors of heat for underwear. This can be corrected by changing the surrounding environments. Give sunshine, dry air, higher altitude if possible, woolen underwear, good food and in many cases restorative and nerve stimulants.

Positive pole is cool.

Negative pole is hot.

Positive pole of the faradic battery is sedative and the negative is stimulating.

Galvanic negative pole should be applied to fibrous tissue, exudates, tumors, etc., the removal of which is desired. The positive pole of galvanic battery is and can be used in neuralgia or where stimulation is required.

Galvanic current from 1 to 6 or 8 milliamperes stimulates nutrition and causes normal increase of growth, while a current from 15 to 20 destroys tissue and causes atrophy.

Connecting: As to connecting series of cells it depends upon the work we have to do and what force in either direction we look for. Galvanic therapeutic batteries are connected together, unlike elements are joined together in series, that is, the positive the zinc is connected with the carbon, or in other words unlike elements with each other starting with the positive zinc connecting with the negative, the carbon with conducting cords. This in a series gives high voltage, that is, pressure, and is required in passing through bodies of large resistance each additional cell increases the voltage current or pressure. If we require more amperage, that is, more electric current than pressure (the resistance to overcome being small), as for instance the heating of platinum electrode's for actual cautery, in such cases the arrangement must be different. In this case like elements are connected which is termed multiple or parallel. In this case if a number of cells are connected in a series the whole series no matter how many, only give the quantity of amperage of one cell. Galvanic cells that are generally sold only have about a current of 2 amperes. As cautery knives, etc., require from 6 to 18 amperes, it would not be possible to heat even the

smallest cautery knife even if there were 50 to 100 cells joined together. This goes to show that one or two batteries would be enough provided they contain large elements, in order that large quantity of current may be given off, so as to get enough pressure. Ordinary forms of Le Clanche batteries are not practicable, as in a short circuit they polarize very rapidly in a closed circuit. The above refers to galvanic. Caustic galvanic cautery requires a different arrangement.

FORCE OF SUNLIGHT, VIBRATIONS AND THEIR INFLUENCE ON THE BODY IF PASSED THROUGH COLORED GLASS, ETC.

Experience has proven that sunlight or electric light passed through colored glass or reflected by a colored reflector, will increase or decrease the circulation according to what colors the rays pass through. This the writer thinks is of enough importance to the medical profession to mention it as well as giving a short outline of effects, etc.

As light passing through red will increase vibration far above the normal, it becomes a stimulant and irritant to the body or parts on which it is focused, thus powerfully increasing the circulation while under its influence.

Blue acts in the opposite way, it sedates and depresses. On light passing through blue, vibrations are decreased below the normal.

As our circulation tries to keep time with the surrounding vibrations it will be decreased or increased according to the influence of the colors as stated. Decreased by blue and increased by red.

This will explain why the influence of light passed through blue is indicated in fever or inflammatory conditions, while red is indicated where there is lack of circulation and where stimulants and irritants are in place.

Modifications of above colors act similarly, green being cooling and sedating, while shades of red are more or less irritating according to intensity of the red, etc.

From this it can be readily seen why a patient with fever and active

delirium should never be in a room where the sunlight passes through red window panes or red curtains, nor should the walls be red. It is irritating and harmful. It increases circulation and determination of blood to the head.

Blue window panes or blue curtains will be cooling and sedating if sunlight passes through them. Here again where sedation acts as a powerful depressant and where patient is cool and depressed this is contra-indicated. In general white walls, plain window panes, with blue, green or olive shades are preferable, especially the last.

It can thus be seen that a knowledge of use and abuse of colors is important to the physician. In the treatment of insanity it is a great aid to other indicated remedies, rules, etc.

A good way of using colors locally in any condition where local effects only are wanted and in places where there are electric light plants, is to get a reflector with insulated cords. Attach to circuit and screw on a blue or red globe as the case may demand. Then turn on your light and you are ready for work. Sunlight may be passed through colored glass for general effect, or through specially arranged reflectors for local conditions.

A few points on the positive and negative forces harmony, etc., are not out of place, in fact are necessary to get a general understanding of the forces. The laws of harmony require contrast, but not contrary forces. Similar colors for instance, repel, arouse and thus intensify one another.

Electricity of Heat: All alkalies, sweets, hydrogen, carbon or fatty food, mustard, pepper, ginger, head, left side. of the body, laxatives, rubifacients, steam, hot water, hot air, arterial blood, sensory nerve force, negative pole of battery, south pole of a magnet, red, orange, yellow and yellow green, rays of light, etc.

Electricity of Cold includes: Acids, ice, cold water, cold air, oxygen, acid fruits, the north pole of a magnet, the positive pole of a battery, the right side of the body, the feet, the venous blood, motor nerve force, astringents, refrigerents, sedatives, blue, blue-green, indigo and violet colors, etc.

Overexcitability is relieved by hanging blue glass in window, have blue curtains, especially on the sunny side, bluish walls. Useful also in

insanity where there is overexcitability.

Scanty or Suppressed Menses: Focus red lens over each ovary a few minutes at or just before the time of the menses.

Too Frequent Menstruation, or too profuse, is cured by the focusing the blue lens over each ovary a few minutes little before the menses are expected. Repeat 3 or 4 times.

Cystitis: Focus blue lens over bladder.

Wens, Moles and Warts: Focus light upon them through a burning glass from 2 to 5 minutes and repeat if necessary.

Corns: Shave down and a burning glass focused on same a little while will destroy the roots.

Birth Marks: Entirely destroyed by the use of a burning glass, entirely burning away part of the discoloration. Effects are better when focused through a blue lens in front of the burning glass.

Cancer Superficial: Burning glass is used to burn it out. Some cocaine may be applied before using to mitigate pain. It destroys the germs in surface cancers. Deep seated, cancers cannot be reached by this method of course.

Variola: The late Dr. N. R. Finsen¹ has given us proof, that the light passed through red window panes is very beneficial in this disease; furthermore it has been demonstrated by him that it will prevent pitting, something dreaded more by most people than the disease itself. This would suggest that variola is of an asthenic nature.

¹ NOTE.—Dr. E. D. Babbitt's work, "The Principles of Light and Color," as far back as in 1878 gives the therapeutic value of light and color in general.

FORMULAS AND SOME USEFUL INFORMATION.

Acne: Punctata and pustulata. Berberis aquif. continued for a long time is very good treatment. Where the lime salts are deficient sulphide of calcium is a good remedy. If there is involvement of the glands phytolacca and iris make good adjuncts to other indicated remedies. Echinacea is useful where there is a depraved condition of the blood.

Anal Prolapsus: Hamamelis, stramonium and thuja in glycerine make a very good local application.

Angina Pectoris: Inhalation of amyl nitrite is useful. May be given internally in small doses. Give lobelia in 10 to 20 drop doses during attack with 3 to 10 drops of cactus grand., and repeat if necessary. Cactus alone in large doses has proven useful.

Antiseptics that the writer has found most effective and least objectionable: Alphozone, Formaldehyde, Formolyptol (Merrill's).

Ascaris Vermicularis: Injection into the rectum of a strong infusion of apple tree bark is very good. Powdered apocynum can. bark, grains 4 to 5 as a cathartic is very good. Enema of strong infusion of quassia bark is a good remedy. 1 part fluid extract of collinsonia can. to 4 parts of water as an injection is said to destroy these little pin worms.

Asthma: Inhalation of amyl nitrite often acts very favorably, relieving an attack. Chloroform is perhaps our best emergency remedy. It may be inhaled until relaxation occurs. If all these means fail we have to resort to morphine. Lobelia in 10 to 15 drop doses, repeated until emesis is produced is often very effective. Yerba santa and grindelia robusta of each 3 drachms; cactus grand. 1 drachm; glycerine 4 ounces; a teaspoonful every 20 minutes until relieved; then 1/2 teaspoonful at intervals of every 2 to 3 hours, will often cure. Blatta orientalis is highly recommended 3x in 2 to 3 grain doses every 1 to 4 hours as the case demands. Pulmo vulpis 1x about 2 or 3 grains every 1 to 4 hours is useful in catarrhal asthma, especially in old people.

Ascites: Remove cause. Our best general remedies acting on the immediate conditions are: Oxydendron arboreum 5 to 10 drops in water 3 to 5 times a day, or: thlaspi (capsella) bursa pastoris, 10 drops to 1

teaspoonful every 3 to 5 hours as the severity of the case demands. This latter is also a fine remedy in general dropsy.

Baby Soother: Sp. cypridium 2 drachms; comp. tincture lavendula 2 drachms; sp. lobelia 1/2 drachm; syrup made of granulated sugar and water (thin) q. s. ad 4 ounces. Dose, 5 drops to 1/2 teaspoonful. This is much safer and pleasant than preparations that contain opium or morphine.

Barbers Itch: Sycosis parasitica. Resorcin 2 drachms; glycerine 1 ounce; alcohol ounce 2 ounces; water 1 pint. Apply locally. Hydrozone applied full strength is effective. Phytolacca, hyposulphite of soda and sulphur are also useful.

Bladder Chronic Inflammation of Neck: Helonias and alum in small doses is very good treatment. Vesicaria communis is a valuable all around remedy in bladder trouble and in these conditions as well.

Blood Poison: If from a foreign substance remove it and treat with antiseptics. Internally in all cases give large doses of echinacea. If stimulation is needed muriate of ammonia may be alternated with it. Where the heart's action is tumultuous lycopodium may be added to echinacea.

Blood Blister: As soon as they occur rub for some time briskly to re-establish circulation and they will entirely disappear.

Boils: Recurrent; one gone another appears. If there is a deficiency of lime salts in the system calcium sulphide 1x is a very good remedy. Calcium sulphite 1x is also useful in many cases. To be given in 2 to 5 grain doses 4 to 5 times a day until cured, then in small doses and at long intervals for a short time longer. Brown iodide of lime is said to be a fine remedy; this is also an excellent remedy in blood boils. Where the cause of boils is not a lack of the lime salts in the system, but from depraved condition of the blood, echinacea is the king of remedies. After pus has formed silica 3x should be alternated with above.

Breasts Caked, and Inflammation of the Breasts: In the early stage antiphlogistine is our best local application. Internally phytolacca is our best remedy. If there are sharp pains bryonia should be associated with phytolacca. Echinacea should be given in all cases in large doses to

prevent formation of pus; or if formed to favor its absorption. The properly indicated sedatives may be added if temperature runs high.

Breathing, Shallow: In the conditions where there is spinal enervation we think of nux vomica as a temporary remedy. Where, however, regional stimulation is necessary we find small doses of tartar emetic 3x the best remedy.

Burns: My salve NO. 2 is a very fine soothing and healing application; in fact the writer has found it to be the best by far of all applications tried so far. A 10% solution of formaldehyde is useful.

Catheter, How to Introduce Easily: In the male it is often difficult to pass a catheter in cases where bladder must be washed out. It may even penetrate the mucous membrane and form a false passage. A little tincture of lobelia injected into the meatus, especially if there is spasmodic contraction, will fully relax the canal. Then with a syringe (fountain) and tip a solution will easily seek its way and open the passage and a catheter is not necessary. If a catheter must be passed, it will pass easily.

Cancer: To relieve the pain echinacea is one of our best remedies; but it must be taken in large doses of say 10 to 15 drops 3 to 5 times a day. If cancer is external it may also be applied locally in 25% solution. Conium maculatum is a very good local application. A decoction of peruvian bark is a very good soothing local application. Chelidonium majus applied locally and injected around the cancer is very good treatment. A plaster made of echinacea, chelidonium and thuja is very good, in fact the best of all applications. Surface cancers may be cured by burning out with a sun glass or better yet with the X rays. Application of oil of eucalyptus is very good and may be combined in a plaster or salve with echinacea, chelidonium and thuja to great advantage.

Cancer Of the Stomach: Fluid extract of gonolobus condurango is very good, the dose being gtt. x to xxx, 3 to 5 times a day. Of the wine take one ounce, add 60 grains of condurango. Dose $\frac{1}{2}$ to 1 ounce 2 to 4 times a day. Echinacea in large doses will help to relieve the pain; so will piscidia erythrina. Conium maculatum is recommended by some.

Cellulitis, Pelvic: Kali mur 3x is one of our best remedies; 10 to 20 grains in 2 ounces of water, $\frac{1}{2}$ teaspoonful every 2 to 3 hours.

Echinacea and other indicated remedies may be used with success. Arsenicum album 12x may be alternated with above, if indicated.

Cerebro Spinal Meningitis: Our main remedies during the course of the disease, to control inflammatory process and favor absorption, are echinacea, kali mur 3x and bryonia. Rhus tox may be added to these for restlessness. Echinacea to be given in good sized doses. For the condition termed "opisthotonos" no remedy acts more promptly than cicuta virosa 30d., 5 to 15 drops in 4 ounces of water one-half to one teaspoonful every 2 hours to be alternated with above remedies. Temporary conditions should be met by indicated remedies either in the primary or secondary form. Locally apply to spine and base of brain antiphlogistine and renew when dry. Powerful depressants should be avoided. Cerebrospinal meningitis treated properly will generally result in recovery and without any serious after-effects.

