

THE
GOOD CANADIAN

OR
HOUSEHOLD PHYSICIAN.

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TEMPERANCE AND ECONOMY.

HEALTH AND LONGEVITY.



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PREFACE.

Of all subjects claiming the attention of heads of families, that of health is the most important. The preservation thereof or restoration thereto, after attending to our eternal concerns, is of the next importance: for health is the most excellent companion, the richest treasure, and the best of earthly possessions, without which nothing can be esteemed or enjoyed as a blessing. Hence it becomes evident that the study of Physic should form a part of the education of every private gentleman, and should become the interesting amusement of every individual whose occupation in life affords an opportunity of investigating this valuable branch of literature. No science presents to our contemplation a more extensive field of important knowledge, or affords more ample entertainment to an inquisitive or philanthropic mind. It is a branch of learning fraught with such amusement and utility, that he who neglects it can have no claim to taste or learning. It is of all others the most sublime subject for the exertion of genius, and affords the highest gratification to a benevolent mind, since there are no infirmities incident to our fallen nature that physic does not enable us to alleviate or remove. Therefore I may say, by way of introduction: it shall be my immediate and continued object, throughout each of my monthly publications, to set before my readers the surest method of restoring and preserving health by the simplest and most easily obtained remedies nature affords us.

Health, rosy health, companion treasure,
Life without thee affords no pleasure;
With thee, I am happy, active, strong,—
Without thee, cannot get along.

Welcome always to my door;
Friend thou art, to rich and poor;
Greatly beloved, who is it hates thee?
None, surely none,—but all doth praise thee,—V. B. H.





THE GOOD CANADIAN;

—OR—

HOUSEHOLD PHYSICIAN.

Happy the man who by Nature's laws, through known effects can trace the cause.

BRIEF HINTS ON ILL HEALTH & NOURISHMENT.

It may be relied on, that the man who cannot eat a dry crust with a relish—who is not satisfied with plain boiled or roast meat, common vegetables, and bread, but who requires additions to them in order to get them down,—that a man who when thirsty cannot drink a glass of water, and feel that it is palatable, is not in a state of perfect health; that there are steps which he ought to retrace, that there are measures which he ought to adopt, or that he is in a fair way, by continuing the same habits which have brought him into this condition, of becoming sooner or later an invalid in some degree, no doubt often brought on by overloading the stomach with highly seasoned food. High seasoned meats and sauces of acids, salt and aromatics, heighten the contraction of the solids above the standard of nature, and by their acrimony hurt the very fine vessels; and creating a false appetite, they rather load and surcharge the body than nourish it.

That quantity of food is always best, that is followed by a sense of refreshment, and not of a torpid heaviness or inaptness to motion; sobriety and temperance being always the indispensable means in order to health and longevity.

DRINK.

For drink, cold, clear, light, tasteless, scentless, brisk running water is the best for a healthy constitution, if it be

only intended to satisfy thirst, to replenish and dilute the humours, and to correct their acrimony. A continual glut of juices being charged on the blood, destroys in time the tone and texture of the solids, and brings on asthmas, dropsies, the gout, &c.

EXERCISE.

Exercise in a moderate degree is attended with the greatest advantages to health; but when excessive, it fails not to incur great damages to the constitution, especially in weak infirm people, and upon a full stomach. In hot, sanguine, and bilious constitutions, exercise is apt to excite inflammatory diseases; and all violent exercise is very dangerous, and has proved fatal to thousands.

REST.

Rest, when opportunely taken, is very refreshing, as every one knows; but even this, if indulged in to excess, that is, to idleness, perverts into a vice against both God and nature, in which case the vital actions flag and lose their natural vigor, and a gloomy attendance of diseases, as headaches, vapours, hysteric fits, melancholy, swoons, vertigos, &c., constantly await the inactive and sedentary life.

SLEEP.

Sleep is a state wherein the body receives fresh supplies for recruiting the waste made by carrying on the animal actions of the day; and everyone finds the slumbers of the night are the sweetest indulgence of kind nature. But here again, the extremes are pernicious; for if we are very watchful, and sleep little, the animal actions are depressed and enfeebled, the spirits exhausted and consumed, and delirium phrenzies, and madness itself, invade the constitution, till at last it is wasted and consumed,—while on the other hand, a sleepy, lethargic habit impairs the solids, and renders their actions effete and languid, checks and damps the animal spirits, and creates vapours, crudities, viscidities, the scurvy, cachexy, with an universal waste of the whole body.

PASSIONS.

Passions and affections of the mind are absolutely necessary to the existence of human nature ; but, as in all things else, so here extremes are of dreadful influence to the body,—nothing being able to effect so great and sudden alterations in the vital and animal actions of the body, as the passions of the mind too much exalted, depressed, and disturbed. Even that noble passion, joy, or gladness, can instantly kill by excess ; and what numberless multitudes are constantly hurried down to the cold abodes of the king of terrors, Death, by his terrible prime ministers, grief, horror, despair, sorrow, anguish, care, fear, &c.!

From all which it plainly appears, that a due regulation of the habits is that on which our health in a great measure depends, and ought therefore to be made the care and business of every man, as it is by all that are truly rational, wise, and sober.

HOW SHALL WE KNOW WE ARE IN HEALTH?

Chiefly by unconsciousness. Let us examine this. When the head is in health, all right, well, and has nothing the matter with it, you look, think, hear, smell, talk, and do many other things, but you are not conscious that you have a head on your shoulders—you never think about it; but the moment your head aches, you feel that you have a head—you become conscious of its existence. So with other parts of the body. Your feet, when all right, you never think about; but after a hard day's walk in a pair of new boots, you become conscious. Get a little dust in your eye, and you are conscious; or should a splinter enter your finger, you are conscious of it, &c. Just so when the absorbent system is out of order, you are conscious; or if any internal or external complaint affects you, you are conscious in some degree.

A sound mind in a healthy body is the greatest earthly treasure man can possess.

NOURISHMENT.

Nourishing substances require to be of a similitude with the substances to be nourished; and the constituent materials of man, and the whole of the living creation, contain no such composition as fermented and spirituous liquors. Such liquors cannot therefore be reckoned useful in any way of nourishing or maintaining the principal materials of the human frame.—
SIR A. CARLISLE, M. D.

It will be known to many readers that vegetable substances consist for the most part of three elementary ingredients, oxygen, hydrogen, and carbon; and that animal substances in general contain nitrogen. Those substances, therefore, which contain a proportion of nitrogen, of necessity, assimilate more nearly to animal substances, and might be expected beforehand to be more nutritious,—always providing that those substances do not, by their mode of combination, form anything noxious to the animal economy. Accordingly, gluten, which contains nitrogen, is found to be much more nutritious than starch, which contains very little, if any, of this elementary substance. Wheat flour contains much more gluten than that made from any other grain, and it is consequently very much more nutritious. But according to the climate in which wheat is grown, the favorable or unfavorable nature of the season, the greater or less degree of cultivation bestowed upon the soil it grows in, &c., does wheat contain more or less gluten. It is to this substance that dough owes its viscidty or tenacity, and it is necessarily more tenacious the more the grain it is made from contains. Hence in the manufacture of vermicelli and maccaroni, it is necessary that the wheat used should contain a very large quantity of gluten, and this is found to be the case with the harder kinds of wheat. It therefore happens that the best flour—that which contains the most gluten, always makes the lightest bread, by preventing in some degree the escape of the products of fermentation, to which most of the bread that is eaten in the present day is subjected before it is baked; consequently, as regards bread, the harder the grain from which the flour is made, the more nutriment will the bread made therefrom contain, and the easier it will be digested, because of its lightness.

In consumption or ulceration of the lungs, the diet must almost entirely consist of milk and vegetables, by blending which an agreeable variety may be obtained. For breakfast, the patient may have milk, fresh from the cow; or if it should prove offensive to the stomach in this state, it may be deprived of its cream. With the milk may be eaten biscuits or toasted bread, either dry or spread with honey or the jelly or marmalade of fruits; a boiled egg where it is found not to disagree, may likewise be eaten. Boiled bread and milk, water gruel, and milk potage are very proper; these should be chosen according to their agreement with the stomach.

For dinner, a tolerably extensive range may be afforded the patient, in the various fruits and other vegetable productions of the season. Apples, dressed in different ways, turnips, parsnips, rice boiled into a pudding, either alone or with the addition of an egg and milk, and puddings of various kinds, very well boiled, form a bill of fare, within the bounds of which no one can surely refuse to confine himself, as it yields him almost the only chance of a restoration to health.

For supper, the patient may have any of those articles which have been recommended for breakfast.

The drinks through the day may be thin barley water, acidulated with a little lemon juice, toast and water, or profitable herbs, as thyme, savoury, liquorice root, lungwort, sweet marjoram, betony, sage, rosemary, or figs, any of these or all, may be boiled together with honey and water into a mead (that is a diet drink), and a small glass may be taken when thirsty. But any kind of intoxicating drink, including wines, are not beneficial. Animal food is not in all cases to be strictly prohibited, but generally so, there may be cases in which its use may be advisable, especially in cold weather, but these are situations which can only be pointed out by a thorough knowledge of the disease, and of the general state of the system. The kind of exercise, and the degree to which it is used, at the commence-

ment of this malady, must depend on the manner in which the first attack comes on. Thus, if it has been preceded by spitting of blood, or be considerable inflammation of the lungs, the exercise employed must be of the gentlest kind. But when the disease is produced by a long continued cough or repeated catarrhs, exercise may be used to a greater extent, the necessity of this existence exists, however, only in the first stage of the disease, for after the disease is once formed, the same rules for exercise will be proper in almost every case. A general maxim for the regulation of exercise in this disease is, that it be never employed to such a degree, as that the heat of the body be much increased by it, or that it induce much fatigue. As the chief intention of exercise in this disease is to obtain the application of pure and fresh air to the lungs, it is evident that the kind of exercise most likely to answer the intention is that by which the patient is conveyed from one place to another, such as walking, riding, sailing, &c.

Walking, in consequence of its quickening the circulation of the blood, and so soon inducing fatigue, is the kind of exercise least likely to prove beneficial in these cases, and must be had recourse to with great caution.

Riding on horseback is an exercise in many respects preferable to walking, as the patient is able to breathe the air more powerful, and by regulating the pace of his horse, to adapt his exercise to his strength, and his ability of bearing it. But the exercise of riding, as well as that of walking, requires some exertion on the part of the patient, and therefore should be with caution, in those cases where there exists a suspicion of inflammation.

Sailing may be preferred to all others. Particular articles of clothing should be selected.

The chest, and between the shoulders in particular, should be well defended from the cold, and the feet from damp.

These regulations should be adopted in the first stage of consumption, and continued with strict conformity.

I shall now take the opportunity of saying a little about toast and water. Those who suffer from indigestion will find it beneficial to have their bread toasted, for by this the products of fermentation are still further expelled. Toast allowed to stand till it is cold before it is eaten, is much more wholesome; and it is more digestible and palatable, if placed on end while cooling, than if allowed to lie flat on the table or plate. I consider that for weak or disordered stomachs, toast and water is preferable to water by itself, and shall give my reason why. I would say that the small quantity of the starch of the bread, which must be mixed with the water, renders it a blander beverage—a beverage more soothing to the stomach; and then, again, the small excess of charcoal that there must always be in toast, absorbs any slight taint or putridity that the water may have imbibed. Yeast or barm dumplings, in which fermented dough is boiled instead of baked, are far from being as digestible as bread, although they are certainly much more nourishing. These dumplings form a very nutritious kind of food, a kind of food well adapted to men who require a large amount of support, and whose stomachs are not impaired in their functions by sedentary habits or intemperance. They should be often used by the working classes whose employment is such as to cause a large expenditure of nutriment. But with those whose digestive powers are disordered, no matter from what cause, yeast or barm dumplings will almost always disagree.

All salted meats are difficult of digestion, and therefore may be considered as unwholesome. The flesh of the ox is a nourishing food, and the beef of the larger bred oxen is always preferable. Beef and mutton are more easily digested than veal or lamb, yet in many instances it is most proper to give the latter. Generally speaking, the flesh of wild animals is more wholesome than that of tame; the flesh of quadrupeds more than birds; and that of birds more than fishes. The flesh of mutton is considered to be the most nutritious of animal food. Pork is not easily digested, and if too frequently used will produce great disorder of the stomach and bowels, eruptions of the skin, &c. I consider

that pork should not be eaten ; for, either fresh or in a cured state, it is not wholesome. The common fowl and the turkey, the common pigeon and blackbird, are easily digested and very nutritious ; but the swan, the goose, and the wild and tame duck, are not easy of solution in the stomach, and therefore ought to be sparingly used. Raw eggs are gently laxative, and very serviceable in jaundice and obstructed liver ; and the raw eggs of the common fowl are strengthening and nourishing to the consumptive patient. In boiling eggs, the harder you boil them the less nourishing you make them, and the harder of digestion. The sick or delicate should never eat stewed oysters, as they are very indigestible ; but if eaten in a raw state, they may be easily digested, and are sometimes serviceable to the weak and consumptive. Persons afflicted with habitual costiveness may diet on oysters, as they are attended with a laxative effect ; a very small quantity of vinegar should be used by those who eat oysters, unless they are laboring under consumption. Most kinds of shell fish are difficult of digestion.

In summer, the quantity of vegetable food should be increased, and particular care should be taken to procure it fresh. In winter, the quantity of animal food should be increased, being of a permanent nourishment most suitable.

All kinds of fruits, when in their season, are beneficial, and care should be taken that no bruises or other defections are contained in them. The qualities and beneficial effects of various fruits, I shall give in some of the following numbers.

A I R.

A dry, serene air is always a heavy air, and is most wholesome to every man in his own place.

A cold and nitrous air, though it agrees with the robust, yet is pernicious to weak and infirm constitutions, by raising the contractions of the vessels too high, and thereby occasioning obstructions in the capillaries, which produce inflammatory fevers, as the pleurisy, St. Anthony's fire, &c.

A hot, sulphurous air is also apt to exalt the contractions of the solids extremely, and by its fiery particles to disturb, vitiate, and embarrass the actions of nature to the last degree, from which arise inflammatory, petechial, nervous, epidemical, malignant, etc., fevers.

A damp, moist, foggy air, on the other hand, too much relaxes the vessels, and thence proceed preternatural cohesions and viscidities of the fluids, affecting the parts with scorbutic swellings, schirrosities, stubborn coughs, phthisies, and all those agues and intermittent fevers which pester mankind in the winter and spring seasons.

Rheumatism is much more frequent in cold than in warm climates, and in those seasons in which the weather is variable than even when it is constantly cold; thus it is oftener met with in spring and autumn, than in winter.

MISCELLANEOUS RECEIPTS.

If you keep a good fire to make the room warm, do not forget to stop up the cracks, and thereby keep the cold out. Double windows and double doors are very beneficial.

Frost bite, and frozen limbs.—When the extremities, or any part of the body, are exposed to intense cold, the circulation of the blood and the feeling of the nerves are destroyed by the parts freezing. If the frozen part is suddenly thawed by heat, speedy mortification comes on; therefore the best thing to do, is to restore warmth very slowly, by rubbing the part with snow or ice water, and, at first, to give no heating or stimulating liquors internally. Lying on a cold bed is good.

Small skin cuts often happen in the hands and legs, by use of a knife or workmen's tools. All that is necessary to be done in slight cuts, is to get a small piece of thin white paper of any sort, and wet it with spittle, place it on the cut, and hold it a few seconds; it will adhere to the skin and stop the bleeding, and no need to be taken off until

healed. The piece of paper should be just the size of the cut. Cold water or turpentine often will stop bleeding, but not when large vessels have been cut. A strong handkerchief twisted tight on the limb—when dark venous blood flows it should be above the part affected; if bright arterial blood jets out, a little below,—would be most proper.

When dust or very small substances get in the eye, the upper lash should be brought down over the lower one, and held there whilst the eye is moved backward and forward gently, which will work the substance into the corner, and can be easily taken out.

Weak eyes may be strengthened, and dull sight removed, and full clearness of sight enjoyed, by placing the eyes open into a pan of spring water every morning.

The voice may be restored, when weakened by speaking or singing, by mixing mustard powder with honey into the form of pills, and swallowing two or three often.

Indigestion will often cause soreness of the chest, partial loss of voice, &c. When this is the case, a piece of linen about four times double should be wet with cold water, and placed across the chest, and two or three thicknesses of flannel outside of that, just before getting into bed, and kept on all night; take also as much cold water as you can bear to drink, and cover up well, and in the morning wash the surface across the chest with cold water, and rub briskly until dry with a towel. This, in two or three days' careful attendance to, will not fail to strengthen the voice and remove the soreness of the chest, and promote easy digestion. At the same time, care should be taken to feed upon light food.

A simple but efficacious syrup for coughs may be made thus: Slice a turnip thin, place the slices in a basin, with sugar between each slices; let it stand for two hours, and strain off for use.

FOR CHILBLAINS; mash an onion with some salt, until it becomes a paste, and with it rub the places affected. Keep the feet warm.

FOR A FRESH BURN.—Mix equal parts of saltpetre and linseed oil, and with a feather annoint the place. Put on a rag, dipped in it, to protect it from the air.

DEEP BURNS.—If the surface appear scorched, as if charred, with inflammation around it, the best application will be a linseed poultice daily, and after three or four poultices, it should be dressed with lint, on which is spread some green ointment; this will tend to prevent a scar. Oily salves are improper.

FOR A STING OF A BEE OR ANY OTHER INSECT.—Common whitening, or poundod chalk, proves an effectual remedy against the effects of the sting of a bee or other insects. The whitening should be moistened with cold water, and applied immediately. It may be washed off in a few minutes, when neither pain nor swelling will ensue.

CURE FOR THE ITCH.—A strong infusion of tobacco should be used as a lotion, about three times a day.

A SCURVY MEAD.—Take betony, sage, agrimony, scurvy grass, and wormwood, of each one handful, roots of elecampane and horse-radish of each one ounce, chop them up together and put them in a bag. Then take one gallon of water, add to it half a pound of honey, boil it and scim off the top, then place the bag of herbs therein, and boil together for half an hour; let it stand till warm, and then stir in one spoonful of yeast, and bottle off for use. These herbs will bear boiling in a second water, and will make the second mead better than the first.

As medicinal drinks, meads are highly recommended.

FOR SORE AND INFLAMED EYES.—Get Distilled Water of Loosestrife, and Distilled Water of Celandine, an equal quantity of each, mix together, and drop a few drops into the eye and around the eye, upon going to bed.

A CURE FOR HABITUAL DRUNKENNESS.—Keep sober.

TO CORRESPONDENTS.

No letters can be replied to in the ensuing number, which are received later than the second Saturday in the month. Letters to be addressed to V. B. HALL, Post Office, Hamilton, or personal visits may be made at Mountain View, Township of Barton.

Advice to evening visitors gratis.

THE LAZY FEVER.

The following amusing extract is from an old book on physic entitled, "The Breviare of Healthe, by Andrew Boorde, Physiche Doctoure, an Engysman, anno 1557."

"The 151 chapitre doth shew of an evyl fever, the which doth comber younge persons, named the fever burden (lazy fever). Among all the fevers, I had almoste forgotten the fever burden, with whiche mayne younge men, younge women, maydens, and other younge persons, be sore infected now a dayes.

"The cause of this infirmitte :

"This fever doth come naturally, or els by slothful and evyl bringing up. If it do come by nature, then the fever is incurable; for it can never out of the flesh that is bred in the bone. If it come by slothful bringing up, it may be helping by diligente labor.

"A remedy : There is notyhing for the fever byrden like unto ungentum boculinem: that is to say, take a sticke or won of a yarde of length or more, and let it be as great as a man's fynger, and with it anointe the shoulders morning and evening; and do this 21 days, and if this fever wyl not be holpen in that tyme, let them beware of waggyne on the gallows; and whyles they do take their medicine, put no lubberwort in their pottages.—ANDREW BOORDE, P. D."

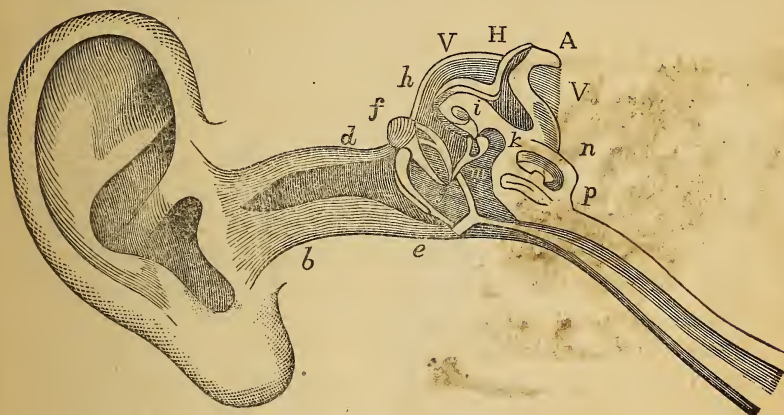
Subscribers would do well to endeavor at spreading the sale of this monthly domestic magazine.

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ANATOMY OF THE EAR.

The meatus externus is detached from the bone at *b* ; the oblique direction of its internal end shown at *d, e* ; the membrana tympani (or drum of the ear) stretched on its bony ring and bulging inwards ; *f, g, h*, the malleus ; *f*, the handle or process attached to the membrana tympani ; *g*, the long process ; *h*, the head ; *i, k*, the incus ; *i*, the short leg or process ; *k*, the long process ; *m*, the stapes ; *V, A, H*, the curved labyrinth ; *n, p*, the cochlea ; *n*, its beginning ; *p*, its termination ; this is followed by the vestibule ; *V*, the bony case of the an-

terior, or smaller of the semicircular canals; H, the posterior, or largest semicircular canal; A, the outer, or smallest canal.

Hearing is simple in its arrangement, and beautifully adapted to the purposes of life, and contributes remarkably to some of our most exquisite and refined enjoyments. The organ of hearing consists of a nerve, gifted with peculiar qualities, upon the surface of a delicate membrane; there is also connected with this a piece of cartilage, in the form of a funnel, leading to the internal parts. The bottom of this tubular cartilage is truncated obliquely, and its aperture closed by a firm membrane stretched across it, which separates this external part of the ear from the middle portion of the organ. Beyond this membrane we meet with a small cavity hollowed out in bone, which is termed the barrel of the tympanum. There are several openings into it, but there is one most important to us here: it is the inward aperture of a tube, the only extremity of which opens at the hinder part of the nose, behind and above the palate, through which the air is admitted with an equality of force to the pressure of the atmosphere on the opposite side of the membrane. Across the cavity there is extended a series of small bones, the exterior of which is attached to the membrane we have just mentioned. The most internal of them (four in number) is firmly connected with another membrane, which together shuts up the entrance to a deeper cavity called the labyrinth. This last hollow—excavated as it were in the solid bone—consists of a middle portion, irregular in appearance, from which different channels proceed in various directions, and finally return, with the exception of one only, to the same chamber. All these passages are lined by a membrane on which the extremity of the auditory nerve is expanded in different shapes; from these it is collected into one trunk, and goes on to a particular part of the brain, thus completing the communication between the external agent and the sensorium. The four small bones of the tympanum which help the hearing are as follows: First, the malleus or hammer; the upper part of its round head rests upon the concavity of the tympanum. This bone has several muscles, which move it in different directions and cause it to stretch or brace the membrana tympani when we wish to hear with accuracy. Connected

with the malleus is another small bone called the incus, or anvil, which is connected with another called the stapes, or stirrup, (from its shape). These two bones are connected by a small oval shaped bone, called os-orbiculare, placed between them; the whole forming a chain of bones which are the smallest in the human body. The stapes or stirrup has its end of an oval form, which fits a small hole called fenestra ovalis, in the labyrinth of the ear. There are many anatomical parts of the ear not likely to interest the general reader, which I shall omit. There is, however, one part which should be described, namely: the Eustachian tube, so called from Eustachius, an anatomist who is said to have first described it. This tube opens by a wide elliptical aperture into the tympanum behind the membrane, the other end of which gradually grows wider, opens into the cavity of the mouth, by this canal the inhaled air enters the tympanum to be changed and renewed. It likewise serves some important purposes of hearing, for if a watch be placed in the mouth and the ears stopped, its ticking may be distinctly heard; also persons partially deaf can hear better by a piece of wire being placed between the speaker and the hearer, with one end between the teeth of each person; the vibration of the sound is carried along the wire into the mouth, and so helpeth the hearing by the Eustachian tube. Also by placing a piece of wood or wire, with one end upon a musical instrument and the opposite end between the teeth whilst it is being played, it may be sometimes heard by people who are totally deaf to outward sounds. Much might be said of the muscles, nerves, and cartilages of the ear, which probably I may mention another time. I shall now mention some simples and their curative effects on the ears.

Syringing the ears in the morning with a warm solution of soap and water, is very servicable in all cases of deafness.

For deafness, distilled waters of Shepherd's purse, plantain, and marjoram, the same quantity. Mix, and drop a few drops into the ears upon going to bed, or a strong decoction of the same herbs (continued with) will have the same effect.

The juice of the herb Agrimony dropped in the ears, helpeth impostumes and foulness therein.

The juice or distilled water of wood betony. dropped in the ears, cureth running sores in them and easeth pains in them.

The juice of cleavers will also ease pains in them.

The juice of figs will sometimes procure hearing in cases of slight deafness.

The juice pressed from the green leaves of knot grass, will cleanse ears that are foul and have running matter therein.

A piece of baked onion is an admirable remedy for pains in the ears, by placing a piece in them.

The oil of peach or juice of peach leaves, will remove pain in the ears.

The distilled water of walnut wonderfully helpeth deafness.

Those who have been born deaf, must of necessity be dumb also ; for as they know not what sound is, they cannot copy it.

ROOTS AND THEIR PROPERTIES.

Parsnip root is exceeding good and wholesome, though rather windy. It fatteneth the body—If frequently used, it is servicable to the stomach, and to provoke urine.

Parsley roots, if boiled and eaten as parsnips, greatly provoketh urine, and openeth the body also, and is very useful to expel wind in aged persons. It openeth the obstructions of the liver and spleen, and helpeth to expel the dropsy and jaundice by urine.

Caution ! Mistakes hath been made by persons taking the herbage of hemlock for parsley, or the root instead of parsnip, (as they bear a great resemblance to each other), causing phrenzy and the stupefaction of the senses. I mention this that persons might be careful.

If such accident should take place, a good draught of strong vinegar would be a present remedy.

Carraway root is a better food than the parsnip, and is pleasant and comfortable to the stomach, helping digestion ; and if

eaten as parsnip they strengthen the stomach of aged persons exceedingly, and no need to make a whole meal of them neither. They are fit to be planted in any man's garden ; they are a most admirable remedy for those who are troubled with wind.

Carrot root—garden carrot—is said to break wind, but experience teacheth that it breedeth wind first, and we must thank Nature for expelling it, not they. Wild carrots doth expel wind, provoketh urine, helpeth to expel and break the stoney gravel ; it helpeth the cholic and obstructions of the kidneys.

Turnip roots are comforting to the stomach and cooling, digesting easily, and may be reckoned a wholesome kind of food. A syrup for coughs may be made of them. See page 14.

Horse radish—the distilled water thereof—mixed with honey and a small quantity taken, helpeth sciatica, jointache, and the hard swellings of the liver and spleen. The root bruised and applied outwardly to the place affected, will greatly help.

The garden radish is eaten as a salad in summer time, but if too much used, tendeth to corrupt the blood ; yet, for such as are troubled with the gravel, or stone, or stoppage of urine, they are good physic. They should be made into a syrup for the purpose, as follows : Slice the radishes thin and place them in a deep stone jar, with honey spread upon the slices ; let them stand for about ten hours and then strain off for use.

The later large radish has a better effect on the blood, and more suitable toward the fall of the year in cleansing and opening obstructions of the inward parts.

Beet roots are of a cleansing, digesting quality, (the white beet more so than the red ;) they are good for the headache and swimming therein, and complaints of the brain ; it helpeth burning if used without oil ; they loosen the belly ; the juice of them received into the nostrils occasion sneezing. If gently boiled and eaten with vinegar, they procure an appetite, and suppress choler in the stomach. The root boiled in vinegar and water, and the head bathed therewith, healeth the running sores and cleanseth away dandruff, and scurf, and dry scabs, and rendereth some help to baldness and shedding of hair.

Hartichokes, or Artichokes, if used much, purgeth by urine ; but if prudently used with other food, tendeth to strengthen the body much, and are well adapted for use in some peculiar cases.

Onions are flatulent or windy, yet they do ease the bowels. The juice of onions is courted good for scalds or burns ; and used with vinegar, taketh away all blemishes, spots and marks in the skin ; and dropped in the ears, easeth the pain and noise therein. If onions are beaten together with figs, they help to ripen and cause suppuration in imposthumes. Onions, if bruised and mixed with salt and honey, will destroy warts. Onions steeped in water all night, and the water taken from them in the morning and given to children fasting, will destroy worms in them. The juice of onions received into the nostrils, purgeth the head ; yet the too frequently using of them causeth the headache.

Leeks participate of nearly the same quality as the onions. Being boiled and applied warm, they help the piles.

Potatoes are windy in general, but according to their kinds ; also their effects are different in persons, which their own experience teacheth them, therefore, as food, little need be said. Potatoes eaten raw are good for the scurvy ; also to make a decoction of the peelings and wash the surface therewith, will remove scurvy ; also spots and freckles in the face, &c.

Garlic. The same may be said of this as of onions ; but in addition, garlic resisteth putrefaction. It is antidotal against the effects of wolfbane, henbane, and hemlock, or other poisonous herbs. It is exceeding good for jaundice, cramps, convulsions, and other cold diseases. Caution ! Melancholic persons should be very careful in using it, for its heat is vehement, and tendeth to confound the idea with strange visions and fancies, conveys ill vapours to the brain, and in choleric cases addeth fuel to fire.

Ginger is warming to the joints applied outwardly, and of a healing, drying quality, taken inwardly, warming the bowels and stomach in cold complains. If used with some carraway seeds

and a little aniseed, it disperseth the wind comfortably. I consider ginger should be used in sauces for winter more than it is.

Having mentioned some of the most common and well known roots of domestic use, and their principal effects, I shall next collect a number of useful Medicinal roots that are well known and treat upon their principal effects in the next Magazine.

THE VOICE OF NATURE.

In Nature the simplest remedies are found to produce the most salutary effects ; and in earlier times when the art of Medicine was less obscured, and practised more from motives of benevolence, the world was less afflicted with disease, and the period of human life less contracted. The laboratory of nature, were it but consulted, furnisheth ample remedies for every curable disorder incident to mankind ; for notwithstanding the parade of compound medicines, the art of healing consists not so much in the preparation, as in the due application of the remedy,

Hence it happens that persons without education or ability, by the help of a simple herb gathered in its full strength and virtue, will sometimes perform very extraordinary cures in cases where the regular bred physician is absolutely at a loss how to treat them.

I would not here be understood to cast any unworthy reflections upon those exalted characters, who have made physic and the alleviation [of human infirmity the principal study of their lives. The many invaluable discoveries added to the pharmacopœia, both from the vegetable and mineral worlds, are strong arguments of the necessity of regular practice, and of professional education in forming the physician ; but, were these gentlemen to regulate their prescriptions according to nature and the patient's constitution, and depend on herbs, &c., that is the vegetable kingdom, only, for internal use, rather than follow a systematical list of prepared medicines and their appropriations, I am persuaded more immediate and lasting relief would

be in most cases afforded the sick and languishing patient. Too often doctors are so intent upon dosing the patient that they forget to instruct the patient concerning diet and habits, which is of the most importance.

It is not, however, the humane and liberal professors of physic whose practice deserves censure, but that mercenary tribe of catch dollar pretenders to physic, who pervade the country, and, like a swarm of locusts from the east, prey upon the vitals of mankind, these creatures in the shape of men with hearts callous to every sentiment of compassion, have only fees in view, or the sale of some mock preparation said to cure all kind of diseases. Governed by this sordid principle they sport with life, unmoved amidst the bitter anguish and piercing groans of the tortured patients, whom, when too far gone for human aid to restore, they abandon to despair and death. To prevent the growth of this imposing traffic, it requires that the practice of physic, instead of being clothed in a mystic garb, should be put upon a level with the plainest understanding, and the choice and quality of our medicines be rendered as obvious and familiar as our food. Instinct in the brute species furnishes this discrimination in the most ample and surprising manner; and in the primitive ages of the world, when men were blessed with length of days and were rich in years, it was their custom to consult individually their own complaint and their own cure. The knowledge of which lies open to the wayfaring man, it grows in every field and meets us in all our paths; and was mercifully given to alleviate the pangs of disease, to irradicate the pestilential seeds of infection—to invigorate the constitution, and strengthen nature—eventually reducing the perils to which we are exposed and making rosy health the companion of our lives.

Nature hath her laws of action
Wisely planned, infallible,
Teaching by a knowledge of them,
All diseases curable.

She declares a mild prevention
To be better than a cure,
Select your food with that intention,
And your healthiness is sure.—V. B. H.

MISCELLANEOUS RECEIPTS FOR GENERAL USE.

A CEPHALIC MEAD.—Take Valerain root, two ounces ; rosemary or sage, three ounces ; mustard seed, six ounces ; Virginia snake root, two ounces ; place them in a bag, then boil $1\frac{1}{2}$ lbs. of honey in ten gallons of water, skim off the top and put in the bag of herbs and boil gently together for a whole day, then it is fit for use.

The above Mead is good against Epilepsies, Apoplexies, Palsies, and all diseases of that kind, it is also of use in almost all nervous complaints, especially such as arise from too great moisture and cold.

A COMMON DECOCTION against gripes, and cramps, and such diseases as are caused by heat of urine, also to be used for lotions and emollient clysters ; may be made thus :—Take of mallow leaves and camomile flowers, each two ounces ; water two quarts ; boil till one quart of the liquor is wasted, then strain the remaining Decoction for use.

A POULTICE to dissolve hard impostumes and assuage inflammations, may be made thus :—Barley meal, vinegar, honey and a few dry figs boiled together and applied.

A POULTICE to cure swellings under the ears, throat, neck and such like—Barley meal and onions boiled together with a little water, and applied.

BOILS.—Linseed pounded with figs is good to bring to a head, boils and other swellings.

HOARSENESS OF THE THROAT AND VOICE.—The fruit or kernel of cocoa-nut is very good if eaten at night.

BOTANY.

BOTANY OR PHYTOLOGY DEFINED.

Botany (or Phytology) is a science which hath for its subject herbs, plants or vegetables of all kinds : the word Botany being derived from the Greek word Botane, which signifies an herb

in that tongue. Hence a treatise on this subject is called Botanology. The book which gives an alphabetical account of the names, nature and uses of plants, is called an Herbal; and a person well skilled in this science is called a Botanist, Herbalist or Simpler.

THE GREAT PARTS OF THIS SCIENCE.

A Treatise of Botany should contain four great parts, viz:—
 (1.) A general theory of Vegetation, explaining from the principles of reason and experiment, the nature and manner of the life and growth of plants and vegetables. (2.) A just and orderly distribution of herbs and plants into their several general kinds, and a particular enumeration of the species and individuals contained in each. (3.) A division of plants into their natural component parts, as Roots, Stalks or Trunks, Branches, Leaves, Flowers, Fruit, &c., with observations on the variety and differences of each part, in the various kinds of plants. (4.) A declaration of the various affections of plants and vegetables, as their place of growth, time of blooming, their several qualities and uses in medicine, and other affairs of life. This latter part is the subject of an Herbal, and so cannot be expected here at large. I shall give the best account of all these particulars that I can come at, and shall begin with the definition of a Vegetable.