Chancroid: Chancroid is a local disease; while chancre is the initial lesion of syphilis. The point in the treatment of chancroid is to kill the poison in the lesion. Nitric acid is very good. Apply with a toothpick to all parts of the sore. Chromic acid is used by many in place of nitric acid as it is more penetrating. Formaldehyde, the pure 40% solution, is very effective. Some recommend hydrozone pure. In any case whatever is used the sore should be washed out well with good antiseptic solution and then dressed with some dry antiseptic dressing. Iodoform or its preparations should not be used when hydrozone peroxide of hydrogen or formaldehyde have been used. If the burning out of sore is too painful use cocaine as a local anesthetic.

Chilblains: Eucalyptus oil put on the place with a brush a few times a day will ameliorate pain and eventually effect a cure. Lard 2 quarts; turpentine 1 pint; camphor $\frac{1}{4}$ lb. Rub well into parts affected. A good remedy.

Cholera: Hume's life drops. Oil cajuput, oil cloves, oil anise, oil peppermint, each one ounce; alcohol 4 ounces. Dose: From $\frac{1}{2}$ to 1 teaspoonful every 10 minutes in sweetened water or brandy until reaction is established. Camphor in alcohol will often establish reaction. Capsicum 1 teaspoonful; salt 1 teaspoonful; vinegar $\frac{1}{2}$ or 1 cup. Dose: Above to be taken at a dose in emergencies in danger of collapse to establish reaction. Very large doses of echinacea should be the general treatment with stimulants and other indicated remedies. Umbellularia

californica may be given with echinacea to great advantage. To relieve pain if very severe, enemata of one ounce of water; 1 drachm of xanthoxylum; tincture opium 20 drops; may be given and repeated if necessary. For cramps in the last stage comp. tincture of myrrh 1 ounce; capsicum 1/2 ounce; diluted alcohol 2 pints. Dose, 5 drops to 1 drachm. For further treatment of cholera, cholera morbus and cholera infantum see Part II under proper heading in primary action of drugs.

Chorea: Where there is determination of blood to the head gelsemium has been used with success; that is if a depressant is admissible. If not a proper stimulant to the heart and spinal nerves may be added. Passiflora has been recommended where there is a lack of blood in the head. Scutellaria has been used with success in many cases. Viscum album in 5 drop doses 3 times a day is a good remedy. If it increases the trouble decrease dose. General constitutional condition must also be looked after. Where twitching quits entirely as soon as falling asleep use agaricus musc. 30d.

Colic: Intestinal colic where bending double or pressure will ameliorate colocynthis 2d is one of our best remedies. Useful in colics of any form with above indications.

Bilious Colic: Where bending backwards ameliorates pain dioscorea vil. 5 to 10 drops in hot water every 1/2 to 2 hours is useful.

Uterine Colic: Generally relieved by colocynthis 2d, viburnum opulus or magnesium phos. 2X.

Colic in General: Where a relaxant is admissible, Lloyd's libradol applied locally to the parts generally will assist internal treatment. If it produces nausea, remove.

Painters' Colic: Epsom salts 1 teaspoonful to 1 oz., in 4 ounces water, with a little sulphuric acid added to make pleasantly sour, is one of our best remedies.

²Coughs: Dry cough increased by lying down and relieved by getting

² NOTE.-It will be better to give here a few remedies that act on the respiratory tract and on what part.

On the lower part, that is the smaller tracts, we think of lobelia, ipecac, tartar emetic 3x.

On the parenchyma of the lungs, asclepias, echinacea, kali mur 3x.

On the larger air passages enula, lippia mexicana, sanguinaria, trifolium.

up is often checked by hyoscyamus, if of nervous origin.

Dry, summer cough, rumex crispus is useful.

Nervous coughs, evening primrose is useful.

Hysterical coughs, corallium rubrum 6x is useful in to 3 drop doses 2 to 4 times a day. This is also good in some forms of spasmodic coughs.

Dry and wheezing, rasping, dry, persistent; comes on during summer; cough in hay fever, influenza, sticta pulmonaria is very good.

Chronic cough that is worse in the morning after eating, causing the patient to vomit, bryonia is a good remedy.

Severe cough of influenza, inula helenium is good, also in cough from general bronchial irritation; cough of peculiar deep resonant barking nature; bronchial cough without secretion, in chronic conditions especially, lippia mexicana is useful.

Cough, loud, hard, croupy, kali mur 3X,

Cough, short, tickling, dry, with rise of temperature, ferrum phos. 3x

Cough with feeling of constriction, tickling in the throat, sanguinaria nitrate 2 or 3x is a good remedy.

Cough of spasmodic nature, cough of measles we think of drosera.

Cough with crepitant rales; hollow, reverberating cough, capillary bronchitis, tartar emetic 3x is fine.

Cough with general irritation of the respiratory tract, the mucous membrane dry, yerba santa.

Cough from asthma, yerba santa and grindelia robusta are the best when combined.

Croup: The writer has found iodized calcium (Abbott's) the best general

remedy in croup.

Constipation: The causes of constipation are so many and the treatment accordingly so different that the subject has been omitted here. For special indication of remedies in primary form see in second part of this work under proper heading. However external applications sometimes are useful and convenient, especially in small children and infants. Heated castor oil if applied thoroughly to the bowels, especially over the navel, often will move the bowels as well as if given internally. This should not be made a habit.

Convulsions: In fevers and where there is marked determination of blood to the head (twitching of the eyelids often is an indication of onset) use gelsemium in large doses frequently repeated until symptoms have fully subsided. May give from 5 to 15 drops as a dose at intervals of 15 minutes to 1 hour until effect is produced. This is in active determination of blood to the head. Where there is no determination of blood to the head, perhaps face pale or more of a dusky appearance, showing more of a passive condition *passiflora inc.* is our best remedy, especially in small children and infants. It must be given in large doses in these cases. For a child of 12 years $\frac{1}{4}$ to $\frac{1}{2}$ teaspoonful, repeated in $\frac{1}{2}$ to 2 hours if necessary until relieved. Where restlessness precedes the attack, seeming to start in the extremities *cuprum met. 6x* is a very valuable remedy. Violent convulsions with *opisthotonos*, patient as violent as the convulsions use *cicuta virosa 30d* or even the 200 potency.

Counter-Irritant: One-third part oil turpentine; one-third part oil linseed (raw) ; one-third part olive oil. Spread on flannel and apply. Useful application in croup, pneumonia, inflammation of the bowels, etc. *Lobelia* powder (of seed) may be added and it will act better, especially in croup and pneumonia. A counter-irritant that is useful is $\frac{1}{4}$ part of ground mustard seed, to $\frac{3}{4}$ parts linseed ground fresh. Apply to parts on thin cloth.

Cramps: From menses starting and then stopped by a cold *pulsatilla* and *cimicifuga* are very good remedies if combined. Hot mustard foot bath is good also. Hot salt over the uterus may also be used with above.

Craving for Alcohol: If severe give patient compound tincture of myrrh, ounce 1; *nux vomica* gtt. 20, the dose of this being 10 to 15 drops in water. This will relieve gnawing and irritation in the stomach. When

there is marked depression of spirit 10 to 30 drops of fluid extract of seed of kola nut is very good. Spiritus glandium quercus in 8 to 15 drop dose; in water 3 times a day, in many cases has cured drunkards and enabled them to be temperate.

Dropsy: In this trouble we think of convallaria majalis, crataegus, apocynum, oxydendron arboreum, thlaspi bursa pastoris.

Delirium Tremens: Jamaica dogwood in $\frac{1}{2}$ to 1 teaspoonful doses has been recommended. Chloroform 1 ounces; dilute alcohol 7 ounces; tincture capsicum 8 ounces. Dose, 1 teaspoonful in water. Especially useful where there is marked depression. Extract erythroxyton coca 4 drachms; extract celery 4 drachms; fluid extract piscidia erythrina 4 drachms. Hoffman's anodyne q. s. to 4 ounces. Dose, 2 teaspoonful every 2 hours until sleep is produced, then later. 1 teaspoonful every 3 to 5 hours till nervous system returns to normal condition. Where abstaining from stimulants after a drunk may cause collapse, capsicum in hot beef tea is a useful substitute. Although digitalis must be used with care and its cumulative effects watched, in these conditions doses that would otherwise prove fatal, are beneficial. The dose averages about $\frac{1}{2}$ teaspoonful to be repeated if necessary in 1 to 2 hours. Patient will get relief and fall asleep. Never give opiates in delirium tremens.

Diaphoretic Powders: Substitute, for Dover's powders. Powdered asclepias tuberosa, ipecac and camphor combined make a good diaphoretic powder. Safer than Dover's powders, gives all the anodyne and sedative effects of the latter. It certainly has no opiates in it as Dover's powders have.

Dipsomania: Gold and sodium chloride with nitrate of strychnine is one of our best treatments. Atropine is sometimes indicated.

Dressing and Dusting Powder: Echinacea, grindelia robusta, calendula and boracic acid, equal parts, well mixed, makes an excellent dressing for wounds, ulcers, etc., where a dry dressing is preferred. It is far superior to iodoform. All the ingredients must be finely powdered and sifted.

Dyspnea: Quebracho has often proved beneficial its action being on the air passages. Tarter emetic 3x in small doses is very good. Nux vomica if the cause is spinal enervation. Muriate of ammonia often is beneficial.

Diabetes: In diabetes mellitus we think of syzygium jamb. Also in diabetic ulcers. In both forms of diabetes we think of rhus aromatica, helonias or borax. Nitric acid 3d is useful.

Dysmenorrhea: If from obstruction, pains are laborlike. If congestive, pains occur mostly in front. If neuralgic, pains come and go. If active irritation is present pains are sharp, often darting and deep pressure over ovaries or uterus increases pain, while in the congestive condition pains are dull and deep pressure ameliorates. In neuralgic form we think of cannabis ind. Magnesium phos. 2X or viburnum opulus. In the congestive form the above may give relief and caulophyllum, macrotys, pulsatilla, viburnum prunifolium are often indicated. In some cases belladonna is indicated. In the active form we find bryonia, gelsemium, veratrum viride are useful. It should always be taken in consideration in selecting remedies if flow is profuse or scanty.

Ear, Deafness: Mullein Oil, 3 to 5 drops in the ear morning and night and syringe out twice a week; this will often wonderfully improve hearing. If of catarrhal nature where absorption of catarrhal deposits becomes necessary, echinacea, berberis aquifolium, alternated with kali mur 3x is good treatment. If glandular enlargement is present phytolacca or iris versicolor should be added. If catarrhal condition of larynx, pharynx is present yerba santa is a valuable adjunct to the above. Sometimes we find collinsonia, stillingia or chelidonium valuable.

Ear: Inflammation of the middle-ear, with threatened perforation and abscess. In many cases, in fact in most cases this can be aborted in the early stage by large doses of gelsemium; watching carefully its physiological action so as not to carry it too far. The throbbing sensation is a prominent indication for gelsemium in these cases. I have given as much as 4 to 10 drops every $\frac{1}{2}$ to 1 hour until relief, then smaller doses at longer intervals. Its action must be carefully watched. Echinacea may be given in medium doses with it and in larger doses afterwards to prevent suppuration, check inflammation and favor absorption of exudates. Kali mur 3x may be alternated with it. The writer believes that jaborandi is a good remedy if given in large doses and its effect carefully watched. I have seen other conditions with powerful determination of blood to the head relieved in a very short time, and for that reason believe it will abort an attack in the early stage, if given in 8 to 15 drop doses in a cup of hot water to make it act more promptly. In

cases where the depressing effect of gelsemium cannot be borne by patient it may be associated with a little nux vomica as this is a spinal and not a cerebral stimulant. Where an acute attack is followed by suppuration of the middle ear echinacea in good sized doses is our best remedy. The writer generally associates it with yerba santa. This may be alternated with kali mur. 3X. A cure is generally effected in a short time, unless there is a lack of lime salts in the system, when calcium sulphide 1x or calcium sulphite 1x and perhaps calcium phos. 2X should be given. Where glands are inflamed phytolacca should also be given. Thuja o. 30d is useful in some cases of suppuration of the ears as well as in polypi of the ears.

Earache: Make a funnel of paper, insert small end in ear and place a small piece of cotton saturated with chloroform in the wide part of the funnel. This will generally give relief. In severe pain, especially with engorgement and danger of inflammation, 1 part of hot vinegar to 1 or 2 parts of hot water; poured into the ear as hot as can be borne without scalding often relieves where other local treatment fails. Mullein oil dropped in the ear and repeated if necessary is very useful. Earache, especially inflammatory, can be relieved by the internal use of sp. valerian, especially if caused by cold, draughts, cold winds, etc. Drop 10 to 20 drops in 2 ounces of water and give $\frac{1}{2}$ to 1 teaspoonful every 15 minutes to 1 hour as the severity of the case demands. When easier, give at longer intervals and in smaller doses until condition is corrected. The internal treatment may be supplemented by any of the local treatments mentioned.

Ear: Bugs or other insects in the ear may be removed by holding ear up and letting olive oil run into it. To remove hardened wax, put 1 teaspoonful of bicarbonate of soda in $\frac{1}{2}$ cup of warm water. With this, syringe out the ear. This will generally dissolve it. Glycerine and water equal parts, of which a few drops should be dropped in the ear at night, closing it up with cotton, will generally dissolve the wax by next morning. In cases where beans or peas have been introduced into the auditory canal and cannot be extracted, or the swelling prevents extracting, carica papaya is the best solvent we have. The writer uses a preparation of the above called papain in 5% solution injected into the ear 4 to 6 times a day. This will dissolve them in 1 to 2 days. This also applies to obstruction of the nose from the same cause.

Eczema: Berberis aquif., lappa off., sulphide of calcium, rhus tox., or

echinacea are good internal remedies. In the acute stage vaseline or olive oil is useful locally. In the subacute or chronic stage tar is one of our best external remedies, made into an ointment with lanoline, but not too strong. A salve of sulphur, pine tar and lanoline is also very good juniper pomade is recommended by many.

Enuresis: Mullein oil in 3 to 5 drop doses 3 times a day is highly recommended. Where, from weakness of the bladder and urinary apparatus, the urine passes on coughing or sneezing, thuja is a good remedy. In children plantago major is almost a specific. Rhus aromatica is a fine remedy in children and grown people. In dribbling of the urine in the young and old thuja in small doses is very useful. Excessive flow of urine is benefited by 3 to 5 grain doses of boracic acid 2 to 4 times a day. Rhus aromatica or thuja are very good in these conditions. In some cases we will find gelsemium indicated, in others again belladonna, especially in dribbling of urine. In pregnant women where there is a constant desire to urinate, the urine passing with each effort, eupatorium pur. is very good. If patient is nervous associate pulsatilla with it. In the young, we often find that incontinence of urine is caused by too tight or too long foreskin in the male and irritated and hooded clitoris in the female.

Epistaxis: Peroxide of hydrogen injected into the nose or a plug of cotton saturated with it and inserted into the nose is one of our best remedies. A string, tied around the small finger on the side where the nose bleeds is a cheap and very effective way of checking nose bleed. Must be tied very tight and left for a little while, but not long enough to cause bluish tinge of the finger. Powdered geranium snuffed up the nose is very good. Lycopus internally is useful. Ergot internally in doses of 1/4 to 1/2 teaspoonful is generally effective. Oil of erigeron is good locally and internally. Melilotus 2d internally is useful. In some cases where loss of blood has been great we find carbo veg 12x a useful adjunct. For general tendency to epistaxis achillea m. is claimed to be of value.

Erysipelas: Rhus tox. is a valuable remedy and may be given in good sized doses. Echinacea may be combined with it to great advantage. Baptisia is sometimes indicated. If more of a bluish color, iron is indicated. In some cases belladonna has been used with success; in these cases prominent indications are present for the drug.

Expectorant: Difficult expectoration. Vinegar 3 drachms; sanguinaria

1 1/2 drachms; simple syrup 3 1/2 ounces. Dose, 1 teaspoonful every 2 to 3 hours. Useful in membranous laryngitis, etc. Do not give often enough to produce emesis.

Expectorant: Syrup of prunus vir. 1 ounce; syrup of senega 1 ounce; comp. tinct. of myrrh and capsicum No. 6, 2 drachms. Dose, 1 teaspoonful every 3 hours. This is the best stimulating tonic and alterative expectorant in use. Useful also where the mucous membrane is much relaxed.

EYE.

A few diagnostic symptoms of value, will precede the general treatment. Conjunctivitis is never without secretion. In inflammation of lachrymal sac, pain or pressure over sac is very severe, which would not be the case in erysipelas. Hordeolum always forms an abscess, while chalazion will never form an abscess. A diagnostic symptom of iritis is immobility of the pupil. If there is posterior adhesion, there is irregularity of the pupil.

In a work like this it is impossible to give a comprehensive treatise on the eyes; still a certain amount of explanation is necessary to make the subject clear. Mydriatics dilate pupils abnormally and are therefore indicated in conditions where there is minus tension. The remedies indicated are atropine and cocaine. These may be used in 1 or 2% solution. They should never be used too long or too often. Mydriatics are contraindicated in very young children and in people over 40 years. In these cases it may produce glaucoma. The long and continued use of mydriatics may produce glaucoma at any age. Atropine is the remedy in minus tension, but is contra-indicated in glaucoma and inflammation of the iris. It is the remedy in all intraocular troubles except above-mentioned.

Myotics: Contract pupils abnormally, therefore may be used where there is plus tension. Eserine and pilocarpine are myotics and the latter is preferable if effective enough. The former is generally used in 1 or 1 1/2% solution; the latter as a 2% solution.

Conjunctivitis: In order not to be mistaken in diagnosis, it should be remembered that there is never conjunctivitis without secretion. In the various forms of conjunctivitis nitrate of silver, zinc sulphate and

Goulard's solution answer all purposes and certainly are much more prompt and satisfactory than the many solutions of various tinctures recommended. In using these preparations care should be taken not to make mistakes as to stage and condition of the trouble. In the acute stage or purulent form a 2% solution of nitrate of silver should be used. That is 2% solution is considered average and may be made weaker or a little stronger as the case demands. Many prefer protargol to nitrate of silver in this stage. In the subacute or chronic form nitrate of silver or protargol have no value. In the subacute or chronic form zinc sulphate in 1 or 2% solution is a good remedy. In the chronic form Goulard's solution of lead is certainly the best. Generally 1 part is added to 10 parts of water. In severe cases it must be used stronger. In very old and severe cases it may even be used in full strength at first, then reduce strength gradually to the average of 1 part to 9 parts of water. In the healthy eye Goulard's solution will produce inflammation.

To avoid **Purulent conjunctivitis** in new born children where vaginal infection is suspected a 2% solution of nitrate of silver instilled into the eyes is a good and safe remedy.

Iritis of serious nature use mydriatics locally and tonics internally to build up system.

Iritis of **plastic** nature use prompt means to stop plastic exudation. Think of ice applications locally. Internally, mercury, or echinacea in very large doses.

Grindelia robusta is a good remedy in milder and **non-purulent iritis** and general inflammation of the eyes. Grindelia robusta 3 drachms; aqua pura 4 ounces. Soak a thin cloth in solution., then apply to the eyes and keep wet.

Purulent ophthalmia, argentum nit. 30d is our best remedy.

In **keratitis** atropine is a good remedy. In scrofulous keratitis, iodine may be used.

Glaucoma: Electricity will improve nutrition. In acute or primary stage eserine is curative. In the secondary stage it is only helpful.

Ulcerated: 1 part eucalyptus tincture to 8 parts of distilled water. Drop in the eye several times a day, will generally cure in a few days.

Granulated lids: Shear off, paint on Goulard's solution of lead. In very old cases full strength may be applied. In milder. cases and recent cases use it diluted. In the healthy eye Goulard's solution will cause inflammation.

To remove **foreign body** from eye, place a flaxseed or linseed in the inner corner of the eye. This often will be successful and is a simple remedy.

In the early stage of **cataract**, euphrasia off. and small doses of bryonia internally may effect a cure or arrest the trouble. This same treatment is often effective in pterygium. Corneal opacities and cataract of the lenticular and capsular forms may be greatly benefited and in many cases a cure effected by instilling 1 to 2 drops of cineraria maritima (Succus) into the eye morning and night. It causes the dissolution of the opaque matter and favors its absorption. This may be assisted by internal administration of bryonia and euphrasia, as stated..

The **severe pain in iritis** may be modified by the internal administration of bryonia and euphrasia. This will wonderfully assist the local treatment.

Manual treatment to the eyes will relieve or cure many wrongs of vision and condition if properly applied to stimulate circulation to the parts where deficient. Manipulate carefully to equalize circulation and the action of the muscles. Close the eye with thumb and finger and make inward pressure or rather passes over eye 10 to 15 times, with a firm but gentle touch. Repeat for some time. This has cured many cases of errors of refraction. To remedy hyperopia close eyes gently, press with thumbs and fingers on each side and repeat as before. A good osteopathic treatise on the eye should be in the hands of every physician. Many cases of atrophy of the optic nerve, resulting in blindness, could be cured by stretching of the optic nerve. This can be done by pressing the eyeball outward carefully once a day for some time. It takes a man, however, who is fully versed in the anatomy of the eye and a good manipulator to get good results.

Fevers and Inflammation in General.

- *Aconite*: Pulse small and frequent. In most cases where aconite is indicated ferrum phos, 3x will act favorably and is less depressing.
- *Belladonna*: The remedy in passive, congestion in the brain centers. Face dull, pupils dilated, patient drowsy and sleepy.
- *Bryonia*: Pulse hard and vibratile. Especially useful in inflammation of the serous membranes.
- *Gelsemium*: The remedy in irritation in the brain centers with determination of blood to the head. Face flushed, head hot ; pupils contracted.
- *Jaborandi*: In sthenic conditions where pulse is full and strong, it will reduce the temperature. Should it cause too free perspiration and debility, belladonna will counteract this effect.
- *Veratrum Viride*: Pulse full and strong, in sthenic conditions in the early stage of fevers.

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Feet, Sweating of: Rub my salve No. 1 on feet twice a week first week, then every other day and finally every day until cured, then gradually decrease. The best time to apply is before retiring at night. Internally give silica 3x or 6x.

Felon: May be aborted before pus has formed with local sedatives such as lobelia or veratrum viride. Antiphlogistine or dehydratine generally act more promptly than above. If pus has formed lancing becomes necessary with the proper antiseptic after treatment. Internally echinacea, bryonia, calcium, kali mur. 3x, phytolacca, are useful to favor absorption and prevent pus formation. To alleviate pain tarantula cub. 30d is very good.

Flatulence: Magnesium phos. 2x is very useful in doses of 2 to 3 grains. If taken in $\frac{1}{4}$ or $\frac{1}{2}$ tumbler of hot water it acts more promptly, to be repeated in $\frac{1}{2}$ to 1 hour if necessary. Carbo veg. 1x in 10 to 15 grain doses is useful in some cases. Where there is involvement of the liver in the so-called bilious colic, with flatulence, dioscorea villosa is very good, 10 to 20 drops in hot water, to be repeated in $\frac{1}{2}$ to 1 hour if necessary. Where the fermentation in the stomach is marked papain is useful say 2 to 3 grains in water before meals. Hydrozone and glycozone

are also of value. Where there is marked atony of the gastro-intestinal tract stimulants such as nux vomica, aromatic spirits of ammonia, xanthoxylum, etc., are in place.

Gall Stones: Podophyllum in large doses is very good. When it operates give 6 ounces of pure olive oil. Olive oil alone is useful and effective in many cases. Dioscorea vil. is probably our best remedy, but must be given in large doses. Nux vomica may be associated with above if stimulants are indicated. If there is fever aconite should be alternated with dioscorea villosa. To relieve pain piscidia erythrina should be given in large doses. Chelidonium will correct the tendency to formation of gall stones. Chionanthus, leptandra, podophyllum, etc, are often indicated.

Gastritis, Chronic: Carica papaya 2 to 3 grains taken at meals in a little water is good treatment. The writer uses in these cases the papain (L. & F.) which is a preparation of the carica papaya. Hydrastis and subnitrate of bismuth are useful in many cases. Hydrozone and glycozone if continued for some time are useful. As the causes of this condition are so varied and often obscure, when other remedies are indicated they should be given a good trial. Galvanic current is of benefit in many cases; negative pole on abdomen over stomach; positive pole in hand or on the back.

Goitre: Iris and phytolacca of each 2 to 5 drops 3 to 4 times a day is very good. Fucus vesiculosus often cures where other remedies fail. Strophanthus may be alternated to advantage with above remedies, especially where stimulation of the heart is indicated.

Goitre, Exophthalmic: Try iron, sulphur and lime in small doses. Lycopus and fucus vesiculosus are very good remedies in this condition.