A Vegetable is a body organically formed, adhering to some other body by some part of itself; by which part it attracts and receives the matter of nutrition and increase, which is called Vegetable Life. Such are all Plants, Shrubs and Trees.

Vegetation is the way of growth, or increase of bulk, parts and dimensions, by means of a proper disposition of organical parts or instruments receiving nourishment or nutritious juices; and which thereby circulates through all the substance of the vegetable, and is the immediate cause or principle of Vegetative Life.

In a perfect theory of vegetation, therefore, we must have regard to three things: (1.) The Original or Genesis of a vegetable substance or plant. (2.) The Mechanism or organical disposition of parts necessary to vegetative life. (3.) Then

what the vegetative Principle is, or what those nutritious juices are by which the vegetable is made to grow and increase in bulk.

By the Original or Genesis of a vegetable is not here understood the common generation or propagation thereof by seed; but what that is in the seed which primarily gives form and essence to the plant, or how it comes to be or appear what it is. On this head the learned say much; and all, of late, agree that God, when he created the various kinds of vegetables, did even then also create and form every individual future plant belonging to every sort or kind, and included them in proper cases or seed one within another; so that the *original seed did really and formerly* contain in it all the future plants of its kind in inconceivable smallness or *miniature*: and therefore when any seed is planted, we are not to expect the production or creation which was not before in being, but only that the *Embryo* plant hath, by this means, power to vegetate, or to unfold and unravel its parts, to burst its matrix seed, to become visible, and to increase its bulk to its appointed dimensions.

This doctrine of generation of plants seems to be intimated by Moses, when he says, *And God said, Let the earth bring forth grass, the herb yielding seed, and the fruit tree yielding fruit after its kind, whose seed is in itself upon the earth.* But it is abundantly confirmed by microscopic observations and reasoning thereon; for not only all sorts of grain and fruit appear in due form and proportions of parts, by the Microscope, even in the bud, before the blossom is seen, but in the very seed, while yet on the plant; by the help of the microscope the plant of next year may be seen. For instance: take a full ripe bean, and view the *germen* with the glass, and you will plainly perceive it to be nothing but the stalk, leaves, &c., of the next year's plant in miniature. If therefore the plant of this year produces seed, and in that seed we descry the plant of the next year already formed, it is reasonable to suppose the seed of that small plant also contains another to be disclosed the second year, and that another for the third year, and so on *ad infinitum* or to to the end of things.

The modern Philosophers have not only established a new Theory of the generation of vegetables, but have moreover found that there is such a thing as sex in plants as well as in animal nature. And hence the distinction of male and female, as well as Hermaphrodite plants is become very familiar: for the vegetable female require impregnation by the male vegetables in order to generation, as much as animals; nor will the seed produced by the female plants, if sown, grow without it, any more than eggs will produce chickens, which were laid by hens not impregnated: but since the parts serving to generation in vegetables are indeed the flowers, notwithstanding they are so beautiful, so gay, and so much admired; I shall have occasion to say more of this matter when I come to treat of that part of a plant.

The next thing to be considered in vegetation, is the mechanism or system of organs or vessels in a plant, by which a circulation of alimentary juices is carried on through the plant, and its vegetation effected. In order to this there is found to be two series or orders of vessels in vegetables. First—Such as receive and convey the alimal juices from the root to all the parts of the plant. These answer to the arteries, lacteals and veins in animals. Second—Tracheæ or air vessels, which are long hollow pipes, wherein air is continually received and expelled, *i. e.*, inspired and expired. Within these air-pipes, Malpighi (the discoverer of this vegetable mechanism), shews all the former series of vessels are contained.

Hence it appears that the heat of a year, a day, yea single hour or minute, must have an effect on the air included in these tracheæ, *i. e.*, must rarify it, and consequently dilate the tracheæ, whence arises a perpetual spring or source of action to promote the circulation in plants; for by the expansion of the tracheæ, the vessels containing the juices are pressed, and by that means the juices contained are propelled and accelerated, and also comminuted and rendered more and more subtile, and so enabled to enter vessels still finer and finer; the thicker part of it being at the same time secreted and deposited into the lateral cells or vesicles of the bark, to defend the plant from cold and other external injuries.

The juice (or what is vulgarly called the sap), having thus gone its stage from the root to the remotest branches, and having, in every part of its progress, deposited something both for ailment and for defence, what is redundant passes out into the bark, the vessels whereof are inosculated with those wherein the sap mounted; and through these it re-descends to the root, and thence to the earth again; and thus a circulation is effected.

The third and last part of the theory of vegetation, is a true knowledge of the vegetative principle, or that which is the immediate matter of the growth or increase of the plant. 'Tis certain this is a juice furnished by the earth, and imbibed by the absorbent vessels in the roots of the plant; this is circulated through the substance of the plant, and, in part, is assimilated thereto; and thus by the constant addition of new matter in every circulation, the plant is made to grow or increase its bulk; but more particularly, originating as follows:—

This nutritious juice is imbibed from the earth, and therefore must contain some fossil parts, other parts derived from air and rain, and others from putrefied plants and animals, &c., and consequently in vegetables are contained all kinds of salts, oil, water, &c., if not mineral particles too. This juice enters the root in form of a fine and subtile water:—

THE STATE OF THE SAP IN ITS DIFFERENT STAGES OF CIRCULATION.

In the root then it is earthy, watery, acid, poor, and scarce oleaginous at all. In the trunk and branches it is further prepared, though it still continues acid. In the germs or buds it is more concocted, and, entering the vessels of the leaves, causes them to unfold and shew themselves. From hence it proceeds to the leaves of the flower, where it is still further digested; these transmitted to a greater degree of fineness to the stamina; these again to the farina or dust in the apices, where, having undergone a further maturation, it is shed into the pistil or style, which receives it in the manner of a womb, where it acquires its last perfection, fœcundates the seed, and gives rise to a new plant.

The sap in plants performs the same office as the blood in animals, viz., to be a vehicle to convey the food or aliment to the

several parts of the vegetable by circulation. This vegetable aliment is (according to Dr. Woodward), a certain terrestrial matter contained in all water, and is of two kinds, viz., the one properly a vegetable matter, the other of a mineral nature. The former of these is principally the matter by which the vegetable is nourished. That this is more than probable, and that the plant owes little or nothing of its growth to earth or water, is made evident by divers experiments.

Thus Mr. Boyle raised a plant of 3 lb. and after that another of 14 lb. was produced from a quantity of earth watered with rain or spring water, and which being carefully weighed dry at first and last, was found to have lost scarce any thing of its weight.

Again: Van Helmont dried 200 lbs. of earth, and therein planted a willow weighing 5 lb., which he watered with rain or distilled water only; and after five years he weighed the tree, with the leaves it had borne in the time, and found the weight thereof to be 169 lb. 3 oz., but that the earth had lost only 2 oz. of its weight; so that the increase of the plant was 13,113 $\frac{1}{2}$ times more than the expense of earth, and consequently earth has but a small share in vegetation.

That water likewise conduces but little thereto, is evident from Dr. Woodward's experiments. He took a plant of common spearmint which weighed 27 grains, and placed it in a vial of water for the space of 77 days; in which time it drank up 2558 grains of spring water, and then being taken out, weighed 42 grains; so that its whole increase was but 15 grains, which was but 170th part of the water expended.

He took another plant, weighing 127 grains, placed it in water for 56 days, when it weighed 255 grains, and the water expended was 14,190 grains, which was 110 times more than the increase of the plant. From these, and many other experiments, 'tis plain that water also has but a small share in vegetation, and that therefore it must proceed from a peculiar vegetable matter in water and the moisture of the earth, as before observed.

Since then it appears that plants imbibe such great quantities of water or humour, and retain so little for nourishment and growth, it follows that there must necessarily be a considerable perspiration in vegetables as well as in animals, for the discharge and evacuation of all the superfluous moisture in each circulation. Accordingly, it has been found by experience, that a plant of about 3 lb. will perspire 30 oz. in 12 hours day in July, but in a warm night not above 3 oz., and nothing in a cold night; and also that such a plant, if the leaves were plucked off, would not perspire oz. above 1 in 12 hours day, which plainly shews that the leaves are the great organs of perspiration, and therefore may be called the lungs of the plant. Thus much for the vegetation of plants, the theory whereof is not yet arrived to its due perfection.

[TO BE CONTINUED.]

WHAT BOOKS YOUNG MEN SHOULD READ.

Young men should read the best of books, commencing with the Bible; they will find it recommends self-culture—bodily and mentally, morally and physically—and that they should study their health, wealth, appearance and language; their habits, their companions, their character, their comforts, &c., in order to rightly qualify them for the business of life and the enjoyment thereof. The greatest study of man is MAN!

Again, young men should read facts and experiments, concerning all things that would instruct them; not romances, dreamish novels, full of wandering imaginations, and superstitious fancies, &c. Man, know thyself! What art thou? Art thou ignorant of thyself—whom thou thinkest so much of? Read and learn.

TO CORRESPONDENTS.

No letters can be answered in the ensuing number which are received later than the third Saturday in the month. Letters to be addressed to V. B. HALL, Post Office, Hamilton.

Advice to evening visitors gratis.

S. H.—Your best plan would be to get the herbs for that purpose in their fresh state in Summer. I can grow them for you.

H. D.—The common wild calamint used in simple decoction will cure you.

A. GREEN, Oakville.—You must totally abstain from strong drink, or your nervousness will increase. Do not forget the watercresses.

J. T., St. Catharines.—Take the opportunity in the Spring to gather those herbs with their roots while they are young.

W. P., Toronto.—It would pay to grow them, for they are scarce.

R.—I may find room in another Magazine for the outlines of Phrenology.

D. W. C., Mount Elgin.—I should like to hear from you again by letter

G. G.—I do firmly believe that herbs only were designed in creation to be used as inward medicine for man.

A SUBSCRIBER.—The index will be included in the December Magazine. Also a nicely arranged title page.

NOTICE.

Advertisements on covers by arrangement with the Editor. Monthly subscribers will have them sent to them, post paid, to any part of Canada.

A MISPRINT.—The word existance on page 10, line the 7th of January number, should read difference.

THE GOOD CANADIAN ;

OR,

HOUSEHOLD PHYSICIAN.

Happy the man who by Nature's laws, through known effects can trace the cause.

TWIN SISTERS.

Disease,	Health,	Wisdom,	Industry,	Honesty,	Piety,
Death.	Life.	Prudence.	Wealth.	Honor.	Peace,

Words spoken are like seeds sown : with care, broadcast, or at random.

A hint advanced to a wise man is like a ferris in pursuit of a rabbit.

COLDS AND COUGHS.

When oppression of the breast, stuffing at the nose, unusual weariness, pain of the head, &c., give ground to believe that the perspiration is obstructed, or, in other words, that the person has caught cold, he ought immediately to lessen his diet, at least the usual quantity of his solid food, and to abstain from all strong liquors. If people would sacrifice a little time to ease and warmth, and practice a moderate degree of abstinence when the first symptoms of a cold appear, most of the bad effects which flow from an obstructed perspiration might be prevented; but, after the disease has gathered strength by delay, all attempts to remove it often prove vain. Total consumption of the lungs is often the effect of common colds, notwithstanding people treat them with indifference and neglect, because they are only mere colds. Hence it is that colds destroy such numbers of mankind. It is certain, however, that colds may be too much indulged. When a person, for

every slight cold, shuts himself up in a warm room, swallows medicine, and drinks great quantities of warm liquor, it may occasion such a generally relaxation of the solids as will not be easily removed. Bathing the feet in warm water, lying in bed and covering up well, and drinking warm thin gruel or other weak liquors, will sooner take off a spasm and restore the perspiration than all the hot and costly medicines in the world.

The above is all that is necessary for removing a common cold, and if this course be taken at the beginning, it will seldom fail, When the symptoms do not yield to abstinence, warmth and diluting drinks, there is reason to fear the approach of some other disease, as an inflammation of the breast, an ardent fever, or the like, and the patient should then be treated accordingly. The chief secret in preventing colds lies in avoiding, as far as possible, all extremes either of cold or heat, and in taking care, when the body is heated, to let it cool gradually.

A COMMON COUGH

is generally the effect of a cold, which has either been improperly treated or entirely neglected. When it appears obstinate there is always reason to fear the consequences, as this shows a weak state of the lungs, and is often the forerunner of a consumption. When a cough is occasioned by acrid humors tickling the throat, a little butter and sugar well mixed, and therewith keep the throat moist, would blunt the acrimony of the humors, and, by taking off their stimulating quality, help to appease the cough.

In obstinate coughs, proceeding from a flux of humors upon the lungs, the following decoction would be a present help :— Take herb hoarhound, one handful; liquorice root, 2 ounces; thyme, a few sprigs; boil them well together in a quart of water, and strain off the liquor, drink a few spoonfuls as often as the cough comes on. In a cough proceeding from a foulness and debility of the stomach, the aforementioned receipt of hoarhound, &c., may be used, adding thereto, before boiling, one handful of hops.

The stomach cough may be known from one that is owing to a fault in the lungs by this : that in the latter the patient coughs

whenever he inspires or draws in his breath fully, but in the former that does not happen. The cure of this stomach cough depends chiefly upon clearing and strengthening the stomach, for which purpose gentle vomits and bitter purgatives are most appropriate; after which the body should be kept gently open. The Peruvian Bark will be found of considerable service; it may be chewed, taken in powder, or made into a tincture along with other stomachic bitters.

A nervous cough can only be removed by change of air and proper exercise. Immersing the feet and hands in warm water will often appease the violence of a nervous cough. A drink for a nervous cough may be made thus:—Peruvian bark, one ounce; gentian root, one-half ounce; orange peel, one-half ounce; and coriander seed, one-half ounce. Bruise them well, and boil them in two quarts of water; stir in when strained, one-quarter lb. of honey. Take one-half a glass one hour before each meal. Persons afflicted with a nervous cough, or any nervous disease, should pay the strictest attention to diet, air, exercise and amusement.

If a cough is caused by obstructed perspiration at the outset, the perspiration should be freed, and so by removing the cause, the effect will cease. Just so, when a cough is the symptom of some other malady, it is in vain to remove it without first curing the disease from which it proceeds. Thus, when a cough is occasioned by teething, keeping the body open, scarifying the gums, or whatever facilitates the cutting of the teeth, likewise appeaseth the cough. In like manner, when worms occasion a cough, such medicines as remove those vermin will generally cure the cough.

THE WHOOPING OR CHIN COUGH.

Seldom affects adults, but often proves fatal to children. Whatever hurts digestion, obstructs the perspiration, or relaxes the solids, disposes to this disease; consequently its cure must depend on cleansing and strengthening the stomach, bracing the solids, and, at the same time, promoting perspiration and the different secretions. In this disease a change of air is necessary, for it removes the patient from where the infection prevails, and tendeth much to cure the malady. The air should be chosen

purer and warmer than the patient's is used to. It is not at all uncommon to find the whooping cough prevailing in one town or village, when another village at a very small distance is entirely free from it; therefore, disinfectants should be freely used about the house, and the phlegm should be destroyed carefully. If, at the first appearance of this disease, care is taken to follow the following directions, a speedy cure may be effected easily: Take notice of the symptoms; if the patient seems inclined to vomit, gentle vomits frequently repeated are beneficial. If the bowels are loosened, gently help to keep them open. The body at the same time should be kept at one moderate warmth and perspiration helped. Many people think that oily balsamic pectoral medicines possess wonderful virtues for the cure of whooping cough, and accordingly exhibit them plentifully to patients of every age and constitution, without considering that everything of this nature must load the stomach, hurt the digestion, and of course aggravate the disorder. At the commencement of the disease, the soles of the feet, and the hands and wrists should be rubbed with the following mixture, at morning, noon and night:—Garlic roots and horse radish, equal quantity, beaten together with vinegar in a mortar, and simmer on the stove, and strain off the liquor for use, keeping warm stockings on the feet; the food of the patient should be easy of digestion. A drink may be made as follows:—Take one ounce of liquorice root, one ounce of comfrey root, and one handful of herb thyme, boil them well in three pints of water until half is wasted; give a half cupful of the liquor or less; as the patient is in general very thirsty, give a little and often, but when not thirsty, give more each time to the half cupfull. This has cured my own son and daughter, and many other children whom I have known. If, through improper treatment or through neglect, it should turn to inflammation of the lungs, a physician should be had; but there is no fear of inflammation if the above regulations are strictly adhered to at the beginning of the malady.

I have known whooping cough as well as other coughs to originate from worms, accompanied with a violent cold; the cure in this case would be to give the patient a good drink of onion water, that is to steep some sliced onions in water all night, and take a good drink thereof every morning fasting;

if the child is restless and the eyes are sunk in, and it is often picking its nose, with a kind of fidgetty disposition, then it is troubled with worms, and the above drink is sure to pass them, when by keeping the body, hands and feet warm, and attending to the other directions above mentioned, the patient will soon recover.

EXPERIMENTAL TRUTHS.

Sweet the word that is sweetly spoken,
 Happy the breast that is full of love ;
 Kind the actions, as a token,
 By which we our friends may prove.

Faint the heart that is always sighing,
 Dull the mind that is always low,
 Weak the eyes that are always crying,
 Bright the soul that is never so.

Sick the head that is always fainting,
 Dumb the tongue that cannot talk,
 Tired the hands that are always painting,
 Feeble the feet that cannot walk.

Deaf the man that cannot listen,
 Blind the man that will not see,
 Fool if he neglect salvation,
 Whilst 'tis present full and free.

It's well to paint and view the picture,
 It's well to go the road that is right,
 It's Faith that makes the heart a fixture,
 It's Faith that makes the picture bright.—V. B. H.

Why is a Quack like a bombardier? Because he uses the mortar to the destruction of mankind.

MEDICAL ROOTS AND THEIR PROPERTIES.

LIQUORICE ROOT.—Description: The root runneth down deep into the ground, they shoot out suckers in every direction, by which means its production is increased. It is of a brownish color outside and yellow within. It is used beneficially by those who are troubled with a dry cough, hoarseness, wheezing or shortness of breath, and for all the complaints of the breast and lungs, phthisic or consumption caused by the distillation of salt humors upon the lungs. It is also good in all pain of the reins, stranguary and heat of urine; the juice of liquorice if

pure, is as effectual for the above complaints as the decoction thereof. The juice dissolved in rose water with some gum tragacanth is an excellent medicine for hoarseness, wheezing, &c.; the decoction tendeth to excite mirth and wit. It is a most healthy root, and cannot easily be used amiss. It may be used with other things for diseases of the throat; imperfections of the tongue and memory, epidemical diseases, and hurts of intellect are helped by it.

SARSAPRILLA ROOT is of a healing quality however used; it is given as an antidote against poison and all venomous things; it in general doth not heat but rather dry the humors; it is easily perceived that it not only drieth the humors but wasteth them away by some secret and hidden property therein, much whereof is performed by perspiration which it performs very effectually. It may be used in all cold fluxes from the head and brain, rheum and catarrhs, also in all cold griefs of the stomach, and expelleth wind very powerfully. It helpeth the French disease (so called), and all manner of aches in the sinews and joints, all running sores in the legs, all phlegmatic swellings, tetters and ringworms, and all kind of spots and foulness of the skin; it is not proper to be given to those whose livers are over hot, or to such as have agues. A strongly concentrated decoction by itself or with other appropriate herbs, is the most efficient method of using it.

GENTIAN ROOT, CALLED ALSO FELWORT AND BALDMONY.—There is not a more excellent root for strengthening the stomach and helping digestion; it preserves the heart and prevents fainting and swooning; resisteth putrefaction and pestilence; helps the biting of venomous things; opens the obstructions of the liver, and restores loss of appetite. It provoketh urine, and may be found profitable in cramps and convulsions, also breaks the stone, is and is a great help for ruptures. It is good for cold diseases, and to expel tough phlegm, and to cure all sbabs, itch, fretting sores and ulcers; it destroyeth worms in the body, it helpeth agues of all sorts, the yellow jaundice, (and bots in cattle). When kine are bitten on the udder by any venomous beast, or wounded in any way, if the afflicted parts are washed and dressed with a decoction of this root it will prove a certain

cure. This root should not be used by females, unless by the skillful advice of a physician.

MANDRAKE ROOT is profitable in erysipelas (called St. Anthony's fire) and all such inflammations that are attended with great pain and swelling. It heals vehement pains of the head and toothache, when applied to the cheek and jaws; and it causes sleep. If the powder of the root be used as snuff it will be found profitable in frenzy; in such cases the temples and nose of the patient may be bathed with a decoction of the same; if the patient should seem to sleep too long after this process, dip a sponge in vinegar and hold it to the nose. It is helpful in all phlegmatic humors, and small-pox and measles, if properly used.

COMFREY ROOT being boiled and the decoction drank, helpeth all inward hurts, bruises or wounds, and the ulcers of the lungs, causing the phlegm that oppresses them to be easily spit forth; it stayeth the defluxions of rheum from the head upon the lungs, the fluxes of blood or humors by the belly, and all immoderate fluxes or runnings of the reins from whatever cause it may originate. The root bruised and outwardly applied immediately helpeth and soon healeth fresh wounds and cuts. It is especially good for ruptures and broken bones; it is good to be applied to women's breasts that grow sore by the abundance of milk flowing into them. The roots procured fresh and beaten small, if spread upon leather, and laid upon any place troubled with the gout, doth soon ease the pain, and applied in the same manner, give ease to pained joints; and profit very much for running and moist ulcers, gangrenes, mortifications and the like, for which it hath by often experience been found useful. The distilled water of Comfrey will have the like effect.

Burdock root, also called personata, bardona, lappa-major, great burdock and clotbur—the root beaten with a little salt and laid on the place easeth the pain when bitten by a mad dog. If bruised, when fresh, with the white of an egg, and applied to any place burnt with fire, will take out the fire, give sudden ease and heal it up afterwards. The three roots preserved with sugar and taken fasting are good for fretting sores, for consump-

tions, the stone, and the lask. A decoction of the roots drank in small quantity helpeth to spit up foul, mattery phlegm; &c.; the juice of the pressed root taken with honey, provoketh urine and remedieth pain in the bladder.

BOTANY OR PHYTOLOGY (Continued).

The second great province of botany is to make a just and natural distribution and arrangement of vegetables into their various genera or kinds and classes, and to enumerate the species and individuals contained in each; to effect this, botanists [have pursued different methods. For since the kinds of plants follow some general differences or characteristics, and these are also found in almost all parts of plants; therefore, some have begun to define the various kinds of plants from their roots, others from their flowers, and others from their fruit, &c. The common and general distinction of plants and vegetables are, (1) Indigenous, or such as are natives of our own soil or country; (2) Exotics, such as are brought from foreign countries. With regard to sex, they are divided into male, female, and hermaphrodite plants, as before observed on page 28. With regard to their period of continuance, they are distinguished as annual or yearly, biennial for two years, and perennial or such whose roots abideth many years. Again, those plants which retain their leaves in winter are called ever-greens, and such as do not are called deciduous or perdifols. Also vegetables are divided into herbs, shrubs and trees, but this is rather popular and common than just and philosophical. Lastly, with respect to the elements they grow in, they are aquatic or such as grow in water, terrestrial or such as grow on land, and amphibious or such as grow in either land or water. There has been adopted various methods of enumerating the species of plants. The method of Mr. Ray, in my judgment, is the best I know of; it is as follows, having twenty-five classes.

I. Submarine, or that which grows in the sea, and on rocks, &c., seem to want both flower and seed, as corals, sponges, &c.

II. The Fungi or mushrooms, puff balls, and those excrescences of trees called jews ear, agaric, &c., all which appear to want

both flower and seed, and leaves, and have a vegetation peculiar to themselves.

III. Mosses of all kinds, most of which appear to want flower and seed, for which reason these three classes are called imperfect plants.

IV. Capillary plants, which are all such as want a stalk or consist of leaves only, and whose seed grows like small dust on the back part of the leaves; as maiden hair, spleenwort, polypody, fern, &c.

N. Apetalous plants, which bear apetalous or staminate flowers, namely: such as consist only of stamina and the perianthum, without any leaves, as hops, hemp, nettles, docks, sorrel, arsesmart, lady's mantle, &c.

VI. Lactiferous plants, which have a compound flower, and which emit a sort of white juice or milk when their stalks or branches are cut or broken off,—as lettuce, sowthistle, dandelion, succory, goatsbeard, nipplewort, &c.

VII. Discoide plants, which have a compound flower of a discoide figure, and the seed pappose or winged with down, but emit no milk, as coltsfoot, fleabane, golden-rod, ragwort, groundsel, cudweed, &c.

VIII. Corymbiferous plants, which have a compound discous flower, but their seeds have no down, as corn marigold, common ox-eye, yarrow, camomile, mugwort, scabious, teasel, &c.

IX. Capitated plants, whose compound flower is composed of many small, long, fistulous flowers, the callices of which crowd together within a scaly coat, and emulate a head or turgid knop on the top of the stalk; as the thistle, burdock, blue bottle, knapweed, saw worth, &c.; these also have a down attached to their seeds.

X. Monospermous plants, which have a perfect flower, and have only one single seed belonging to each single flower; as valerian, corn sallet, agrimony, burnet, meadow-rue, fumitery, &c.

XI. Umbeliferous plants, which produce their flowers in an umbel, on the top of the stalk or branch, resembling in some degree an umbrella; they have a pentapetalous flower, that is to

say, composed of fine leaves, and are gymnodispermous, that is having two naked seeds after each flower ; to this kind belong parsnip, cow-weed, angelica, dropwort, hemlock, saxifrage, smallage, a kind of burnet, thorowax, sanicle, &c.

XII. Stellate plants, so called because their leaves grow on the stalks at certain intervals in form of a star. The flowers are monopetalous but divided into four segments like little leaves each flower is succeeded by two small seeds at the bottom of it ; to this kind belong mugwort, madder, Ladies' bedstraw, woodruff, clivers, &c.

XIII. Asperifoliate or rough leaved plants, have their leaves growing alternately or irregularly on the stalks ; their flowers are monopetalous, the edges of which, as well as of the calices, are divided into five parts, and after each flower usually succeed four seeds ; as the hounds-tongue, wild bugloss, comfrey, mouse-ear, &c.

XIV. Verticillate plants, whose leaves grow by pairs on the stalks ; their flowers are monopetalous, labiated and in many galeated ; to each flower succeeds four seeds within the perianthum. The common characteristic of this kind is, that the flowers grow in whirls around the stalk, though some of the plants of this kind are not so ; to this kind belong dead-nettle, hoarhound, mint, pennyroyal, vervain, motherwort, alehoof, bugle, betony, seltheal, &c.

XV. Polyspermous plants, or such as have many naked seeds succeeding the flower ; as marsh-mallow, pilewort, crowfoot, avens, strawberries, cinquefoil, tormentil, meadow-sweet, &c.

XVI. Pomiferous plants, which bear large fruit covered with a thick rind, whose flowers are monopetalous, and quinque-partite on the margin, growing on the top of the fruits ; to this kind belong pumpkins, gourds, citrons, melons, cucumbers, &c.

XVII. Bacciferous plants, or such as bear berries ; as briony honeysuckle, butchers-broom, solomons-seal, lily of the valley, night shade, asparagus, &c.

XVIII. Multifliquous plants, which give after each flower many distinct, long, slender and sometimes curved cases (or siliquæ), in which the seed is contained, and which open and let it drop

out when ripe; as houseleek, orpine, navelwort, bears-foot, marsh marigold, columbines, &c.

XIX. Vasculiferous plants, with monopetalous flowers, either uniform or difform; and after the flower a peculiar case or seed-vessels (besides the calix), and this often divided into many lesser cells or locules containing the seed; to this kind belong henbane, gentian, binweed, throatwort, toad-flax, fox-glove, yellow and red rattle, eyebright, &c.

XX. Siliquous plants, which have an uniform tetrapetalous flower, but bear their seed in oblong, siliquous cases or cods; as stock-gulliflower, wall flower, jack by the edge, mustard, charlock, radish, wild rocket, lady's smock, scurvey grass, woad, &c.

XXI. Leguminous plants, or such as bear pulse, its flower papilionaceous (in the shape of a butterfly with wings expanded), consisting of four parts set together at the edges; to this kind belong vetches, lentils, peas, beans, liquorice, birdsfoot, trefoil, rest-harrow, &c.

(TO BE CONTINUED.)

SOUND

travelleth at the rate of 1142 feet in a second of time, and may be heard at the distance of 180 or 200 miles.

LIGHT

travelleth at the rate of 200,000 miles in a second of time, and arrives to us from the sun in about seven minutes and a half, which is 81,000,000 miles.

THE AURORA BOREALIS OR NORTHERN LIGHTS

are produce from nitro-sulphurous vapors which are thinly spread through the atmosphere higher than the clouds, and by fermentation take fire, and the explosion of one portion kindling the rest, the flashes succeed one another till all the vapor within their reach is set on fire the streams whereof appear to converge towards the zenith of the spectator, or the point over our heads.

RHEUMATISM.

The cause of rheumatism are an obstructed perspiration, the immoderate use of strong liquors and the like, also sudden changes of the weather, and all quick transitions from heat to cold. The acute rheumatism commonly begins with weariness, shivering, a quick pulse, restlessness, thirst, and other symptoms of fever; afterwards the patient complains of flying pains, which are increased by the least motion. These at length get fixed in the joints, which are often affected with swelling and inflammation. In this kind of rheumatism the body ought to be kept open. Warm bathing after proper evacuations has an exceeding good effect—great care must be taken not to catch cold after bathing. The chronic rheumatism is seldom attended with any considerable degree of fever, and is generally confined to some particular part of the body, as the shoulders, the back, or the loins; there is seldom any inflammation in this case, or swelling either. Persons in the decline of life are most subject to chronic rheumatism. The chronic rheumatism is similar to gout in this respect, that the most proper time for using medicine to extirpate it, is when the patient is most free from the disorder. A table spoonful of white mustard seed may be taken two or three times a day in some water. Several bitter herbs and roots are beneficial, which I shall notice as I continue the herbs and their properties monthly. Want of perseverance in the use of medicines is one reason why chronic diseases are so seldom cured. Cold bathing sometimes cures it; horse riding may be recommended, and wearing flannel next the skin; issues are sometimes proper in chronic cases. In all cases of rheumatism, the patient should encourage perspiration, and his bowels should be kept open; hops and herb marjoram, in equal quantities boiled together in water, and drank freely, also the joints bathed and well rubbed with the decoction will be found of wonderful effect.

MISCELLANEOUS RECEIPTS.

A CATAPLASM FOR THE FEET with intent to stimulate strongly, excite pain therein and relieve the head, may be made thus :—

equal parts of scraped horse radish and mustard moistened with old yeast will answer the design expeditiously, strongly and effectually.

STOMACH PLASTER.—Take of yellow wax 8 ounces, tacamahaca in powder, and palm oil each 4 ounces, melt them together, and add cloves in powder two ounces, expressed oil of mace one ounce and a half. Mix and make them into a plaster, which is to be moistened when fresh spread, with a few drops of distilled oil of mint.

This is intended as a warm, carminative and cordial application to the stomach, and exerts very comfortable effects when such things are wanted, therefore it is useful in flatulences, gripes, and all complaints arising from indigestions; a cold, weak stomach cannot well fail finding relief from its use.

TO REMOVE TETTERS AND SORES OF ALL KINDS IN THE FACE OR TOP OF THE HEAD.—Cut a beet root into slices and an onion into slices, press the juice from both and mix together with one half teaspoonful of vinegar, anoint the affected parts therewith.

TO KILL LICE IN THE HEAD OR BODY.

Get the common broom tops, such as our brooms here are made of, boil them in olive oil for an hour or two, rub well twice a day. It will kill them the first or second time of dressing.

A decoction or poultice may be used externally for all kinds of pains and swellings, made of herb groundsel.

The distilled water of knot grass is of admirable efficacy in cooling all manner of inflammations, breakings out, and for all kinds of sores or ulcers—if taken inwardly, and if washed therewith quickly healeth them.

The decoction of the leaves, bark, or root, of elm tree, healeth broken bones, by bathing the part affected therewith.

For the dropsy, a large spoonful of mustard seed, taken whole night and morning, after which a small glass of elder leaf tea may be drank. During the day one half pint of the decoction of Broom tops may be drank. The above receipt will be found of wonderful curing effect.

For scurf, dandruff, or breakings out in the head, take two beet roots, cut in slices and boil them in some vinegar, and wash the head therewith.

Watercresses may be grown in a garden by making a clay bed about 14 inches deep; sprinkle therein some light mould, then get some watercress with thready roots, lay them on the bottom about 6 inches apart each way, cover them lightly with mould, get a cask and fill it with water, fix it above the bed. It should have a tap or a small peg in the bottom, so that in dry weather it could be kept running or dripping, and in wet weather it would not be required. I have grown them very fast this way myself.

A FAMILY MEDICINE CHEST.

Many families have had a medicine chest in their houses for fifty years, and not known it, in the shape of a well stocked cruet-stand, for example—

SALT is a decided cathartic, in doses of from half an ounce to one ounce or more, it is also a vermifuge in large doses; it both preventeth and killeth worms.

VINEGAR is a refrigerator, and it is diaphoretic; also it is moderately stimulant, and astringent if externally applied; it is serviceable mixed with other things for head wash, &c.

MUSTARD is a powerful and a very safe emetic; by taking a teaspoonful in a tumbler of water, being an instant relief to the stomach, and may be recommended in some cases of cholera. Mustard tendeth to strengthen the back, also the voice. A mustard poultice acts sometimes as a blister, and very often better.

OLIVE OIL is demulcent, relaxant, and laxative; it appears to be an enemy to worms, and if used for relaxation, instead of castor oil, in some cases it would be of better effect; its healing virtues may be proved by making salves thereof; and to rub the skin therewith is conductive to health and longevity.

PEPPER is a stimulant—the white is the strongest. Infused in water it is good for a relaxed sore throat; it may be used

in some cases against ague. An ointment may be made of black pepper for ringworm, thus :—Take grated horseradish root and black pepper, same quantity of each, say one large spoonful, and one spoonful of fresh butter, a small piece of wax, and a small piece of rosin ; melt the butter, wax and rosin together, then stir in the pepper and scraped horseradish ; let it cool.

CAYENNE possesses similar virtues, but stronger ; it has been found of beneficial effect in many instances where stimulated heat is required.

HONEY is less in use than it ought to be ; it has a healing effect on the lungs and inward parts in general ; in some people the piles may be cured by eating honey with their bread for a few days.

To this family medicine chest might be added several things, but the contents being only four or six of them, it sufficeth to say that such a valuable supply of remedies always at hand should not be entirely forgotten. I intend describing a simple mode of forming a small but complete medicine chest, of simples especially, in another magazine.

Food well cooked,
Salted to taste,
Occasionally peppered,
Not too much haste.

Cook must not flurry,
Or she might forget,
And in her great hurry,
The pepper upset.

Mustard when wanted,
Vinegar too,
Should always be granted,
Its duty to do.—V. B. H.