Hemorrhoids: The veins that may be involved in hemorrhoids belong to two plexuses, which do not anastomose with each other ordinarily. The plexus situated in the lower part of the rectum, the so-called external plexus extends up 1 inch and the blood from this returns by the middle and inferior hemorrhoidal veins to the iliac veins and then to the inferior vena cava, thus reaching the heart. Therefore outside of the general causes such as overdilatation of rectum, constipation, gravitation, strain, etc., we have to consider the possibility of pressure on the iliac vein or inferior vena cava by tumor or other mechanical pressure, or in women by a gravid uterus. The internal or so-called superior plexus, extends from one inch inside rectum, up. From this part

the blood returns by way of the portal vein, passing through the liver. Therefore in the latter, outside the usual causes named, such as prolonged strain at stool, constipation, overdistention, etc., a great cause is the retardation of the return flow of the blood by way of the portal vein, in portal obstruction, which may be caused by disease, enlarged organs, tumors or overdistention of the alimentary canal. For above reasons it is apparent that if we exclude mechanical pressure as stated, that involvement of the external plexus, the properly indicated remedies for external hemorrhoids should be complimented with the proper heart tonics. If the internal plexus is involved we should think of remedies acting on the portal circulation with the properly indicated remedies for internal hemorrhoids. As all these conditions are as a rule of a congestive nature the proper line of remedies should suggest themselves. Where, however, there is marked constriction of the sphincter muscles graduated dilators should be used. Where the portal circulation is at fault polymnia u., ceanothus am., chionanthus, carduus marianus are valuable remedies to assist other indicated remedies. Where the heart is at fault, crataegus, digitalis 2nd, cactus, etc., are useful. You may use collinsonia, aesculus hip, calcarea flour. 3x. Hamamelis is useful. Acer negundo or box elder has been highly recommended of late, taken internally as an infusion. In many cases sulphur 2X or 3x is useful. As local means we think of salves made of vaseline, hamamelis, thuja; chelidonium, stramonium seed, etc., as case demands.

Hemorrhages in General: In absence of inflammation of the gastrointestinal tract tincture of cinnamon in 5 to 20 drop doses is a very useful remedy, especially in uterine hemorrhages. In many forms of passive hemorrhage, oil of cinnamon 1 drachm; oil of erigeron 1 drachm; alcohol 2 ounces; make a good combination. Dose, 10 to 20 drops on sugar or with a little water. This is also very useful in uterine hemorrhages. Passive intestinal hemorrhages are generally corrected by hamamelis or vegetable charcoal. In active hemorrhages, especially of lungs, uterus, or from nose, ergot acts perhaps more promptly than is useful in hemorrhages of the lungs. Our two safest emergency remedies no doubt are ergot and cinnamon. In persistent menorrhagia from general weakness and weakness of the lining of the uterus as well as capillaries capsella bursa pastoris is our best remedy. Dose, 1 to 2 drachms in 4 ounces of water, 1 teaspoonful 3 to 4 times a day and if necessary every 1 to 2 hours. In cases where hard exertion brings on the flow, often the result of abortion, this is a grand remedy.

Hemorrhage, Post-partum: Hot water is very good; but it should not

be above 125 degrees fahrenheit, as there is danger of paralysis of the muscles of the uterus on account of the extreme heat. The water should not be below 115 degrees, fahrenheit, as luke warm water will increase hemorrhage by stimulating flow of blood to the uterus. Placenta should be removed as quickly as possible. Hot water and vinegar of each 1 part is our best local means of arresting hemorrhage of the uterus. A clean piece of lint or a plug made of absorbent cotton saturated with the vinegar and water should be inserted in the vagina and pressed to the mouth of the uterus, and repeated until checked. If very severe a plug of absorbent cotton saturated with vinegar and water should be introduced into the uterus, which generally promptly checks the flow. As a safeguard the writer always adds a little antiseptic to the water and vinegar and thus avoids the danger of infection. Internally at the same time ergot should be given. To stimulate as well as to cause uterine contraction nitroglycerine or strychnine should be given by mouth if possible or else as hypodermic injection.

Hernia: If reducible, quercus alba 1 ounce; acid carbolic gtt. xv. Inject in hernia 5 to 8 drops, around ring and down the canal. Truss has to be worn about 30 days.

Hiccough: Magnesium phos. 2X in 2 to 4 grain doses, repeated every 15 to 60 minutes if necessary is our best remedy; 10 to 15 drops of eupatorium perfoliatum in an infusion of capsicum every hour acts favorably in many, cases. In relaxed condition hot infusion of capsicum is useful.

Hoffman's Anodyne: Sulphuric ether 1 ounce; alcohol 2 ounces. Dose, 1 teaspoonful until relief is obtained. It is an antispasmodic and pain reliever. Also useful to relieve pain during passage of biliary or urinary calculi.

Hot Drops No. 6: or compound tincture of capsicum and myrrh: Capsicum 1 ounce; powdered gum myrrh 1 lb.; alcohol 95% 1 gallon. Steep 10 days and then filter. Dose, 2 to 20 drops every 3 hours.

Hydrocele: One drachm of carbolic acid mixed with a little glycerine is a remedy recommended by some authorities. Thuja is recommended by others. To be used as an injection into the hydrocele.

Influenza: As influenza is an asthenic condition, depressants should be avoided. Nux vomica in small doses is our best remedy. This should be

associated with or alternated with other indicated remedies. Where there is much soreness or pain in the back add cimicifuga; if there is restlessness and nervousness add rhus tox; pain in joints and on movement add bryonia; with determination of blood to the head and high fever a little gelsemium should be added. Kali mur. 3x is a valuable adjunct in all cases, especially so where the lungs are involved. For aching pain all over eupatorium per. 12d is useful. If the pain is of a drawing nature, with sore throat and hoarseness causticum 30d is a good remedy. For left sided headache spigelia an. 3d should be used. For right sided headache kalmia 6d should be used. If eyes water and are red and secretion acrid give euphrasia off. If nose waters and the secretion is acrid give allium. cepa 3d. If there is much gain in abdomen, especially in the stomach Colocynthis 2d generally gives relief; or eucalyptus oil (Merrill's) in 3 drop doses in capsules generally corrects this condition. If there is diarrhea use indicated remedies.

Impotence: Senecio is good as a general sexual tonic. Damiana in doses of 1/4 teaspoonful gradually increased to two teaspoonfuls at a dose, 3 to 4 times a day until effect is produced and then gradually decreased, is a fine remedy. It may be associated or alternated with saw palmetto. The latter being especially useful if there is any enlargement of the prostate or wasting of the testicles. Muirapuama is claimed to be a good aphrodisiac. It is given the same as damiana but the dose is only onehalf that of the latter. Phosphorus, nux vomica, ignatia amara, sulphur, helonias and aurum are also useful. In the treatment of this condition we should bear in mind that if a person appears to be robust otherwise and not debilitated stimulants are not harmful; but where there is a condition of debility and perhaps anemia stimulants to the sexual function are harmful. In these latter conditions such remedies as nux vomica, strychnine, etc., are not beneficial. In men, not debilitated, ligation of the dorsal vein in the penis is claimed to be the best treatment by one authority. A short, longitudinal incision through the skin is made, also through the subcutaneous tissue., down to the dorsal vein, pick up, ligate in two places and then cut between ligature. Avoid coition until healed, say 3 to 5 weeks. In women a very good local application to strengthen and tone up the sexual organs are pastilles, made of saw palmetto and cocoa butter. Insert one every other night, pushing the pastille up to the mouth of the uterus. Will relieve sexual debility and a relaxed condition of the vagina. Saw palmetto taken internally at the same time, acts as a tonic to the reproductive organs and promotes the growth of the mammae.

Insomnia: If too much blood in the head is the cause, a cup of hot water taken before retiring may be of use. Gelsemium is useful where there is marked determination of blood to the head, active congestion. If from over exhaustion we think of stimulants such as nux vomica, etc. Piscidia erythrina is useful in many cases. Passiflora inc., avena sativa, cannabis indica, hyoscyamus, cypridium, scutellaria, etc., all have their value, if indicated, either alone or two or more combined.

Inflammation, Local: If skin is unbroken veratrum v. is useful. Echinacea is also very good. If swollen, lobelia may be added. If the parts need toning we think of hamamelis or arnica. A little antiseptic solution may be added to any of the above. Antiphlogistine or dehydratine are perhaps our best local applications in these conditions. If skin is unbroken aconite will act best where there is considerable pain; use a solution of 20 drops of specific aconite to 2 to 4 ounces of water. Apply to parts and renew when necessary. Where the skin is unbroken libradol is useful as a local application, should be removed if nausea results.

Labor, to Ease: To make labor less painful mitchella repens should be used for the last 2 or 3 months of pregnancy. It should be taken in 3 to 5 drop doses 2 or 3 times a day. Towards the end even larger doses may be given. This makes labor less painful and less dangerous. The diet should be such that the bones of the child will remain softer and be more pliable. This can be done by excluding the bone forming substance as much as possible. especially so the last 3 or 4 months; therefore nutriment which contains a great deal of bone forming substance should be excluded. If there is any weakness, viburnum prunifolium taken for some time will generally relieve the trouble. This also acts favorably where there is pain or capillary hemorrhage in the lower extremities, the result of mechanical pressure. This is generally caused by weak and relaxed condition of the uterus and its appendages.

Ligatures: Unprepared cat gut 00 the finest to 6 are the sizes mostly used. No. 0 being best for general sutures, and the ligation of small vessels. No. 5 and 6 are too large for suturing and are used mainly for ligation of large vessels. Perfect sterilization must be carefully looked after.

Liniment: Oil of mustard expressed 16 ounces; oil of camphor 6 ozs.; oil of hemlock 6 ounces; oil of lavender flowers 1/2 ounce; oil of rosemary 1/2

ounce. The writer has found this combination to make a good general liniment.

Liniment: One teaspoonful capsicum; 1 teaspoonful of salt; 1 pint vinegar; $\frac{1}{4}$ pint alcohol. Useful in pains, sprains, etc.

Liniment: Oil of turpentine 1 pint; strong apple vinegar 1 pint; oil of sassafras 1 ounce; oil cajuput 1 ounce; the yolks of 3 or 4 eggs. Shake well. A good liniment for noninflammatory rheumatism, sprains, burns, etc.

Liniment: Chloroform 6 drachms tincture aconite 1 drachm; spirits of camphor 4 drachms; glycerine to make 4 ounces. Rub on parts well. A good pain reliever.

Liniment: Oil of turpentine 4 drachms; oil cajuput 4 drachms; oil olive 2 ounces. Apply with gentle friction.

Liniment: Compound stillingia: Oil of stillingia 2 drachms. oil of cajuput 1 drachm; oil of lobelia $\frac{1}{2}$ ounce; alcohol 1 ounce. Apply locally. In croup it may be well rubbed into the chest and neck. This is a favorite local application in croup.

Liniment: Ten drops of oil of stillingia to 4 ounces of alcohol makes a strong counter-irritant. Apply once or twice locally.

Lung Syrup: A good remedy in run down constitutions, lung trouble, cough, consumption, especially if alkalies are indicated, is: Tincture euonymus 4 drachms; tincture ptelea 4 ounces; syrup of hypophosphites jiv. Dose, 1 teaspoonful 3 times a day. The syrup of hypophosphites of lime and potash is to be preferred.

Lung Syrup: Tinct. lobelia gtt. xxx; tincture sanguinaria gtt. x; syrup of tolu or prunus virg. 4 ounces. Dose, 1 teaspoonful every 1 to 3 hours. Where stimulation is in place syrup tolu should be used, while if sedation is wanted the syrup of. prunus virg. should be used as menstrum.

Lumbago: Hypodermic. injection in the back, about the seat of the pain, of 3 to 8 drops tincture gelsemium is a fine remedy, unless contra-indicated.

Miscarriage, Threatened: We think of viburnum prunifolium which is our best remedy. In threatened miscarriage from atony in females who have had syphilis, aurium et sodium chloridum 6x is a very good remedy.

Metritis, Acute: To reduce pulse, veratrum viride is our best remedy. May be given in large doses even to 8 or 10 drop doses of the tincture of veratrum viride. It is better to start with smaller doses and increase as the case demands. Echinacea is also a useful remedy in this condition and should be alternated with above.

Myxedema: The preparation of the thyroid glands of the healthy sheep taken for a long time is our best remedy. Care must be taken in its administration as untoward symptoms appear if given in too large doses.

Nerve Trouble: Tincture veratrum viride gtt. xx; liquor potassii arsenitis 1 drachm; syrup lactophosphates 4 ounces. Dose, 1 teaspoonful 2 or 3 times a day. Tones up and increases combustion where nerve force is impaired. Will also increase pelvic circulation.

Neuralgia, Rheumatic, in back and hip, melilotus is useful. If of the submaxillary nerves plantago major is of value. If in the head above the ears piper methysticum is good. Piscidia erythrina is of value in neuralgia. In sick headache result of functional gastric disturbance guarana has been used with success. In neuralgia at the menstrual period we may think of guarana, cimicifuga, gelsemium, rhamnus californica, pulsatilla, piscidia erythrina, cannabis indica, etc., as indicated. Neuralgia, with debility and impoverished blood, cypripedium, cyanuret of iron and quinine combined. in proper proportions is very good.

Neutralizing Cordial: Ground rhubarb root (coarse) 3 ounces; peppermint herb 3 ounces; bicarbonate of potash 3 ounces. Pour in 4 pints of boiling water and let it macerate in warm place 2 hours; then strain and while still warm add 2 lbs. sugar. After the sugar has melted and liquid is cold add 1 pint of diluted alcohol and 1/2 oz. essence of peppermint. Dose, 1 teaspoonful to 1 tablespoonful. A favorite cleansing remedy and agent for undue acidity of the prima viae.

Nymphomania: Our best internal remedy is salix nigra aments, which may be associated with pulsatilla. If the desire is too strong and

above remedies alone cannot overcome the condition, use locally a 50% solution of calendula. Apply this to clitoris whenever desire becomes too strong. This will wonderfully assist the internal treatment.

Nervousness, Hysteria, Sleeplessness, Etc.: Piscidia erythrina 3 drachms; scutellaria 1 drachm; cypridium 2 ounces; hyoscyamus 1 drachm. Dose, 10 to 30 drops when required or before retiring. Gelsemium, cannabis indica, viburnum opulus or prunifolium, passiflora or avena sativa may be added as indications present themselves. Hysteria from irritation of the uterus and appendages, staphisagria. Hysteria with frequent urination although a little urine may be voided at a time hyoscyamus. Hysteria with, sensation as if there was a ball in the throat ignatia amara. Valerian is of use in many hysterical conditions.

Obesity: Dieting and exercises carried out so far as to debilitate are not to be recommended. Antifat remedies such as phytolacca berries or fucus vesiculosus are of value, but fail too often to be relied on always. Correct the cause that produces this abnormal condition. If there is impairment of the portal circulation polymnia uvedalia and ceanothus am. are our best remedies. Where there is uterine engorgement the above remedies should be alternated with other indicated remedies. Fatty degeneration in general, but especially in the abdominal region calls for phosphorus 30d; 1 drop every other day for one or two weeks, then twice a week and finally only once a week. Weakness of the heart should always be taken into consideration and if present the indicated remedies should be alternated with above.

Ointment: Juniper Pomade (modified): Lard, dehydrated, 4 ounces; paraffine 5 drachms; white wax 1 drachm; oil of juniper berries 3 drachms; finely powdered grindelia robusta, or non-alcoholic extract, of the powdered grindelia robusta 4 drachms, will be the best proportion. Melt the paraffine and wax first, gradually adding the lard. Then add oil of juniper berries, mixing well with an egg beater. Then add grindelia robusta. Useful in eczema, as a salve in nasal catarrh, etc.

Ointment: For epithelial growths, tetter, ringworm, nasal polypi, wens, etc. Powdered chelidonium majus and powdered thuja oc. equal parts, mixed with vaseline to a thick paste; makes the best local application for above and many other conditions of similar nature. If more irritation is required the powdered root of sanguinaria equal part with above will make it more effective. Equal parts of tincture chelidonium and thuja

answer the purpose well. If more irritation is required a little tincture of sanguinaria may be added.

Ointment: For ringworm, tetter, etc.: Sulphur sublimed 4 drachms; boracic acid 2 drachms; petrolatum $\frac{1}{2}$ ounce or more; chelidonium powdered 3 drachms. Mix the first two ingredients well then add to petrolatum and mix thoroughly. After this add the chelidonium and mix well with the rest. Apply 2 or 3 times a day to the parts on a clean linen rag. The powdered root of phytolacca added, quantity same as chelidonium, makes it more effective if there is any indication for phytolacca.

Ointment: Polymnia: Dried root of polymnia uvedalia 2 ounces; add $\frac{1}{2}$ lb. of water and mix well. Hogs lard $\frac{1}{2}$ lb. Place on a slow fire till water is evaporated then strain. If the green root is used take $\frac{1}{2}$ lb. of this to $\frac{1}{2}$ lb. hogs lard. Boil slowly as above. The roots are best gathered in fall. This makes an excellent local application in enlarged spleen and general congestive state of the liver and spleen. Rub in well. Polymnia ointment can be made with the tincture of polymnia in place of the roots as follows: Tincture polymnia uvedalia 2 drachms; lard or suitable fat 1 ounce. Put this after mixing, over fire and keep stirring for 20 minutes. Then set aside to cool, when liquid may be poured off. Use the same as that made with the roots and in same conditions.

Ointment: For Pain. Special: Polymnia uvedalia, 2 drachms; California laurel, 2 drachms; lard or fat, 1 ounce. Mix, place over fire and keep stirring for 20 minutes, then set aside to cool, when liquid may be poured off. Apply locally, rubbing in well. In place of tinctures of polymnia and California laurel the powder may be used.

Ointment: Webster's, for eczema, scabies, etc.: Veratrum viride 1 ounce; tar oil 1 ounce; adeps 1 lb.; sulphur q. s. Apply locally, clean well before applying. In eczema do not wet too much and use at the same time internally berberis aquifolium or sulphite of calcium.

Ointment: Author's salve No. 1. An excellent salve for wounds, bruises and pains. All affections and pains where the skin is unbroken, rub the salve thoroughly on parts for several minutes 2 or 3 times a day. For wounds or bruises of any kind apply a thick coat of the salve on worn linen and renew when necessary. For chapped hands and face, rub on

well before retiring. For chafing and sweaty feet see under special heading. Ten lbs. light yellow petrolatum 120 melting point.; 6 ounces yellow beeswax; 2¹/₂ ounces oil of rosemary; 2¹/₂ ounces oil of lavender flowers; 4 ounces olive oil; 2 drachms bergamot oil. Melt the petroleum and beeswax, then when hot, that is, near boiling point, add the other ingredients, stirring all the time. Then fill in jar and let cool.

Ointment: Author's salve No. 2. An excellent healing salve. Echinacea root powdered 2 parts; grindelia robusta powdered 2 parts; calendula powdered 2 parts. Take petrolatum and boil above ingredients in it for about 1/2 hour. Then strain. The finest healing salve out. Has also antiseptic properties. The proportion may be made according to strength wanted. Average proportion is 5 lbs. vaseline or petrolatum; 1/4 lb. each powdered echinacea root, powdered grindelia robusta and powdered calendula. A little yellow beeswax to be added, say 3 ounces, to give salve consistency.

Orchitis: Veratrum viride is a useful remedy. Pulsatilla 2d; thuja 2d, or clematis 6d are useful. The last two especially if orchitis is the result of suppressed gonorrhoea.

Opium and Morphine Habit: Stramonium is a good remedy and should be given in doses to fit the severity of the case. It should be alternated with avena sativa in good sized doses. Avena sativa may be continued some time after discontinuing the stramonium. In giving avena it should be given in large doses until the severity of the symptoms decrease, then gradually decrease dose and give at longer intervals. In many cases avena alone will do the work. Hyoscine in 1/4 grain doses or less given 5 to 10 days or even longer has cured many cases. Its action must be watched carefully.

Parturients: If there is danger of hemorrhage after child has been delivered ergot may be given before placenta is delivered; otherwise it should never be given. We have other remedies more reliable and safer, and for that reason can well get along without it generally. Hemorrhage after placenta is delivered usually submits to 10 to 20 drops of Lloyd's specific cinnamon in a little water, to be repeated if necessary. For simple inertia give 10 drops of cimicifuga. If this does not act strongly enough 10 drops of caulophyllum may be added to above. If this is not effective 10 to 20 drops of gossypium should be added and it will act

forcibly. This may be repeated every 1/2 to 1 hour as deemed necessary. If the os uteri is rigid and the edges feel hard and sharp to the touch or there is a tendency to convulsion we think of gelsemium. In puerperal convulsion generally, veratrum viride in 5 to 10 drop doses hypodermically is our best remedy, May be repeated if necessary.

Pneumonia: Below will be given an outline of treatment, which if carefully followed, adapting doses to meet conditions as they present themselves will save the patient where other means would fail. Opiates should be avoided. Harsh physics are harmful. Recumbent position to be maintained as long as possible. Our best general remedies to give throughout the course of the disease are echinacea and kali mur. 3x. Depressants should be avoided as they do more harm than good. When the patient begins to get a little weak, or when nearing the crisis, or has sensation of choking up, our best and safest remedy to alternate with. above is ammonium mur. 5 to 10 grains. in 2 ounces. of water, 1/2 teaspoonful every 1 to 3 hours as the severity of the case demands. In the 3rd stage if absorption is not progressing favorably, patient's face red, pupils dilated, drowsiness, breathing becoming heavier, kali iodide 3x should be given in place of kali mur. 3x. If sputum is putrid baptisia is a good remedy, especially in the early stage. In choking spells where patient is unable to raise mucus and ammonium mur. alone will not give relief, we should give tartar emetic 3x, which is a valuable remedy in those conditions, especially if the patient is very weak. If the heart's action is tumultuous lycopos v. is a good remedy. As a local application to chest antiphlogistine is useful. If there are complications of pleurisy, bryonia and asclepias tub. should be added to the other remedies. Temporary conditions should be met by indicated remedies in the primary or secondary form as the case demands.

Pleurisy: Our best remedy is bryonia. Where a stimulating diaphoretic is admissible asclepias t. should be added. To favor absorption above should be alternated with kali mur. 3x and echinacea. When very drowsy kali iodide 3x can be used in place of kali mur. Locally antiphlogistine or Lloyd's libradol are useful, especially the former. In cases where indicated kali carb. 6x is useful. In cases where there is marked effusion apis mel. is a useful adjunct.

Pediculus Pubis: Use locally, staphisagria tincture 6 drachms; cologne 2 ounces. Wash 3 times a day then dry and apply locally. May be made stronger if necessary. Tincture sanguinaria 2 drachms added to above

mixture makes it more effective. This is more pleasant and less objectionable than mercury.

Plaster: Author's formula: Balsam of fir 1 ounce; oil hemlock 1 ounce; oil mustard expressed 1 ounce; oil camphor $\frac{1}{2}$ ounce. Burgundy pitch and rosin to give plaster consistency which will require about $\frac{1}{8}$ lb. Burgundy pitch and $\frac{3}{4}$ lb. of rosin. Melt the Burgundy pitch and rosin first, then add balsam of fir and oil mustard. Then oil hemlock and camphor are added. Mix well, then put up for use. In poisoned wounds or open sores or boils, apply the plaster to a clean, worn linen, cut a small hole in center to leave opening for center of boil, or opening of sore or wound. Apply plaster right on the skin. Over the opening apply my ointment No. 1. This combination will relieve pain and make boils come to a head. For pain only, apply to place without cutting a hole in the center of cloth and dispense with salve No. 1. This is the best plaster by far for the purpose named.

Plaster: Canada Pitch: Canada pitch or pix canadensis. 12 parts; yellow beeswax 1 part.

Plaster, Mustard: Should never be made with hot water, as it destroys its efficiency.

Poultice: Tobacco may be used as a poultice as an antispasmodic in extreme cases of tetanus or colic. Remove poultice as soon as patient becomes relaxed, In obstinate constipation a poultice of the infusion gives prompt results. In colic in horses infusion of 1 ounce of tobacco in 1 pint of water as an enema has saved many a valuable horse.

Poultice: A poultice made of the comp. lobelia powder, applied to the chest and back in the proportion of 1 part of comp. lobelia powder to 4 parts of vaseline or lard, is a good local application in pneumonia. Put plaster on chest and back and cover with a dry flannel. Twice a day lift just enough to smear on a little more of the plaster.

Poultice: Antiphlogistine is one of our best applications in local inflammation. In pneumonia it is the best we have and should never be forgotten.

Prostate Enlarged: Thuja is of some value. Saw palmetto and salix nigra aments are very good.

Pruritus Vulvae: Menthol in olive oil will often relieve. Lobelia or thuja applied often acts well; a 25% solution is to be recommended. Boracic acid solution with a little morphine is useful in some cases. Nitric acid, well diluted, in minute doses is of value in some forms of pruritis ani or vulvae if taken internally. Constitutional treatment is generally indicated with the local application given above.

Puerperal Convulsions: The hypodermic injection of tinct. veratrum viride of 5 to 10 drops is the best way of relieving. If the os is rigid and sharp to the touch gelsemium is the remedy; or may be combined or alternated with above.

Puerperal Infection: The treatment that is most successful in the various forms of puerperal infection which has saved many patients, for the writer, where others had failed and where our general form of treatment failed as well, is what will be given below. This varies according to the nature of infection, as well as severity of the case.

For these reasons it should be understood whether the infection is caused by the streptococcus, staphylococcus, gonococcus, bacillus coli communis or some other putrefactive organism. The most violent form is the streptococcus infection, the form in which there is no offensive odor to the discharge; In the mixed infection of above and the staphylococcus there is only very little odor, if any; while in infection of the bacillus coli communis or other putrefactive organism the discharge has an offensive foul odor and the uterus will be found to contain a large amount of necrotic material; the discharge as a result is very foul smelling. In these cases there is a formation of gas in the uterus for reasons given. From above it can be seen that it is easy to differentiate between the different forms of infection, except where we have a mixed infection of streptococcus or staphylococcus or both, with the bacillus coli communis or other putrefactive organism or more of these. However, in such cases we find that after curetting the temperature will remain high, or, if it goes down, only remains low for a very short while, only to rise again rapidly.