The many diseases that pester mankind might be obviated very often, if more attention was given to cooking food sufficiently. A change of diet also well attended to, would be a great preventative. Prevention is better than cure ; good food is better than good medicine.

CORRESPONDENCE.

No letters can be answered in the ensuing number which are received later than the third Saturday in the Month. Letters to be addressed to V. B. HALL, Post Office, Hamilton. Private residence Mountain View Cottage, Township of Barton, Hamilton.

W. M.—It would do well for the paper you were speaking of, I think, so you shall have it as soon as I get it returned.

W. P., Toronto.—They are circulating now in Ancaster and Ingersoll. That would not suit your complaint, so you should not eat of it.

R. WATFORD, Toronto.—I shall send you one, and if you want any more let me know by letter.

R.—A fawner, cringer, the dose recommended must be mixed each time of taking, or it would get stale, and of less virtue.

A SUBSCRIBER.—In answer to your letter, I am surprised to find you asking such a question. Zoophytes are a class between the vegetable and animal kingdoms. Ytterby is a fossil discovered by Ytterby in 1786.

JOHN S.—To avoid its return you must carefully attend to the advice given in the other letter concerning regimen and exercise; avoid the remote causes which I mentioned to you.

A. GREEN, Oakville.—If you come this way call on me.

A MISSPRINT.—Line 10th, page 31 of last number should read, *not per-spire above one oz.*

NOTICE.

Advertisements by arrangement with the Editor.

A wood engraving of the human eye will appear in April Magazine.

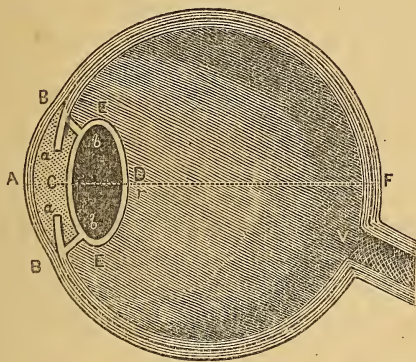
FOR THE INFORMATION OF SUBSCRIBERS.—The Magazine is circulated for sale and is selling in upwards of thirty towns and villages. Subscribers at a distance may have them sent by mail free, upon receipt of ten cents, direct from the Editor.

THE GOOD CANADIAN :

OR,

HOUSEHOLD PHYSICIAN.

Happy the man who by Nature's laws, through known effects can trace the cause.



ANATOMY OF THE EYE.

The outermost coat, which is called the sclerotica, is represented by the space between the two exterior circles, B F B ; the more globular part adjoining to the sclerotica at the points B B, represented by the space between the two circles at B A B, is the cornea. The next coat under the sclerotica is a membrane of less firmness, represented by the two innermost circles of B F B, and called the choroides. Adjoining the choroides, at B B, is a flat membrane called the iris ; $\alpha \alpha$ is the pupil, being a small hole in the iris, a little obliquely inclined to the nose ; V, the optic nerve ; the fibres of this nerve, after their entrance into the eye, spread themselves over the choroides

forming a thin membrane called the retina, and is represented by the thick shade close to the circle B F B. E E is the crystalline humour or lens ; it is suspended by a muscle, B b b B, called the ligamentum ciliare. The aqueous humour occupies the space B A B b C b. The largest space, B b D, B F, contains the vitreous or glassy humour.

The eye is a most beautiful construction of art, and in adaptation to its purposes the wisdom and perfect skill of a Divine Being are set forth. The sense of sight, so necessary to the business of life, affords us much pleasure while engaged therein. Whereas, if we had not in our possession this precious sense, the business of life would be of such a prolonged and tedious continuance, that to all appearance we should not be able to follow it, and should be extremely miserable. By this small ball and socket of about one inch in diameter, we can get an idea of the shape and size of a large building, or the contents of an extensive landscape, and the movements of a multitude, the coming of a storm, &c., &c. Without which, to get an idea by feeling, of these things, what time and trouble we should be obliged to experience to attain half the amount of knowledge. In the eye of a person we can discern grief or joy, gladness or wrath, and thereby know when the mind of another person is disturbed. The eyes are the most noble outward parts of the body, in beauty, utility, nobility and activity ; they are the face of the face, and because they are tender, delicate, and precious, they are fenced on all sides with skins, lids, brows and hair. The true object of the eye is light. The sense of seeing is prompt and sudden, for it apprehendeth in a moment and without motion, when the other senses require motion and time. The eye sees or sees not, and therefore has lids to open and shut ; it is active—the other senses are purely passive. Inflammation of the eyes is attended with acute pain, heat, redness and swelling. The patient is not able to bear the light, and sometimes feels a pricking pain, as if his eyes were pierced with a thorn. The pulse is generally quick and hard, with some degree of fever. When the disease is violent, the neighboring parts swell, and there is a throbbing or pulsation in the temporal arteries, &c. A slight inflammation of the eyes, especially from an external cause, is easily cured ; but when the disease is violent, and con-

tinues long, through neglect or delay, it often leaves specks on the eyes, or dimness of sight, and in some total blindness. In this disease, everything of a heating nature should be abstained from. The food should consist chiefly of mild vegetables, weak broths and gruels; the drink may be barley water, toast water, balm tea, common whey, and such like; opening and diluting medicines are necessary; blisters applied behind the ears or to the temples, or upon the neck, and continue the discharge therefrom for some time, will remove the most obstinate inflammations of the eyes. Persons who are liable to returns of this disease should not neglect purging medicines in the spring and autumn. The herb anemone, made into an ointment to anoint the eyelids with in time of inflammation, is good. The distilled waters of black berry flowers or fruit, are effectual in hot distempers of the eyes. Endive also outwardly applied for inflammation of the eyes, is profitable; also flax weed, fumitory, the juice of celandine, or a piece of bread soaked in rose water and applied. For weakness of the eyes, see page 14.

Mark thou the man whose eyes set forth
 A disposition firm but kind and gentle,
 Contrast the eyes of vengefulness and wrath
 And tell me which is the most complimentary.

The brightness of the eye portrays
 A comfortable mind, contented, cheerful;
 By this we judge of our companion's ways,
 And oft can tell to what they are agreeable.—V. B. H.

MEDICINAL ROOTS AND THEIR PROPERTIES.

(Continued.)

ANGELICA ROOT or angel-like herb, a name given to it on account of its wonderful good qualities. It is good against poison, pestilent airs and the pestilence itself; the water distilled from the roots of Angelica is good against gnawing pains of the belly occasioned by cold, if the body be not bound. It is good against all inward diseases, when there is no inflammation, for it dissolveth and scattereth such humors as causeth them. Also for diseases of the Lungs that proceedeth from a cold cause, it expelleth wind from the body and easeth pains pro-

duced thereby. The root or juice thereof will sometimes remove toothache ; being dropped in the ear easeth the aching thereof. The juice or distilled water quickens the eye-sigh and breaks the films that cover the eyes. Of the roots and pitch may be made a good plaster for the bitings of dogs, &c. The distilled water, juice or powder thereof, sprinkled upon old and deep sores, will scour and cleanse them, and cover the bones with flesh ; and outwardly applied it helpeth the Gout and Sciatica. This root taken inwardly defendeth and comforteth the heart blood and spirits ; the powder of the root may be taken to the weight of half a drachm at a time, in any convenient liquor ; it helpeth perspiration. A syrup made therefrom helpeth coughs, shortness of breath, &c. ; it openeth obstructions of the liver and spleen, and helpeth digestion. It is a very safe root in all diseases proceeding from a cold cause, and it is very healing outwardly applied.

ELECAMPANE ROOT.—The fresh roots preserved with sugar, or made into a syrup or conserve, is very good to warm a cold and windy stomach, or stitches in the side, also helpeth a cough, shortness of breath and wheezing in the lungs. The dry root, made into powder and taken with sugar, hath the same effect. A small portion of the decoction of the root being drank daily, strengtheneth the eyes exceedingly, also driveth forth all manner of worms from the belly. The root chewed fasteneth loose teeth, it is good for those who spit blood, it helpeth looseness and pains in the joints, cramps or convulsions proceeding from colds, also for inward bruises, applied either internally or externally. It is also profitable for those who have their urine stopped.

SWEET FENNEL ROOT is good to be put into diet drinks and broths that are taken to cleanse the blood, to open the obstructions of the liver, to provoke the urine, to amend the ill color of the face after sickness, and cause a good habit of the body. The common wild fennel is the strongest and answereth the effect better than sweet fennel, and is effectual against the stone.

SORREL ROOTS, called also sorrel grass and salt grass. The decoction of the boiled roots, or the powder of the dried roots, hindereth the putrefaction of blood, and ulcers in the mouth and body, cooleth and tempereth heats and inflammations,

quencheth thirst, strengtheneth a weak stomach, procureth appetite, stayeth vomitting, and is very excellent in any contagious sickness or pestilential fever; it killeth worms, and is a cordial to the heart, stayeth fluxes, helpeth those who have the yellow or black jaundice, helpeth to expel the gravel and stone. It is an excellent root for the blood.

PLANTAIN ROOTS.—The common plantain roots are binding; the decoction of the boiled roots, or powder of the dried roots, stayeth all manner of fluxes; it is good for consumption of the lungs, or ulcers in the lungs, or coughs that come of heat; it prevaieth wonderfully against all torments and excoriations of the bowels, for cancers, sores or ulcers, and for wounds. Also, it is very healing, both inwardly and outwardly applied.

BORAGE ROOTS are useful in pestilential fevers to defend the heart, helpeth the yellow jaundice, openeth obstructions, and the distilled water helpeth redness and inflammation of the eyes

DANDELION.—The common wild dandelion root is of an opening and cleansing quality, and therefore very effectual in obstructions of the liver, gall and spleen, and the diseases that rise therefrom; it wonderfully openeth the passage of urine, and cleanses inward tumors in the urinary passages, and by its drying and temperate quality doth afterwards heal them. In consumption and falling sickness it is profitable. A drink made therefrom is very serviceable for cleansing the blood in the Spring.

DOCK ROOTS, the many kinds thereof are all wholesome pot herbs or roots, being cleansing and strengthening to the inside, and procures good blood, yet they are of a cooling and drying nature, and tendeth to stay fluxes of all kinds.

MULLEIN ROOT, given in a small quantity, in any convenient liquor, is good against lasks and fluxes, cramps, convulsions and ruptures, and is good for stoppage of urine. The decoction of the boiled root dissolveth tumors, swellings or inflammations of the throat.

MARSH MALLOW ROOTS are good inwardly, taken as decoction or in powder, for those who have excoriations in the guts, or the bloody flux, by moderating the violence of sharp humors, easing the pains, and healing the soreness, it is good for inflammations or swellings in women's breasts. The dried root

boiled in milk is good for the whooping cough ; also, for those who are hurt by bruises, falls or blows, or any bone or member out of joint, or any swelling pain or ache in the muscles, sinews or arteries. The decoction or juice of the root mixed with honey and rosin maketh a good ointment for wounds.

ANEMONE ROOTS, chewed in the mouth, purgeth the head greatly, and being made into an ointment, and the eyelids anointed therewith, helps inflammation of the eyes. The same ointment is good to cleanse ulcers that are malignant and corroding.

VALERAIN ROOTS are of a healing property to inward or outward sores or wounds. If it be boiled with raisins and seed of annise it is good for short wind, and for coughs ; it helpeth to open the passages and to expectorate phlegm easily. The head bathed with the decoction thereof easeth pains, and stayeth defluxions of rheum therein. It is of a warming quality inwardly. It has been used as a counter-poison. It openeth all obstructions and taketh away pains in the chest or sides.

SWEET SCABIOUS ROOT.—A drachm of the powder of them taken at a time, in any convenient liquor, wonderfully helpeth those that are troubled with running or spreading scabs, tetter, or ringworms. Also, for such that are caused by the venereal diseases. If made into an ointment it is good for all kinds of breakings out, and for the itch, the decoction of the boiled root should be drank also, having the same effect. It hath a drying, cleansing, healing quality. The root bruised and applied quickly looseneth and draweth forth any splinter, broken bone, arrow head, or any other thing lying in the flesh.

April hath come, the buds shoot out,
 The leaves come forth,
 Many hath used them for complaints ;
 Boil'd in their broth.
 No fools are they, if they but know,
 The use of them.
 So easy got, so virtuous too ;
 None can condemn.

* The Maple buds for liver complaints
 Are very good.
 For pain of side, obstructed spleen,
 And loath of food.

* The buds of Oak, all fluxes stop,
 And cooleth heat.
 Inflammation, inward and out,
 Are cured by it.
 The buds of elm, of good effect
 For fresh wounds are.
 An ointment made of it is good
 For burns by fire.
 The buds of Beech do bind and cool,
 Outward applied.
 Tetters and scabs, hot swellings too
 They do subside.
 The buds of Ash, drank and applied,
 Mad bitings cure.
 For dropsy good, and if too fat,
 Leanness procure.
 The Walnut buds for running sores,
 And ulcers too,
 Boil well the buds, the places bathe,
 And that will do.
 The Chestnut buds nourishment yield,
 And breed good blood,
 Boil well, and then the liquor drink
 To do you good.
 The Cedar buds head lice doth kill,
 And worms and moths;
 'Tis good as wash for outward use,
 But not in broths.
 The Elder buds expel tough phlegm
 And dropsies aid.
 For ulcered legs and head-ache too
 A lotion's made.
 The buds of Peach do choler purge
 And jaundice too,
 The leaves well boiled and often drank
 Will take worms through.
 The Cherry buds will open you,
 Give appetite,
 Provoke urine, and, dropped in eyes,
 Will mend their sight.
 The buds of Pear, bound on fresh wounds
 Will heal them quick,
 The sweetest buds will loosen you,
 But boil them thick.
 The Willow buds will stay vomit,
 Spitting of blood.

For flux of blood, or wind cholic,
'Tis very good.

V. B. H. (RIGHT RESERVED.)

* By buds is meant the buds of the trees before the leaves come; the young leaves, also in most cases, have the same effect.

BOTANY OR PHYTOLOGY (Continued).

XXII. Enangiospermous or Vascuiferous plants, with a pentepetalous flower, *i. e.*, one of five leaves, and a capsule or case containing the seed; as maiden pinks, champions, St. John's wort, male pimpernel, chickweed, crane-bill, primrose, flax, periwinkle, century, &c.

XXIII. Graminifoliate Floriferous plants, with a tricapsular seed-case, and a bulbous or a tuberosc root, from the basis whereof shoot many fibres or strings to keep it firm in the earth; as garlic, onions, daffodil, hyacinth, saffron, &c. To these are added also those plants whose roots approach a bulbous form; as flower-de-lis, cockow-point, orchis, broom-rape, tway-blade, winter-green, &c.

XXIV. Culmiferous, plants, which are such as have a smooth, slender, long, hollow, jointed stalk, with one grassy sharp-pointed leaf immediately encompassing the stalk at each joint. These bear an imperfect flower, and their seed is contained in a chaffy husk; as wheat, rye, oats, barley, and most kinds of grasses. Under this head Mr. RAY also places those with a grassy leaf, but not culmiferous; as cypress-grasses, rushes, cat's-tail, burr-reed, &c.

XXV. Anomalous plants, or such as have no distinguishing generical character, or no certain place of growth, but chiefly in water; as water-lily, water-millfoil, pepper-grass, mouse-tail, milkwort, dodder, &c.

Each of these kinds Mr. Ray divides into various species more or less, and then enumerates the several Plants of each species, with their proper Notes and Characters whereby they are to be known. See his Method of Plants. This gentleman has also made a Distribution of Trees and Shrubs into several kinds: As (1.) Coniferous, which bear Fruit of a

Conical Form ; as Fir, the Pine, Cedar, Cypress, Tree of Life, &c. (2.) Juliferous, or such as bear the long pendant Tufts called Catkins, or Catalins ; as Willows, Hazels, Walnut-trees, Poplar, Mulberry-trees, &c. (3.) Pomiferous, with umbilicated Fruit, *i. e.* such as bear pretty large, round, juicy Fruit, with an Eye (as it is called) on the top ; as Apple-trees, Pear-trees, Quince-trees, Medlars, &c. (4.) Bacciferous, with umbilicated juicy Fruit like Berries ; as the Goosberry-trees, Currant-trees, Myrtles, Elder, Ivy, Laurus-Tinus, &c. (5.) Pruniferous, or which bear Flowers adhering to the Bottom of the Fruit ; the Fruit itself of the Plum Kind, or with a Stone in the Middle, containing the Seed or Kernel : As the Plum-tree, Cherry-tree, Sloe-tree, Peach, Apricot, Nectarine Trees, with all others of like fort. To these he adds several other anomalous Genders, and such as are in part reverse to the foregoing ; but it is not worth while to mention them here ; nor yet his minute Distribution of Grasses, Reeds, and Rushes into their proper Classes and Genders.

The third great Part of Botany makes a just and natural Division of a Plant into its component parts, with a Description of the several Affections, Differences, and natural Uses of each Part with regard to the Vegetable economy. Now the Parts of which a perfect Plant doth consist, are the Root, Stalk or Stem, Leaves, Flower, Fruit, and Seed. Of these in their order.

The Root of a Plant is that Body by which it adheres to the Earth or other Body, and by which it naturally draws in the nutritious Moisture which nourishes it. Roots differ very much both in their Form and Make : The most noted Differences of Roots are the following. (1.) A Fibrous Root, or that which consists wholly of small Threads or Fibres, as most sorts of Grass, Pinks, &c. (2.) A Tuberous Root or that which consists of an uniform fleshy Substance and is of a Roundish Figure ; as Turnips, Potatoes, &c. (3.) A Bulbous Root ; which is either tunicated, or covered with several Coats involving one another, as Onions, Tulips, &c., or squamose, having several Scales lying over one another ; as Lilies, Crown-Imperial, &c. (4.) A Testiculated Root, such as consists of two Knobs, resembling a Pair of Testicles ; as in the Orchis. (5.) An Handed Root,

being a tubeorse one, divided as it were into several Fingers ; as in the handed Satyrions. (6.) A Grumous Root, or that which is composed of several Knobs ; as the Anemone, &c. (7.) A Granulous Root, or kind of grumous one with several small Knobs resembling Grains of Corn ; as in white Saxifrage, &c. (8.) A Tap-Root, or a tuberosc one extended in length in form of a Tap or Faucet ; as those of Carrots, Parsnips, &c.

The Stalk or Stem of Plants and Vegetables is the most principal or substantial part, which ariseth out of the Root, and sustains the Leaves, &c., and is towards the upper part generally divided into various Limbs or Branches. Scarce any thing admits more variety than the Size, Figure, Colour, and Texture of this part. I shall observe only the following particulars. (1.) That several Stalks or Plants have Joints or Knots, the uses of which are said to be the strengthening the stem, and finer growth ; for the Juices, being filtrated through these Knots, are transmitted more fine and good to the upper parts, and to the Fruit. (2.) The Stalks of many plants are tubulous or hollow ; hence a great quantify of Air filling this hollow, conduces to the more expeditious ripening the Fruit or Seed ; and also by drying up the sap and shrinking the vessels, determines the life of the plant to a short period : hence most annual Trunks are observed to be hollow. (3.) The Pith is the middle part of the Stalk, consisting of an immense number of little Vesicles, which seem destined to filtrate and elaborate the finer Juices necessary for the Leaves, Flowers, and Fruit ; according as the Medullary substance of the Brain secretes the fine fluid called the Animal Spirits. (4.) The Wood or lignous part of the Stalk and Trunks of Trees ; this consists of slender capillary tubes, running parallel to each other from the Root up to the Trunk ; these receive a fine Juice, which distending their cellular texture causes the Trunk to grow and increase yearly in circumference ; and those annular Increments are visible on a transverse section of the Trunk, and shew its age. (5.) Through all the woody or lignous part appears the system of Air-Vessels or Tracheæ, easily discernable by the Microscope ; but of these already enough. (6.) The Bark or Rind, which makes the common integument of the Trunk or Stem of Vegetables. This part consists of a fine Skin or

Cuticle under which lies the Cortex or true Skin, which we call the Bark, the substance whereof is made up of small Bladders, interwoven with fine soft and flexible Fibres, which makes a kind of reticular texture, the longitudinal fibres of which grow hard by degrees, become woody, and leaving the nature of bark, join the lignous substance in form of ringlets, making the sappy part thereof. But others are of a different mind concerning the nature and use of the bark, the theory of which is not yet settled.

The leaves of a plant are the next part to be considered. They are properly the most extreme part of a branch, and the ornament of the twigs; they consist of various fibres minutely ramified, the interstices whereof are filled with a parenchymous substance. The fibres are analogous to arteries and veins, which bring and return the sap after it is subtilized and refined in passing the vesicular texture of the parenchyma; besides this, the business of transpiration is carried on in the leaves; for by their excretory vessels they exude or sweat forth what is superfluous in the circulation of the nutritious moisture. That leaves are the organ of vegetable respiration has been already observed; and that they not only expire, but also inspire or draw in the air through their numerous pores, is pretty reasonable to suppose; and that with the air, they imbibe a part of their nourishment likewise. Lastly, the leaves of trees serve for protection to the gems or buds, and the flowers and fruits, which are hereby screened in a good measure from the injuries of wind and weather. These are the principal of the many uses assigned to the leaves of plants. The size, form, color, and superficies of leaves are so various, that it were endless to recount them all. I shall only observe, that a leaf is said to be simple which is not divided to the middle, and compound when it is divided into several parts, each resembling a simple leaf. Thus when a leaf is divided into three simple ones, it is called trefoil; if into five, cinquefoil. &c., or they are said to be trifoliated, quinquefoliated, &c. Pennated leaves are such as are divided into several parts, like lobes, placed along the middle rib, either alternately or by pairs, as in Goat's Rue, Agrimony, &c. A ramose leaf is that which is divided into several minute branches, as in osmund royal, female fern, &c. An entire leaf is that which has no division on its edges, as in the apple tree, &c. A sinuated leaf is that which

is cut about the edges into several large segments, as in the common mallow. A serrated leaf hath edges divided like the teeth of a saw, as in the nettle, &c. A crenated leaf is that which is cut about the edges into several obtuse segments, as in betony, &c. A lacinated leaf is that which is cut about the edges into jags or deep portions, in an irregular manner, as in the horned poppy, &c.

The leaves are protruded from the stalk or stem by the great quantities of vernal sap, in the form of a gem or bud, wherein they lie curiously folded in plaits, and separated from each other by a fine pellicle or membrane. The sap arising now in great abundance, enters and fills the vessels of the tender leaf; this causes it to expand and extend itself quickly to its just or designed limits of growth. The afflux and reflux of the nutritious juices by the foot stalk of the leaf continuing a while, at length abates and declines, the juices then in the leaf begin to stagnate and grow putrid, whence a consumption ensues, and the leaf dies, which is the cause of the falling of the leaves in autumn.

The flower is that part of a plant whose curious form, charming fragrance, and beauteous colors so delight our senses. This is certainly the most choice and delicate part of vegetables. A perfect flower is said to have the following parts: (1) The empalement, calix, or flower cup; this is that exterior part which encloseth the lower part of the flower, and is therefore also called the perianthum; its use is to strengthen and preserve the flower. (2) The petala or tender fine colored leaves, which are generally the most conspicuous part of the flower; this is also called the foliature. (3) The stamina or chives, which are those fine upright stems which stand immediately within the foliature, and in many plants they arise from the petala or flower leaves. (4) The apices or summits, which grow on the top of the chives in the form of seeds, and contain a fine powder or dust called the farina or meal of the flower. (5) The stylus or pistil, which stands in the middle, within the chives, whose top is sometimes above, but generally below the apices, and grows on. (6) The matrix or ovary, or seed case, in which the seed (in most plants) is contained and nourished in its embryo state; and this part is generally the rudiment of the fruit. The flowers which want any of these parts are reckoned imperfect ones.

There is, as I have before observed, in plants as well as animals, a difference of sex, and the flowers are the pudenda or organs of generation in each plant. The male parts of the flower are the stamina, which bear the apices; and these, as testicles, contain the prolific powder or sperm of the plant. The female parts are the style, which serves as a vagina to receive and convey the spermatic farina of the apices to the seed case, which is the matrix or womb; by which means the embryo seeds are impregnated with the prolific power of producing a future plant.

Flowers are therefore some male, some female, and others hermaphrodite. The male flowers have the stamina and apices, but bear no fruit, and are therefore called stameneous flowers. The female flower bears the style or pistil, which is succeeded by the fruit. These male and female flowers grow at some distance from each other on many plants, as cucumber, melon, gourd, Turkey wheat, turnsol, walnut, oak, beech, &c. Hermaphrodite flowers contain both male and female parts, and are by far the greatest tribe, as tulips, lillies, daffodil, althœa, rosemary, sage, thyme, &c.

There is a large distribution of flowers into monopetalous, dipetalous, tripetalous, tetrapetalous, &c., according as they consist of one, two, three, four, &c., petala or leaves; but this is not worth any further regard here.

The fruit is that part of a plant which succeeds the flower, and is designed to contain, preserve, nourish, and defend the seed. Hence, in the texture of this part, the more coarse and less concocted parts of the nutritious juices are filtered, and sent more pure, elaborate, and spirituous to the seed for the support and growth of the tender delicate embryo, or plantule therein contained.

The composition of the fruit appears to be in general the same as that of the other parts of the tree. Thus (1) the cuticle and skin of the fruit is only a production of the skin or outer bark of the tree. (2) The parenchyma, or pulp of fruit, is only an expansion of the blea or inner rind of the tree, swoln and turgid with juices. (3) The branchery or ramification are only a continuation of the woody fibres of the branch on which it grows.

(4) The heart or core of fruit is said to be produced from the pith or medulla of the branch, indurated and strengthened by the twigs of the wood and fibres inosculated therewith.

But a prodigious variety is contained in this part of nature's workmanship, each species producing its fruit and seed in a different way and kind. Thus the apple hath four parts, viz. the skin, parenchyma, brancherry, and core. The pear hath five distinct parts, the skin, parenchyma, brancherry, calculary (or stony part) and the avetary. The three first of these, and a stone, make the substance of cherries, plums, &c. The nut, acorn. &c., consist of three parts, the cap the shell, and the pith or medulla, inclosing the kernel or seed. Concerning all which authors say a great deal with little certainty.

The fibres of the branches being first extended through the parenchymous part of the fruit to the flower, furnish the necessary matter for the vegetation of it; but as the fruit increases, it intercepts the aliments; and thus the flower is starved and falls off; while the fruit proceeds to grow and hasten to a state of maturity.

(TO BE CONTINUED.)

PROGNOSTICS FROM THE DIFFERENCE OF WATERS DRAWN IN DROPSIES.

The water taken from dropsical people is generally of a citron color, a little ropy, of an urinous smell, and a little brackish. This is the best kind of water.

The same water is sometimes as clear as river water; at other times it is more or less of a milky color, or of a deep yellow, so as to tinge a linen rag dipped into it. Sometimes it is bloody, oily, mucilaginous or purulent, of a greater or less consistence.

The more this water deviates from the first above described, either in colour, smell, taste, or consistence, the less hope there is of a patient's recovery.

Whenever the water is clear, like river water, and leaves no sediment after evaporation, the patient generally dies. The

abdomen fills sooner after the exterior swelling increases, and becomes hard.

Whenever this water smells strongly, there is reason to apprehend that some inward parts are mortified, which produces a fever and thirst. These soon throw the patient into great uneasiness, and increase his disorder.

Bloody water is likewise a bad omen, especially if the blood appears to remain with the water, and is at the same time blackish.

The deep yellow or red water denotes an obstruction of the liver; and when there appears something like strings in the water, it denotes the destruction of the omentum,—consequently these patients will die.

Where the urine, after the operation, remains red, with a brick dust-like sediment, and is in small quantity, there are little hopes of recovery.

Whenever the patient after the operation becomes restless, without any manifest cause, he generally dies, though he seem relieved by the operation.

Few or none recover whenever a jaundice either precedes or exists with the dropsy.

Those who fill soon after the operation seldom recover.

Whenever the patient remains short breathed after the operation, it is a sure sign that he has water extravasated in the cavity of the chest, which if not speedily taken away, he will soon die after.

When the water taken from a female is mucilaginous, one might conclude it were contained in cysts; these seldom recover.

Whenever a flux supervenes, and the patient is not relieved in proportion to the discharge, he dies greatly emaciated, with his abdomen much distended. The flux here denotes a breaking up of the constitution.

Lastly, whenever the patient is seized with a shivering fit after the operation, it is a sure sign that pus or matter from some inward ulcer is being absorbed into the system which mixing with the blood, produces the above ague fit. Almost all these will die.

CORRESPONDENCE.

No letters can be answered in the ensuing number which are received later than the third Saturday in the Month. Letters to be addressed to V. B. HALL, Post Office, Hamilton. Private residence Mountain View Cottage, Township of Barton, Hamilton.

R. WATFORD, Toronto.—Follow the directions concerning potatoes, and drink plenty new milk; be very careful that you do not catch cold, and you will soon recover.

T. R.—To clean the teeth I know of nothing better than using the toothbrush with cold water, except the teeth have been entirely neglected, then they should be thoroughly cleaned by a dentist, after which the teeth may be kept rid of any injurious matter by brushing them with cold water after each meal or at least every morning and night.

J. D.—The Magazine may be purchased at Mr. Buck's or Mr. Roper's Bookstores, Caledonia.

GEORGE.—If I give you my opinion I must tell you to give up your habits and study thyself, or you will hasten yourself to an untimely grave. You should take some strengthening medicine this spring.

J. P.—I have an idea they might be grown here if tried, but we have many wholesome herbs of quite as great virtue and as effectual for the purpose.

NOTICE TO SUBSCRIBERS.

The Frontispiece mentioned on cover of January number was placed inside a few, but I recalled them and I am getting ready the same frontispiece with border, for the December number, intending it to be placed in front of the volume. It will be given to full subscribers at the end of the year.

THE GOOD CANADIAN ;

OR,

HOUSEHOLD PHYSICIAN.

Happy the man who by Nature's laws, through known effects can trace the cause.

TEA.

It is generally understood that there are two species of tea, viz:—black and green. Both are produced by the same plant, and the difference between the two results from peculiarities of manufacture. The shape of the tea leaf is slender and narrow, with the edges deeply serrated, and the end sharply pointed. The texture of the leaf is very delicate, its surface smooth and glossy; its color is a lively pale green. The leaves of some kinds of tea differ in size, but the shape is the same in all, for all the different kinds of China teas are the produce of one plant, and the difference between green and black tea depends in some part on the soil, climate, culture, age and mode of drying the leaves. The adulteration of tea by the admixture of blackthorn leaves and sloe leaves, may be detected by comparing the botanical characters of the different leaves. The sloe leaf and blackthorn leaf are more rounded and the points not so sharp; serratures on the edges not so deep, and the surface of the leaves are more uneven, the texture not so delicate, and the color is a dark olive green; these characters may be tested after the leaves have been soaked in water some hours. Let the women spread out the leaves when wet, which come from their grocers' stores, and be able to distinguish tea from sloe and blackthorn leaves by their forms, colors, flavors and scent. I may say that if there were no worse adulterations than these in teas there would not be much harm done, for in

many constitutions the sloe and blackthorn would prove a medicinal improvement, and in my opinion many common and serviceable herbs would be far more beneficial to us if we were to use them ; for instance, sage is good, and savory, marjoram, lavender, &c., in proper quantities make delightful refreshing drinks ; these with many other shrubs and plant leaves should be used in changes. I believe that in tea drinking the refreshment afforded arises more from the diluting warm water than from the particular quality of the herb steeped in the water, although I am fond of a cup of tea myself, but we may consider that copperas is used in the manufacture of tea. To test tea so as to know if it contains copperas or carbonate of copper, it is only necessary to shake up in a well stopped bottle for a few minutes, a teaspoonful of the suspected leaves with about two tablespoonsful of liquid ammonia, diluted with half its bulk of water ; after which the liquid will be of a fine blue color, if the minutest quantity of copperas be present. Green tea colored with carbonate of copper, when thrown into water impregnated with sulphurated hydrogen gas, immediately acquires a black color. Genuine green tea suffers no change from these tests. I have known the herbs mint and balm to be used together instead of tea. There are indeed many useful herbs that would be more beneficial to us than tea, if they were in general use. Habit has fixed us to tea, the same as habit has fixed us to other things. Tea drinkers and smokers, snuff takers and tobacco chewers are classed amongst the habitualists, and they tell us that they could not do without it, or it would be a hard matter to leave it off. Drinks are various in their properties and effects, the same as food, and if we used ourselves to change of drink, as we do to dietary change of food, taking by interchange the various pot herbs, and tonic herbs, &c., that are designed as much for our general use as the many kinds of food are, I maintain with unmistakable certainty there would not be so much disease prevalent (read *Voice of Nature*, page 23 and 24) amongst us. Modern habit is advancing in a direction opposite to the preservation of health ; whilst looking back we see the habits of our forefathers (simple and natural as they appear to have been, and less enlightening as they were upon topics of importance) who enjoyed health, bore fatigue

and pursued the business avocations of life, upon the strength of water, milk, herbal drinks and salads, less subject to diseases and of stouter growth than this generation. More might be said on this topic, but it sufficeth at present to say that genuine tea is not hurtful if drank in proper moderation, and should be tested by every family that uses it.

Since most folks like a cup of tea,
They should take advice by me,
And for themselves test and see,
It from adulteration free.

ANIMALS AND VEGETABLES.

Animals are those living things which derive their nutriment from an internal cavity, (the stomach.)

Vegetables are those living things which derive their nutriment from without.

Herbs are easily mistaken, so that a thorough knowledge of them is requisite for persons gathering and using them. Many are deadly poison, and have been mistakably used by the ignorant to fatal consequences; but all kinds of roots can be bought of druggists and botanists, and the dried herbs also.

MEDICINAL ROOTS AND THEIR PROPERTIES.

Roots should be gathered in dry weather. In drying them the softer ones should be dried in the sun or warmth of the stove, but the hard kind you may dry anywhere. Large roots will keep longer than small ones, yet most of them will keep a year.

STRAWBERRY ROOTS are stoloniferous or stole bearing. The decoction of the root or of the leaves and roots together, will cleanse and cure ulcers by being dropped therein; also for sore mouths and gums; it helpeth to stay catarrhs; it is good for red inflamed eyes, it removes redness in the face and all spots and deformities in the skin, and maketh it clear and smooth; being drank it is good to cool the liver and blood, assuageth inflammations of the bladder, &c., provoketh urine and allayeth

the heat and sharpness thereof; it also stayeth the bloody flux; it is a good help in cure of yellow jaundice. The distilled water of strawberry taketh away films or skins growing on the eyes, and all other defects of the eyes.

NETTLE ROOTS boiled, or the juice of them made into an electuary with honey is a safe and sure medicine to open the passages and pipes of the lungs, obstruction in which causeth shortness of breath, helpeth to expectorate phlegm that is tough, it is good for impostumated pleurisy, and used as a gargle it allayeth the swellings of the throat, if the forehead and temples are rubbed therewith it helpeth drowsiness. The decoction of the root taketh away all deformities of the skin, rotten or stinking sores, scab, itch, manginess, and if the limbs when wearied be bathed therewith, it refresheth and tendeth to strengthen them. The use of this root and its leaves are recommended in the spring.