That curetting is indicated in infection of bacillus coli communis or other putrefactive organism is an established fact, for the reason that the infection is more confined to the endometrium. Again, in purely streptococcus or staphylococcus infection, but especially the former, the change in the endometrium is very little, it being found on examination

to be very smooth. In these cases the germ spreads rapidly along the lymphatics, or veins or both, from the uterus and general systemic infection is the result, which is often associated or followed by various complications, such as purulent pleurisy, pneumonia, peritonitis or phlegmasia alba dolens. In some cases all these complications are present. Now before going into the systemic treatment of puerperal infections a few words on the local and antiseptic treatment are to be considered carefully. The utmost care should be exercised in this direction even to the minutest details. It is a well known fact that sudden collapse has resulted from carbolic acid uterine douches. It is also a well known fact that bichloride douches are dangerous. Many women die from absorption, cases being on record where one uterine douche of 1:4000 has resulted in death from mercurial poisoning. Are these not reasons enough to condemn the use of bichloride douches?

In infection of putrefactive organism, where the uterine discharge is foul smelling and curetting is indicated, the spiral curette is the quickest, safest and most convenient.

As a uterine douche, $\frac{1}{2}$ drachm of the 40% solution of formaldehyde in 1 quart of warm or hot water is the best and safest local antiseptic treatment we have. If this is followed with a thorough application of eucalyptus oil, being sure that the whole lining of the uterus, is anointed with it, the condition as a rule will readily be controlled, if accompanied by proper internal treatment.

In mixed infection curetting is also indicated.

In streptococcus infection curetting is of no benefit, in fact, may do a great deal of harm. However, at times, a uterine douche followed by a thorough application of eucalyptus oil to the inner lining of the uterus will assist internal treatment. A few such douches and applications will do more than one-half dozen or more others, and no harm can result. Vaginal douches of $\frac{1}{2}$ drachm of formaldehyde in 1 quart of water are indicated in all cases, and may be given once or twice a day, as the severity of the case demands, in all cases of infections.

Internally echinacea should be given in large doses. To sustain the heart, and at the same time act as sedative, lycopus v. should be added. Heart stimulants may be used; but many fatal results have been recorded after powerful heart stimulants had lost their effect, especially

in protracted cases. Sedatives, unless the temperature is very high are of no benefit. Kali mur. 3x is a valuable adjunct to above treatment, 3 to 5 grains to 2 ounces of water being sufficient; dose $\frac{1}{2}$ teaspoonful every 2 hours. This may be alternated with above. In some cases I add the kali mur. 3x to the echinacea and lycopus. If there is glandular involvement phytolacca in fair doses should be added. Where there are sharp or shooting pains bryonia is a valuable adjunct.

If stimulants, especially to the nervous system, are indicated, nothing can compare with small doses of muriate of ammonia, say 5 to 10 grains in 2 ounces of water, $\frac{1}{2}$ teaspoonful every 2 hours, to be alternated with the other remedies. Muriate of ammonia not only rouses the nervous system to action, but powerfully antagonizes the systemic poisoning. Often in the latter stages when echinacea could not be borne well, I have just given the muriate of ammonia alternating with lycopus.

In severe cases with marked restlessness, pain, and possible danger of phlegmasia alba dolens, arsenicum 12x, 1 or 2 grains in 1 or 2 ounces of water, $\frac{1}{2}$ teaspoonful every 2 to 4 hours often works wonders. It antagonizes inflammation and pus formation. If marked thirst, restlessness, or sometimes a burning feeling results the arsenic should be reduced in dose and given at longer intervals, or be discontinued for a time. In resulting peritonitis of puerperal infection, kali mur. 3x alternated with arsenicum album 12x, will often surprise the physician as well as the patient.

Kali carb. 6 or 12x will be found to be very useful in many cases, especially where indicated and where the vital forces are low.

Temporary conditions should be met by temporarily indicated remedies.

Where there is violent throbbing of the heart, rapid pulse, spigelia ant. 3d is often beneficial.

Where the vital forces are low, pulse rapid and weak, collapse, a few doses of carbo veg. 12x will generally revive the patient; especially if the "want to be fanned" condition is present. Patient low, threatened with collapse, with cold sweats, especially on forehead, veratrum album should be given.

Where the vital forces are very low with restlessness and danger of

collapse an occasional dose of zincum met. 12x will assist the general treatment.

Morning and evening temperature should be carefully watched in all cases. Careful nursing is necessary. A nonirritating diet is best. Some cereal and milk preparations are very good. The writer has found bovine very useful as it is very nourishing and thus helps to sustain the vital forces. This may be given 2 to 4 times in 24 hours. By careful watching our patients, decreasing or increasing doses and changing medicines as conditions demand, most patients can be saved, generally without any bad after effects.

Rheumatism: As a general remedy in both the acute and chronic, but especially the former, rhamnus californica is our best remedy. In most cases a stimulating diaphoretic is indicated in which case asclepias t. is a valuable adjunct. Hamamelis by toning the capillaries will assist in removing the local congestion. Bryonia where there is involvement of joints and serous membranes. Hot air treatment is useful in all and curative in many cases. Cimicifuga is especially useful in muscular rheumatism. In chronic rheumatism where muscles are contracted thus obstructing circulation and the free transmission of nerve force, manual manipulation is in place. This loosens the muscles and the obstruction and cause of the trouble is removed.

Scabies: An ointment made of powdered sanguinaria root, powdered staphisagria and precipitated sulphur, equal parts, is a very good application. Specific sanguinaria 2 ounces; specific staphisagria 1 ounce; sulphur precipitated 2 ounces; water ad oj makes a useful application.

The following is recommended by many: Sulphur 1 ounce; carbonate of potassium 2 drachms; lard 2 ounces. Anoint parts from 2 to 4 times a day with it. Before applying wash thoroughly with warm water and castile soap.

Scurvy: Lime juice or lemon juice is a good remedy. The reason why these are good in scurvy is that there is an excess of soda in the system; but a lack of potash. The above fruits having an abundance of potash in an organized form are therefore curative.

Sea Sickness: Gelsemium $\frac{1}{2}$ to 1 drachm; water 4 ounces; dose one teaspoonful every 15 minutes to 1 hour as the case demands. Its effect

must be carefully watched. Not to be used if contra-indicated. Cocculus ind. 30d or higher is claimed to be a valuable remedy. Petroleum 6d is of value.

Shock: Is a collapse caused by mental emotion or physical injury. In latter cases severe hemorrhages are often the cause of shock. In collapse the functions of the nerve centers are more or less suspended. The pulse becomes irregular, thready and rapid. There is pallor, cold skin, clammy perspiration, nausea and vomiting fixed and anxious expression of the face. Brandy may be given, or other stimulants. Stimulants hypodermically, friction, hot applications. If from hemorrhage inject normal salt solution at once.

Snuffles of Infants: Five to 10 drops of euphrasia off. in 4 ounces of water, 1 teaspoonful every 15 to 20 minutes will soon relieve condition.

Soreness and Chafing: In soreness and chafing in men and women and especially in infants and children, under arms or between the legs, my ointments No. 1 and 2 are excellent. Where the healing properties are only wanted No. 2 is the best, otherwise No. 1 is better.

Spermatorrhoea: Salix nigra aments is the best sexual sedative we have, if the irritation is in the organs themselves: if central, that is, in the mind, we may think of pulsatilla, or staphisagria. If both we may alternate the last two with the first.. In general anemic condition we may give calcarea phos. 1x; iron; hypophosphites or other general nerve tonics, to be alternated with the proper remedies for spermatorrhoea. If there is despondency cypripedium is of use; but pulsatilla generally answers the purpose better. Thuja has been recommended in 5 to 10 drop doses to be alternated with other indicated remedies. In all cases the sexual sedatives have to be alternated with general tonics as they in themselves possess little or no tonic properties.

Sprains: Witch hazel 10 ounces; arnica tincture 2 ounces; sp. aconite tincture gtt. xx. Apply locally with gentle friction. An excellent application for sprains. Use 3 to 4 times a day. Not to be used when the skin is broken.

Sting of Bees: A thick plaster of common salt tied on place is useful. Saleratus, moistened, applied as above is also very good.

Stomach Ulcers: Kali bichrom. 12x is a very good remedy. Nitrate of

uranium 3x is useful. Berberis aquifolium is good. Argentum nit. 30d is a very good remedy.

Stomatitis: Phytolacca 20 to 30 drops to 4 ounces of water, a teaspoonful every 2 to 3 hours will generally relieve the trouble. Echinacea is useful in this condition. Borax 6x in small doses is useful. Nitric acid 3d in small doses is a good remedy.

Stoppers, Glass, to Remove: If all other means fail to loosen glass stopper immerse the stopper and neck of bottle in vinegar; this will generally loosen the stopper in a little while.

Stricture, Spasmodic: Gelsemium is a good remedy, but acts better if associated with cimicifuga and cannabis indica. Locally 10 to 12 drops of tincture of lobelia injected into the meatus in the male and held there a little while is our most effective local remedy.

Syrup, Compound Syrup of Phosphate of Iron: (Dr. Parrish's formula.) A very good remedy in extreme cases of nervous prostration, anemia and spinal irritation. In conditions where nerves are starved, so to speak.

Syphilis: The treatment of this disease is very unsatisfactory with the old school. Our form of treatment we can say with confidence is far more satisfactory. Echinacea and iris versicolor combined, given in large doses is very good treatment. However as it takes months and months for a cure the action of the remedies wears out and we have to change perhaps to 10 to 15 drop doses of berberis aquifolium 4 times a day. If glandular enlargement is present polymnia uvedalia or phytolacca may be added. The latter in fat subjects. If constipation is present podophyllum is a good addition to the treatment. Then after 4 weeks or so we, may change back to first prescription. Stillingia, cascara amarga, corydalis, and iodide of potassium are useful remedies. To those who wish to use high potencies, will say mercurius vivus 30d or higher is a useful remedy. Where mercury has been used abusively in large physiological doses and a long time, mercurius 30d will be of no value and we would think of nitric acid 3d or higher.

Tape Worm: Our best and least objectionable remedy is carica papaya. The writer uses a preparation of this plant called papain (L. & F.), which is very good. The dose is 8 to 10 grains dissolved in water, after meals, for 2 to 4 days. This may be followed by a physic.

Tape Worm: The alkaloid of granatum called pelleterine is a very good remedy. Embelia ribes, kamala, koussou, male fern, milk of cocoanut, all are recommended and certainly have merit.

Tape Worm: Thirty drops of chloroform, diluted, to be followed by a large dose of castor oil, in say 1 or 2 hours after the chloroform has been taken. In this treatment care should be exercised as in case of weak heart it may become a little dangerous. Otherwise it is perfectly safe.

Typhoid Fever: Our best general remedy is echinacea, which can be given in large doses throughout the course of the disease. In the early stage baptisia makes a useful adjunct. Tongue indications will guide us in the selection of acids or alkalies. For restlessness and moaning delirium, rhus tox. and hyoscyamus are useful, unless there are special indications for other remedies in either the primary or secondary form. In diarrhoea small doses of hydrastis id and subnitrate of bismuth 2X generally will correct the trouble unless there are special indications for other remedies. In constipation antiseptic injections, 1 quart of water to which one-half teaspoonful of Merrell's formalypsol is added, is better than harsh physics. In the stage of invasion where there is marked prostration gelsemium 30d will often shorten the course of the disease.

- Where symptoms are worse during the day bryonia 3d is a useful remedy.
- Arsenicum album 12X where symptoms are worse about midnight.
- In severe forms we often find arnica 6d; muriatic acid 3d; helleborus niger 12d or sulphuric acid 3d indicated.
- Temporary conditions should be met by indicated remedies in the primary or secondary form as the case demands.
- The patient should have liquid diet and as much pure water as he likes.
- Mellin's food, Horlick's malted milk and bovine are very useful to keep up the strength of the patient.
- For hemorrhages in typhoid see proper remedies both in part one and part two of this work, under heading of hemorrhages.

Tetanus: First of all open and clean wound that has caused the attack. Give hypodermic injection of $\frac{1}{4}$ grain of pilocarpine. Administer chloroform to assist in producing relaxation, then if relaxed enough give jaborandi in 5 to 10 drop doses and a cure may result. Bigleovia

arborescens (Haploppapus laricifolia) is a good remedy.

Toothache: If from cold in the muscles of the neck, manipulate region and either side of occiput. If tooth is hollow a little chloroform on cotton gives relief. If from cold only with determination of blood to the head gelsemium may relieve. If result of a cold, skin dry, 8 to 12 drops of jaborandi in a cup of hot water if not contra-indicated, is very good. If aggravated by warm fluids in the mouth and associated with rheumatism rhus tox. may be of benefit. Chamomilla 2d, magnesium carb. 6x or tincture of valerian. may alleviate the toothache. Pain in teeth or pain when cutting teeth in children, plantago major rubbed on gums may give relief.

Tooth Wash: Author's formula. An antiseptic wash: 1 $\frac{1}{4}$ parts tincture of myrrh; 2 parts tincture of eucalyptus; $\frac{1}{4}$ part of rhue or rue; $\frac{1}{4}$ part of tincture of lavendula; $\frac{1}{4}$ part of sage.

Sig: 20 to 30 drops in $\frac{1}{2}$ wineglassful of water. Apply with a soft rag or fingers to teeth and then rinse mouth thoroughly with same. Use 2 to 3 times a week. As a diet substitute graham bread for fine wheat bread. In this way the teeth are easily preserved. Nothing is known so far to equal this tooth wash.

Tympanitis: One-half drachm oil of erigeron beaten up with a yolk of an egg, mixed with a pint of milk, to be used as an enema; is an excellent injection for tympanitis. The worst cases of tympanitis have yielded to this treatment after a few enemas.

Tonsillitis: Our most useful internal remedies are echinacea, phytolacca and kali mur. 3x. If there is bluish discoloration baptisia is a valuable adjunct. In most cases it will be found to be better to alternate the above with any or some of the following if indicated:

- Tonsils and mucous surfaces bluish, especially if the trouble starts on the left side, lachesis 12d or 30d.
- If the trouble starts on the right side, lycopodium 30d.
- For edematous condition, especially if there is burning and stinging pain, apis 1 or 2d.
- Where the condition changes from one side to the other and vice versa, lac caninum 12X.
- Sweating without relief, breath fetid, mercurius v. 12 or 30d.

- For chronic tendency to tonsillitis, baryta carb. 3x is our best remedy. However sometimes lycopodium or plumbum are indicated.

As a gargle the writer has found the following to be very useful as a general rule: Vinegar, cider vinegar is best, six ounces; pure water six ounces; Merrell's formalypol one-half ounce. Mix well. If you want to dispense take 4 ounces of this solution and add two drachms of baptisia and shake up well. Of this two tablespoonfuls in 4 to 6 tablespoonfuls of hot water, to be used as a gargle just as hot as can be borne. Use as a gargle from 4 to 6 times a day. A very simple and effective gargle.

Ulcers: Grindelia robusta is very good in old chronic ulcers. Tincture grindelia robusta 1 drachm; glycerine to 1 ounce makes a very good local application.

Urinae, Ardor: Caused by irritable condition of the bladder or rather the neck of the bladder, will generally be relieved by barosin combined with aconite, atropine or senecio.

Uterus, Enlarged: For enlarged uterus, of chronic nature, if trouble is primary, helonias is a good remedy.

- Aurum met. 3x if fore part of uterus is mostly enlarged.
- Aurum mur. 3x if whole uterus is enlarged.
- Fraxinus am. in 8 to 10 drop doses is useful in some cases; but not very effective, still Burnett claims wonderful cures and it is worth a thorough trial.

Varicose Veins: Carduus marianus taken for 2 or 3 months in 2 to 5 drop doses 3 to 4 times a day is perhaps our best remedy. Collinsonia and calendula are of value. Hamamelis has a positive tonic effect on the walls of the veins. Calcium fluor, 3x is a good remedy, especially if alternated with any of the above remedies. Chelidonium majus is a very good remedy in varicose veins, if given in fair sized doses for a long time.

Vesicles, to Cause: Croton oil 1 drachm; sulphuric acid 3 drachms.; tincture iodine 5 drachms. Apply locally.

Varicocele: Chelidonium majus taken internally for some time is one of our best remedies, in fact perhaps our best. Calcarea fluor. 3x or 6x may be alternated with above. In varicocele chelidonium should be given in

good sized doses, say from 5 to 10 drops in a little water 3 to 4 times a day. If you get too much of a cathartic effect reduce dose.

Worms: Fl. ex chenopodium 2 parts; male fern 1 part; spigelia 1 part; syrup prunus virg. 3 parts. Dose, 1 teaspoonful 1/2 hour before breakfast and before retiring. Continue for 3 or 4 days, then follow with a good cathartic. To be repeated if necessary. In part II of this work under same heading will be found forms of treatment more pleasant and more effective than above.

THE BATH.

The frequency and nature of the bath should be such as to conform to the precise conditions of the person. Good judgment of temperaments, whether mental, vital, or motive, or a modification of two or more of these must be carefully studied. It should also be taken into consideration whether the different temperaments that predominate are fully developed or not. The mental organization especially should be considered carefully. Reaction of the system, whether acid or alkaline is another prominent factor.

The physical as well as the mental condition of a person in general must be carefully studied. To sum up the bath requires a careful study, and much more attention should be paid to its use scientifically.

Frequent baths are beneficial to some people while to others they are harmful.

The anemic persons should not bathe as often as others who have a stronger constitution, more blood and where reaction is more easily established. This applies also to cold baths with the only difference that anemic people should not bathe in very cold water.

In cases where there is an acid condition of the system we think of adding some alkaline salts to bath, such as chloride of sodium, bicarbonate of sodium, etc.

If vapor baths are given we can medicate them by using the properly indicated remedies and better results follow in every case.

In dry and constricted skins and relaxed and enfeebled conditions, fatty

innuitions are useful. In some cases stimulants are useful, in others essential oils may be combined.

When the skin is relaxed and enfeebled, tonic stimulants should be employed. If the skin is oily, alcohol baths are useful. A good rubbing down (after a bath) with alcohol, in these conditions, is very beneficial.

In strongly developed mental temperaments with a marked deficiency of the motive, very cold and frequent bathing is positively harmful. On the contrary a well-developed vital temperament will, as a rule, bear frequent baths well; such people can stand cold baths well if a moderate amount of the motive temperament is present. For these reasons it is a necessity for the physician to be a good judge of human nature and temperaments in order to do justice to his patients.

If a person feels weak or nauseated or gets a fainting sensation during a hot bath, be this water, vapor or dry hot air, it is harmful, If a person feels good after a cold bath, but at the same time gets weaker from time to time it shows that there is strength enough to cause a reaction, but that the system is not strong and cannot bear this extra strain.

If a cold bath chills a person, especially if we are unable to establish reaction it is decidedly harmful.

In jaundice, chronic or acute but especially in the former; or any condition where there is obstructed circulation in the liver or spleen, or both, hot baths and especially dry, hot baths are contra-indicated until such time as circulation has been fairly well established. As hot baths assist in increasing the circulation and in some cases markedly so, bile is secreted and there being obstruction the result is that a greater quantity is absorbed by the blood and the condition is made worse. A warm bath of short duration is admissible in these conditions.

Some oils have an affinity for cells and the tissues and therefore are readily absorbed by them if a small quantity is added to the water in which the bath is taken. If these oils have medical virtue in certain directions we should use them to meet the indications of the case. To illustrate, oil of eucalyptus $\frac{1}{2}$ to 1 teaspoonful added to the water is splendid to cure colds and prevent taking cold.

Oil of rosemary or lavender flower oil are useful in neuralgia and

rheumatic pains if not of an inflammatory nature. Of these 15 to 20 drops to a bath is generally sufficient.

Many medicines and oils are repellant to the cells, and if added to a bath have no value whatever.

In many conditions dry hot air baths are much more effective than vapor baths, because a higher temperature can be borne and for a much longer time. It has proved curative in many cases of rheumatism, rheumatoid arthritis, gout, tubercular joint disease, etc. Relieves the pain of any parts treated that have become hyperaemic, showing dilation of capillaries. Thus effusion and deposits of joints or anywhere else will be absorbed and adhesions broken tip. Ankylosis is removed, stiffened joints restored, inflammatory condition relieved and certain pathogenic germs destroyed on account of intense heat. Betz bath is a good apparatus, if well lined with asbestos.

BREATH, ODOR.

A sweetish or mawkish odor of the breath calls for sulphuric acid, or sulphite of sodium. Odor resembling offensive lochial discharge chlorate of potash in small doses.

Hot breath with unpleasant pungent odor as if of ammonia makes us think of muriatic acid.

Odor resembling that from *cynanche maligna*, is an indication for baptisia.

CONVULSIONS.

- If the cause is vascular excitement we think of gelsemium and veratrum v., and perhaps pilocarpine.
- If due to impaired circulation, and there is a condition of atony we think of chloroform, lobelia, bromide of ammonium and perhaps jaborandi.
- If due to congestion, we think of belladonna, bromide of ammonium and sometimes ergot. There are some local causes, removal of which will relieve convulsions. This should never be lost sight of.
- If from irritation of the stomach, through green fruit, fats or other indigestible food or overeating, an emetic is our first resort, although

in some cases a prompt cathartic acts well.

- If worms are the cause we should remove the cause after fully controlling convulsions at the time.
- If from uterine or ovarian trouble try and remove the cause.
- If from sympathetic irritation of the solar plexus nux vomica will serve a good purpose.
- If the kidneys are at fault we must try and find the cause and remove it if possible.
- If in a child, we find that teething is the immediate cause see if the gums are swollen and look congested. If so an incision made over the tooth will often relieve.
- From this we learn that if the cause can be recognized and removed convulsions are controlled.

EVACUATIONS.

- Clay colored stool shows want of secretion of the intestinal glands and liver and impaired power of digestion.
- Yellow, rye mush color in typhoid, calls attention to the commencement of disease of Peyers patches.
- Deep brown or black feces with greenish tinge, sometimes yeasty, is a marked indication of typhoid condition; it calls for antiseptics.
- Vivid green discharge in children, acrid and irritating, shows excess of acids and suggests the use of alkalies.
- Extreme yellow discharge in infants shows poor digestion of food, of fats and albuminoids. It tells us more care in diet should be used, and indicates remedies that tone tip the digestive system.
- If ribbon-shaped generally shows a stricture of the rectum.
- If stool is hard generally shows that it is too long retained.
- If there is mucus mixed with substance of stool there is a catarrhal condition of the ileum.
- If hard and coated with mucus, there is a catarrhal condition of the colon.
- If too large quantity is passed every day, by weak and perhaps anemic persons it shows a lack of assimilation; that is, the food is not properly absorbed.
- If person goes 3 or 4 days and then passes large quantities, it shows lack of sensitiveness in the rectum, there being impairment or partial paralysis. Here dilation is the remedy, or remedies indicated in constipation. See part II.
- If person goes three or four days and then passes small quantity of hard pieces, it usually shows a lack of secretion of the intestinal tract.

Here a large quantity of water taken about 2 hours before meals and 1 hour after meals is of advantage.

The above of course only refers to general conditions when other causes are excluded.

HYPERAEMIA:

Active and Passive:

- In determination of blood to the brain, gelsemium.
- In determination of blood to the lungs, ipecac or veratrum v.
- In determination of blood to the kidneys, gelsemium.
- In determination of blood to the-bladder, eryngium.
- In determination of blood to the bowels, aconite, ipecac.
- In determination of blood to the uterus, cimicifuga.
- In congestion, passive, of brain, belladonna.
- In congestion, passive, of lungs or heart, lobelia.
- In congestion, passive, of abdominal viscera, nux vomica.
- In congestion, passive, of kidneys, belladonna.

If local applications are used with above internal remedies, they should conform to the condition present. In active hyperaemia the local applications should be sedating, while in congestive conditions the local applications should be stimulating. Mark the difference and thus avoid mistakes.

PAINS:

Throbbing sensation with pain and sensation of tightness is a pulsative pain.

- **Nervous pain**, generally intermits or remitts.
- **Spasmodic pain** is mitigated by pressure or by friction and application of warmth.
- **Inflammatory pain** is constant, attended by quickening pulse and heat, and is increased by movement of the affected part or pressure.
- **Pain** sometimes occurs in a part distant from the seat of the disease. In inflammation of the liver we may have pain in the right shoulder.
- **Inflammation of hip joint** may give rise to pain in the knee joint.
- **Stone in the bladder** is accompanied by pain in the penis of the

male and mouth of the urethra of the female.

- **Inflammation of neck of bladder** may cause pain in head of penis of the male and mouth of urethra of the female.
- **Disease of heart** may give rise to pain shooting down left arm.
- **Pain in ear** (earache) may call for chamomille, piper methysticum, pulsatilla, plantago major, cimicifuga. If acute, gelsemium, echinacea, bryonia, jaborandi.
- **Cardiac pain calls** for amyl nitrite if from angina pectoris; cardiac rheumatism, macrotys, manaca, caulophyllum, jaborandi, crataegus, salicylates, etc.
- **Cardiac neuralgia**, magnesium phos. 2x.
- **Cerebral pain**, full and throbbing calls for amyl nitrite.
- **Pain in testes**, if rheumatic, macrotys. If sexual origin pulsatilla in small doses.
- **Ovarian pains** call for macrotys, tiger lily, hamamelis, ustilago, etc.
- **Rectal pain**, sharp and cutting, aesculus hip., marked sense of local fullness and weight, hamamelis. Collinsonia when pain is associated with pain in hypogastric region.