MADDER ROOTS are of an opening quality, but afterwards binds and strengthens. Is a sure cure for the yellow jaundice, by opening the obstructions of the liver and gall, and cleansing those parts, it openeth the obstructions of the spleen and diminisheth the melancholic humors. It is good for palsy and sciatica, is effectual for inward and outward bruises. By being outwardly applied will take away all discolorings of the skin, as freckles, morpew, scurf, &c. For all the above-mentioned purposes the root should be boiled in water and a little honey added thereto, afterwards.

(TO BE CONTINUED.)

HERBS FOR MEDICINAL PURPOSES.

NETTLES, STINGING.—The tops of stinging nettles eaten in the spring consumeth the phlegmatic superfluities of the body, which the coldness and moisture of winter hath left behind. The decoction thereof is good for shortness of breath, provoketh urine and expelleth the gravel and stone marvelously. It killeth worms in children, expelleth wind from the body, rubbing the forehead and temples therewith; expelleth drowsiness, easeth all aching pains in the joints if they are bathed therewith.

PARSLEY is comfortable to the stomach and should be more often used in broth and soups, or in porridge. It helpeth to provoke urine, is a little opening to the body, (the root more so,) it is good for delicate persons and for falling sicknesses, it is good in a cough, and very good to give children that are fretfish. The leaves thereof fried with butter and applied to women's breasts that are hard through the curdling of the milk quickly abateth the hardness; it also taketh away black and blue marks arising from bruises or falls. The juice dropped in the ears easeth the pains thereof, and for yellow jaundice and dropsies it may be mixed with other things.

PENNYROYAL thinneth tough phlegm, warmeth the coldness of any part that it is applied to; applied to the nostrils with vinegar it is very reviving to persons fainting or swooning, that is to boil the herb and use the decoction. Being dried and burnt it strengtheneth the gums, to wash with the decoction cureth the itch, the boiled herb applied as a poultice tightly bound upon the joints taketh away pains therein, and warmeth cold griefs therein; dropped in the eyes cleareth and quickeneth the eyesight, easeth pains in the ears if dropped therein. It should not be used by females except by a physician's advice.

ROSEMARY is an herb of great service in both inward and outward diseases. It helpeth all cold diseases of the head, stomach, liver and belly. The decoction thereof is good for giddiness or swimming in the head, drowsiness or dullness of the mind and senses, loss of speech and weak memory. If the decoction be drank regularly with regular exercise it is a sure cure for yellow jaundice. This herb is very good for a dull and melancholy man to make use of. It is a scent that reviveth, and the herb burnt in the house rectifieth the air.

WOOD BETONY helpeth those that loath their food, or that cannot digest it, and those that have weak stomachs and sour belchings therefrom; helpeth the jaundice, falling sickness, the palsy, convulsions, shrinking of the sinews, and those that are inclined to dropsy, and helpeth to remove continual pains in the head. The herb for the aforesaid purposes may be used familiarly, either green or dry, herb or root in conserve or syrup, water, electuary, or in powder according to choice. The

juice pressed out of the herb quickly healeth any fresh wound in head or body, and it is very profitably used with a little salt, in application to old sores or filthy ulcers. The juice or decoction dropped in the ears cureth running sores in them. The taste of the root will be found to be rather displeasing, whereas the leaves and flowers, by their sweet and spicy taste, are pleasant and comfortable to the stomach both in meat and medicine. It is a precious herb and should be kept in every house, both in syrup, conserve, oil, ointment and plaster. The flowers are usually conserved.

BURDOCK LEAVES are cooling and moderately drying and discussing; the boiled decoction is good for sores and cankers, provoketh urine and remedieth pain in the bladder; the seed bruised, and often taken, breaketh the stone and expelleth it by urine, and is often used with other seeds and herbs for that purpose.

CALAMINT OR MOUNTAIN MINT is excellent in all afflictions of the brain if outwardly applied. The decoction of the herb provoketh urine and courses; it is profitable for ruptures, convulsions or cramps, shortness of breath, torments or pains in the belly or stomach and the yellow jaundice; taken with salt and honey killeth all manner of worms in the body; if the green herb be applied outwardly to the place, boiled as a poultice, it takes away black and blue marks in the face, and maketh other unsightly places become well colored; the decoction drank provoketh sweat, and is very profitable to those who are troubled with overflow of the gall, also for a cough and shortness of breath; it is not very profitable for the use of females, for it works very violently upon them.

CAMOMILE, the decoction drank taketh away all pains and stitches in the sides; bathing with the decoction taketh away weariness and easeth pains wherever it is applied; helpeth sinews that are overstrained; mollifieth all swellings, and moderately comforteth all parts that have need of warmth; digesteth and dissolveth hard swellings, &c., by a wonderful speedy property; the flowers boiled in honeyed water, easeth pains of the cholic, and the stone and torments of the belly, and gently provoketh urine; helpeth to cure the jaundice and

dropsy. The oil of camomiles is mostly used for outward applications ; also, a poultice of flowers.

CELANDINE MAJOR is one of the best cures for the eyes, that is if it be made into an oil or ointment ; the most desperate sore eyes have been cured by it ; the herb boiled with a few anise-seeds and drank is good for dropsy, jaundice, itch and sores in the legs and other parts of the body. The juice dropped in to, or applied on, ulcers of all kinds, cankers and ring worms, cureth them cleanly and speedily ; it is good for tooth-ache, dropped therein.

CHERVIL, CALLED ALSO CEREFOLIUM, mirrhis chervil, sweet chervil and sweet cicely. The garden chervil being eaten as a salad doth moderately warm the stomach, and is a certain remedy to dissolve congealed or clotted blood in the body, or that which is clotted by bruises or falls, &c ; the juice or distilled water of chervil should be drank, and the bruised herb laid to the place ; being taken in broths it is held good to provoke urine, expel gravel and stone, and help to cure the pleurisy.

CHICKWEED.—The herb bruised and applied, removeth redness in the face, wheals, pushes, itch and scabs, convulsions, cramps, palsies, redness in the eyes, pains in the ears, sores in the legs and elsewhere ; it is very valuable applied as a poultice for running sores and hot diseases.

CLIVERS OR CLEAVERS, called also aparine, goose share and goose grass ; is very good if chopped small and boiled well ; in water gruel, to cleanse the blood and strengthen the liver, thereby keeping the body in health and preparing it for changes of season.

WATERCRESSES are powerful against scurvy, and to cleanse the blood and humors, breaketh the stone, provoketh the urine and courses ; it is a restorative of color after sickness, they should be eaten as salad morning, noon and night ; the leaves bruised and applied to the face removeth freckles, pimples, spots or the like ; the juice mixed with vinegar and the forehead bathed therewith is good for dullness and drowsiness. Those who would wish to mend their health in the Spring should eat them as a salad ; it helpeth headaches and consumeth

the gross humors of winter that remain with the blood. A method of growing watercresses may be seen explained on page 46.

DANDELION.—Those who can eat the common wild dandelion leaves as a salad, should do so in the spring; they are of an opening and cleansing quality, and openeth all obstructions; it wonderfully openeth the passage of urine, cureth inward tumors in the urinary passages, for which the leaves may be boiled in broth or used with other pot herbs; persons consumptive should continue using it; the decoction is good to wash sores with, also to eat in pestilent fevers, or to drink the decoction will be found of good effect. The Dutch and French people use a great quantity of it as salad in the spring time.

DOCK.—The red dock leaves, commonly called blood wort, cleanseth the blood and strengtheneth the liver, but yellow dock is the best if a person is afflicted with choler, but as a pot herb the red dock is used the most; all the docks being boiled with meat maketh it boil the sooner. Docks are as wholesome a pot herb as any that grows in a garden.

ENDIVE is a fine cooling cleansing plant, the decoction of the leaves, or the juice or distilled water thereof serveth well to cool the excessive heat of the liver and stomach, also hot fits of ague and all inflammations; it cooleth the heat and sharpness of the urine; helpeth faintings and swoonings and the passions of the heart; outwardly applied it is good for ulcers, tumors and swellings, and pestilential sores; it wonderfully helpeth inflammation of the eyes, and dimness of the sight also; it also allayeth the pains of the gout; the syrup of it is a fine cooling medicine for fevers.

ELECAMPANE PLANT.—The decoction of the leaves are used outwardly for skin diseases; the roots is used inwardly, see page 52.

SWEET FENNEL is good to break wind, provoketh urine, easeth pains caused thereby, breaketh the stone; boiled in barley water it is good to increase milk in the mother and make it wholesome; openeth the obstructions of the liver, spleen and gall; good for yellow jaundice, gout and cramps, shortness of breath, wheezings, &c. The juice pressed from

the leaves, if dropped in the eyes, cleanseth them from mist and film growing upon the sight thereof. The sweet fennel is much weaker in physical uses than the common fennel, and the wild is stronger than the tame, and therefore more powerful against the stone, but not so effectual to increase milk because of its dryness.

HEARTSEASE, also called pansies or pansy, is of a cold slimy and viscous nature. A strong decoction of the herb and flowers is an excellent cure for the venereal disorder, being an approved anti-venerean ; it is very good for convulsions in children, falling sickness, inflammations of the lungs and breast, pleurisy, scabs, itch, &c. It will make an excellent syrup for the aforesaid purposes.

HAWKWEED is cooling and somewhat dry and binding and therefore good for the heat and gnawings of the stomach, for inflammation and hot ague fits. The juice thereof helpeth digestion, expelleth wind, preventeth crudities from clogging the stomach, and causes an easy evacuation of the urine ; and outwardly applied is a sovereign cure for the stinging or biting of venomous things, and is good for all poisons. A scruple of the dried juice taken at a time is profitable for the dropsy ; the decoction of the herb taken with honey digesteth thin phlegm in the chest and lungs, and mixed with hyssop it helpeth the cough ; the decoction of wild succory mixed with it in equal parts and taken helpeth the wind cholic and hardness of the spleen, and procureth rest and sleep, tendeth to prevent venery, cooleth heat, purgeth the stomach, increaseth blood, and helpeth all diseases of the reins and bladder. Applied externally, it is a singular remedy for all defects and diseases of the eyes, especially if used with breast milk ; the green herbs bruised and mixed with a little salt is effectual in helping burns, if it is used before the blisters rise,

HYSSOP boiled with rue and honey, and drank, helpeth those who are troubled with coughs, shortness of breath, wheezing and rheumatic distillation of the lungs. It helpeth gross humors by stool and with honey killeth worms in the belly ; it restoreth the natural color of the skin when discolored by yellow jaundice, and taken with figs helps the dropsy. The de-

coction is good to wash inflammations, and taketh away black and blue spots and marks proceeding from blows, bruises or falls, if applied warm; being boiled with figs it makes an excellent gargle for the quinsy or swelling in the throat, and boiled in vinegar and gargled in the mouth cureth the toothache, dropped in the ears is good for diseases in them. The oil of hyssop killeth lice in the head. The green herb bruised and a little sugar mixed therein will speedily heal up any cut or green wound being thereto applied.

Hops are very advantageous for physicial purposes, opening the obstructions of the liver and spleen, cleansing the blood, loosening the belly, expelling the gravel, and provoking urine. The decoction of the tops of hops, whether tame or wild, worketh these effects. In cleansing the blood they help to cure the French disease and all manner of scabs, itch and other breakings out of the body, also tetters, ringworms, and spreading sores, the morpew and discoloring of the skin. The decoction of the flowers and tops helpeth to expel poison, killeth worms, bringeth down courses and expelleth urine. A syrup made of the juice and sugar cureth the yellow jaundice, easeth the headache proceeding from heat, and tempereth the heat of the liver and stomach, and is good for long and hot agues.

HOARHOUND.—A decoction of the dried herb or the juice of the green herb taken with honey is a certain remedy for those who are pursey or short-winded, or have a cough, consumption, or long sickness, or thin distillations of rheum upon the lungs. Helpeth to expectorate tough phlegm from the chest; being taken with the roots of iris or orris, is an excellent medicine to expel poison or to cure the venomous bitings or stings of venomous things; the leaves used with honey purge foul ulcers stay running or creeping sores, and easeth pains of the side; the juice used with honey helpeth to clear the eyesight, it opens the obstructions of the liver and spleen, and purgeth the breast and lungs of phlegm; or outwardly applied cleanseth and digesteth; also by being drank fasting it killeth worms. A serviceable ointment may be made thus: bruise the green leaves, and then boil them in olive oil with a little bees' wax and rosin sufficient to form an ointment, the same ointment is useful to abate the swellings of women's breasts.

HOUSELEEK.—The ordinary houseleek abateth all inward and outward heats, either in the eyes or any other part of the body; to drink a little with any other drink or broth is good in hot agues, cooling and moderating the blood and spirits and quencheth thirst. The juice dropped in the eyes or ears cureth them of all hot diseases in them; taken inwardly it cooleth and abateth all hot inflammations, the erysipelas, scaldings, burnings, shingles, fretting ulcers, cankers, tetters, ringworms and the like, and easeth gout if it proceeds from a hot cause. By bathing the hands and feet with the juice of the herb, and laying the skin of the leaves on afterwards, cleanseth them of warts and corns; it easeth the headache and heat of the brain occasioned by want of sleep, if applied to the temples and forehead. The leaves bruised and laid on the head stayeth the bleeding of the nose quickly; the distilled water of the herb is serviceable for the above purposes. The leaves gently rubbed on the places stung with bees do quickly take away the pain.

BOTANY OR PHYTOLOGY. (CONTINUED.)

The seed is that important part which is the medium of all vegetable propagation and production; it is most intimately contained in this year's plant, and the next year's plant is most intimately contained in it. This is both the beginning and end of the vegetable state.

The parts of which the seed of a plant doth consist, are (1.) The embryo or plantule, being the future plant in miniature, and is called the germ or bud; this adheres to (2.) the placenta or cotyledon, which serves the same purpose as the secundines, *i. e.* the chorion and amnion in animals. (3.) The common tunicle inclosing the whole seed.

The seed receives its fecundity, as I before hinted, from the genital parts in the flower, and being now committed to the earth, proceeds to vegetate as follows.

The plantule or germ of the seed being acted upon and moved by the genial influence and warmth of the two great parents the sun and earth, begins to expand protrude, or shoot forth its radicle or tender root downward in the earth, and the plumule or infant plant upwards; the small radules absorb the nutriti-

ous juices, which causes the plumule to grow and increase to the destined size of the plants: but till the root is shot and able to procure nourishment, the plantule is nourished from the substance of the placenta or cotyledons, which is drawn to itself by an infinite number of little filaments called funes umbilicales, or naval-strings, and by botanists the seed root. By this means the embryo plant receives the cruder juices of the earth prepared and purified, being strained through the very substance of the placenta. When the root is able to provide for a plant, the cotyledons, or two lobes of the placenta, perish, and the plant may be said to be delivered of its young or foetal plant: so analogous is the process of nature in the vegetable and animal economy.

The fourth and last part of botany is concerned in the following particulars: (1.) To give an exact enumeration, and the names of all the plants yet known in every part of the world, which are at this time about 600,000 in number. (2.) To specify the peculiar notes, marks, properties and characters of each plant, by which it may be known and distinguished from any other. (3.) The place of its most common growth, as on land or water, wet or dry ground, on walls, trees, &c. (4.) The time of blooming, and their continuance in bloom. (5.) To recite their qualities, and give a just and true account of the medical virtues that are known to pertain to each. (6.) To teach the method of propagating each species in gardens, &c., for the various uses ornament, food, medicine, or natural philosophy. But, as I at first observed, these particulars are of too general a nature, and alone form the subject of the largest volumes, and consequently cannot be expected here.

The various kinds of fruits are next to be considered, and I think it advisable to explain the properties of the fruits as I come to them, and their service to us medicinally. My opinion is that fruits in their season cannot be dispensed with, for the sake of health, and if the moderate use of them was more particularly attended to, there would be not so much medicine required. Fruits are pleasant in general, and of all parts in the science of medical botany, fruit is the most refined, pure, virtuous and powerful, combined with quick assimilation to the

blood. I purpose, firstly, to take up the vulgar designation of fruits, and according to the common understanding show their use. Secondly, I shall attempt to show that many commonly termed fruits are not fruits at all. Thirdly, to show that many small plants bear fruit, &c., though not designated as such. The commonly understood meaning of fruit is a tastely serviceable production of trees, &c., adapted to our wants, and enjoyed by us in their seasons.

GOOSEBERRY, called also seap berry, dewberry and wine-berry. The berries, while unripe, if scalded or baked, are good to procure the return of appetite when lost, especially if the cause proceeds from a stomach afflicted with choleric humors; the decoction of the leaves of the tree cools hot swellings and inflammations, also the erysipelas; the ripe gooseberrries being eaten, allayeth the heat of the stomach and liver, be it ever so violent, the young and tender leaves break the stone and expel the gravel both from the bladder and kidneys; like other fruits should not be immoderately used, or they would have a tendency to breed crude humors. To make gooseberry cream take two quarts of gooseberries, boil them, stirring quickly in as little water as necessary, to which add $\frac{3}{4}$ ounce of fresh butter, $\frac{1}{2}$ pint of fresh cream, strain it through a sieve, and then add the yolks of 6 eggs.

RHUBARB is inclined to purging; it purgeth the body of choler and phlegm, cleanseth the stomach, liver and blood; opening obstructions, and helping those complaints that come thereof; as the jaundice, dropsy, swelling of the spleen, agues, pricking pains in the sides, and stayeth the spitting of blood; the juice pressed out of rhubarb is good for ulcers in the eyes and eyelids, but it should be well strained; also, to assuage inflammations, and applied to black and blue spots helpeth to remove them. I have placed this with the fruits for this reason only; that it is now coming in season, and is used as a fruit.

(TO BE CONTINUED.)

PILES, BOTH BLIND AND BLEEDING.

A discharge of blood from the hæmorrhoidal vessels is called the bleeding piles. When the vessels only swell, and discharge no blood, but are exceeding painful, the disease is called the blind piles. This discharge, however, is not always to be treated as a disease. It is often more salutary than bleeding at the nose, and often prevents or carries off diseases. It is peculiarly beneficial in the gout, rheumatism, asthma, and hypochondrical complaints, but often proves critical in colics and inflammatory fevers. In the management of the patient regard must be had to his habits of body, age, strength and manner of living; a discharge which might be excessive and prove hurtful to some may be very moderate and even salutary to others; that only is esteemed dangerous which continues too long and is in such quantity as to waste the patient's strength, hurt the digestion, nutrition, and other functions necessary to life. The Peruvian bark is proper in this case, both as a strengthener and an astringent; half a drachm of the prepared powder of Peruvian bark may be taken in any convenient liquor, four times a day. The bleeding piles are sometimes periodical, and return regularly once a month or three weeks. In this case they are always to be considered as a salutary discharge, and by no means to be stopped. In the blind piles bleeding is sometimes of use. The diet in either case should be light and thin, and the drink cool, and the body should be kept gently open. When the piles are exceedingly painful and swelled, but discharge nothing, the patient must sit over the steam of onion or leek water, and afterwards apply a poultice made of leeks fried with butter, or a rag dipped in it. Another method that will help, and not hinder in business, is this: get a quantity of leeks, press the juice out of them, and mix the juice with a little bees' wax melted, apply with the finger, keeping the piles continually moist therewith. The juice pressed from blackberries are serviceable for the piles, both drank and outwardly applied; the condensate juice or the distilled water of blackberries may be obtained at some druggists. The herb plantane or plantain helpeth if outwardly applied. Great relief may be experienced, when necessary, by applying leeches upon the

piles; when leeches will not fix, they may be opened with a lancet, this would not be required but when the piles appear very large and discharge nothing.

For inward piles take a quarter of an ounce of black pitch and boil it well in some honey and water, and drink it down warm.

VEGETABLE ACRID POISONS.

They are very numerous, but I think it only necessary to make mention at first of those likely to be taken into the stomach designedly or mistaken.

BRIONY ROOT is a large spindle shaped root of a whitish yellow color and very fleshy; its taste being sweet, acrid and bitter; it causes cholic pains, and when it has been swallowed as poison, the throat should be irritated with a finger or feather, and drink large draughts of warm water, just warm enough to excite vomiting, after which milk with from a grain to two grains of opium every two hours until the violence of the cholic pains are removed.

(TO BE CONTINUED.)

MONTH OF MAY.

The month of May
Clothe all things gay
With fragrant flowers,
And sunny hours
And pleasant showers,
Delightful tours;
Both us and ours can always say,
We like the pleasant month of May.

The month of May
Doth well portray
Bright blooming health,
Better than wealth.
But oft by stealth
We neglect self
For sake of pelf, and for it pay,
For spreeing in the month of May.—V. B. H.

May is the month to be busy sowing seed, no time to be lost, waste not want not, every inch of ground should be in use, and that to the best profit.

CORRESPONDENCE.

No letters can be answered in the ensuing number which are received later than the third Saturday in the Month. Letters to be addressed to V. B. HALL, Post Office, Hamilton. Private residence Mountain View Cottage, Township of Barton, Hamilton.

SUBSCRIBER.—You will find that sudden changes and disturbances on the mind have a bad effect upon a person as much, if not more so, and more quickly than changes of climate upon the body and other things you mention. The mind should not be curbed with small difficulties but equally balanced at all times.

J. E. HALL, L. E.—You will find the disease treated on in this number, and can depend on the treatment recommended therein. Drink freely of stinging nettle tea, and eat freely of watercresses.

W. G. H.—I can send you the magazine monthly upon receipt of stamps to the amount, namely, 10 cents or 1.00 in advance for the year.

AN EMIGRANT.—You and any other working men from England cannot do better to suit yourselves to this climate than by drinking regularly some new milk every day, a pint or quart according to thirst, and leave the whiskey alone, attend to clothing, and moderately partake of every fruit as it comes in season.

J. TUCKER.—When you come to Hamilton, call on me, and I will let you have some plants that will be of service to you.

R. WATFORD, Toronto.—I should like to hear from you, or see you, if you come this way.

G. S.—Celandine is the herb.

FREDERICK S.—Strawberry or raspberry, as you like.

A FRIEND.—You can buy the dried roots at any druggist's in the town, I believe, if not, I can send them to you.

THE GOOD CANADIAN ;

OR,

HOUSEHOLD PHYSICIAN.

Happy the man who by Nature's laws, through known effects can trace the cause.



THE NOSE AND ITS PARTS.

The nose is appointed not only for the organ of the sense of smelling, but also an emunctory to the brain, and for respiration. Its upper part consists of two bones closely jointed together on the upper side ; its lower part is made of four cartilages, two of which are fixed to the two bones aforesaid, and also joined on the upper side ; the other two lie on the other ends of these, being tied thereto by a membrane, and are called *Alæ Narium*. The cavity of the nose is divided into two parts, called *Nares* or

Nostrils, by a partition boney on the upper part, and cartilagenious on the lower. The upper end of each nostril divides into two cavities, of which one goes to the Os-spongiosum, and the other opens behind the palate into the mouth for respiration. The ossa spongiosa fill the upper cavity of each nostril, the several lamina of which, being covered with a fine membrane on which the fibres of the olfactory nerve are spread, become the immediate organ of smelling. The cavity of the nose is covered with a glandulous membrane; its glands separate the matter we call mucus, which, with the hair growing on it, called vibrissi, prevent any filth from ascending too far into the nostrils.

The sense of smelling resideth in the nose; from the nostrils goeth two holes into the mouth, which are convenient in three particulars, firstly, that when a man's mouth is closed, either by eating or sleeping, air might come through them to the lungs, or he would be forced to keep his mouth open always. Secondly, they are helpful to a man's speech, for, when one or both of the passages are stopped, a man speaketh in his nose, as we commonly say. Thirdly, they are useful in cleansing the concavities of the nose, either by snuffing or drawing it through the mouth. By the sense of smelling we are often able to test the qualities of our food and drink, otherwise very often evil effects would be produced upon the system by partaking of food or drink of an inferior quality. Strong and violent odors are hurtful to the brain, whilst the temperate and good doth delight and comfort the brain. The pleasant odors of the flower garden may this month be enjoyed, and in just as great a measure of pleasantness as other senses possess. The taste enjoyeth things of pleasing taste; the hearing enjoyeth things pleasing to the ear; the eye enjoyeth things pleasing to the eye; so with feeling, and so with the sense of smelling. The herbs most adapted for use, in complaints of the nose, are wake-robin, flower de-luce, horsetail, shepherd's purse, willow, bistort, tormentil, cinquefoil, sow-bread. Polypus or tumor in the nose often occur, and is principally of three kinds; First, the fleshy or red polypus; second, hard, painful or malignant polypus; third, polypus of the mucus membrane of the nostrils. In the very first appearance of these, or any disease of the nose, bathing and poulticing with the above herbs will cure.

VEGETABLE ACRID POISONS.—(Continued.)

BITTER APPLE OR COLOQUINTIDA.—Much danger over doses of coloquint apple causeth (but seldom though sometimes death), when such is the case, provoke vomiting, and then drink milk and olive oil. This herb is known by the name of bitter gourd. The coloquintida creepeth with its branches along the ground with rough hairy leaves of a greyish color, much cloven or cut on the edges; the flowers are pale; the fruit round, of a green color at first and afterwards yellow; the bark is neither thick nor hard; the inner part of the pulp is open and spongy, full of grey seeds tasting bitter, and is dried and kept for medicinal use.

HELLEBORE BLACK AND FETID.—The effects produced by this are the same as Briory, and requires the same treatment. This herb is called also Fetterwort, Fettergrass, Bearsfoot, Christmas herb, and Christmas flower. It is a serviceable herb, but requires discretion in its use.

WHITE HELLEBORE ROOT excites violent vomiting and purgings with bloody evacuations, which soon prove fatal if proper treatment be not immediately resorted to. Evacuate the stomach with copious draughts of demulcient fluids, and sheathe the bowels with clysters of starch and other emollients, then administer acidulous drinks, or coffee and camphor in doses from six to ten grains. But in cases like these the first physician at hand should be sent for.

SOW BREAD, CYCLAMEN.—The root of this plant is a flattened circular tuber; it produceth effects similar to white Hellebore when swallowed, requiring the same treatment.

SPURGE.—The seed vessels of these are termed tricoccus—that is, composed of three capsules or distinct cells united back to back on a common footstalk having sometimes the appearance of capers, causing intense heat in the stomach, vomiting, violent purging with bloody stools. Evacuate the stomach with large draughts of warm water, and then give repeatedly milk and olive oil, sheathing the lower bowels with starch clysters.

In the same manner of treatment must the cases of poisoning by arum or cuckoo point be managed (the beautiful red berries sometimes allure children to eat them and the roots); also croton oil overdosed, meadow anemone, meadow narcissus, rancunculus or buttercups, aconite or wolfsbane, accept of the same treatment. But the best and nearest professional assistance should be procured as soon as possible.

(TO BE CONTINUED.)

ADVICE TO TAILORS.

The latest improvement in tailoring consists in a provision for the defence of the back, which has long been needed, especially by men who work continually out of doors. That is, every working man should have a vest which will fit nicely over another one, and this vest should be lined strictly across the loins and up to the shoulders, same shape as the back lining; to this vest may also be added a pair of sleeves. Workmen often experience chills in the kidneys and pains in the back, and many other complaints brought on by their working all weathers and amidst the sudden changes of atmosphere with no other defence for warmth to the back than the lining of the ordinary vest; it may be seen plainly that the loins are not so well clothed at all times as the stomach is, especially when the coat is off. This vest might be worn when the heat of the sun is gone, mornings and evenings, just as the owner finds the atmosphere getting colder. By my own experience I have found this a preservative to the loins and arms. I also think that our pants may be made a few inches higher on the back where the braces fix on, and rounding down to nothing at the sides, as a great defence to the loins.

THE LUNGS.

All complaints of the lungs may be greatly eased and often cured by smoking some common herbs which I have already dried and prepared, according to the nature of complaints, and the constitution of the patient. Notice, by smoking, the virtues of the herbs go direct into the lungs and produce the most beneficial effects.

RASPBERRY VINEGAR.—Put two quarts of raspberries into a quart of vinegar, and let them stand three days in a vessel not glazed, then strain it through a cloth wet with vinegar; mix with the strained liquor one pound of loaf sugar to each pint of liquor, and simmer for a quarter of an hour, or rather more, and when cold, bottle and closely cork for use. Care should be taken to use no glazed vessel. A tablespoonful of this liquor in a glass of water makes a very refreshing drink, and is serviceable in some complaints of the chest.

LIQUORICE ROOTS AND MARSH MALLOW ROOTS, of each two ounces, boil in three pints of water till reduced to a quart, then strain it off and let it stand to settle, then pour it off clear. A teacupful three times a day may be taken for a cough and complaints of the lungs.

AN OLD COUNTRY CURE for a bad temper, is to sit down and count twenty, and then kneel down and ask God to renew a right spirit within you.

JUNE JUVENILES AND THEIR HEALTH.

June is the month for juveniles,
 The pleasant month of June,
 And oft this month the parent smiles
 To see them wake so soon.

The flowers and fruit expected,
 The children's great delight;
 Whils't trees are full in blossom
 They quite enjoy the sight.

If you would have them healthy,
 Early let them rise;
 Each kind of fruit in season
 For them make up in pies.

Early put them off to sleep,
 In rooms well air'd by dry
 And they should be well wash'd and dried
 All over once a day.

BOTANY OR PHYTOLOGY.—(Continued.)

GOOSEBERRY, mentioned on page 77, is a bush that, if left to itself, will soon get thick and matted, and so full of wood as to shut out sun and air. The fruit will then be of a small size, and but little of it. Thin your tree well, cut out the wood from the middle, and you will have the branches covered with fruit, and of a much larger size. The young trees should be kept down by shortening the young shoots, yet this should have been done before this. More upon this topic may be expected next month.

HERBS AND TREE FOLIAGE FOR MEDICAL PURPOSES.

COMMON LILAC (*Syringa vulgaris*). A tall shrub or tree from Persia, from eight to twelve feet high. Blossom, lilac purple and fragrant corolla with four divisions, capsule of two cells; leaves egg-oblong and sweet smelling, branches stiff and whitish colored; there are five or more varieties in the color of this blossom. It is easily propagated by suckers taken up late in autumn or early in spring. This, as well as the two dwarf species, looks very pretty. By cultivating these trees around the house it purifieth the air very much.

(TO BE CONTINUED.)

HYDROCEPHALUS, OR WATERY HEAD.

No one can surely hesitate for a moment in believing that the treatment of this melancholy disease ought to be confided only to the most judicious and experienced. I shall, therefore, in the present article, point out those symptoms which ought to arouse the attention of the parent, and occasion him immediately to call in the most powerful aid; and also describe certain circumstances, by our attention to which the malady may, perhaps, be sometimes prevented,

This disease generally occur within the first ten years of life. Sometimes the complaint comes on suddenly, but, in general, it

commences with a slow fever, to which it is frequently so nearly allied in its symptoms as to be mistaken, even by medical men, for a disorder of that nature. Soon, however, the disease is rendered more manifest, by a disinclination to employ the muscles on which voluntary motion depends. The arms and legs are moved with reluctance, and the fatigue of preserving the body in an erect posture is such, that the patient is always desirous of being laid down ; the pain in the head is more constant than in a low nervous fever, and the heaviness or dullness more evident, the pulse is also usually very slow and irregular. As the disease proceeds, the pulse becomes quicker ; the child's senses and faculties evidently become impaired, the sight partially fails him ; objects appear exceedingly indistinct ; and the pupils of the eyes are dilated. Towards the close of this melancholy scene, the urine and stools are passed involuntarily ; total blindness comes on, and a fatal termination takes place, while the patient lies in a comatose (sleeping) state, or whilst agitated with severe convulsions. This disease may be the consequence of an originally weak habit of body ; of various other affections of the brain, and of other diseases which have induced a considerable degree of debility of the whole system. But one cause, and that perhaps a very frequent one, more particularly demands here a few words, and that is, that it frequently arises from violent concussion or jar of the head ; from blows or falls. When the numerous accidents to which children are exposed are considered, together with the delicate texture of the brain, it becomes really a subject of surprise that this shocking calamity does not more frequently occur. It, however, happens with sufficient frequency to warrant the most zealous exertions for its prevention. On this head it will be sufficient to say, that care should be taken that children should not be unnecessarily exposed to injury. Parents must excuse the suggestion, as it is made with a hope that it may prove beneficial. The correction of children in the moment of passion, is not always within those bounds which the parent would, the moment before or the moment after, have himself prescribed. A box on the ear, as it is termed, or a severe blow on the head with the open hand, is the most ready punishment, and therefore most generally adopted, when petulance or passion impels

to an immediate correction. But when I consider the tender fabric of the human brain, and also that a blow sufficient to give the intended degree of pain to the delinquent, cannot be inflicted without giving a considerable jar to the head, I must denounce it as a mode of correction highly improper, and which may, possibly, occasion this dreadful malady. Another remark which I am about to make, I am aware may appear to many to be bordering on frivolty—but, satisfied of its real importance, I shall, without apology, introduce it. To endow children with hardiness and caution, it has been recommended, rather than smooth the way for them, to render it more replete with obstacles,—and, rather than shield them from the little injuries they would suffer from their trips and stumbles, to let them feel their consequences, that the difficulties thus overcome, and the pain they suffer to-day, may furnish them with courage and circumspection to-morrow. The principle is certainly good, therefore, I propose not to combat with that, but it was a practice of parents, in days gone by, to surround the head with a circular quilted pad, covered with silk, which, though not very ornamental, had no very forbidding appearance, and most frequently has saved children from very considerable injuries of the head. I am so confident of this fact, that I cannot resist the impulse of most earnestly proposing its adoption by the affectionate parent. This disease being, from its character, so dangerous, and the symptoms being generally of so insidious a character, sufficient justice cannot be done to it, it will, therefore, be introduced again and again, with admonitory remarks and prescriptions of the medicines required during the various stages of its progress.

(To be Continued.)

OF BROTH IN GENERAL—A pound of lean meat will make about a quart of broth, not more. If two or three kinds of meat are used, the broth is more nourishing and better flavoured; and little trimming bits of beef, veal, and mutton may often be got at the butchers very cheap. The proportion of water will be three pints to each pound of meat, to be boiled till reduced to a quart, or rather less. The meat will then be good for eating, and the broth fit to strain off; an onion, if approved, gives a pleasant flavor, and is never improper. The gristly parts of

an animal, such as knuckle and breast veal, shank of mutton, &c., afford the most strengthening broth, but not so rich flavored as that which is made from lean meat, especially from the loin of the animal. It is very well, if you can, to have part of both. It is generally directed to let broth stand till cold, in order to clear it of fat; but I think broth is never so nice as when fresh made, and the fat may be nearly all removed with a spoon, or, if any should remain, lay at top a piece of blotting paper, it will draw it all up. A very nourishing broth against any kind of weakness, especially after lying in, or for elderly people who have weakness in the back, may be made from two pounds of loin of mutton (the fat taken off), boiled with a large handful of chevil, in two quarts of water till reduced to one.

Very nourishing broth may be made of fish of almost any kind; the more thick skinned and glutinous the better. The following is an excellent broth:—Half a pound of small eels or grigs; set them on with three pints of water, an onion, a few pepper corns, and some parsley; let it simmer till the eels are broken, and the liquor reduced to one half; then add salt and strain it. Some people like a spoonful of vinegar added; and if the bowels be not disordered, there is no objection to it.