- **Pain of Belladonna**: Pain in head, heavy, tense and sleepy. Congestive pain. Relieved by pressure.
- **Pain of Bryonia**: Shooting pains that are aggravated by movement it is the remedy. Sharp or dull, but always has a sense of oppression as if parts could not perform their duty.
- **Pain of Caulophyllum**: Rheumatic pains in feet and hands and tip of toes and fingers.
- **Pain of Chelidonium**: Dull, heavy, tensive, with occasional twinges as if parts were torn; situated in the hypochondriac or epigastric region.
- **Pain of Gelsemium**: Sharp and restless. Exalted sensibility and arterial throbbing. In some cases patient dreads movement of head. The pulsation of the arteries is distinct and painful. Such pains anywhere mean, as a rule, gelsemium.
- **Pain of Lobelia**: Anguish, the undescribable pain as if life were driven forcibly from parts or part. Agonizing pains.
- **Pain of Macrotys**: Feels as if dependent upon tension, paroxysmal; a continued succession of tensive pains remittent, tensive pain; waves of pain (not throbbing).
- **Pain of Matricaria**: Pain in amenorrhea. Sense of weight and heaviness in uterus, with bloating of bowels. Pain sometimes resembling labor pains.
- **Pain of Nux Vomica**: Pain in the right hypochondriac region,

pointing or radiating towards the umbilicus. Contra-indicated in irritation or inflammation of the gastrointestinal tract.

- **Pain of Podophyllum:** Pain deep in the ischiatic notches.
- **Pain of Pulsatilla:** Short, limited in location, despondent.
- **Pain of Rhus Tox:** Pain with burning in any part of the body, especially of the frontal regions and orbits with burning.
- **Pain of Stramonium:** Constrictive pain and, if involving the muscular structure, is attended with persistent contraction; of the outlets of the body is expulsive.

PULSE AND TEMPERATURE.

- **Full pulse** shows strong life in a state of excitation. Sthenic condition often.
- **Hardness added to fullness**, we have added, special lesion of innervation, of excitation steadily maintained.
- **Small, hard pulse**, impairment of life from activity, still maintained.
- **Small and soft**, easily compressed, deficient innervation.
- **Small pulse** and vibratile, expression of impaired life with great excitation of nerve centers.
- **Empty pulse** interwave currents hardly perceptible, impaired life with enfeebled innervation from the sympathetic nervous system.

The Pulse Indication for Certain Remedies:

- **Full**, with strength or bounding, veratrum v.
- **Full, doughy**, lacking the marked vibration, lobelia.
- **Full, doughy**, lacking the marked vibration, with fullness of mucous membrane and purplish discoloration, baptisia. If accompanied with muscular pain, apocynum.
- **Full, open**, quinine in full. doses, if indicated.
- **Large, empty**, alkaline sulphites, if indicated.
- **Full, vibratile**, gelsemium associated with veratrum v.
- **Full, oppressed**, belladonna, veratrum v. If sepsis: baptisia, echinacea.
- **Small, frequent**, usually means aconite.
- **Small, vibratile**, gelsemium associated with aconite.
- **Small, oppressed**, belladonna associated with aconite.
- **Small, frequent, easily compressed**, aconite and small stimulant doses of quinine.
- **Small, frequent, easily compressed**, wave of blood giving sense of squareness as it passes under finger indicates opium.

- **Small and feeble pulse, oppressed**, belladonna.
- **Want of power in the impulse**, means crataegus, convallaria majalis, capsicum.
- **Sharp stroke**, with tremulous waves between strokes, means rhus tox.
- **Sharp stroke** with even vibratile current between strokes, means bryonia.
- **Dull stroke**, with tremulous or vibratile waves, phytolacca.
- **Open, tremulous pulse**, arsenicum.
- **Small and open** waves of blood, drop suddenly when finger is passed, means cactus, pulsatilla.
- **Irregularity**, soft or open, with distinct wrong of stroke, cactus.
- **Steady, vibratile**, without marked waves, means macrotys.

The Average of the Pulse at Various Ages:

In the fetus in utero, 150 to 140.
 In the new born infant, 140 to 130
 During first year, 130 to 115.
 During second year, 115 to 100
 During third year, 105 to 95.
 From seventh to 14th year, 90 to 80.
 From 14th to 21st year, 85 to 75
 From 21st to 60th year, 75 to 70.
 In old age, 75 to 80.

Respiration at Various Ages:

First year about 35 per minute.
 At puberty about 20 per minute.
 Adults about 18 per minute.

Respiration: Normal proportion is inhalation 2, to exhalation 1.

Temperature, Average Normal of the Body:

Of adults is about 98.6 degrees.
 Of children, 99 degrees.
 Of the aged, 98.8 degrees.
 Daily variation is from 1 degree to 1-5 degree.

The highest being reached between 9 a. in. and 2 P. M.

Temperature, Sub-Normal:

We find this as a result of bile in the blood, anemia, cancer, or pernicious malarial infections. Any profound nervous shock, cholera morbus, asiatic cholera. In the early cold stage of intermittent fever or after the fever has fallen. In diseases terminating by crisis, diabetes, some heart diseases and myxedema. Severe injury to the dorsal region. In some cases of hysteria. In some cases of insanity. In influenza after the acute stage has passed. Heat strokes, some forms. If the temperature goes down to 93 it becomes rapidly fatal. Ninety-five degrees is a general collapse. Ninety-six degrees is a medium collapse. Sub-normal temperature also follows shock, severe form of diseases, and may also be caused by certain poisons in the blood.

TONGUE.

- **Coated:** Tongue looks as though it could be rolled or peeled off.
- **Fur:** Looks as though it was a part of the tongue and could not be peeled or taken off. A fur or coating coming off in patches, leaving a glistening spot in acute disease is not a favorable sign.
- **Fur:** Indicates epithelialization, a hyperproduction or nonremoval by friction and a lack of attrition by want of appetite. and consequently absence of mastication. Infants' tongues are white at back part from lack of attrition. In cancer of the stomach tongue is coated or yellow. In ulcers of the stomach tongue is clean and reddish.
- **Ridges,** fissures or grooves or furrows characterize the hepatic disorders so common in the South and malarial regions.
- **Cracked edges,** deranged kidneys. Examine.
- **Red, pointed and dry,** denotes nerve irritation.
- **Broad, porous,** denotes imperfect elimination and muscular weakness.
- **Flabby and full,** denotes blood poverty and debility.
- **Dry, cracked, scaly and brown** is seen in the later stages of long continued specific fevers, like typhoid or in rapid specific fever of high. grade as typhus.
- **Very red tongue,** is common in eruptive fevers, especially in remittent and intermittent fevers, especially if the stomach is involved. Also indication of indigestion, in which cases the edges are mostly red.
- **Purple or livid,** indicates defective oxygenation of blood.

- **Fissured tongue:** In advanced stage of febrile diseases refers us to lesions of kidneys or irritation of nerve centers.
- **Dry tongue,** sign that digestive organs can do but little work and need rest.
- **Vivid whiteness** of tongue evidences simple functional wrong and is associated with the febrile state.
- **Thin,** transparent coating of tongue, shows enfeebled digestive function.
- **Fur on tongue,** that can be scraped off if uniformly distributed, evidently means impaired intestinal tract. If restricted to the base only, there is greater wrong of the stomach.
- **Heavily loaded tongue** calls our attention to accumulations in the stomach.
- **Yellow coating** arises from wrong of the hepatic function.
- **Bright redness** of tip and edges, especially of papillae, is an evidence of irritation with determination of blood. It suggests care in the use of remedies.
- **Broad and pallid tongue,** marked want of color, shows an excess of acids and a want of alkaline body elements.
- **Dryness** we associate with excitation of the nerve center and vascular excitement, with arrest of secretion. If in acute disease where there has been dryness. of tongue, it becomes moist, it shows that the nerve centers are relieved and secretion commenced. If in case of feeble innervation from the sympathetic with moist, relaxed tongue, the tongue gets dry and becomes firmer, we know that the nervous system has been stimulated and it is often the first indication of improvement. All shades of brown and black show the typhoid condition and strongly indicate antiseptics.
- **Dirty fur,** is an indication of sepsis.
- **Small tongue,** full in center, covered with a tenacious coat, shows marked disturbance of brain, unless there is acute disease of the ear or eyes.
- **Contraction** is always a sign of excitation of the nervous system.
- **Fullness** of tongue has the opposite meaning.
- **Elongated and pointed** tongue, refers us to stomach and intestinal canal; it is also one of the expressions of disease of the base of the brain.
- **Tongue covered with a grayish or yellowish fur,** showing small patches of red distributed uniformly over surface, is the tongue of scarlet fever, the so-called strawberry tongue.
- **Tongue broad, flabby,** with white or yellowish coating, indented edges, we see in bilious conditions.

- **Movement** sometimes is very important in determining the condition of the brain. If person has full command over it, we take it for granted that the functions of the brain are well performed yet. If protruded with difficulty, tremulous, or inclined to one side, we have proportional cerebral lesion of the brain. Still where certain parts only are affected this may not be so.
- **Eroded appearance of papillae** at the tip of the tongue, looking like small, red rose colored bubbles, shows a peculiar wrong of the nerve centers and of brain. It indicates rhus tox as remedy.
- **Deep, red tongue**, usually contracted, dry, evidences a want of acids in the system.
- **Deep red or violet** colored mucous membrane, with fullness, is evidence sepsis, it indicates baptisia. In some cases acids should also be given.
- **Full color**, with violet shade, superficial and transparent, indicates nitric acid.
- **Large, thick in center**, with incurved edges and a dull blue leaden color, is one of the strongest indications for arsenicum.
- **Same dull leaden color**, with no change in size or shape, indicates phosphorus or hypophosphites.
- **Slick, raw, beef tongue**, the papillae wholly effaced, evidences sepsis, is one of the most marked typhoid symptoms. Color is usually deep and it indicates acids or baptisia.
- **Dirty tongue, pallid**, is the indication for bicarbonate or sulphite of soda.
- **Dirty tongue**, with natural redness, we can use sulphurous acid or sulphate of magnesia.
- **Dirty**, with increased redness, muriatic acid.
- **Full, leaden color**, grayish white, indication for kali mur. 3x

URINE, CLINICAL EXAMINATION.

Blue litmus paper immersed in urine turning **red**, shows that urine is acid.

Red litmus paper immersed in urine, turning **blue**, shows that urine is alkaline.

Red litmus paper immersed in urine, turning **blue** and **returning to red** on drying shows that the urine contains a volatile alkali (ammonium carb.)

Scanty and high colored urine is associated with acute, febrile and inflammatory diseases; pale urine with diseases of relaxations.

Deposits, ropy and viscid. Add a drop of nitric acid; if wholly or partly dissolved it is composed of phosphates, but is slightly affected with mucus. If deposits fall like a creamy layer to the bottom of a vessel, the supernatant urine being coagulable by heat, it consists of pus.

Opaque from presence of a light flocculent matter, diffused through it, having neither the tenacity of mucus nor dense opacity of pus, a little placed in a tube with equal bulk of liquor potassae will often become a stiff, transparent jelly. This shows presence of the exudation or large organic globules formed under the influence of irritation, providing the urine does not coagulate by heat; should it do so minute quantities of pus may be suspected.

Deposits, flocculent, easily diffused on agitation, scanty, not disappearing on addition of nitric acid, are chiefly made up of healthy mucus, epithelial debris or occasionally in women of secretion from vagina, leucorrhoeal discharge, etc. Heat urine over a spirit lamp, if white deposits occur albumen or an excess of the earthy phosphates is present. Albumen, if a drop of nitric acid does not redissolve the deposits; phosphates, if it does.

Highly colored urine not rendered opaque by boiling, the coloring matters of bile, or purpurine are present. To determine which pour a thin layer of urine on the back of a white plate and drop a few drops of nitric acid in center. An immediate and rapidly ending play of colors from bluish green to red will be observed if bile; but not if purpurine exists alone.

Highly colored. If it alters in color and transparency by heat the presence of blood must be suspected. If addition of nitric acid to deep red urine unaffected by heat, produces a brown deposit, excess of uric acid exists.

Pale urine: Immerse the urinometer, if specific gravity is below 1012, there is excess of water, if above 1025 the presence of sugar or superabundance of urea is indicated. To determine which, place a few drops of urine in a watch crystal and add equal quantity of nitric acid and allow glass to float on cold water. Crystals of nitrate of urea will

appear in 2 or 3 minutes, if a super-abundance of urea exists. If this change does not occur urine must be examined for sugar which may exist in small quantities without raising specific gravity of the fluid. For this "Haines' Sugar Test" is the best at the present. We therefore give the full formula:

Haines' Sugar Test:

Sulphate of copper, 30 grains.

Distilled water and glycerine, $\frac{1}{2}$ ounce each.

Liquor potassae, 5 ounces.

First thoroughly dissolve the sulphate of copper in the distilled water, then add glycerine and mix well, then add your liquor potassae. When ready, use as follows: Put one drachm in a test tube and gently boil. To this add 8 to 10 drops of urine and again gently boil the liquid. If sugar is present a copious yellow precipitate is formed. If not, color of the liquid will remain as before.

An excess of coloring matter rich in carbon must always be sought after on account of its pathological importance. Boil some of the urine in a test tube; while hot add a few drops of hydrochloric acid. If an average proportion of pigment exists a faint red or lilac color will be produced, but if an excess is present it will be indicated by the dark red or even purple tint assumed by the mixture.