CALVES FEET BROTH.—Boil two feet in three quarts of water till reduced one half, strain it and set it by; when cold, take off the fat, and when it is to be used, put a large tea cup full of the jelly into a sauce pan, with half a glass of mountain, raisin, or cowslip wine, and a little nutmeg and sugar; when it nearly boils, have ready the yolk of an egg finely beat, stir to it by degrees a little of the jelly, then stir it in all together, but do not let it boil. This is less troublesome and expensive than calves' feet jelly, and quite as nourishing.

MISCELLANEOUS RECEIPTS.

MEAT PANADA.—Sometimes it is requisite to give animal nutriment in a more solid form than that of broth or jelly when the person has not an appetite for meat. When that is the case, it may be managed in the following manner:—Take the white meat of chicken or rabbit, partly, but not thoroughly boiled; perfectly clear it from skin, shred it as fine as powder, or, if you have a marble mortar, beat it to a paste with a little of the liquor it was boiled in, put in a little salt, nutmeg and lemon peel,

simmer it gently a few minutes with as much liquor as will bring it to the thickness of gruel.

Roast veal, mutton, or beef, may be shred and warmed in the same manner, with a little of the gravy from the dish, provided there be no butter in it. Or it is a very good way, when a sick person cannot take solid meat and yet wants nourishment, to lay two or three slices of toasted bread, with the crust cut off, in the gravy from a roasted joint of meat, till thoroughly moistened.

LAXATIVE SYRUP.—Take one ounce of senna leaves, and having carefully picked out every bit of stalk, pour over them one pint of boiling water; let this boil till one half remains; then pour the whole into a china bason, and covering it up, set it aside for twenty-four hours; strain it off through a linen rag, and add four ounces of treacle; put it over a clear fire till it becomes so much heated as to be thoroughly mixed together. When cold, cork it up for use, and keep it in a cool place. This syrup is chiefly intended for children; the dose may be from a teaspoonful to a tablespoonful, according to the age and strength of the child; if not active enough, powdered jalap may be added.

SENNA TEA.—One half ounce of senna and one ounce of figs, tamarind or raisins; pour on a pint of boiling water; let it stand for four or five hours; then strain off; a small tea-cupfull may be taken every hour till it operates. Or the same ingredients may be boiled in a pint and half of water till reduced to a pint, then strain off; in this case a smaller dose will suffice.

CASTOR OIL.—In purchasing this, always ask for cold drawn. The dose of this, for a child, is from a teaspoonful to a desert-spoonful; for a grown up person, from a desert-spoonfull to two tablespoonsfull.

FOR A WEAK STOMACH AND WANT OF APPETITE.—One ounce of camomile flowers, half an ounce of dried seville, orange or lemon peel (that is, the yellow rind quite from the inner white); pour on them a quart of boiling water, and take a wineglassfull the first thing in the morning and twice in the day besides.

APPLE WATER.—Cut two large apples in slices, and pour a quart of boiling water on them; strain in two or three hours' time, and sweeten to taste. Or, boil the apples in three pints of water till reduced to a quart.

ORANGE OR LEMON DRINK.—Squeeze the juice of four oranges or lemons, rinse the pulp and rind in half a pint of boiling water, simmer another half a pint of water with eight or ten lumps of sugar till thoroughly dissolved and mixed, when all are cold mix well together and strain through muslin or flannel

MUCILAGE OF GUM ARABIC.—Ten ounces of gum arabic in powder, mix well with two tablespoonsful of honey; shave a little rind of lemon, clean off the white pith and cut the lemon in slices into a jug, then stir on it, by degrees, a pint and a half of boiling water. This is particularly good in any complaint that affects the chest, as cough, consumption, measles, &c.

BRAN TEA is made by boiling a large handful of bran in a quart of water till it thickens, then strain it off and sweeten. The gum, honey, and lemon may be added as above. It is useful in the same complaints.

TEA made of balm, mint, sage, marigold, or cowslips is often found refreshing. Balm tea is most cooling; mint the most comforting to the bowels; sage or marigold most reviving; and cowslip tea has rather a composing tendency. To have them nice they should be made fresh.

CAMOMILE TEA is often rendered nauseous by suffering it to remain far too long on the flowers; after ten minutes, or even less, no further good properties are extracted from the flowers, only a nauseous bitter. Half a handful of flowers will make a quart of tea sufficiently strong for any purpose. If a person who takes camomile tea to strengthen the stomach finds a lowness and sinking, six or eight cloves may be added, and a tea-cupful be taken cold the first thing in the morning.

LINSEED TEA.—Boil two tablespoonsful of the seeds in three pints of water till reduced to 1 quart; strain it and let it stand to settle; it may be sweetened with liquorice, honey, lemon juice, or vinegar.

MUSTARD WHEY.—To a pint of boiling milk add an ounce and half of bruised mustard seed; boil it till the curd completely separates, then strain it off to a pint of boiling water, sweeten and boil it up once. This is particularly good for old people laboring under cold, rheumatism, palsy, or dropsy. It is also sometimes recommended in low fevers. The dose is a teaspoonfull four or five times a day.

TO PRESERVE EGGS.—The proper time of doing this is early in spring when the hens lay plentifully, and before they begin to set. There are several ways of preserving them for use or sale at the season when they become dear. First by dipping in boiling water and taking them out instantly; or, secondly by oiling the shell or rubbing them over with melted suet; and thirdly by placing them on shelves with small holes to receive one in each; they must be placed endways and changed every other day.

TO PRESERVE BUTTER FOR WINTER USE.—Let the salt be perfectly dried before the fire; roll it with a glass bottle till it is as fine as possible, spread a layer of salt so that when turned to brine it shall entirely cover the butter. The best jars for this purpose are the Nottingham stoneware, with lids.

A FIRE AND WATER-PROOF COMPOSITION may be made thus: fine sand one part, fine wood ashes two parts, slaked lime three parts; to be ground up with linseed oil and put on with a paint brush, first coat thin, second very thick.

A GOOD WAY OF KEEPING POTATOES.—When they are ripe dig them as dry as possible and lay them in a heap ridged up and covered with straw; cover the straw with earth. They will keep famously through the winter without sprout or canker; it should be fine weather when you take them out.

BUTTERMILK is often serviceable to consumptive persons, but it should be drank constantly, and persevered in a long time.

GRIDDLE CAKES.—Use milk altogether and no water. Two eggs, yellow and white, to be allowed for a pint of corn meal, the milk to be a little warmed and the whole to be well beaten up with a spoon. There must be milk enough used to make the whole so liquid that it will pour out of the saucepan on the

griddle. Add one spoonful of wheat flour, and lard (pure butter is better) the size of a walnut. The griddle must be made not very hot as it would then burn the cakes, and it must be well cleaned and greased while warm, that it may be perfectly smooth so that the cakes may be easily turned, that they may be done brown (not burnt) on both sides; to promote their turning easily is the object of adding the wheaten flour. The dough, or rather the batter, must be well beaten up, and prepared directly before being cooked, though it might set an hour, but it would not bear to be mixed over night. The cakes are usually poured on until they spread on the griddle to the size of the bottom of a breakfast plate.

EGG PONE.—Three eggs to a quart of meal, no wheat flour to be made with milk as water would make it heavy, a spoonful of butter, all well beaten together and made up for a consistence thicker than the cakes, too thick to pour out, but just thick enough to require to be taken up with a spoon; may be baked like cakes immediately after being mixed. Must be baked in a tin pan, which must be placed in the oven, not too hot at first but the fire under it to be increased. The object is to have it begin to bake at the bottom, when it will rise in the process of baking, become brown on the top, and when put on the table and cut resemble what we call pound cake. Salt of course add as usual to your taste in both cases.

FIRE.—It would be not amiss to remark that disastrous fires are often occasioned by carelessness, therefore persons cannot be too careful with lamps and candles. Also that when a fire does happen doors and windows should be close fastened directly. Buckets should be always kept in a certain place, so that they could be found direct in the dark. At the first signs of fire the tops of chimnies should be plugged with rags to prevent draft.

THE LUNGS, LIVER, &c.

THE LUNGS are made of a substance very soft and spongy, supple to draw and enforce from, like a pair of bellows. They are an instrument of respiration whereby the heart is refreshed, drawing unto it the blood, the spirits, and the air, and disbur-

thening itself of those fumes and excrements which oppress it. They are naturally cold and dry, accidentally cold and moist,—naturally cold and dry, waving about the heart, abating its heat by a refreshing blast; they are accidentally moist, by reason of catarrhs and rheums, which they receive from the brain.

There are three principal parts in the lungs: One is a vein coming from the liver, which bringeth with it the crude and undigested part of the chyle to feed the lungs. Another is *arteria venalis*, coming from the heart, bringing the spirit of life to nourish the lungs. The third is *trachia arteria*, that bringeth air to the lungs, and it passeth through all the left part of them to fulfil its office.

The lungs are divided into five portions or pellicles, three on the right side and two on the left side, that in case any impediment or hurt should happen in any one part, the other should be ready to supply the office.

I shall give no further description of the lungs, but describe the liver, which is a principal member in the little world, *quasi juvenans pater*, hot and moist, inclining towards the right side, under the short ribs. The form of the liver is gibbous or buncy on the back side; on the other side hollow, like the inside of the hand, that it might be pliable to the stomach (as a man's hand is to an apple or anything that is round) to further its digestion; for its heat is to the stomach as the heat of a fire is to the pot which hangeth over it. It is the storehouse of the blood, the fountain of the veins, the seat of the natural nourishing faculty or vegetable soul, engendered of the blood of that chyle which it draweth from the meseraic veins, and received by the *vena porta*, which entereth into the cavities thereof, and afterwards is sent and distributed through the whole body by the help of *vena cava*, which arise from the bunch or branches thereof, which are in great numbers as the rivers from the ocean.

The natural and nutrimental faculty hath its residence in the liver, and is dispersed through the whole body with the veins, from which are bred four particular humors, viz: blood, choler, phlegm and melancholy.

Blood is made of meat perfectly concocted, in quality hot and moist, the most perfect and necessary humor (the other three being superfluities, yet necessary too). The blood thus concocted is drawn out by the *vena cava*, whose branches, ramifying upwards and downwards, carry and convey it to all the other members of the body for their nourishment, where, by a third digestion it is transmuted into the flesh.

Choler, or bile, is made of meat more than perfectly concocted ; it is the spume or froth of blood ; it clarifieth all the humors, heats the body and nourisheth the apprehension. It is in quality hot and dry ; it fortifieth the attractive faculty, as blood doth the digestive ; it moveth man to activity and valor. The gall is an official member, a purse or panicular vesicle placed in the hollowness of the liver, whose office is to receive the choler superfluities, which are engendered in the liver as aforesaid. This purse or bag hath three holes or sacks. By the first it draweth to itself the choler from the liver, that so the bile or choler may be separated from the blood. By the second it sendeth choler to the bottom of the stomach to fortify the attractive faculty. And, lastly, it sendeth choler to every gut, from one gut to another, to cleanse them from superfluities and dross.

Phlegm is made of meat not perfectly digested ; it fortifieth the virtue expulsive, and maketh the body fit for ejection. It is kind too, and fortifieth the brain by its cosimilitude with it ; it is antipathetical to the apprehension and doth much injure it ; therefore phlegmatic persons have but weak apprehensions. It is cold and moist in quality ; its receptacle is in the lungs ; it qualifies the bile, cools and moistens the heart, thereby sustaining it and the whole body from the fiery effects which continual motion would produce.

Melancholy is the sediment of blood. It is cold and dry in quality ; it maketh men sober, solid and staid, fit for study. or any serious employments ; it stayeth wandering and idle thoughts and reduces them home to the centre ; it is like a grave counsellor to the whole body. It strengtheneth the retentive faculty and its receptacle is in the spleen, which in the body is placed on the left side transversely linked to the stomach.

CORRESPONDENCE.

No letters can be answered in the ensuing number which are received later than the third Saturday in the Month. Letters to be addressed to V. B. HALL, Post Office, Hamilton. Private residence Mountain View Cottage, Township of Barton, Hamilton.

J. E. H.—The seeds you sent are the right sort and of excellent quality.

T. F.—Keep a rag continually wet with linseed oil (raw) applied on the place until well, you cannot find a quicker and better remedy. The rag should not be allowed to get dry.

P. B.—The common field sorrel answereth the purpose better than any thing I know. The way of using it is thus: take about 2 handfuls of the leaves and stalks, pour upon them boiling water, the same as you would make tea, then strain off and turn out the leaves and stalks, boil the liquor and pour it on some more leaves and stalks and so on three times or more until the decoction is well concentrated; the dose would be half a cupful twice a day.

J. W.—I have got herbs for smoking purposes adapted to consumptive and asthmatical constitutions, and very beneficial for any diseases of the breast and lungs. I would recommend you to try some.

A. G.—Get sorrel 2 handfuls, pot marigold 2 handfuls, and boil them together in 3 pints of water for 1 hour, then strain it off and stir in while hot a $\frac{1}{2}$ ounce of gum arabic, and $\frac{1}{4}$ lb. of honey, bottle it off for use; take a cupful every morning.

D. W. C.—Write again when you arrive and settle.

F. W.—Send \$1.00 by post and you shall receive them, mail free, through the year.

O.—You can send me some if you like, or bring them with you.

R. R.—Yes, tell him to any part of Canada free.

B.—After a shower and in cloudy weather.

THE GOOD CANADIAN ;

OR,

HOUSEHOLD PHYSICIAN.

Happy the man who by Nature's laws, through known effects can trace the cause.

CAUSES AND EFFECTS.

A distinct difference exists between the cause of a thing and the effect produced. There undoubtedly exists a cause for every thing and event. To speak of any personal action without a cause would be foolishness. We have the effects produced, light and dark, night and day, the rising and setting of the sun being the cause thereof; according to some or most scientific teaching. Yet this has been denied by some, and on scriptural grounds, for by noticing the first chapter of Genesis light and darkness were created on the first day, and the two great lights were made as late as the fourth day. Therefore, how can light and darkness, night and day, be caused by the rising and setting of the sun, if the effect existed before the cause. It has been suggested by some that an artificial light must have been produced previous to the fourth day, and then this light made subject to the rule or the government of the sun and moon. Others say that it was a light produced by some means or cause, such as gasses produced from the confused chaos of earth while passing into form and position, and they proceed by chemical experiments to show how it could be done, taking for their argument that the first thing mentioned by Moses is the creation of the heaven and the earth, and that the time of such proceedings was years, perhaps centuries, before the first day mentioned in verse the fifth, and that the operation upon the waters mentioned in verse the second, was the primary cause of light and darkness, night and day. However

it may have been, we are certain that a cause must precede an effect. In diseases of all kinds there is a primary cause from which they proceed, and as long as the cause exists without obstruction the disease increases, therefore, the main principle of physic and cure of disease is to find out the cause and remove it; in addition to this to make use of healing medicines and to use such means as will hinder the return of the cause. Now, with this plain proof illustration, how easily might slight family complaints be cured, and as I stated in p. 23, the simplest remedies are found to produce the most salutary effects. The old saying is that when a thing is well begun it is half done, so then the first object in curing disease, which should never be forgotten, is to remove the cause and the effect will cease.

VEGETABLE SEDATIVE OR NARCOTIC POISONS

(Continued from p. 84).

CAMPHOR is an excellent medicine, but if swallowed in large doses causeth firey excitement in the brain and nervous system, causing vertigo, difficult breathing, fainting, convulsions and cold sweats, sometimes death. Caution—In cases of poisoning by camphor a few drops of laudanum may be given at intervals whilst professional aid is procured.

HEMLOCK.—The common great hemlock groweth up with a green stalk, four or five feet high, full of red spots, leaves set one against the other, winged, dented on the edges of sad green color, white umbeliferous flowers, pistils 2, seed flat; root, long, white and hollow, of a disagreeable smell, it is of a very dangerous quality, producing phrensy, dilation of the pupils, convulsions and death. The stomach must be first evacuated with the stomach pump, afterwards give large doses of vinegar or other aciduous fluids, (see caution p. 20.) Upon any mistake being made, or suspected poisoning take place, vinegar, wine or decoction of sorrel might be drank directly.

HEMBANE.—Must in case of poisoning, be treated the same as for Hemlock. The common Henbane hath very large, thick, soft, wooly leaves, dark greenish color, much dented on the

edges, thick stalks, 2 or 3 feet high, spreading into many smaller branches with less leaves thereon; flowers yellow, veined with purple; the root is large, white and thick, of a very strong, offensive smell. The action of Hembane is far less powerful than Belladonna, but it may cause death if eaten.

LAUREL WATER.—Is a direct sedative, known by its semblance in smell to bitter almonds; cases of poisoning by this require immediate attention. A glass of vinegar with 15 to 30 drops of solution of Ammonia, or a teaspoonful of Hartshorn whilst Professional assistance is obtained.

OPIUM.—Cases of poisoning by this, may be known when it is suspected to have been swallowed, by the following symptoms: Pale countenance, drowsiness, sighing deep and snorting breathing, cold sweats and appoplexy. The stomach pump or an emetic should be instantly used; irritate the throat with a feather or finger in the mouth; after emptying the stomach and bowels, give freely acidulous drinks, with strong coffee. Drowsiness should be hindered or kept away, by compelling the patient to walk about, and keep dashing cold water upon the face, chest and wrists.

PRUSSIC ACID.—When taken, death almost instantaneously follows, but moderately taken, produceth the same sedative effects as Laurel water, and to be dealt with in the same manner, but as I said before and repeatedly enjoin, the nearest physician should be sought, in all cases of poisoning.

STRAMONIUM, OR THORN APPLE.—Acts nearly the same as Opium, and requireth the same treatment.

STRONG SCENTED LETTUCE.—Produceth the same effects also, the same treatment being necessary.

TOBACCO.—Causeth severe nausea, vomiting, apparent drunkenness, weakness, cold sweats, and convulsions; emetics and purgatives may be used, and afterwards vinegar or other acidulous drinks and cordials.

(TO BE CONTINUED.)

July, the month of pleasure, profit,
 Fruits are ripe, and garden produce good ;
 The poor man gathers, thinks much of it,
 If he can save a store of winter food.

July, Dominion Day upon the first,
 And upon the 15th comes St. Swithin ;
 But in this month, this is the worst,
 It costs so much to dress the women.

July, the month to dress the ladies,
 Fashions high, and pockets full of money ;
 Besides expense of dressing babies,
 And in return get words of honey.

V. B. H.

HYDROCEPHALUS OR WATERY HEAD.

(Continued from Page 88.)

Independent of local injuries, such as falls, blows, &c., giving rise to this dangerous and oftentimes fatal malady, it will be produced by a disturbed state of the general system, induced from a disordered state of the general digestive organs, which may for a long time have been neglected. That not only the balance of the circulation of blood from such causes is disturbed, but that the nervous system, likewise, is irritable in a high degree. The brain and the stomach, with the rest of the digestive apparatus sympathize more immediately with each other than any other set of organs in the human body. I need scarcely add, that in proof of the truth of this statement, a severe blow on the head is almost immediately followed with sickness and vomiting; and that a blow upon the pit of the stomach will instantaneously produce a convulsive fit and wholly deprive the individual of his senses for a time. When hydrocephalus is produced by causes arising within, the symptoms proceed more slowly, and are more equivocal than when it is the result of a blow or a fall, and in some instances so insidiously does the disease progress, that the most watchful and intelligent parent cannot foresee the danger which the child is gradually subjected to. Thus a minute description of the earliest symptoms is here required. The little patient, for many days, or perhaps weeks, complains of listless-

ness, and will either frequently wish to be nursed or will lay its head upon a chair and throw from it those toys which before were its chief source of pleasure. The temper is irritable, it will fret and cry for the least trifle, and any noise evidently adds to the child's discomfort; the appetite has failed, but thirst is oftentimes great; the skin is hot and dry, more especially the abdomen and forehead; the bowels are usually costive and but little urine is voided. This may be termed the incipient or irritable stage of the disorder, and if at this period the process of dentition should be going on with the child, the second or inflammatory stage may now be expected to supervene. The structure which most commonly becomes inflamed as a prelude to effusion, or the formation of water, is the innermost membrane, the pia mater. This, as stated in the first article, in the last number, envelopes the convolutions and circumvolutions of the brain, and lines the ventricles or cavities which are found in the interior.

2ND STAGE.

The same train of symptoms which have been described in the incipient stage are observed in the second or inflammatory, but aggravated in a high degree. The sense of hearing is now exceedingly acute, the slightest noise evidently gives pain. The eyes become red and are suffused with tears; they cannot bear light; on only a slight ray being admitted to them the lids are instantly closed, and the child screams from pain. The tongue and mouth becomes covered with a dry brownish crust, the sordes collect about the teeth and gums. Thirst is incessant; and on offering the little sufferer any drink, it will seize the cup or glass with its teeth and drink with the utmost eagerness; sleep is disturbed by almost incessant startlings; and at such times the thumbs and toes may be observed to be bent inwards, the former usually pressed under the fore fingers. This symptom clearly denotes that convulsions are near at hand. The commencement of convulsive fits indicates that effusion (formation of water) is taking place within the cavities of the brain. Convulsions now become frequent and increased in severity; the child rolls its head upon the pillow; the pupils of the eyes become gradually

dilated, and when in a dozing state, the lids are seldom closed. There is obstinate constipation of the bowels. The breathing becomes laborious, and is often as quick as in cases of acute inflammation of the lungs, with which hydrocephalus is not unfrequently an attendant malady. In a few days the eyelids remain more apart whilst sleeping than what is natural while awake; a lighted candle being held close to them is not observed by the patient, and the iris in no degree becomes contracted by that stimulant. In short, not only the sense of sight, but those of hearing, taste, smell and touch, seem to be nearly annihilated. In a few hours after the establishment of this melancholy spectacle, death puts an end to the sufferings of the patient.

TREATMENT.—I shall, under this head, enter only into the management during the incipient or first stage; it being hoped that no non-medical person would trust to his own judgment in treating so formidable a malady as inflammation of the brain.

As soon as the early symptoms above described are discovered, and more especially if they succeed to a blow upon the head, immediately reduce the diet of the child to less than one half; to consist of a little sago, arrowroot, and such like food, solid aliment being wholly withheld for a time; perfect quietude must be enjoined, and if there are other children in the family, they must be kept apart from the patient. Apple drink or thin barley water acidulated with a little lemon juice may be frequently offered. The child should be kept in a reclining posture, not on the lap, (the heat communicated to the child from the person of the mother, having in all cases of fever an injurious tendency but on a sofa or bed. A warm bath daily is strongly recommended, the patient to remain in it up to the arm-pits about ten minutes. The feet are to be wrapped up in flannel, and should the back, as well as the fore part of the head be hot, it is recommended to procure two ox bladders and being half filled with cold water, let one of them at a time be interposed between the pillow and the child's head, changing them as the water becomes warm. The forehead should be frequently bathed with a little cooling cotton and the same should be constantly kept upon the part, and never suffered to become dry, until a great reduction of

the temperature is effected. The room in which the child remains should be darkened. The following medicines are recommended, supposing them to be for a child, from two to five years old.

Syrup of marsh mallows $\frac{1}{2}$ oz, one ounce of distilled water of onions, $\frac{1}{4}$ ounce of bruised mustard seed; mix well together and give a small spoonful every 2 hours.

A drink for general use in the thirst of the child, may be made thus. Pot marigold flowers, dry, one ounce, dry hops, one ounce, boil them well in 3 quarts of barley water.

BOTANY OR PHYTOLOGY. (CONTINUED FROM PAGE 86.)

COLUMBINE (*Aquilegia vulgaris*).—Is a perennial; three feet high or more; blossoms blue; spur behind the flower bent inwards; stigmas not longer than the stamens; capsules velvety; seed nearly black; leaves mostly smoothish; stem upright; branches somewhat angular; the whole herb mostly smooth; rarely downy. The leaves are used in lotions with good success for sore mouths and throats. The Spanish people habit themselves to chewing a piece of the root every morning, fasting for many days when troubled with the gravel or stone in the kidneys.

DAFFODIL OR GLEN.—The White Daffodil is called also Narcissus and Primrose Pearls. There are several kinds of white daffodil: one with a crimson or red purple circle in the middle of the flower; these have small narrow leaves like leak-blades, with a crested bare naked stock; without leaves, nine to twelve inches long; corolla gaping of six petals (or white flower leaves,) stamens placed within the cup, of a yellowish color. The roots boiled or roasted and taken, provoketh the stomach to vomiting; the same pounded with a little honey is good to be applied to burnings or scaldings, and cureth sinews that are hurt or sprained, and is good to help dislocations or members out of joint, if applied thereto. It easeth pains of the joints; taketh away all spots from the face if mingled with bruised nettle seed and vinegar, and applied; the same application cleanseth corrupt and rotten ulcers, and all kinds of corrupt sores.

YELLOW DOFFODIL. (*Narcissus Pseudo—narcissus*,.)—A perennial; bulbous rooted (as the former also is), one foot high; blossoms, pale yellow; called also lide, lide lilly and daffy down dillies; its flower scale is sheathing, containing one flower; calyx of six divisions equal; corolla, in form of a cup, funnel shaped, of a single leaf and saw toothed; stamens within the cup; flower stalk, two edged and straight. Double varieties are easily propagated by offsets from the bulbs. This is exceedingly good for the same purposes as the white daffodil, it is also good to cleanse away corrupt filth and running matter in the ears.

COMMON GROUNDSEL (*Senecio vulgaris*).—An annual plant from 6 to 12 inches long, flowereth all the year round, blossom yellow, without rays on the circumference compound calyx cylindrical; the scales with their tips often brown; the down of the seed not on a foot stalk, leaves wing toothed and somewhat embracing the stem, The stem is round green somewhat brownish, its root is small and thready. It is a wonderful remedy for all diseases proceeding from heat; in any part of the body, it is a safe and gentle purge for a foul stomach, operating each way, it is of a moist and cold nature, consequently causeth expulsion and represseth the heat caused by the motion of the internal parts, through the effects of an emetic or other medicine. This herb preserved either as a syrup, an ointment or distilled water, is a medicine unrivalled in its efficacy for the cure of all hot diseases, both for safety and speed. The decoction of it, or the juice of it, is good against pains of the stomach proceeding from choler, it is good against the falling sickness and jaundice; it provoketh urine, and helpeth to expel the stone and gravel from the reins and kidneys; it helpeth the sciatica, cholic, and all pains of the belly, some use it as poultices for pains and swellings with great success.

SOUTHERNWOOD OR AIPLERINGHY.—(*Artemisia Abrotanum*,.) A fragrant shrub from 2 to 4 feet high; blossom yellowish green, compound calyx, downy, in form of a half globe; florets of the circumference awl-shaped; seed vessels crowned with a membranaceous down; lower leaves twice cleft, upper leaves cleft, very slender. The seed of this, bruised, heated in warm water, and drank, is very good for cramps, contraction of the sinews,

the sciatica, or difficulty in making water. The seed as well as the dried herb is often given to kill worms in children, the herb bruised and applied helpeth to draw forth thorns and splinters out of the flesh; the oil of Southernwood killeth lice in the head, the distilled water thereof is good for persons troubled with the stone. The Germans use it for a wound herb, and call it Stabwort.

GARDEN LETTUCE.—(*Lactuca Sativa*.) An annual four feet high; flower, yellow; fence of flower scales tiled, cylindrical; scales with a membranous margin; the down of the fruit simple; having a short stalk, leaves rounded; those on the stem heart-shaped; stem in the shape of a bunch. The juice of Lettuce, mixed or boiled with oil of roses, and applied to the forehead and temples procureth sleep, and easeth the head ache proceeding from a hot cause; being boiled and eaten, it looseneth the belly, it helpeth digestion, quencheth thirst, increases milk in nurses, easeth griping pains of the stomach or bowels that come of choler. It abateth bodily lust, being outwardly applied with a little camphire; applied in the same manner at the region of the heart, liver, or reins, or by bathing the said place with the juice or distilled water wherein some white sanders or red roses are put; it represseth the heat and Inflammation therein; but comforts and strengthens those parts, and also tempereth the heat of urine. The seed and distilled water of the Lettuce, is chiefly forbidden to those who are short winded, or have any imperfection in their lungs, or spit blood.

COMMON ROCKET.—(*Hesperis Matronalis*.) An ever-green perennial; four feet high; blossom purple or white very fragrant; the foot-stalks of the flowers, as long as the calyx petals; egg oblong; the little pods uneven, smooth, not thickened at the edge; the summits of the pistils,—two erect and approaching; leaves oblong, spear-shaped and toothed. Rockets are forbidden to be used alone, because their sharpness fumeth into the head, causing ache and pain; and are no less hurtful to hot and choleric persons, for fear of inflaming their blood. The wild rocket is stronger than the garden kinds; helpeth digestion and provoketh urine exceedingly; the seed is used to cure the stings of serpents, the scorpion, the shrew mouse, and other

poisons; and expelleth worms from the body. If boiled or stewed, and some sugar put therein, it helpeth the cough in children. The seed also taken in drinks, taketh away the ill scent of the armpits and feet, and giveth a pleasant scent to the body; increaseth milk in nurses and wasteth the spleen. The seed mixed with honey, and used on the face, cleanseth the skin from spots, morpew and other discolorings; and used with vinegar, taketh away freckles and redness in the face or other parts; and if boiled with the gall of an ox, it removeth foul scars, black spots, and marks of the smallpox.

WALL FLOWER.—(*Cheiranthus Cheire*.) A half hardy perennial; about 2 two feet high; blossom orange yellow; calyx double pouched at the base; summits of the pistils with bent back lobes; leaves spear shaped and entire; hairs,—two, parted, lying on the surface, close, or none; seed pods line like and roundish. The yellow wall flowers work more powerful than any of the other kinds, and therefore of more use in medicine, thay cleanse the blood and free the liver and reins from obstructions, stay inflamations and swellings, comfort and strengthen any part if weak or out of joint, helpeth to cleanse the eyes from mists and films, and to cleanse ulcers in the mouth or any other part, and are a singular remedy for the gout and all aches and pains in the joints and sinews. A conserve made of the flowers is used as a remedy both for the appoplexy and palsy.

FRUIT, &c., FOR MEDICINAL PURPOSES.

Cherries as they are of different tastes, so they are of different qualities, the sweet pass through the belly more speedily than others, but are of little nourishment: the tart or sour are more pleasing to a hot stomach, procureth appetite to meat, and helpeth to cut tough phlem and gross humors, but when dried, they are more binding than when fresh, being cooling in hot diseases and welcome to the stomach; they also provoke urine. The gum of a cherry tree dissolved in milk is good for a cough, and hoarseness of the throat, it mendeth the color of the face sharp- eneth the eye-sight, provoketh the appetite, and helpeth to break and expel the stone; black cherries bruised with the stones and

distilled, the water thereof is good to break the stone, expel the gravel, and break the wind; the juice of ripe cherries and the milk from a cocoanut mixed in equal quantity, is a remedy for hoarseness, by keeping the throat just moist there with.

STRAWBERRIES.—When they are green, are cold and dry; but when they are ripe they are cold and moist. The berries are excellent to cool the liver, the blood and the spleen, or a hot choleric stomach; to refresh and comfort the fainting spirits and to quench thirst. They are good also for other inflammations, yet it is not amiss to refrain from them in a fever, for by their putrifying in the stomach they increase the fits. The leaves and roots boiled in wine or water and drank, do like likewise cool the liver and the blood, and assuage all inflammations of the reins and bladder, provoke urine, and allay the heat and sharpness thereof; the same, also, if drank stayeth the bloody flux, and helpeth the swellings of the spleen. The water from the berries, carefully distilled, is a sovereign remedy and cordial to the heart, and is good for the yellow jaundice. The juice dropped into foul ulcers, or the decoction of the herb and root doth wonderfully cleanse and help to cure them. Lotions or gargles for sore mouths or ulcers therein or elsewhere, are made with the leaves and roots, which are also good to fasten loose teeth, and to heal spungy foul gums; it helpeth also to stay catarrhs or defluxions of rheum into the mouth, throat, teeth, or eyes. The juice or water is good for hot or inflamed eyes, also pushes, wheals and other breakings out, redness, spots and deformities of the skin, and maketh it clear and smooth by being bathed therewith. Fill a strong bottle with strawberries, and cork it tight, tie a skin over the cork and neck of bottle, bury it in horse dung for two weeks, afterwards well strain the liquor therefrom, and keep it to use for sore and red eyes.

RED WHITE AND BLACK CURRANTS OR RIBES.—Red and white currants are good to cool and refresh faintings of the stomach, to quench thirst and stir up an appetite, and therefore are profitable for hot and sharp agues; it tempereth the heat of the liver and blood, and the sharpness of the choler, and resisteth putrification; taketh away the loathing of meat and weakness of the stomach, and is good for those who have a looseness of the belly. The black currants are of a grosser quality, but if used

with other fruit, by those who like them, have a strengthening effect.

PEACHES.—Nothing is better to purge choler and the jaundice in children and young people than the leaves of this tree made into a syrup or conserve, of which 2 teaspoonful at a time may be safely taken. The leaves of peaches bruised and rubbed on the belly kill small worm therein; if, at the same time, some of the leaves be boiled in water and drank, openeth the belly, and if dried, are a safe medicine to discuss humors. The powdered dry peach leaves strewed on bleeding wounds, stayeth their bleeding and closeth them up; the flowers steeped all night in warm water and strained in the morning and drank fasting, gently opens the belly. A syrup made from them, as the syrup of roses are made, operates more forcibly than that of roses, as it provoketh vomiting and discusseth watery humors. The flowers made into a conserve produce the same effects. The liquor which drops from the tree when wounded, mixed with the liquor in which the herb coltsfoot has been boiled, is excellent for cough and shortness of breath, hoarseness and loss of voice through cold, all defects of lungs and vomiting, and spitting of blood; with the juice of lemons it is good for those that are troubled with the stone. Peach kernels bruised and boiled in vinegar until thick, maketh hair to grow on bald places and where it is too thin.

MISCELLANEOUS RECEIPTS.

EMBROCATION FOR CHRONIC RHEUMATISM AND ENLARGED JOINTS.—Soap liniment, 1 oz.; spirits of hartshorn, 2 drachms; tincture of iodine, 2 drachms. Rub two or three times a day on the affected parts.

FOR RINGWORM.—Ointment of nitrate of silver, 2 drachms; white precipitate, 1 drachm; sulphur ointment, 1½ drachms.—Mix. The affected part (should be shaved if on the head) to be rubbed with this ointment every night, and in the morning washed with soap and water, when a lotion composed of ½ oz. of pyroligneous acid and 2 oz. of water, should be applied. This should be continued with till well cured.

FOR CRACKED OR SORE NIPPLES.—White wax, $\frac{1}{2}$ oz. ; oil of almonds, sweet, $\frac{1}{2}$ oz. ; honey, $\frac{1}{2}$ oz. ; balsam of Peru, 2 drachms. Mix. Melt gradually the first three articles together, and stir in the balsam of Peru. To be applied twice or thrice a day.

A FIT OF APOPLEXY.—Apoplexy is caused by too much blood pressing on the brain, and usually occurs in short-necked persons inclined to corpulency, after a full meal ; from drinking strong liquors ; from exposure to a hot sun ; or anything that will drive the blood to the head. Sometimes the person falls down suddenly ; at other times, there is previously violent headache, high fever, and delirium. In this case it will be dangerous to apply brimstone lighted, or smelling salts to the nostrils, or to introduce wine or other strong liquors into the stomach, as directed for fainting and hysterics. The patient should be placed in an upright posture, supporting his head to prevent any bend in the neck ; neckcloth removed ; shirt collar unbuttoned ; windows thrown open ; and if he be inclined to vomit, it should be promoted. Bleeding is sometimes important, but must depend on medical advice.

TO DRIVE FLIES AWAY.—It should be known that any articles which have been wiped over with the water in which onions have been boiled, the flies will not remain upon afterwards. Also that in gardening, if some onions be grown in rows each side of broad beans, it will tend to destroy the black fly that attacks them.

CURE OF HYDROPHOBIA (PRODUCED BY THE BITE OF A MAD DOG).—The following is to be taken in time as soon as it is known that a person has been bitten by a mad dog, or may be given to animals afflicted with madness. Take the dried herbs rue, 2 oz. ; wood betony, 2 oz. ; wood sage, 3 oz. ; agrimony, 2 oz. ; a small sprig of deadly night-shade, and sorrel, 2 oz. Boil these all together in one gallon of water until reduced to a quart. When it has boiled some time, add 1 oz. of antimony, and 1 oz. of filed pewter. A grown person could take half a pint three mornings fasting, and repeated again at the next full of moon. No spirituous liquors should be taken, and no excitement or violent exercise should be allowed. The above decoction well strained and taken in time, will effect a cure.

PHYSIOLOGY IN A NUT SHELL.

SOMETHING ABOUT YOURSELF.—Supposing your age to be fifteen or thereabouts, I can figure you up to a dot. You have 160 bones, 500 muscles; your heart is five inches in length and three in diameter. It beats 70 times per minute, 4,200 per hour, 100,800 per day, and 36,722,200 per year. At each beat a little over two ounces of blood are thrown out of it; and each day it receives and discharges about seven tons of that wonderful fluid. Your lungs will contain a gallon of air, and you inhale 24,000 gallons per day. The aggregate surface of the air cells of your lungs, supposing them to be spread out, exceeds 20,000 square inches. The weight of your brain is three pounds; when you are a man it will weigh eight ounces more. Your nerves exceed 10,000,000 in number. Your skin is composed of three layers, and varies from one-fourth to one-eighth of an inch in thickness. The area of your skin is about one thousand seven hundred square inches, and you are subjected to an atmospheric pressure of fifteen pounds to the square inch. Each square inch of your skin contains 3,500 sweating tubes or perspiratory pores, each of which may be likened to a little drain tile one-fourth of an inch long; making an aggregate length of the entire surface of your body of 201,166 feet, or a tile ditch for draining the body almost forty miles long.—*Taken from the St. Catharines Commercial Advertiser by permission.*

OF GATHERING FLOWERS.—The flowers, which are the beauty of the plants, and of none the less use in physic, groweth yearly in general, and should be gathered when they are in their prime; that is, when in full blossom and when the sun is shining upon them, that they may be dry; for if you gather either herbs or flowers when they are wet or dewy, they will not keep. Dry them well in the sun and keep them in papers in a dry place. So long as they retain their color and odour they are good, but when either of them are gone, so is their virtue also.

OF GATHERING SEEDS.—Seed should be gathered from those herbs or plants that are of the finest growth, and in those places where they appear to delight to grow most, and they should be

fully ripe when gathered. Dry them a little in the sun before you lay them up; they keep many years, but yet it is best to renew them every year, for either growing or medicinal purposes.

Gums, rosins, and liquid droppings may now be gathered from various trees.

APPLES.—Apples may now be hoped for, though not yet ripe. They are what I call the king of fruits, because of their purifying, cooling, cleansing, and strengthening qualities—of which see more in next number.

DIARRHEA OR LOOSENESS is not in many cases to be considered a disease, but rather as a salutary evacuation. It ought therefore, never to be stopped, unless when it continues too long or evidently weakens the patient. A looseness occasioned by the obstruction of any customary evacuation, generally requires that the diet should be very much lessened and the perspiration helped; also to bathe in warm water every night upon going to bed; at the same time every method is to be taken to restore the usual discharges, as urine, &c., as not only the cure of the disease, but the patient's life may depend on this. A looseness which proceeds from violent passions or affections of the mind, must be treated with the greatest caution; vomits in this case are highly improper, nor are purges safe unless they are very mild and given in small quantity; opiates or other spasmodic medicines are the most proper; 10 or 12 drops of liquid laudanum may be taken in a cup of valerian tea or penny-royal tea, every 8 or 10 hours, till the symptoms abate; ease, cheerfulness and peace of mind are most important. When a looseness proceeds from acrid or poisonous substances taken into the stomach, the patient must drink large quantities of diluting liquors, with oil or fat broths to promote vomiting or purging, but use caution that the bowels get not inflamed from whatever cause the looseness proceeds. When it is found necessary to check it, the diet should be composed of rice boiled with milk and flavored with cinnamon, and lighter sorts of very fresh meat roasted, drink weak broth made from lean veal or of a sheep's head, it being very gelatinous.

CORRESPONDENCE.

No letters can be answered in the ensuing number which are received later than the third Saturday in the Month. Letters to be addressed to V. B. HALL, Post Office, Hamilton. Private residence Mountain View Cottage, Township of Barton, Hamilton.

C. T.—I shall be glad to supply you at any time you send, only send at the beginning of the month if you can.

A. Orchis.—They are 25 cents a packet, or made up in bottles ready for use 55 cents.

P.—I sent you June and the packet by post.

R. G., St. Catharines.—Add to the advertisement, "Proprietor of the celebrated lung restorative Botaca," to oblige yours, V. B. H.

To Country, Town and Village Booksellers.

Upon application to me by letter with amount enclosed I shall be happy to supply you with these Magazines, at 25-100 rate. Post paid by me to all parts of Canada.

To Tobacconists, general Store keepers, &c.

The famous Lung restorative known as Botaca, used instead of tobacco by smokers who feel the injurious effects of smoking tobacco, may be had of me, for sale at 25-100 rate. Retail price 5 cents and 10 cents a packet.

Advertisements are inserted in these covers by special arrangement with me.

CANVASSING AGENTS WANTED.

THE GOOD CANADIAN ;

OR,

HOUSEHOLD PHYSICIAN.

Happy the man who by Nature's laws, through known effects can trace the cause.

TASTE.

The taste is hot and moist in its nature. This sense has its residence in the palate of the mouth and tongue. Its office is to choose what food is congruous to the stomach and what is not. The skin of the palate of the mouth is the same with the inward part of the stomach, and the same with the way of the meat to the stomach ; upon touching the palate of the mouth with the finger, it tickleth the stomach ; and by touching nearer to the throat, so much the more the stomach abhorreth. The objects of taste are six in number, of simple kinds, as, sweet, sour, sharp, tart, salt and bitter ; the compounds are many. In the mouth are five parts to be considered, the lips, teeth, tongue the uvula and the palate of the mouth. The lips are made of a musculous flesh, their office is as the door to the house, to keep the mouth close till the meat be chewed ; they also help to pronounce the speech. The teeth, the hardest members, are fastened into the mandible ; their office is to grind or masticate the food before it passeth to the stomach, so that it may the better digest ; also, as a help to the speech for those who have lost their teeth are defective therein ; the number of them is uncertain, some have more, some have less, they who have their full number have thirty-two. The tongue is a carnous member compounded of many nerves, ligaments, veins and arteries ordained principally for three purposes : First is that when a man eateth, the tongue might turn the food in the mouth till it is chewed ; secondly, by the tongue and palate of the mouth near the root of

the tongue is the sense of taste received, and then presented to the judgment to judge thereon; thirdly and principally, the tongue is ordained for the pronounciation of speech.

SPEECH.

Speech is an excellent present from God and very necessary, given only unto man; it is the interpreter of inward thoughts, the heart's messenger, the gate through which passeth the meanings and views of man which otherwise could not be known to others, by this as it were the mind of man becomes visible; "out of the abundance of the heart the mouth speaketh." By it we are enabled to explain and persuade; by it man hath a power that stirreth up, animateth, exasperateth, appeaseth, maketh sad and merry. It imprinteth whatever passion it handleth, feedeth the mind of the hearer, it maketh him blush, wax pale, laugh, cry, tremble, mad with rage, or leap with joy, &c.; it is the agent of all our concerns, by it we traffic and manage our affairs, and it is the band of human society. The tongue is said by the Scriptures to be an unruly thing, and that no man can tame it, what scandal, what untruthfull accusation, what abusive threats, and strife causing language, are the fruits of a lying tongue and deceitful heart; yet, on the other side, what enjoyment is found in conversation with those whom acquaintanceship and affection binds together. Thus the tongue may be used for good or harm, for right or wrong, for truth or falsehood, &c.; but we should remember that the power of conversation is given to us from God, distinguishing us from the common beast, and therefore we should use it rightly.

FRUITS AND THEIR MEDICINAL PURPOSES.

APPLES are a fruit which every one, more or less, greatly enjoys; they are held high in the estimation of all those who study health and physic; they appear to be the last fruit coming to us each year, and of all fruits, they appear to keep the longest. Very cooling drinks are made from apples, and serviceable to sick persons troubled with complaints proceeding from heat.

When roasted, they are very serviceable to sick persons to strengthen the stomach and promote healthiness therein ; they are of different qualities, according to their acidity and sharpness or their sweetness, of which all persons can judge for themselves, some like them of a sour taste, and some like them sweet. To quench the thirst and encourage appetite, and cleanse and strengthen the system throughout, they are, in their season, an invaluable boon for every household, and cannot be too highly prized. In packing them, they should be placed with their stalks downwards, and should be all free from bruises.

NUTS AND THEIR PROPERTIES.

CHESTNUTS, the pride of nuts, are very small, but they are not to be despised because they are small. These nuts should be tried, by those who have not done so, in a boiled state. The way of boiling them is thus :—put the quantity you are going to boil into a pot of boiling water, sufficient to well cover the nuts, boil them until the outside skins crack, when you can take them up and open them, the skins will come off quite easy and the nut will be mealy and nice. This is the nicest way of eating chestnuts. They yield wonderful nourishment to the body, by producing good blood, but are rather binding. The inner skin that covereth the nut is of so binding a nature that a scruple of it, taken by a man, or ten grains by a child, soon stops any flux whatever. If you dry some chestnuts and beat the kernels into powder, taking both barks away, and make it up into an electuary with honey, you can keep it by you as an admirable remedy for coughs and spitting of blood.

WALNUTS are mostly serviceable for medicine, both inwardly and outwardly applied, yet many persons eat them and like them. The young green nuts, taken before they are half ripe and preserved with sugar, are of good use for those who have weak stomachs or defluxious therein. The oil of walnuts easeth the cholic and expelleth wind.

BEECH NUTS are of a nourishing nature and most especially to cattle, they are also, in general, cooling and binding, and therefore useful in hot diseases.

ALMONDS.—Sweet Almonds nourisheth the body much, they strengthen the breath, cleanse the kidneys and opens the passages of urine.

Bitter Almonds openeth the obstructions of the liver and spleen, cleanseth the lungs from phlegm, provoketh urine, and expelleth wind. The oil of bitter almonds cleanseth the skin; it also easeth pains of the head if the temples be anointed therewith.

ACORNS, or Oak nuts, are of a binding nature, and cups of the acorns are most binding; the powder thereof is used to stay vomiting, spitting of blood, bleeding at the mouth, or any other flux of blood, and to bind the stomach when too much relaxed.

BOTANY OR PHYTOLOGY.

Continued from Page 106.

ARTICHOKES (see page 22) can now be made use of in their season, and to those who like them, if used in a moderate quantity, boiled like turnips and eaten with meat and other food, will have a strengthening effect on the constitution, but it purgeth by urine very much.

MULLEIN.—The common white mullein hath many fair large woolly white leaves lying next the ground, somewhat longer than broad, pointed at the ends and dented at the edges; the stalk rises four or five feet high, covered with such like leaves, but smaller, so that no stalks can be seen for the quantity of leaves thereon, up to the flowers which cometh forth on all sides of the stalk, generally without any branches, and are many flowers together in a spike, some are gold yellow, others a more pale yellow, consisting each of five round pointed flower leaves, which afterwards have little round heads, with a small brownish seed therein. Of roots, see Page 53.

It is of very common growth here and can easily be found. The boiled decoction of this herb, drank, helpeth ruptures, cramps, and convulsions and those that are troubled with an old cough; and if used as a gargle easeth the toothache; by bathing the

joints and sinews of those that are benumbed with cold, and cramps, it much easeth and comforteth them; the powder of the dried flowers are an especial remedy for those who are troubled with cholic or stomachache. A poultice thereof easeth pains and healeth wounds. It is used with never failing success being dried well and smoked in a pipe for the diseases of the chest and lungs. Three ounces of distilled water of the flowers drank morning and evening for some days are said to be an excellent remedy for the gout; the bathing with the decoction or application of a poultice dissolveth tumors, swellings, or inflammations of the throat.

SWEET SCABIOUS is very effectual in all coughs, shortness of breath, and all other diseases of the throat and lungs, digesting tough phlegm and humors, and voiding them by coughing and spitting. It cureth all kinds of inward ulcers and gatherings by drinking the decoction of the green herb in large quantities. The green herb bruised and applied to any boil or sore will dissolve or break it in less than three hours. See Scabious Root, page 54, Class page, 41—VIII.

PLACES OF GATHERING.

Herbs, flowers, fruits, seeds and roots,—may be gathered on mountains, hills and plain places, according to where they delight to grow. Odoriferous (sweet smelling) herbs are frequent on hills. Moist and cooling herbs are more frequent in and near watery places. Hot, dry and biting herbs are found mostly in hot, sunny and wind exposed places. Herbs are to be gathered when flourishing or beginning to go to seed, and at noon in a clear day; should not be either dewy or too much scorched with the sun. But those which have neither stalk flower or seed, such as Maidenhair, Spleenwort, &c., are to be gathered in the vigour of their leaves, that is when they are most green and greatest, and some, because while they flower and bear seed they get woody and dry, are to be gathered earlier, as succory beet, &c. Flowers should be gathered in the vigour of their maturity, and dry, when the sun is on them, and before they begin to wither or fall off. Fruits should be gathered when they are ripe and before they begin to wither. Seeds

when they begin to dry and before they fall off and out of plants when dry and no longer green, and from the finest plants. The Juice of plants are to be pressed out when they are green and tender, and out of the well grown and greatest. The Barks of fruit are to be taken when the fruits are full ripe. And the Barks of roots when the herbs thereof have lost their leaves, but the Barks of trees when they are in full vigour. Woods should be gathered when they are full grown. Liquors and gums are taken when they are in vigour by opening the stem or stalk thereof, and other gums are taken from the trees when congealed and mature. Roots are to be got when the fruit has fallen off, and the leaves also begin to fall; and are to be dug in fair weather, and in dryish ground if intended to keep. Yet there are many roots can be gathered in spring time.

MANNER OF KEEPING.

Flowers should mostly be kept separated from the stalks and leaves.

Herbs, or leaves, if they are large and have thick stalks, should be separated and kept apart, but if tender they are kept together, and sometimes with the flowers.

Fruits, as apples, &c., are to be kept with their stalks downwards, and last longer if laid on a heap of barley.

Roots, some are kept whole, as those of birthwort, gentian, hermodactils, satyrion, &c.; others are dissected, as briony, elecampane, flower deluce, &c., also some have the woody matter taken away, as those of fennel, stone parsley, &c.

PLACES OF KEEPING.

Places for keeping should be pure from smell, convenient, high, dry, open, of a north or south situation, where they may not be burnt by sun or moistened by any wall, flowers are to be dried in the shade and then kept in glass jars or caskets.

Herbs are to be dried in the shade, except those that have thicker stalks and moister leaves, and so more subject to putrefaction, which must be dried by the heat of the sun or fire, and

when well dried should be kept in linen or paper bags, or wooden baskets that they may be defended from dust.

Seeds are to be kept in a dry place and in a wooden or glazed vessel; drawers answer best, being wrapped also in papers that they may last longer and without impurity.

Fruits in barrels, boxes and screened shelves.

Gums and dry rosins in a dry place and in wooden vessels, but the more liquid should be kept in stone or earthenware.

Barks in wooden vessels, and a dry place.

Roots require keeping in a dry air; small and thin roots are to be dried in the shade or wind, as those of parsley, fennel, &c., but the larger ones by the sun and wind, as those of briony, gentian, mandrake and rhubarb.

DURATION OF THEM.

The time of keeping must not exceed the time of their natural duration when left to grow &c.

Flowers may be kept so long as they retain their colors, smell and taste, which, for the most part, is 6 to 9 months, and are best when freshest, therefore should be changed yearly.

Herbs may be kept longer, yet it is better to change them yearly.

Seeds by how much they are more hot, sharp or aromatical, by so much, also, are they more durable, therefore may be kept two or three years, but those of a smaller and colder nature must be changed every year, and must be kept carefully, lest they grow mouldy. Fruits must be changed every year, but the exotic fruits that have a harder bark or shell, &c., may be kept two or three years. Gums and Rosins are more durable. Barks last a year or more. Roots, if they are small, slender and thin, are changed every year, but the greater ones and them that are of a gross substance, last two or three years, as birthwort, briony, gentian, rhubarb, helebore, &c.

TO BE CONTINUED.

VEGETABLE ACRO-NARCOTIC POISONS.

COCCULUS INDICUS.—The symptoms produced by this poison very much resemble those of intoxication. Vomit and purge freely.

DEADLY NIGHTSHADE (*Belladonna*).—The appearance and taste of the berries often allure children to eat them, the symptoms resemble those of intoxication, with delirium and laughter; it also causes such a state of paralysis of the stomach that the most powerful emetics can scarcely excite vomit. Administer vinegar and other acidulous drinks, which often encourage the emetic to operate. Continue using the acids till all symptoms disappear.

ELATERIUM.—This is not likely to be used as poison, but it may be overdosed in the hands of the ignorant. The symptoms are very violent purging of watery stools, followed by sudden sinkings and excessive debility. Support the strength by cordials, camphor and opium in doses of a grain, repeated at short intervals; clysters of starch may be used with from forty to sixty drops in each clyster.

FOXGLOVE (*Digitalis*).—An overdose of this medicine, in any form of preparation, produces sickness, vomiting, vertigo, indistinct vision, cold sweats, delirium and fainting, and may cause death. To counteract these effects administer cordials, as camphor and opium, mixed in some kind of drink quite hot.

FOOLS' PARSLEY (*Æthusa cynapium*).—This plant is readily distinguished from real parsley by three long linear leaflets, which are pendant on one side of the base of each umbellule, or umbrella-like expansion of the footstalks of the flowers, and which are not present in parsley. When eaten, fools' parsley produces heat of the throat, thirst, vomiting, a small but frequent pulse, headache, vertigo, and delirium. It should be evacuated from the stomach by large draughts of demulcent fluids until professional aid be procured.

FUNGUSES AND POISONOUS MUSHROOMS.—The general result of these funguses on the animal economy is pain of the stomach, nausea and vomiting, cholic and purging, cramp of the lower

extremities, with vertigo, delirium and convulsions. Evacuate the stomach by emetics and purgatives, or by a combination of the two, as for example, a scruple of powdered ipecacuanha and two ounces of glauher salts, after which give acidulous drinks and a teaspoonful of æther, at short intervals, and lastly use Peruvian bark.

FUNGUSES.—All funguses which grow in damp, shady places, which have a porous, moist, dirty surface, a disagreeable aspect, a fetid odor, a gaudy color, have soft, open and bulbous stalks, and which grow very rapidly and corrupt quickly, are to be suspected.

MEADOW SAFFRON (*Colchicum*.)—Over doses of this remedy and its preparation promote violent purgings, and bloody stools, sinking of the pulse and cold sweats. Evacuate the stomach by copious draughts of demulcent fluids ; then give from six to ten grains of carbonate of ammonia, or one or two teaspoonsful of hartshorn, in some hot liquor, at short intervals.

NUX VOMICA, RATSbane.—The symptoms of poisoning by ratsbane are those of inebrity, tetanic twitchings, rigidity of the extremities, extreme difficulty in breathing, violent pains under the breast bone, and suffocation. Evacuate the stomach and bowels, then give opium, cordials and purgatives.

FACTS AND SCRAPS.

Diseases of the lungs do not accept of a cure otherwise than by fumes of smoke, &c., prepared expressly for the purpose. For females and children, the Botaca preparation should be burnt in the room, and the patient can breathe in the air, fumigated thereby, but adults may smoke it with a pipe, swallowing the smoke.

Cleansing and strengthening medicines should, without fail, be taken in spring and fall.

Fruits of each kind, in their season, should have been freely indulged in, and now apples, pears, &c., may be enjoyed, but bad fruit, if only the least bad, should be destroyed.

Herbs intended to be gathered in to be kept, should not be forgotten, now is about the time.

Out of all systems of medicine and preparations from laboratories of art, for a decided, sure and safe cure, without fear of after injury, none are worthy to be compared with that system of Providence, the laboratory of nature. It is a fact, that men are more fond of conjuring, contriving, inventing and introducing new systems, than they are of using those (in their properly prepared state of nature) which He who is wisest hath conjured, contrived and invented.

AUGUST.

August, bold month, August is,
 Observe, you must be gathering,
 Leaves and flowers and seeds, you quiz,
 Are browning, drying, withering.

Apples are good, so gather in,
 Be sure to get a stock of them,
 Or else you will find ere March again,
 Your barrels hath not one within.

Gather now your oats and corn,
 Hoe potatoes, dry and bag them,
 Into the fields your poultry turn,
 If you mean to keep and fat them.

Sloth not, stop not, spade or hoe,
 Clear the ground of things that's grown,
 Then cabbage well your garden through,
 And leave not one square inch alone.

V. B. H.

WHEN AND HOW? ELEGY WITH ECHO.

Great men die this month,
 Small men die next month,
 All men die some month,
 Some men die any month.

Young men soon may die,
 Old men soon must die,
 Wicked men fear to die,

* Good men do not die.

V. B. H.

* In a religious sense, good men do not die, because they have hopes of immortality, yet in truth they do die mortal, expecting to be raised immortal.

This month care should be taken that those apples which are bitten with the fly and fall to the ground, are not eaten by the children; the poisonous nature of these insects upon the fruit, causeth an impurity to be imparted to those who eat them. Many diseases of children are brought on in this way, simply because they are allowed to eat the poisoned fruit.

OF THE BREATH.

If the respiration be easy, constant, regular, and free, it indicates a good state of the lungs, and a commodious transmission of blood through them. If it be difficult, it denotes the contrary, and is the worst presage in all cases that can be; if it be at the same time painful, it betokens an internal inflammation. A great respiration is always a favourable sign, as, on the contrary, a small one is very ominous. A gentle respiration is, in itself, the best sign; but if too quick, it declares the organs of breathing to be affected, and therefore is fearful and dangerous. An equal and unequal breathing is not salutary, but likely to prove dangerous. A suffocative respiration ordinarily denotes death shortly; and that is almost as bad when it appears high in the upper part of the thorax. A cold breath is deadly, as denoting a gangrene of the viscera and internal vessels. A short, interrupted and difficult breath, every one knows is the constant concomitant of the phthisic or asthma. But the breath of persons differ, according to their constitutions, &c.

PHYSIOLOGY OR NATURAL PHILOSOPHY.

Physiology, according to its derivation, signifies a discourse concerning nature, or the nature of bodies in general, and therefore it is used to denote that science or study which enquires into and investigates the causes, properties and effects of all natural bodies objected to our sight, or falling under the cognizance of any of our senses. For this reason this science has been called Physics and Philosophy, or more commonly natural philosophy, and those who are skilled therein are called physiologists, naturalists, and natural philosophers. The subject of

this most excellent science being no less than the wide and almost boundless field of sensible nature, the science itself must needs be exceeding great and important, of which I shall proceed to give a short but comprehensive sketch.

Natural philosophy may be properly divided into four parts. (1.) Somatology, which studies the nature of matter in general, and its properties, accidents and various modifications in all natural bodies. (2.) Uranology, which treateth on the constitution of the heavens, sun, moon, planets, &c. (3.) Aerology, which treats of the nature of the atmosphere, and the various meteors thereof. (4.) Geology, a knowledge of the earth and sea, with all their various productions.

SOMATOLOGY is the doctrine of natural bodies, and considers the original and essential properties of matter of which they are variously composed. Matter is that which we generally call the substance of things, or that of which all things do consist, under different forms and modes. The properties of matter or body are two-fold.—(1.) Essential and commonly to all bodies. (2.) Specific and accidental, which happen to bodies, not necessarily from the nature of matter, but casually and comparatively only. The essential properties of all bodies or matter are these: (1.) extension, for all matter is extended; (2.) solidity, for every particle of matter is impenetrable; (3.) divisibility, for all matter may be divided into still lesser parts; (4.) mobility, for all bodies are capable of motion; (5.) figurability, all bodies having some form or figure; (6.) gravity, for all bodies have some weight; (7.) mensurability, for all bodies have some dimensions; (8.) inactivity, for no matter can act or move of itself; (9.) ubiety, for all bodies occupy some place; (10.) durability, for no part of matter can be annihilated.

Extension is the quantity of bulk or size into which the particles of matter are disposed or extended, for there is no body which has not length, breadth and thickness, which make what we call the extension of bodies.

Solidity is that property of body whereby it excludes all others out of the place which it possesseth, for no two bodies can possibly be in one and the same place at the same time. Hence the matter of the softest bodies is equally solid with that of the hardest; thus, a cubic inch of water will no more than a cubic

inch of stone be compressed into less than a cubic inch of space.

DIVISIBILITY is a property of matter which follows solidity, for since two particles of body cannot exist together, or in the same place, they therefore exist separately or in different places, and so may be considered as distinct or separate from each other, which is all that is meant by their being divided. The actual division of matter is very surprising, as is manifest from the nature of odors, perfumes, tinctures, light and several other experiments on bodies, and the infinite divisibility of matter is easily proved by geometry.

MOBILITY is that property which follows from the divisibility of matter, and its being finite, for since matter is divisible into parts and does not fill all space it is possible for one part of matter to be made to change its place, or be removed from one part of absolute space to another, which is called motion, or local motion of a body.

FIGURABILITY is that universal property of a body whereby it is necessitated to appear in or put on some shape or form, for since all particles of matter are finite they must be contained within certain bounds or extremities, which must have some kind of mode or fashion, which, as it results from mere contingency, is infinitely various, and is called the formation or modification of bodies.

GRAVITY is that universal disposition of matter whereby a lesser part is carried towards the centre of any greater part; thus all parts of matter or bodies on the earth's huge surface have a tendency to descend to its centre or middle part, and this is called weight; being gravitation in the lesser body, and attraction in the greater body, because the greater body draweth the lesser body to itself. Some distinguish attraction otherwise as cohesion and gravitation. Attraction of cohesion is that, whereby very minute bodies or the particles of the same body are mutually drawn toward each other and made to cohere and stick together. The sphere of this attraction of cohesion is very small, for it acts only upon contact, or at very small distances, and in proportion to the surfaces of the attracting bodies. Attraction of gravitation is that whereby larger bodies attract and act one upon another, whose sphere of attraction is very great. This attraction is always proportional to the

quantity of matter in bodies, and decreases as the squares of the distances between the centres of attracting bodies increase.

TO BE CONTINUED.

MISCELANEOUS RECIPES.

FOR DIARRHŒA OR LOOSENESS OF BOWELS.—Take one large spoonfull of castor oil and mix therewith as much flour as will make a thick pasty substance. Swallow the same, and repeat every two hours, if necessary, until it leaves. But the one dose in general sufficeth. A good meal of onions should be eaten the next day.

FOR WEAKNESS THROUGH HEAT AND FATIGUE DURING HOT WEATHER.—Apply mustard and water to the feet; cool the head and encourage sleep; eat moderately of ripe fruit in its season of growth.

A HEAD WASH FOR DANDRUF, SCURFF, &c.—Take five large onions and one handful of hops. Boil them together in a quart of water until reduced to one pint, then stir in, when cold the juice of four lemons.

FOR A BAD SMELLING BREATH.—Wash the mouth and clean the teeth often with pure water.

TO MAKE A GOOD LIQUID BLACKING.—Take ivory blacking and treacle 3 ounces of each, stale beer 10 ounces, olive oil and gum-arabic 2 drachms of each, oil of vitriol 2 drachms, mix the whole well together and it will be fit for use.

Some like receipts of how to cook,
Therefore would have them in this book;
Some like receipts to improve their health,
And all would like to increase their wealth.
To suit them all and please me too,
Though hard my task, I try to do;
Some witty are and like a joke,
Others ask me what they shall smoke.
I'm asked by some what best to wear
For Summer, Spring and Fall of year;
Others would like a lot to know
Of herbs and flowers and how they grow;

And every science in its place,
 With this our age to keep its pace.
 Of what the system undergoes,
 All complaints from head to toes.
 Some like to hear of sauce and spice,
 And jams and jellies very nice ;
 Of how to make and how to use,
 And household comforts not abuse.
 Some ask me where to buy their boots,
 And others where to buy their coats,
 Hats, watches, pants and walking-sticks,
 And all such goods as we can fix ;
 Including herbs, and roots and seeds,
 Of garden kinds and common weeds,
 Of crocks and hardware, flour and feed,
 And all things else they often need.
 For information in this book,
 Each month its sixteen pages look ;
 And when you read its pages through,
 'The advertisements you may view.
 And smoke Botacca you then will feel
 That day freed from every ill.—V. B. H.

A joke is not a poke, only when it strikes endways.

THREE RULES FOR LIFE.—Always think what you mean before you speak ; always mean what you say when you speak ; do not tell all men what you think.

A GOOD JOKE.—Positive read much, comparative think more, superlative pray most.

A GOOD HINT.—Give not away what you want youreself.

From analyses by experienced chemists it is found that the proportion of nutritous matter in some of the most common aliments is as follows :

Dry Lentiles,	-	-	94 lbs. nutritous matter in every 100 lbs.			
" Peas,	-	-	93	"	"	"
" Beans,	-	-	89 to 90	"	"	"
Wheat,	-	-	85	"	"	"
Barley,	-	-	83	"	"	"
Rye,	-	-	80	"	"	"
Rice,	-	-	80	"	"	"
Bread,	-	-	80	"	"	"
Flesh, (average)	-	-	35	"	"	"
Potatoes,	-	-	25	"	"	"
Carrot,	-	-	10	"	"	"
Greens,	-	-	6	"	"	"
Turnips,	-	-	10	"	"	"

CORRESPONDENCE.

No letters can be answered in the ensuing number which are received later than the third Saturday in the Month. Letters to be addressed to V. B. HALL, Post Office, Hamilton. Private residence, Mountain View Cottage, Township of Barton, Hamilton.

P.—Gather the wild Marshmallow and boil them, then sweeten with maple sugar.

S. O.—It is not so fragrant prepared in that manner, neither is it so good, the virtue departs in the second process.

A. G., Oakville.—You did not let me know how you got one; you might send word about it and I will watch an opening. I have no doubt you could if you were here.

D. A., Dundas.—You can try it, and I know if you do the result will be good.

SUBSCRIBER.—To be certain on that point requires a full knowledge of the circumstances, also the habits of the individual.

GEORGE.—You cannot now, but if you could it would not be advisable altogether at present. In a few weeks you can with good success.

J. K., London.—I am glad to hear you are in London. Do not forget to write. I have just two left, them I will send to him.

Subscriber, London.—If you will do so, you may with the greatest pleasure, and I shall be glad to assist you in that direction.

Rev. R. M., London.—I hope you received my letter while at conference, and I should like to hear from you when opportunity offers itself.

J. E. H.—You might let me know the results, or if you think any remote cause preceded.

To Country, Town and Village Booksellers.

Upon application to me by letter with amount enclosed I shall be happy to supply you with these Magazines at 25-100 rate. Post paid by me to all parts of Canada.

To Tobacconists, General Store-keepers, &c.

The famous Lung Restorative known as Botaca, used instead of tobacco by smokers who feel the injurious effects of smoking tobacco, may be had of me, for sale at 25-100 rate. Retail price 5 cents and 10 cents a packet.

Advertisements are inserted in these covers by special arrangement with me.

CANVASING AGENTS WANTED.

THE GOOD CANADIAN ;

OR,

HOUSEHOLD PHYSICIAN.

Happy the man who by Nature's laws, through known effects can trace the cause.

MILK, BUTTER AND CHEESE.

Much may be said both for and against these articles, as regards their qualities and of the adulteration of them also. I have heard of persons being cured of long standing diseases by exclusively living upon milk for a long time, and of the continued health and longevity of some who have made milk a regular beverage. In cases of consumption, new and wholesome milk is found very serviceable; yet particular care should be taken that the cow from which the milk is procured is not diseased, for if the animal be diseased, so must the milk in some measure be diseased also. In large crowded cities and towns cows are often subjected to the unnatural and unhealthy influences of bad air, want of exercise, and improper food. Cows are sometimes diseased through the improper vegetables given them to eat, whereas if left alone to choose their food upon a meadow, field, or green road side, they are not likely to eat any injurious herbage. It may well be conjectured that if the milk be from a diseased cow, butter and cheese made therefrom would not be wholesome. Many injurious adulterations are often practised by butter and cheese manufacturers. Anatto is used by some to color it with, and arsenic to impart an apparent freshness and tenderness. When such things as these and other injurious chemicals are used, there is no wonder at a sick patient not recovering under a regular use of what they ignorantly believe to be pure food. Persons who keep their own cow and have a good run of grass and wholesome herbage, have the ad

vantage of pure milk, and by making their own butter and cheese they can know the quality thereof. After many experiments, botanists have found that the cow eateth 276 kinds of grass and herbs; the horse, 262; the goat, 449; sheep, 387; and pigs eateth of only 72 kinds. By the foregoing calculation you may see that the cow feeds upon but a moderate share of herbage, and that is found to be of the healthiest kinds, and most of them adapted to our own use. When we drink milk, it may be said we drink the concentrated virtue of all healthy herbs. Delicate persons should, then, not forget to drink regularly of it. Good butter is, when used with good bread, or in pastry, or otherwise, a great help to digestion; and who cannot enjoy good butter? Cheese also, when good, seems a great stay to the stomach, and not an unwholesome food, if used as all things should be—in moderation.

TEA, WHEN AND HOW FIRST INTRODUCED.

It is somewhat about two hundred years since Tea was imported first into Europe, and even then not as a beverage, but for medicinal purposes. It was first used in Britain about 1666, and became a fashionable beverage at court, owing to the example of Katherine, Queen of Charles II., who had been accustomed to it in Portugal, and by the English is introduced here. The tea leaf when fresh from the tree is of a poisonous nature, and though it loses some of its acrimony, by its being steeped, and afterwards dried, yet even in that state in which it is sent to this country, it retains much of its injurious qualities. There is an astringency in tea which renders it extremely injurious to the constitution when used too often, and like the frequent bracing of a drum, must ultimately relax and debilitate. In addition to its natural pernicious qualities (that is when taken often), the manner in which it is prepared, by being dried on copper plates, must ultimately be extremely injurious. The corrosions of copper are undoubtedly pernicious. Tea is often adulterated with various other substances with a view, it is said, to improve its color or flavor. More may be seen upon the adulteration of tea and the way to test it, on pages 65 and 66.

USEFUL HINTS.

Early in this month corn salad may be sown thickly and but lightly covered, from 6 to 9 inches apart; cover up with straw during winter.

Now is the time to start for mushroom growing in your cellars or barns.

Continuous gathering of seed now, affords a stock in time of need, next spring.

Collect together and save your manure for your garden this fall.

Look well to parsnips and carrots, hoeing between them often in time of drought.

An understanding should be come to, concerning the choice of bulbs for planting during next month, ascertaining them mostly wanted, the places for them, &c.

Preparations may be gradually made for housing and protecting plants from frosty evenings when they come.

Those who have grown a large quantity of sun-flowers this summer have now got a good supply of the seed, which will render great service in feeding fowls.

DIGESTION.

One of the most important operations in the animal economy, is that of digestion, whereby the various substances used for food are dissolved in the stomach, and undergo changes, by which they are formed into matter fit for entering into the composition of the different parts of the body, to nourish its growth, and supply the daily waste which takes place in the system; for such is the constitution of animal bodies, that the substances of which they are composed are liable to constant waste; the solid parts are worn down, and taken up by the absorbent vessels, and a large quantity of fluid is as constantly given off by the exhalent vessels, both from the skin and the surface of the lungs. This is manifest in the sweat and the vapoury exhalations constantly passing off by the mouth; and

there is also an imperceptible perspiration regularly proceeding from the surface of the body, which has been computed to amount to several pounds in the course of a day. It must be evident, therefore, that if this waste was allowed to proceed but for a very short period, the body would soon be reduced to a state of complete decay. A constant supply of new material is therefore daily needed, to replace that which is wasted; and thus it has been supposed that a human body changes its whole materials many hundred times from the period of its birth till death; and that an individual, as regards his mere corporeal structure, is not at all the same at the period of manhood to what he was when a boy, nor in old age what he was in his prime. Although this change then is complete, even to the bones and most solid parts of the frame, it is brought about so gradually, and with the regular and minute substitution of one particle for another, that it is imperceptible; and even the marks of spots and blemishes, and the healing scars of wounds, are accurately preserved. Man has been called, with relation to his diet, omnivorous, from his being adapted to live on every kind of food, whereas most other animals are confined to one particular description. The carnivorous animals live on flesh alone, the gramenivorous on grass and green herbs, and the granivorous on grains and other smaller seeds. These animals never change their respective diets; nor, from the construction of their teeth, stomachs and intestines, were they ever intended to do so. But in man, it is plainly evident from his anatomical structure, that he was intended to feed on every sort of food promiscuously, or that he could adapt himself to either animal or vegetable fare, as habit or necessity impelled him. Man also differs from brutes in resorting to the arts of cooking, whereby the food is put into a state more fitted for digestion, and for yielding a sufficiency of nutritious aliment. The food being received into the mouth, is broken down and masticated by the teeth, which are of two kinds, the cutting teeth and the grinders. It is here also reduced into a soft pulp by the saliva, which flows into the mouth by the salivary glands; and thus being sufficiently broken down and softened, it passes into the stomach. The stomach has numerous glands situated on its inner coat or surface, which secrete a peculiar fluid called the

gastric juice, which is clear and colourless, with little taste, or smell, or sensible qualities. On this fluid depends the important office of digestion. It has the power of coagulating substances in the stomach, of preventing the contents of the stomach from passing into a state of fermentation or putrefaction, and of dissolving the whole into one homogeneous mass. When the stomach is first filled with food, it appears to remain there for a short period without undergoing any change; gradually, however, successive portions of the food, as they come into contact with the gastric fluid, are dissolved; till at length, in a shorter or longer period, the whole is collected into a thin greyish paste, called chyme. In the upper or left division of the stomach it would appear, from some recent observations, that the food is freed from its superabundant moisture, which drains off by some undiscovered means to the blood-vessels, and from thence to the kidneys. The chyme then, as it is gradually formed, moves to the other extremity of the stomach, called the pylorus, where it passes out to enter the intestinal canal. It would appear, also, that the pylorus, or lower mouth of the stomach, has a sensitive power, whereby it freely permits the digested chyme to pass out, but refuses exit to the undigested matter. The chyme having passed into the first part of the intestines, or duodenum, is then mixed with the bile from the gall-bladder, and with the pancreatic juice. Both these substances, especially the bile, seem essential for the conversion of the chyme into proper alimentary matter, but their peculiar action has not yet been satisfactorily explained. That the liver and bile ducts are of the utmost importance, however, cannot be doubted, from their magnitude, and the care by which they are supplied with numerous vessels, and from their being universally present in a great proportion of animals. The chyme having passed through the duodenum, and having been mixed with the bile and pancreatic juice, now changes its appearance and properties, and becomes the chyle, or nutritious matter destined to support the various parts of the system with nourishment. The digested mass is gradually passed along the course of the small intestines, urged forward by what is called their *peristaltic* motion, which is effected by a successive contraction of their fibrous coats. Here the minute mouths of the lacteal

vessels, opening on the inner surface of the small intestines, take up the chyle, and carry it, as has already been described, to the receptacle of the chyle, and from thence, by the thoractic duct, it joins the blood-vessels. The refuse of the aliment which has been taken up by these lacteal vessels, passes on through the large intestines, and at length is rejected from the body. It is conjectured that in the colon, or large gut which follows after the smaller intestines, the fatty matter of the body is secreted. Digestion is not brought about, as has by some been supposed, by any mechanical means, as by the grinding powers of the coats or sides of the stomach, nor by heat alone, nor fermentation, nor by the simple solution of the food in the fluid, but it is evident that it undergoes a series of chemical actions in the stomach and bowels, whereby its nature and properties are completely changed; and thus animal and vegetable substances, however different, are reduced to one peculiar kind of fluid, the chyle, which, though it may be found to vary slightly according to the kind of food, is, in its general properties, always the same. The gastric juice varies in different animals. In those which feed on vegetable matters, it dissolves those substances only; whereas grain and vegetables pass through the stomach of a carnivorous animal without undergoing any change. It has this singular property, too, that although it readily dissolves dead animal matters, and reduces them in a short time to a thin pulp, it will not usually act on the living fibre; so that, after death, the coats of the stomach have been found dissolved into holes, by the same juice, that, when living, had no such effect. A stomach of some kind or other is found in all animals; for it is by this organ that nutrition and growth are solely promoted. There are some very simple animals whose whole body consists of a membrane formed into an oval hollow bag, or stomach, with a simple outlet for the mouth to take in nourishment, and no other organ whatever. Of this kind, too, is the polypus, which has a mouth and hollow stomach, with several tentacula or arms, by which it seizes the worms and grubs on which it feeds; these it swallows, abstracts their juices, and then voids the remainder from its mouth. The common leech has its whole body divided into a number of small cells, like a piece of honeycomb; and these receive the water

and sometimes blood, on which it feeds. Flesh-feeding animals have a simple bag for a stomach, and their food is easily and soon digested. Those animals, again, that feed on grass, which is of more difficult digestion, have three and more stomachs, into which the food successively passes after it has been masticated or chewed a second time in the mouth. This is the case with cows, sheep, deer, &c. Birds that feed on grain have first a sap-bag, or crop, into which the food enters, and remains for a considerable time, mixed with a juice somewhat like saliva; here it is softened and rendered moist, preparatory to its passing into the true stomach, or gizzard, which is an extremely strong muscular bag; in this, with the assistance of a number of sharp-pointed pebbles, which such birds always swallow, it is ground down and acted on by the gastric juice. This compensates for the deficiency of teeth in fowls. Crabs and lobsters have no teeth in their mouths; but in their stomachs will be found three or more teeth, which assist in grinding down the tough seaweed on which they feed. By domestication, the qualities of the gastric fluid may be so changed so that animals accustomed to live entirely on flesh will exist and thrive on a vegetable diet. This is the case with dogs and many birds.

PHYSIOLOGY OR NATURAL PHILOSOPHY.

[CONTINUED FROM PAGE 126.]

ELECTRICITY is a kind of attraction and repulsion of very light bodies alternately, by certain polished surfaces chafed or heated by rubbing or friction. Thus, glass, sealing-wax, amber and precious stones, attract and repel feathers, hairs, straws and other light bodies at considerable distances, as known by common experiments. Note.—If a glass tube be emptied of air, it loses its electrical quality.

MAGNETISM is another very surprising species of attraction, which that fossil called the load-stone is endowed with. Every one knows its strange power of attracting and repelling iron, and the virtue it communicates to the mariner's compass, whereby it is determined to point to, or very near the North Pole. Note.—The magnet loses its quality by being made red-hot in the fire.

GRAVITY is distinguished into absolute and specific. Absolute Gravity is that which every body has in itself simply considered. Specific Gravity is that which is considered in a body compared with the gravity of any other, and is said to be either greater, equal to, or lesser than it. Thus, if the gravity of fine gold be 11, and that of fine silver 6, the specific gravities of gold and silver are said to be to each other as 11 to 6. Note.—In spaces void of air all bodies gravitate alike; or a feather and a stone, being let fall together, descend with equal velocity or swiftness.

MENSURABILITY is another universal property of bodies, for as all bodies are extended into the dimensions of length, breadth, and thickness, so it is possible for the contents or quantity of space included within those dimensions, or under the extremities of those bodies, to be compared, and the ratio or proportion between them found and determined, which is called the mensuration or measuring of bodies.

INACTIVITY or passiveness of matter, is its disposition to abide or continue in its state of motion or rest, till it is made to alter the same by the action of some external force. And from this principle are deduced those laws of motion, which are called the laws of Nature by Sir Isaac Newton, viz :

LAW I. All bodies continues in their state of rest or motion, uniformly in a right line, till they are obliged to change that state by the impression of external forces. Thus, a wheel whirled round would always continue that circular motion, were it not for the resistance it meets with from the air, and friction of the axle.

LAW II. All change of motion is proportional to the power of the force which causes it, and in the same direction with the said force. This law is as evident as that every effect is proportionable to its cause.

LAW III. Re-action is always equal and contrary to action, for when one body acts on another, that other body re-acts with equal force upon the first, and in a contrary direction. Thus, when a sledge strikes the anvil, the anvil returns an equal stroke on the sledge, and makes it rebound. So when a horse draws

a stone with a rope, the rope being equally strained throughout, plainly argues the stone stretches it equally with the horse, and therefore draws the horse as much as the horse draws it; and therefore since these forces are equal and contrary, they would destroy one another, that is, neither horse nor stone would move, were it not that the horse obtains an additional force, by pushing or thrusting himself forward against the ground.

UBIETY is that affection of all bodies, whereby they necessarily take up and possess some place or part of space.

SPACE is a mere void, infinitely extended every way; or it is that part of the Universe in which nothing exists, or is entirely empty of all matter, and, though all bodies must occupy or fill some part of this infinite void of space, and which is called their place; yet, since matter is not infinite, it cannot fill infinite space completely, but there will be some interstices of empty space, which the philosophers call a vacuum, though the French (who have a superstitious philosophy as well as religion) are absurd enough to deny this most evident truth.

DURABILITY, or duration of matter, may be reckoned another of its properties; since it is certain, that though the form and texture of bodies may be any how destroyed and changed, yet their substance cannot be destroyed, changed, nor diminished in the least; for to annihilate or reduce matter to mere nothing is as much an impossibility, as to produce it from mere nothing; and both in the nature of things as absurd to suppose, as motion in an absolute plenum, or any other inconsistency imaginable.

The specific or accidental properties, which are called the qualities of natural bodies, are next to be considered, and are these, viz. (1.) Light. (2.) Colors. (3.) Sound. (4.) Density and Rarity. (5.) Transparency and Opacity, (6.) Hardness and Softness. (7.) Rigidity and Flexibility. (8.) Confidence and Fluidity. (9.) Heat and Cold. (10.) Humidity and Siccity, (11.) Elasticity. (12.) Odors and Savors.

LIGHT is the quality of that sort of matter we call fire, which renders all objects from whence it proceeds visible, as well as those which receive it. It consists of very small particles, which come from the luminous or radiant body in right lines to

the eyes, with such an incredible velocity, that the light arrives to us from the sun in about seven minutes and a half, which is about 95,000,000 miles, which is near 200,000 in a second of time. The surfaces of most bodies reflect light, by which means they become visible and colored; for those which reflect none appear dark and black. Light in passing through any medium, as air, water, glass, &c., is refracted, or broke out of its strait course into another, which is medium; but farther from it, if into a thinner medium. And this refrangibility of a ray of light is different in the several parts of it, according to the different colors contained therein; of which I shall next speak.

COLOR is that quality of bodies whereby they appear of some certain hue or complexion; and which is better known than described. The colors of bodies are all of them from the rays of light originally, and exist therein in the following order; 1 red, 2 orange, 3 yellow, 4 green, 5 blue, 6 indigo, 7 violet. When light is refracted, as through a prism, &c., the red-colored rays fall lowest, and the violet the highest, the others fill the intermediate spaces; all of which are in respect of quantity, in musical or harmonical ratio; and bodies only appear red, yellow, blue, &c., rays than of others; and those bodies which reflect promiscuously all the rays which fall on them appear white; and those which reflect none appear black, as has been said.

SOUND is an effect caused by striking of a sonorous body; for the tremulous motion of the parts occasioned thereby agitates the air, and produces such undulations or pulses thereof as are like to waves in water; these striking the drum of the ear excite the idea of sound in the brain by means of the optic nerve. It is propogated in concentric spheres around the sounding body. The air is the medium of sound, since none can be produced in an exhausted receiver in an air-pump. Sound flies at the rate of 1142 feet in a second of time; and may be heard at the distance of 180 or 200 miles. Echo is the reverberation or repercussion of a wave or pulse of air from the surface of obstacles as vaults, &c., whence flying back, it strikes our ears with the same, but more obtuse sound than the first.

Of sounds, there is great variety of tones, tunes, or notes, with respect to acuteness and gravity ; some of which being pleasant and agreeable, are called concords, the others discords ; from a various and artful composition of which arises the heavenly art of music.

DENSITY and RARITY of bodies are commonly understood of their greater or lesser quantity of matter contained under the same bulk, and therefore the density of bodies is in a ratio compounded of the direct ratio of their quantities of matter, and a reciprocal ratio of their bulks. Thus, if A has 8 parts of matter, and 5 degrees of magnitude, and B has 2 parts of matter, and 10 degree of bulk, then the density of the body A will be to that of B, as 2×5 to 8×10 , that is 10 to 80, or as 1 to 8. The density of bodies is increased by heat, which by dividing and expanding the particles of bodies, does attenuate and rarify them, and this is called rarification. On the contrary, cold, by uniting and combining the same particles, doth thicken and condense them, and this is called condensation, and in some cases coagulation.

Transparency is that quality in bodies whereby they transmit light through their substance, and by which means they become thoroughly enlightened, and objects are visible through them. Such bodies are said to be transparent, pellucid or diaphanous, as water, glass, crystal, &c.

Opacity is the opposite quality of bodies, and those bodies are said to be opaque, whose substance is dark and not transparent, and is occasioned by the light being obstructed or deflected from a right passage through them.

Hardness is a quality of some bodies, arising from the mutual attraction of the most minute primogenial particles of matter, whereby they firmly cohere, and are consolidated so close together that they will not yield to the touch. And the nearer the figure of these particles approach to the five regular bodies, the stronger will be the attraction, and the greater their cohesion, and the firmity or hardness of the body thence arising.

(TO BE CONTINUED.)

FRUITS AND THEIR MEDICINAL PROPERTIES.

(CONTINUED FROM PAGE 115.)

PLUMS that are sweet, moisten the stomach and make the belly soluble ; those that are sour quench thirst more, and bind the belly ; the moist or waterish plums sooner corrupt in the stomach than the firm, which are the most nourishing and less offensive. The dried prunes, sold at the grocery stores, do in some degree loosen the belly, and being stewed, are often used, both in health and sickness, to procure appetite and gently open the belly, allay choler and cool the stomach. The juice of plum tree leaves, boiled in wine, is good to wash and gargle the mouth and throat, to dry the flux of rheum, which sometimes floweth to the palate or gums. The gum of the tree is good to break the stone. The gum or the leaves, boiled in vinegar and applied, will take away tetters and ringworms. The oil, pressed out of the stones, as oil of almonds is made, is good against inflamed piles, tumors, swellings and ulcers, hoarseness of the voice, roughness of the tongue and throat, and pains in the ears. Five ounces of the said oil taken with one ounce of muscadine, will expel the stone and help the cholic.

QUINCES, when they are green, help all sorts of fluxes in man or woman and choleric lasks ; castings or whatever needeth astringtion, by cooking them first, the juice, syrup or conserve thereof, is rather opening, much of the binding quality being lost by preparing, and if a little vinegar be added, it stirreth up a languishing appetite, and strengtheneth the stomach ; some spices being added, it comforteth and cheereth the fainting spirits, helpeth the liver when oppressed so that it cannot perfect the digestion, and correcteth choler and phlegm. If you would preserve them with a purging quality therein, put honey to them instead of sugar, if you wish to be more laxative to purge choler, add rhubarb ; to purge phlegm add turbith ; for all watery humors, add scammony. To take the crude juice of quinces is held a preservative against the force of deadly poisons by the outward application of the oil or decoction of quinces, stayeth and cooleth hot fluxes, also strengthens the stomach or weakness of the sinews. The mucilage taken

from the seeds of quinces and boiled in a little water cooleth the heat, and healeth the sore breasts of woman. The same with a little sugar, is good for harshness and soreness of the throat and roughness of the tongue. The cotton or down of quinces, boiled and applied to any plague sores, healeth them, and laid as a plaster made up with wax, it causeth hair to grow on bald places, and keepeth it from falling off.

PEARS.—Their physicial use are best discerned by their taste. All the sweet or luscious sorts, either manured or wild, tend to open the belly more or less; those that are sour and harsh, on the contrary, have an astringent quality. The leaves of each possess the same contrariness of properties. Those that are moist are in some degree of a cooling nature, but the harsh or wild sorts are much more so, and are frequently used as repelling medicines; they are very useful to bind up fresh wounds, stopping the blood and healing the wounds very quickly, and without inflammation; for which wild pears are best.

GRAPES AND GRAPE VINE.—The leaves of the vine being boiled make a good lotion for sore mouths, and if boiled with barley meal into a poultice it cools inflammations of wounds. The droppings of the vine when it is cut in the spring, which are called tears, boiled into a syrup and taken inwardly is very good for weak stomach. The tears of the vine, drank, two or three spoonful at a time, break the stone in the bladder. But the salt of the leaves is held to be much better. The ashes of the burnt branches will make teeth that are black to become quite white, if you do but every morning rub them with it. The grapes are when well ripe a very healthy fruit, and should be much used in their season by persons who are delicate, and of weak stomachs. Pies made with grapes are delicious and serviceable. A nice drink may be made from the grape, either binding or relaxing in its properties, as follows, boil the grapes in water with the skins on, if you would have it with a binding tendency, or take the skins from them if you would have the drink to be of an opening quality. To rub the skin with the juice pressed out of grapes will remove pimples and remove the evil color of the skin.

(TO BE CONTINUED.)

BOTANY OR PHYTOLOGY.

(Continued from p. 119.)

Artichokes mentioned on page 116 and page 22, may now be enjoyed in their season.

MALLOWS.—The marsh mallow leaves are most generally used for loosening the belly gently, and is used in decoctions for clysters, to ease all pains of the body, opening the straight passages and making them slippery, whereby the stone may descend the more easily, and without pain out of the reins, kidneys and bladder, and easeth the torturing pains thereof. This beautiful herb, and as well, the other common mallows, are used by skillful hands in very important cases. The decoction of the leaves, drank in small quantities, procureth a store of breast milk in nurses when they are short; the leaves bruised and rubbed on places stung by bees, &c., taketh away the pains swellings, and redness caused thereby. The leaves boiled in olive oil is good to remove dandruff and dry scales from the head, and other parts, if rubbed therewith, and washing the head therewith preventeth baldness. The roots are mentioned on page 53. The class in which they rank, page 42 class XV.

BURNET is a most precious herb, it is called, also, sanguiforba, pimpinella, bipenula, and solbegrella. For general use the garden kinds are the best, they are friendly to the heart, liver and other principal parts of a man's body. They are of rather a drying and astringent quality, therefore available in all kinds of fluxes of blood and humors, and to staunch bleedings, both inward and outward, lasks, scourings, the bloody flux, whites and the choleric belchings and castings of the stomach. It is a singular wound herb for both head or body, either inward or outward, for old ulcers, running cankers, or moist sores—to be used either by the juice or the decoction of the herb, or by the powder of the herb, or root, or distilled water of the herb, or ointment by itself, or with other things of like nature compounded. The seed is no less effectual in stopping fluxes and drying moist sores, being taken in powder or the powder mixed with ointments. Of class, &c., see page 41 class X.

BORAGE.—The meaning of this word is oxtongue. This herb is a great cordial and strengthens of Nature. The leaves are

very good against putrid and pestilential fevers, to defend the heart, and helpeth to expel the poison of venomous creatures. The seed are of like effect, and the seed and leaves are good to increase milk in women's breasts. The leaves, flowers and seed are cheering to the mind, clarifying to the blood, and mitigateth heat in fevers. This herb is made up in various ways as cordials, and is good for those that are weak with long sickness, and to comfort the heart and spirits of those that are in a consumption, or troubled with often swooning, or passions of the heart; the distilled water thereof is no less effectual to all those purposes, and helpeth the redness and inflammations of the eyes, being bathed therewith. The roots are used to condensate thin phlegm, &c. See page 53; class answering as bugloss same, page 42 class XIII.

(TO BE CONTINUED.)

SEPTEMBER.

September, month of laden trees,
Peach, apples, pears, and ripe quinces,
And ground fruit too, of pumpkins, melons,
Cucumbers, marrows, and of citrons.

The month to gather in your fruits,
And some domestic garden roots,
May nothing perseverance hinder,
Of getting in a stock for winter.—V. B. H.

MISCELANEOUS RECIPES.

Two and a half lbs. of maple sugar, 1 pint of molasses, $\frac{1}{4}$ lb. honey, $\frac{1}{4}$ lb. tartaric acid, mix well together, pour two quarts of boiling water on them and stir well till dissolved, when cold add $\frac{1}{2}$ oz. of sassafras and bottle off for use; a small piece of soda may be placed in each bottle before corking. When used a few spoonsful of it, with $\frac{1}{2}$ pint of water, maketh a good cooling drink.

TO CURE SCABS AND BREAKINGS OUT IN THE SKIN.—Bathe well every night with the water in which catnep has been boiled.

The juice of Beet root snuffed up the nose taketh away noise in the ears, and sometimes easeth toothache.

Aged persons who are troubled with weak and windy stomachs should now procure carraway roots and boil them, to be eaten as parsnips; they are very nice.

Dock leaves are plentiful, let it be known that a few dock leaves boiled with meat maketh it boil sooner and tenderer,

CORRESPONDENCE.

No letters can be answered in the ensuing number which are received later than the third Saturday in the Month. Letters to be addressed to V. B. HALL, Post Office, Hamilton. Private residence, Mountain View Cottage, Township of Barton, Hamilton.

T. C.—Take notice, next time you dry them for keeping, that they do not get damp, for that causes the mustiness. They should be dried in the sun for a day, and afterwards kept dry, for if they get damp once after, they are spoiled.

G., Ancaster.—It is not too late, but you will find the seed of them most virtuous now, or if you use the roots, use them from which the tops have decayed, they are perennial.

A. N. G., Essa Crossing.—I have got preparations in bottle, prepared by myself, as tonics for the blood, and to strengthen the system; also a famous heart cordial for heart disease. I have a powerful worm expulsion, in bottle, containing nutritious and strengthening properties.

P.—The word Botane signifies herb in Greek, from which the word Botany is derived as a science.

W. A.—You will see them mentioned in March number.

These Magazines are now obtaining a good circulation in Dundas.

To Country, Town and Village Booksellers.

Upon application to me by letter with amount enclosed I shall be happy to supply you with these Magazines at 25-100 rate. Post paid by me to all parts of Canada. Price \$1.00 per annum.

To Tobacconists, General Store-keepers, &c.

The famous Lung Restorative known as Botaca, used instead of tobacco by smokers who feel the injurious effects of smoking tobacco, may be had of me, for sale at 25-100 rate. Retail price 5 cents and 10 cents a packet.

Advertisements are inserted in these covers by special arrangement with me.

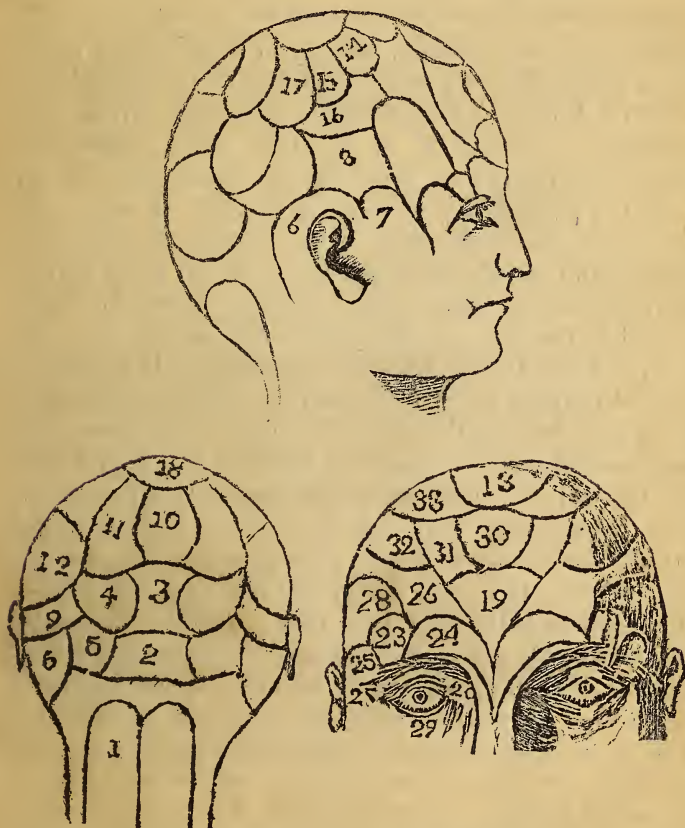
CANVASING AGENTS WANTED.

THE GOOD CANADIAN ;

OR,

HOUSEHOLD PHYSICIAN.

Happy the man who by Nature's laws, through known effects can trace the cause.



PHRENOLOGICAL MAP OF THE BRAIN.

PHRENOLOGICAL MAP OF THE BRAIN.

1 Organ of Amativeness	12 Cautiousness	23 Coloring
2 Philoprogenitiveness	13 Benevolence	24 Locality
3 Inhabitiveness	14 Veneration	25 Order
4 Adhesiveness	15 Hope	26 Time
5 Combaticiveness	16 Ideality	27 Number
6 Destructiveness	17 Consciousness	28 Tune
7 Constructiveness	18 Firmness	29 Language
8 Covetiveness	19 Individuality	30 Comparison
9 Secretiveness	20 Form	31 Causality
10 Self esteem	21 Size	32 Wit
11 Love of approbation	22 Weight and momenta	33 Imitation

21 and 22 are found under the eye-brow, immediately under organ 24.

Phrenology, as a science, consists of a knowledge of the habitual propensities of a person according to the formation of the brain. And, as all other sciences, it requires division and sub-division to arrange it, so as to be easily understood. Several systems have been used, but Dr. Spurzheim's, to my idea, is the plainest and most ready method, of which this engraving is an explanation. The various dispositions of persons, with their diversified ambitions, are full proof that all men's minds are not framed alike. So, may it well be conjectured, that the form of the head varies according to the manner in which a person has been brought up, the ideas adopted by him in the past, and the company in which he associates. Has it not been fairly proved by daily observation, that a clear minded man can judge what kind of a man he is dealing with, by his looks, while transacting business; although the person judging may have not the least knowledge of this science. This science is of great importance and very interesting to all men. It is well understood that all mental diseases and wanderings of the mind have their primitive cause in the derangement of the brain and nerves. Therefore, in studying the nature of man, all men should be more or less interested. It is known to physicians that by having a correct knowledge of the moral sentiments and intellectual faculties of persons when they are in a healthy state, contributes greatly in understanding their mental diseases. All our knowledge should be reduced to a rational mode of judging from experiment and observation.

It is undoubtedly right when a physician attends a sick person, that the sick person should unfold his thoughts, perplexities, frailties, and errors, in order that he may judge truly and fully concerning our situation. Therefore, the fullest confidence should be placed in the physician, by those who trust the lives of themselves and their children under him, and, it is of great consequence that nothing be kept back from him. It is with great difficulty that men conceal from physicians their true sentiments. In entering upon this science it is first necessary to explain the functions of the five senses. The organs of each sense are double. There are two eyes, two ears, and two nerves of smell, of taste, and of feeling. Yet it is generally understood that though the organs of each sense are double the consciousness of both impressions in each sense is single. We see with both eyes, hear with both ears, but the active state of the functions of the five external senses takes place only in one organ, and mostly the strongest. Experiment.—If we place a pencil or pen-holder between our eyes and the light, keeping both eyes open, and trace a right line between our eyes, the pencil, and the light, by then looking with both eyes the pencil should occupy the diagonal, and its shadow should fall on the nose. But the shadow falls always on one eye, on that eye which the person makes most use of in looking with attention. If we keep the pencil in the same position and shut the eye with which we did not look, the direction of the pencil remains the same, but, if we shut the eye with which we looked, the pencil appears removed far from its former direction. Again, if a person looks at a point a little distance from his eyes, both eyes seem to be in the same direction, toward the object, then let him shut his eyes alternately. If he shuts the eye with which he did not look, the other eye stands without the least motion, but, if he shut the eye with which he looked, the other eye immediately makes a slight motion, inward, to fix the point, and we find by investigation that the general actions of men prove that we look with one eye, and listen with one ear, for we generally direct one eye or one ear towards the object for our attention. The same may be said of smelling, tasting, and feeling, as the apprehension is but single to each sense. What has been said upon the five senses, I think is

sufficient for my purpose in reference to phrenology, though much more might be said. See further, upon hearing, page 17, upon seeing, page 49, upon smelling, page 81, upon tasting, page 113. The sense of feeling will be noticed in the next number.

In the study of Phrenology and Physiognomy we may first observe that the manifestations of the mind are different in both sexes, and in each individual at different ages. Men are energetic with some faculties, women with others. Persons individually differ in their peculiar character, according to their birth, opinions, professions they follow, and company with which they associate. Man often excuseth his frailties by saying "it is my nature." Father and son, brother and sister often differ extremely from each other in their propensities. Some men have great genius in one thing, but are very ignorant and dull in others. Different periods of life have a great influence in changing the mind, causing the intellectual faculties to take another course. The function of each faculty depends on the healthy or proper organization of the whole. The different organic constitution of faculties in persons produces a different degree of activity of the faculties in general. Self culture forceth or restraineth the faculties, according to the habitual training of them by an individual.

Before proceeding any further with the five senses, it may be interesting to point out a few particulars by which persons may readily distinguish the propensities of others from the arrangement of the organs of the head.

It may easily be distinguished whether a person is tractable in his education, teachable, &c., by a hollow or projection in the middle of the forehead, just above the nose (19). Nearest that again, upon the end of the eyebrow nearest the nose on each side, may be seen, according to the projection, whether a person is expert in finding and remembering places (24). So that with those and other appearances of the upper part of the face and temples, we may be able to read somewhat about a man's character. Discernment and language may be found in the eye, arithmetic and color in the upper part of the eye, mechanical arts may be seen in front of the ear [7]. And

so according to the formation of these organs is the other parts of the face altered, so much so that the entire appearance of the face depicts a person's dispositions. What the senses have to do with this organization, and the healthiness and culture of the senses to do with the alteration of these organs may be next slightly explained, (and as I intend enlarging a little upon this subject in each number, my readers must be content with a little only in each, so that space be allowed for other subjects). A person with strong eyesight will, in general, show those dispositions prominent, more or less, that are around the eyes. The same may be said of the ears and nose. And it may be said of taste and feeling, that the stronger these senses are, so in comparing judgment concerning the things tasted or handled, there is a greater keenness produced. We may deduce from this, that persons enjoying the full healthiness of their five senses, will be expected to show their frontal dispositions more evenly than others, yet each of these considerations are subject to other considerations, and are subject to modification thereby, as the regular habits of a person and his wilful ambition for some object or profession, also difficult circumstances under which he may be for the time laboring, and many other considerations. The noblest faculty of a man, and most worthy dispositions in general business, are placed in front of the head. This enables persons to judge to some extent what manner of persons they are dealing with by their looks and general appearance of countenance. Are not passions, sorrow, merri-ness, thoughtfulness, carelessness, and kindness or cruelty to some degree generally portrayed in the countenance. Most persons make use of these traits of countenance in choice of a companion, man in choice of a wife, &c., upon which they pledge their future happiness. Man, the most intelligent and noblest piece of workmanship of God's creation upon this earth is in himself a world of admirable and wondrous composition fully understood by God alone. Man! know thyself, is the continual exhortation of the voice of nature. Man, in general, may be said to have the greatest knowledge of all things else but himself; neglects his own essential culture, which is the basis of all his understanding, and without which he would be an idiot. Whilst those whose ambition is to know most of them-

selves sweepeth all before them, rising to a position which in some degree maketh them benefactors of their race and the glory of their country.

Phrenology and Physiognomy will be gone into more in the next number.

[To be continued.]

As the winter evenings will afford opportunity for interesting amusement at home, I think the following will be welcome, of which I shall give a little monthly :

THE ART OF LANDSCAPE PAINTING IN WATER COLORS.

To prosecute the study of landscape painting in water colors successfully, the usual qualifications of industry and energy are eminently necessary. But however great may be the pains bestowed upon the attainment of this object, the results will be found so gratifying, as to ensure the fullest and amplest reward to those pains.

The manufacture of all the materials used in this art is now so perfect, as to give an entirely new character to the art ; for the most varied effects are capable of being produced by them in subjects of every kind : and, in the branch to which I propose to introduce the student, there is no degree of excellence, as to truthfulness and power, which is not capable of being attained. The preliminary caution which I wish especially to impress upon the attention of the beginner is, that he should wed himself as little as possible to the particular style of any given master, but making nature his chief guide, should apply the general principles of art, (which he will find detailed as clearly as it is in my power to detail them), in the formation of a style which he may call and feel to be his own ;—*his own*, because he will be able to account, in the management of his picture, for all his processes and effects, upon clear and acknowledged principles. In recommending that the student should not wed himself to the style of any particular master, I cannot of course be supposed to insist upon his closing his eyes to the works of the

great masters in the art, merely applying himself to the acquisition of the knowledge of certain modes and manipulations, but that he should study and observe the excellence of those works as examples of the development of principles, striving to see what, in each given instance, was in the mind and intention of of the master, as to the application of his own system and of his own view of principles of art. If this be well understood in the outset, the pupil will soon be able, after acquiring a little insight into the nature and use of his materials, to advance with a feeling of confidence and comfort; and in no way will this feeling be more agreeably evidenced to himself than by the fact that he will often be able, by a bold application of his newly-acquired principles, to change a blot or blemish in coloring into an agreeable or even a charming effect.

It is obvious that I must presuppose that the learner has a fair knowledge of drawing and of perspective. Premising this, I shall at once proceed to the business in hand; and, for the purpose of clearness and facility of reference, the subject will be treated of under the heads of,—

- 1.—*Implements and Materials.*
- 2.—*Processes and Manipulations.*
- 3.—*The Principles on which a Picture should be constructed and be treated in its usual stages.*

PART I.

IMPLEMENTS AND MATERIALS.

The implements and materials used in water colour painting are few and simple. They are:—A few china tiles, saucers, or palettes; a piece of very soft sponge; an old silk handkerchief, and a piece of soft wash leather for wiping out lights; a weak solution of gum arabic; an eraser, or a sharp penknife; a drawing board; paper; brushes; colours. Of these materials and implements, none need particular notice except the last three, of which I shall now proceed to speak more at length.

PAPER.

The paper most generally used in water colour painting is of what is called imperial size (30 in. by 21 in.); under which

name the best and greatest varieties of textures, as well as of weight and thickness, can be obtained.

With the mention only of that kind which contains 72 lbs. to the ream of 20 quires, I will pass to those which weigh 90 lbs., 110 lbs., and 140 lbs. each to the ream. The first of these three may be characterized as a paper generally serviceable for drawings of small dimensions; for paintings, however, requiring the elaborate and severe manipulations of modern art, the second is well adapted; the third being a still thicker paper for still more decided objects and emergencies.

Thus paper is distinguished by its weight; but a still more important distinctive characteristic of paper is in its *texture* or *the grain of its surface*. This texture is greatly varied in different papers; but the following remarks will enable the learner to make his selection, according to the object he has immediately in view. For most drawings it is requisite that the surface should not be too rough; yet that it should have sufficient texture to take and retain the colour. If it be too fine and smooth, there frequently results an unartistic flatness and a want of brilliancy in the work; if, on the contrary, it be too rough, the effect is often harsh and coarse, and the details of the picture cannot be executed with sufficient clearness and precision. Yet it must be carefully observed, that for slight sketches these rough surfaces are extremely favourable, the sparkling lights and shadows caused by the mere projections of the material of the paper, aiding the effect in a peculiarly agreeable manner.

The proper sizing of drawing paper is a consideration of great importance in its manufacture, and is a process in which failure often occurs. If paper be sized too strongly, colour will not float nor wash well upon it, but will appear hard and streaky. If it be sized too little, the colour is absorbed too much into the fabric, and it will appear poor and dead.

It is impossible to urge too strongly the importance and advantage of procuring paper of first-rate quality. Every artist of eminence is unsparing of pains and expense in this particular; since in the saving of time in overcoming any subsequent difficulties, the superior brilliancy of good paper and the great facil-

ity in working upon it, compensate a hundredfold for all his pains and expense.

BRUSHES.

Brown sable is the hair best adapted to the purposes of the water colour painter. It carries colour better, and works more freely, than the red sable. This latter is, however, sometimes of service in producing certain effects ; in many cases also where a rather stiff foreground colour is employed in large works, and when a body colour white is used ; for it is stronger and firmer than the brown sable, but it does not retain so good a point, nor does it work with the same freedom as the brown sable.

Brushes of brown sable are generally made by the insertion of the hair into quills ; and hence the size of the brush is recognized by the various names of the quills employed, as Eagle ; Swan, large size, middle size and small size ; Goose, Duck, and Crow. The Eagle brush is very large, expensive, and seldom used. The small Duck and Crow sables are employed for delicate markings, as in branches, foliage, and architectural details.

Very pleasant and agreeable brushes are now made with German silver ferules ; heavier indeed than the quill brushes, but exquisitely made, and much employed for many purposes. These brushes can be obtained of any size, from the smallest miniature to the largest Eagle.

These ferule brushes derive also much value from this circumstance, that they admit of being made so effectively in broad flat form. In this form they are employed in foliage for instance, on herbage, or grass, where it is desirable to preserve a square, sharp and well defined touch. This mode of working is adopted from a similar manipulation in oil painting ; and here, as in oil painting, the long handle of the brush is of considerable advantage, when the picture is executed on an upright easel. In this case the mahl stick is used, as in that art.

For the working of skies, a wide flat brush is employed. This is the best made of strong red sable for extensive and repeated washings ; but if any slight subsequent over-washings be required, the squirrel (or camel hair, as it is called) will be the best,

as its hair is softer, and not so liable to rub up the colour beneath too quickly.

A flat camel hair brush in tin is a useful and necessary implement, not only for laying broad washes of colour, but for damping the paper previously to the commencement and occasionally during the progress of the work, as well as for softening tints where they may be too hard and heavy.

(TO BE CONTINUED.)

MISCELLANEOUS RECIPES.

A WASH FOR THE HEAD TO REMOVE DANDRUFF, SORES, &c.—Get one large beet root, slice it thin into a basin, then smash two bunches of grapes upon them, leaving them on the top, place them in a hot oven and let them simmer for one hour, keeping a plate over the basin; it is then ready to strain off for use. If you wish it to keep, you should boil it down to less than half the quantity, assuming a stickiness; it will then keep if corked up, and when used should be thinned with a little hot water.

THE WAY TO CURE WHOOPING COUGH.—Get a pair of foot cataplasms, put them on the soles of the feet, changing them for another pair every third or fourth day. Also get a pair of warm gloves that will fit the child and that will reach high enough to cover the wrists. Keep them on till well; these two things—keeping the extremities warm—is of most importance. Then a drink may be made, as recommended on page 36; the wrists and ankles should be rubbed with the other mixture spoken of on the same page. The causes of this disease, &c., you will find treated on there also. For colds and coughs, see pages 33 and 34.

RELIEF AND CURE FOR RHEUMATISM.—A table spoonful of mustard seed should be drank two or three times a day in water; continue to drink the same, even when there seems the least appearance of attack. The most important object is to encourage perspiration by some means, which the patient should endeavour to do. For cause, &c., see page 44.

TO HEAL CUTS, SORES, &c.—Take of hot arsemart, called by some smart grass, and cherry leaves, same quantity of each; cover with water and boil till reduced to half; keep a rag wet with this, bound upon the affected part. I keep a salve prepared from the same.

TO BATHE WEAK JOINTS.—Boil arsemart and pot marjoram together well; bathe the joints with it hot, and keep a rag moist therewith upon them.

PHYSIOLOGY OR NATURAL PHILOSOPHY.

(Continued from page 139.)

Softness is such a texture of bodies that they yield to the impression of the finger, and this in various degrees, the lowest of which is liquidity.

Rigidity or stiffness, and flexibility or pliability, in bodies do likewise depend on the size, shape and peculiar texture of the particles or corpuscles of bodies, of which little certain can be said.

Fixity or confidence is a quality of bodies, whereby their particles do naturally keep the same position to each other, and are not to be separated from each other but by some coercive external force. This also results from the figure, attraction, contract, &c., of the consistent particles.

Fluidity is that state of bodies by which their particles are always in a flow, and are disposed to move indifferently in any direction upon the least impression. This proceeds from the exceeding smallness, roundness and lubricity, of the constituent particles thereof; as of fire, water, &c. Fluids and liquids differ in this, that the latter wetteth or sticketh to the finger or part that touches it, whereas the former doth not; as sand, &c.; is a fluid, but not a liquid.

HEAT and COLD are the most general and obvious qualities in bodies. The former consists in a great agitation, and violent intestinal motion of the particles of hot bodies, which acting on

us, excites the idea in our minds. On the contrary, cold proceeds from the inactivity and motionless state of the particles of cold bodies. Heat may arise to such degree in bodies as to render the particles luminous and fluid, which is called a flame of fire; the cold may be augmented so far as to render fluid bodies fixed and solid, which is called congelation or freezing; thus water we see is congealed or frozen into ice.

HUMIDITY arises from a mixture of liquid particles with those of a fixed nature in bodies. And thus by exhaling and evaporating this quantity of liquid matter from bodies, their moisture ceaseth, and they are said to be dry, or in a state of siccity, which is deficient of all liquid particles.

ELASTICITY is that what we vulgurally call springiness in some bodies; by this quality they do, when bended or pressed, immediately return to their first figure or form, of their own accord. This property is more or less in all bodies; but none are perfectly elastic, or which recover their figure with the same force they lost. The cause of elasticity depends on a special configuration, mode and attraction of the parts of elastic bodies.

ODOURS of bodies are those exceeding fine and invisible parts, which continually fly off the adorerous body, and perfume the air around with smells and scents of various kinds; the effluvia (as they are called) arriving at our nostrils, affect the olfactory nerve, and thereby excite the ideas of odours and smell in our minds.

SAPORS or TASTES are, in like manner, ideas raised in the mind by means of certain saporific particles or bodies affecting the nervous papillae of the tongue, which are the organs of tastes.

The second part of phisiology is uranology or cosmology, treating of the heavens and etherial regions above this atmospheric air, which is occupied by those great and splendid bodies, the sun, moon, planets, comets, stars, &c., which become the subject of this part of phisiology, may be considered under the following branches; (1.) Heliography, which

treats of the sun ; (2.) Selenography, which treats of the moon ; (3.) Planetography, of the planets ; (4.) Cometography, of the comets ; (5.) Astrography, of the fixed stars, &c. ; which will be taken up in order, commencing in the next number, upon (1.) Heliography.

(TO BE CONTINUED.)

FRUITS AND THEIR MEDICINAL PROPERTIES.

(Continued from page 141.)

PEARS were mentioned in last number. It is my intention now to mention the best way of preserving them for use by sick persons, &c. Pears should be of the best quality. While paring them place them in cold water or they will turn, fill your jars with them, put the juice of two lemons on them, and then fill up with hot syrup ; stand in a dish of hot water in a slow oven for 1 hour, after which fasten down well, so as to admit no air.

APPLES, of the best quality, pare and slice them and carefully take them, turning them over ; place them closely in the jars, with sugar between them, pour in boiling water till the apples are covered, then simmer in a slow oven for 1 hour, and fasten down securely.

QUINCES of the best quality may be sliced into a dish of warm water, let them be barely covered with water and bake them well till quite soft ; add sugar to taste and stand in the oven again to simmer, for $\frac{1}{2}$ hour, after which jar them and fasten well from air.

PEACHES, of best quality, pare and stone them, placing them in a boiler of cold water ; after they are all pared pour off the water, leaving but little in the boiler, add syrup until they are covered, stand them in a dish of cold water and place them in a regular heated oven for about 20 minutes, jar them off and fasten well down.

The above receipts are intended only for use by the sick.

Many similar and answerable modes may be adopted, as are in general, but not retaining the medicinal virtues as the above.

An excellent salve may be made from the leaves of pear tree, for closing the lips of fresh wounds.

A poultice made of the leaves of quinces heals the sore breasts of women.

The cotton or down of quinces boiled, heals old sores.

BOTANY OR PHYTOLOGY.

(Continued from p. 143.)

RUE (*Ruta Graveolens*).—An evergreen shrubby plant, about 3 feet high, blossom greenish yellow, calyx with five divisions, pestils concave, entire; capsule lobed, leaves doubly divided, little leaves, or leaflets egg-oblong. It is easily propagated by cuttings. It is an healthy medicinal herb and very useful, though some have said not. It provoketh urine, is an antidote against poison, is good for coughs and hardness of breathing. This boiled into a strong decoction and the joints bathed therewith, removes pain therein and strengthens them. The distilled water thereof diluted with spring water and dropped in the eyes, removeth the dimness of eyesight if caused through colds and other outward causes. The rue tea drank moderately easeth the obstruction of the liver, reins and bladder. Class 10, page 41.

HOAREHOUND or Horehound so well known. Virtues page 74, class 14, page 42.

TANSY (*Tanacetum vulgare*).—A perennial about 2 feet high, blossom yellow, compound calyx, form of half globe tiled, florets of the circumference, three cleft; the seed vessels crowned with a membranous margin, leaves double, many cleft, cut and saw toothed; the whole plant smelling strong. A decoction of this herb drank strengtheneth the reins and kidneys, remedies the stoppings of urine, expelleth wind, and is good for stone in the reins (of men especially), the tansy tea or the

seed given to children is good for them if troubled with worms. It also cleanseth bad humors from the stomach.

HOLLYHOCK (*Athœa rosa*).—A biennial from China, from 4 to 8 feet high, natural blossom white but varied, calyx double, from 6 to 9 parted, capsules cheese-like and many, with one seed in each; flowers placed at the inner base of the leaf, leaves with from five to seven angles, heart shaped, notched and rough stem, upright and hairy.

(TO BE CONTINUED.)

OCTOBER.

The stately trees undress themselves these chilly eves,
And blasting winds strew all the roads with fallen leaves;
The fruits are done, so bag them up or barrel them,
And as you pack them, the downward part should be the stem.
The nuts should now your object be to gather in,
And to keep to crack for use as food or medicine.—V. B. H.

HOW TO GET A PRACTICE.—A physician of Montpellier was in the habit of employing a very ingenious artifice to bring himself into notice with the public. When he came to a town where he was not known, he pretended to have lost his favorite dog, and ordered the public crier to offer, with beat of drum, a reward of twenty-five louis to whoever should find it. The crier took care to mention all the titles and academic honors of of the peripatetic physician, as well as his place of residence. He soon became the talk of the town.—“Do you know,” says one, “that a famous physician has come here—a very clever fellow of high academic honors; he must be very rich, he offers twenty-five louis for finding his dog.” The dog was *not* found but *patients* were.—*Physic and Physicians*.

PHYSICIAN OF THE OLD SCHOOL.

THE DREAM AND THE DOCTOR.

John, prone to eat much and drinking late,
Dreamt that he'd surely die next morning at noon :—
The doctor vowed his drugs would conquer fate,
And kept his oath—John lived till half-past one.

CORRESPONDENCE.

No letters can be answered in the ensuing number which are received later than the third Saturday in the Month. Letters to be addressed to V. B. HALL, Post Office, Hamilton. Private residence, Mountain View Cottage, Township of Barton, Hamilton.

D.—In answer to your question upon vegetarianism, I may advise you to purchase a work called *Fruits and Farinacea, the proper food of Man*, by John Smith, with notes and illustrations by R. T. Trall, M. D., which will give you all necessary information and arguments in favor of vegetarianism. Price, bound in muslin, \$1.75. I can get it for you.

A. G., OAKVILLE.—Write at once to me, saying if you received my letter and mention other particulars about your family, and I will tell you in letter something very important and beneficial to you, write at once and tell me the directions from Oakville Station to your house, so that I can come and see you.

T. H.—Do so if you choose. I can get them printed for you at a cheap rate, send word by post card.

J. E. H.—It is all according to where a person is situated, but the price is nothing in contrast to where you are. Advantages are often offered upon removals, and near the city, a certain price cannot be stated.

R.—As you asked for some phrenological answers, you now have them, and I would advise you to subscribe to the American Phrenological work mentioned on cover,—\$3.00 a year. It is the best work on the subject I know of. I can get it for you.

B. DUNDAS.—You can shew them to him, and leave them, if you choose, till I come. They have them both in the drug stores there and at Donnelly's, Ancaster.

B—O, WELLINGTON SQUARE.—Be particular in taking the names and addresses, if you please, and let it be known that I will send particulars if they write.

To Country, Town and Village Booksellers.

Upon application to me by letter with amount enclosed I shall be happy to supply you with these Magazines at 25-100 rate. Post paid by me to all parts of Canada. Price \$1.00 per annum.

To Tobacconists, General Store-keepers, &c.

The famous Lung Restorative known as Botaca, used by those who cannot, through chest and lung complaints, make use of tobacco. A great relief and often proves curative to those who are troubled with Asthma. May be had of me, for sale at 25-100 rate. Retail price 5 cents and 10 cents a packet.

Advertisements are inserted in these covers by special arrangement with me.

An apprentice wanted to learn the Trade and Profession of Medical Botany.

THE GOOD CANADIAN ;

OR,

HOUSEHOLD PHYSICIAN.

Happy the man who by Nature's laws, through known effects can trace the cause.

BOTANY OR PHYTOLOGY.

CONTINUED FROM PAGE 159.

GOLDEN ROD (*Solidago Virg-Aurea*).—A perennial, two feet high or more, blossom yellow, in loose, spiked, erect and crowded bunches; the compound calyx tiled, its scales converging, flourets of the circumference and of the same color as the disc; down of the seed rough; leaves of the stem spear shaped; dark green; generally plain on the edges, and sometimes, though not often, have white streaks or spots upon them. The root consists of many small fibres which grow very little under the surface of the ground. It is easily propagated by division. It grows in open places mostly, both in moist and dry ground. Class VII, page 41. It is an excellent remedy for stone in the kidneys, and to expel the gravel by urine. The decoction of the herb, green or dry, or the distilled water thereof is very effectual for inward bruises and to stay fluxes and immoderate stoolings, and useful in ruptures or burstings, if it be both inwardly and outwardly applied. Fresh wounds or old ulcers are speedily cured by it. It makes a good lotion for sores or ulcers in the mouth, throat, or private parts of either sex. It helps to fasten the teeth when loose.

FLAX, called in Latin *linum*, also *lin*, the seed is called linseed, and the oil produced therefrom linseed oil. Linseed being known as to growth, mostly as flax, has a slender stem parted at the top into some slender branches bearing fair blue flowers; leaves of the stem sharp and narrow; the seed are

contained in round knobs or buttons, and are dark brown, fat and shining. The seed if boiled in water and applied as a poultice or plaster eases pain, softens tumors and swellings in all parts of the body. Linseed pounded with figs ripens boils and other swellings, and often cures them. Linseed beat together with honey and watercresses and applied takes away all spots and freckles in the face. The distilled water of linseed clears the sight if dropped in the eyes. The water from the boiled seed used in clysters, takes away griping pains of the belly and of the matrix, and cures all wounds of the same. The seed boiled with raisins and honey makes a splendid and efficacious syrup for cough, consumption, and stuffed breast. But the seed of lin taken in too great a quantity is injurious to the stomach, creates wind, and hinders digestion. Class 11, page 56.

HOPS (*Humulus lupulus*).—A climbing perennial about 15 feet high, blossom yellow, with flower scales; the male flowers in panacles, whitish, with a five leaved calyx and no corolla; the female flowers with a one leaved, entire, spreading calyx and no corolla; the fruit cones egg oblong and drooping. It is propagated by division or raised from seed. They grow best on low moist ground. Class V, page 41. They physically operate in opening obstructions of the liver and spleen, cleansing the blood, loosening the belly, expelling the gravel, and provoking urine. The decoction of the tops of hops, whether tame or wild, works these effects. In cleansing the blood they assist to cure all manner of scabs, itch, and other breakings out of the body; also tetters, ringworms, spreading sores, and all discoloring of the skin. The decoction of the flowers and tops helps to expel poison. Half a drachm of the seed in powder taken in drink killeth worms in the body, moves courses and expels urine. A syrup properly prepared from the juice of hops and sugar cures the yellow jaundice, eases the headache caused by heat, and tempers the heat of the liver and stomach. It is also servicable in hot agues. This herb works very powerfully and should not be drank to excess.

LAVENDER (*Lavandula spica*).—A shrubby perennial about 3 feet high, flowers blue in a spike; calyx egg shaped, toothed, supported by a flower scale, stamens within the tube; leaves

rolled at the edges; whole plant fragrant. Lavender is of special use for pains of the head and brain that proceed from a cold cause, apoplexy, falling sickness, cramps, convulsions, palsies, and often faintings. It strengthens the stomach and frees the liver and spleen from obstructions, provokes the courses, &c. The flowers of lavender steeped in wine are efficacious in obstructions of urine, or for those troubled with the wind or cholic, if the place be bathed with it. A decoction made of the flowers of lavender, hoarhound, fennel and asparagus roots, and a little cinnamon is used to help the sickness and giddiness of the brain. To wash the mouth with the decoction of lavender is good for the toothache; two spoonsfull of the distilled water of the flowers taken helps them that have lost their voice; also tremblings and passions of the heart, and faintings and swoonings. It should not only be drank but applied to the temples and the nostrils also; but it should not be used over much, as it is not safe to use it when the body is replete with blood and humors, because of the hot and subtile spirits with which it is possessed. The chemical oil drawn from lavender, usually called oil of spike, is of so fierce and piercing a spirit, that it is very cautiously to be used, a few drops being sufficient to be used with other things, either inwardly or outwardly.

LOVAGE belongs to class XI, page 41. It has long thick stalks, with large winged leaves divided into many parts, like smallage or celery, but larger, every leaf being cut about the edges, broadest forward and smallest at the stalk of a sad green color, smooth and shining; some strong, hollow, green stems, about 5 or 6 feet high, but set in umbels on the top of long flower stems, and are of a yellow color; seed brownish and flat. The root grows thick and deep, spreading much, is an hard perennial of brownish color on the outside and whitish within. The whole plant smells strong and aromatical and is of an hot sharp biting taste. It is good in its action upon the chest, throat and stomach. It opens cuts and digests phlegm and ill humors, and greatly provokes courses and urine. Half a drachm of the dried root in powder, taken in water, wonderfully warms a cold stomach, helps digestion, and consumes all raw and superfluous moisture therein; eases all inward griping

and pains, dissolves wind and resists poison and infection. To drink the decoction of this herb is a well known and most practical remedy for any kind of ague, and greatly helps the pains and torments of the body occasioned by cold. The seed is efficacious for all the above purposes, except the last, and works more powerfully. The distilled water of lovage helps the quinsies in the throat, if the throat and mouth be gargled and washed with it, and in drinking it three or four times removes the plurisy, and dropped in the eyes takes away the redness and dimness of them ; it also takes away spots and freckles in the face. The bruised leaves fried with a little hogs lard, applied hot to any blotch, boil or ulcer, will quickly break and cleanse it, yet, to be used with salad oil in the same manner, is necessary after the first dressing.

LUPINES (*Lupinus Luteus*).—Yellow Lupine is an annual from Sicily, two feet high, blossom yellow, very fragrant, calyx two-lipped and whirled ; upper lip two-parted, lower lip three-toothed ; anthers five oblong and five round ; the seed pod leathery and flattish. This species is referred to on account of its sweet scent ; the seeds are sown early in Spring. The great white Lupine (*Albus*) has a strong, upright, round, woolly stalk, set confusedly with stettate ; soft woolly leaves, upon long footstalks. They are greenish on the upper side and woolly underneath ; blossoms white, sometimes bluish ; the same shape of growth as the garden beans. The root is long, hard and fibrous ; it is an annual. There is a smaller kind of blue Lupine (*Nanus*) smaller both in stem and leaves, with the seed a little spotted.

LUPINE (*Leguminosæ*).—Cultivated for the garden ; is a showy rich plant of various colors. Blue and yellow Lupine (*Cruikshankie*) is very pretty. *Cærulea*, large and blue, is very admirable for borders. Mixed color Lupine (*Pollyphyllus*) is much admired by some for its variety of color. Lupines belong to Class XII., page 42. They are of an opening, cleansing, dissolving and digestive property ; but if they be steeped in water until they have lost their bitterness they may be eaten ; yet in that manner their nature is changed, for they become very hard to digest, breed gross humors and pass slowly

through the belly, yet do not stop any flux ; but, after being steeped, if they are dried and taken with vinegar, they provoke appetite and hinder the loathing of the stomach to meat. The decoction of Lupines taken with honey open obstructions of the liver and spleen, provokes urine and the terms, and it clears the body of scabs, cankers, running ulcers or sores, takes away spots, freckles, pits, or marks which small pox leaves behind it ; and of black and blue spots and bruises, an ointment of Lupines to beautify and make the face smooth is made in the following manner : Take the meal of Lupines, the gall of a goat or sheep, juice of lemons and a little alumen saccharinum, and mingle them in vinegar, and applied to the parts it takes away knobs, kernels, or pimples. The smoke from the shells being burnt, drives away gnats flies, and mosquitos.

COMMON MINT OR SPEAR MINT (*Mentha viridis*).—A perennial 2 feet high, blossom purple in cylindrical spikes, interrupted teeth of the calyx somewhat hairy, leaves wedge or spear shaped, at the base finely saw-toothed, smooth on each side, all the plant fragrant. It grows in moist lands and marshes and is cultivated by dividing the roots. Peppermint and corn mint are of different species. There are many kinds of common mint, but the spear shaped is most useful. The mints belong to class XIV, page 42. They are of a heating, binding, and drying quality ; therefore the juice taken with vinegar stayeth bleeding. It is an incentive to venery and bodily lust. Three spriggs taken with the juice of four pomegranites, stays hiccough, vomiting and choler, and applied with barley meal dissolves impostumes. It is good to repress the milk in women's breasts, for such as have swollen flagging or large breasts. Applied with salt it helps the bite of a mad dog ; with meal or honeyed water it eases pains in the ears, takes away roughness of the tongue, being rubbed thereon. If the leaves are boiled or steeped in milk it hinders its curdling on the stomach. It is a very powerful stomachic. The frequent use of it is very efficacious in stopping the courses and the whites. Applied to the forehead and temples it eases pains of the head. It is good to wash the heads of young children with, as it prevents breakings out of sores or scabs thereon. It also heals chops in the fundament, and is exceedingly useful against the poison of

venemous creatures. The distilled water is available for these purposes, yet more weakly, but the spirit is much more powerful than the herb itself. Mint in any form must not be taken in too great quantites, as it tends to make the blood thin and waterish, and turneth it into choler; therefore, choleric people must abstain from it. It is a speedy and very safe remedy for the bite of a mad dog, being bruised with salt and applied to the wound. The powder of it being dried and taken after meals helps digestion, and those that are spleenetic. Taken in currant jelly it helps women in sore travel in child bearing. It is good against gravel and stone in the kidneys and the stranguary. Being smelled unto, it is comfortable for the head and memory. The decoction gargled in the mouth cares sore mouth and gums, and stinking breath. Mixed with rue and coriander, in equal quantities, as a gargle, causes the palate of the mouth to return to its place, when down, Mint exhilarates the mind, and is therefore proper for the studious, used in moderation. If mint is placed in milk for a while no butter can be made from it afterwards. Wounded people should refrain from the use of mint.

PHRENOLOGY AND PHYSIOGNOMY

Interprets the character and dispositions of persons and by it their errors are pointed out, and the means of a reformation easily seen. The difference in character, opinion and looks are portrayed, showing that we can control our thoughts and feelings. By physiognomy we can easily trace the appearance of insanity and of idiocy, also the intelligence of which a man is possessed. For instance how quietly and yet quickly will one person judge of another, even on first seeing one another, especially between lovers. Though some laugh at the idea of the appearance of the face, eyes, and nose, furnishing any guide to an estimate of character, yet we reckon largely on those signs in every day business. A good deal may be learned by a beginner in phrenology and physiognomy by comparing the form and size of the whole head with the favorite occupations of the individual. It is known that certain parties are naturally endowed with particular faculties. Some are from

their birth fit for mechanics, for music, for painting, &c. Every faculty has its place of residence. If the eye be the organ of sight vision cannot exist without the eye, and it is the same with other organs. If any faculty be attached to a particular organ, this organ can never be wanting if the faculty manifest itself. This truth is indeed as evident as that no effect can take place without a cause. To read character correctly it is requisite to know something of phrenology, anatomy, physiology, physiognomy and ethnology, and a continued practice of close observations.

THE SENSE OF FEELING.

Feeling is hot, cold, dry or moist in quality. It is deputed to no particular organ, but is spread about the whole body ; it is the index to the mind of all things tangible. Its object then must be heat or cold, dryness or moisture, things pleasant, sharp, smarting, motion, rest, tickling, &c. It is known that man may live without some senses, but it is the opinion of most, that man cannot live without the sense of feeling. And, as I said before of the other senses, so also I say of feeling, that although the sense is plural and may affect various parts of the body at once, yet the organ of apprehension is single. Although it may be used unitedly with all five senses at one time, for we are able to hear, smell, taste, see, and feel, all at one time. Just so also in all organs of the head we may make use of them unitedly, yet mostly we use each faculty separate and distinct from the rest.

(TO BE CONTINUED.)

Good Canadian (NOVEMBER) Household Physician.

 ONE MORE NUMBER COMPLETES THE VOLUME FOR THIS YEAR.

The december number will soon be sent to subscribers, and a new year entered upon. Are the good friends of the Good Canadian ready to renew their subscriptions for the new year ? Renewals have already started. This magazine promises im-

provement and enlargement, thanks to many friends and for all who help whether by word or deed.

WATER COLORS.

(Continued from page 154.)

The flat long hair brushes used in oil painting, if made with fine soft bristle, are very effective tools in experienced hands, in cases where body color, or any rich and powerful tone is desirable. Their strength and stiffness enable the painter to employ thicker color than can be worked with sable brushes, as well as to force it more effectually into the texture or grain of the paper.

COLORS.

In water color painting, as now practised, the colors are used in three forms; namely, dry cake colors, which are considered by a numerous class of artists to have certain advantages as regards purity of tone and perfection of wash; moist colors placed in earthenware pans, and arranged in convenient tin sketching boxes; and colours put into collapsible metal tubes, as in oil colors.

Of these forms the second is the most convenient and advantageous for the learner, and even for the advanced artist.

It may be observed that the tube colors above spoken of are chiefly serviceable in large works requiring a considerable body of color to be laid on in a short time.

It must be remembered that the following catalogue of colors contains only those absolutely useful in landscape painting; that however nearly they approach each other generally, they all differ in degrees of opacity or transparency,—in hue and tone,—and particularly in working.

REAL ULTRAMARINE.—This brilliant blue is the purest in tint and at the same time one of the most permanent pigments known; it is nearly free from any tinge either of purple or of green.

Beautiful as this color is, it is not so well calculated for mixed tints as many other blues, on account of a gritty quality of which no grinding will entirely divest it, and which causes it to separate itself from other colors with which it may be mixed.

In skies and distances it affords a fine aerial azure. It has, however, not been so much employed for this latter purpose since the introduction of the imitative ultramarine, known under the name of french blue.

ULTRAMARINE ASH.—A delicate and extremely tender azure, not so positive in tint as ultramarine, but which washes much better. It may be used for skies and distances, where tender azure grays are required.

FRENCH BLUE.—A valuable color, which of late years, has been added to the artist's list of pigments. It is strong in color and nearly transparent; is used either in figures, draperies or landscape. It has a slight tendency to the purple hue, which may be neutralized by the addition of a small quantity of prussian blue; after which it resembles much the tint of the real ultramarine, and although not quite so vivid, is more generally useful, particularly as it washes and works well. It is permanent in water color.

SMALT.—Is occasionally used in landscape. It is a vivid and gorgeous blue; bright, deep and transparent, bordering on the violet tint. Does not wash well: is quite permanent.

COBALT BLUE.—A pure light azure blue, nearly transparent—it washes well and affords clear bright tints in skies and distances, but is apt to cause opacity if brought too near the foreground. With light red, in any proportion, it gives beautiful cloud tints; with madder brown it affords a range of fine pearly neutrals. This color is quite permanent.

PRUSSIAN BLUE.—A deep-toned brilliant blue, bordering slightly on green, a quality which militates against its use in skies and distances. The old water color painters, however, used it for those parts of a picture, with the addition of a small portion of crimson lake to neutralize its green tint. Prussian blue mixed with light red gives a sea-green neutral.

ANTWERP BLUE.—A deep transparent blue, which has naturally a green tinge, rendering it well adapted for mixed greens.

INDIGO.—This color is generally useful in landscape. It is not a bright blue, although very clear in all its tints. With indian ink it affords very clean purpley shadows; with either gamboge, raw sienna, roman ochre, or yellow ochre, it gives clear, sober greens. It stands well.

GAMBOGE.—A very lively and transparent yellow gum highly useful in every kind of subject. In landscape it affords, with indigo or antwerp blue, clear bright greens; and with sepia a very useful sober tint; in its very deep touches it shines too much, and verges on the brown.

YELLOW OCHRE.—This sober and useful yellow is generally employed in the distance and middle ground of a landscape; it possesses a slight degree of turbidness, and is esteemed for this property, which is considered to give it a retiring quality. It affords a fine range of quiet greens in its admixture with Antwerp blue or indigo; also a very serviceable yellowish drab with Vandyke brown. It is very permanent and washes well.

ROMAN OCHRE.—Is more transparent and rather cooler in its tint than the above, forming, with antwerp blue or indigo, an excellent range of greens, which are much used by many painters.

RAW SIENNA.—More transparent in its tint than any of the ochres. It has the objection of being rather pasty in working, although by proper skill in its preparation it may be divested of some of this quality. It is much employed in landscape, on account of being useful both in distance and in foreground; it gives bright sunny tints, and, with antwerp blue, very pure clear greens.

CADMIUM YELLOW.—This splendid, glowing, yellow pigment, prepared from the metal cadmium, is a recent addition to the palette. It is extremely brilliant and nearly transparent, which qualities make it invaluable for gorgeous sunsets. It also works and washes well, and is permanent.

INDIAN YELLOW.—A rich intense yellow, particularly useful for draperies, and for compounding landscape greens. It washes and works extremely well, and is permanent in water colors.

ITALIAN PINK.—A rich transparent yellow, affording a variety of beautiful foliage-tints, by admixture with indigo and sepia in various proportions. These three colors with burnt sienna will produce almost every variety of sunny foliage. It gives also fine olive greens by admixture with lamp black.

YELLOW LAKE.—Similar in its qualities to italian pink, but a little cooler in tint, and not quite so powerful.

CHROME YELLOW.—Is of three tints; pale, deep and orange; They are opaque colors of strong body, and are occasionally used in thin washes.

MARS YELLOW.—A fine, warm and brilliant artificial ochre quite permanent.

(TO BE CONTINUED.)

PHYSIOLOGY OR NATURAL PHILOSOPHY.

(Continued.)

Heliography is the philosophical doctrine of the sun, which is briskly summed up under the following articles: (1.) The sun is the centre of a system of six great bodies, called planets, which continually move around him. (2.) The sun is the fountain of native light and heat, which is communicated from him to the planets. (3.) His diameter is said to be (though questioned of late) 822,148 english miles, and his solid content 290,971,000,000,000,000 miles. The quantity of matter in his body is to that in the earth as 10,000,000 to 59. (5.) The weight of bodies on his surface to their weight here, as 10,000 to 435. (6.) His density to that of the earth, as 1 to 4. (7.) On his surface appear certain dark spots, called maculæ-solares, which often change their place, number, and magnitude, but what they are is not known for certainty. (8.) If those spots are really in the sun's body they prove him to have a motion

about his own axis, in about 25 days, 6 hours. (9.) His apparent daily motion from east to west is not real, but apparent, arising truly from the motion of the earth on which we live.

(TO BE CONTINUED.)

MISCELLANEOUS RECEIPTS.

TO BREAK THE STONE AND EXPEL BY URINE.—Take some burs from burdock when full ripe, boil them well and drink a small cupful of the liquor before each meal.

Cabbage well boiled, for persons consumptive, should form part of every meal.

Catnep tea is good for billiousness or overflow of the gall.

FOR PERSONS TROUBLED WITH WIND IN THE STOMACH.—Take carrot seeds and carraway seed, equal quantity, boil them in a little milk and flavor with nutmeg and sugar.

TO CREATE AN APPETITE AND CLEANSE THE BLOOD IN THE FALL OF THE YEAR.—Take hop roots and common dandelion roots, about 3 oz. of each, boil them just covered with water, add 1 oz of gum arabic and boil again, strain off and drink $\frac{1}{2}$ cupful $\frac{1}{2}$ hour before each meal.

TO CAUSE A COW TO INCREASE HER MILK.—Get mullin leaves and mix some with her food every time of giving.

TO CURE POULTRY OF THE CROOP.—Get leaves of rue, black soot and pork fat, mix together, make into boluses the size of your finger and force them down the throat of the fowl, &c., so affected.

HEALING.—The fresh leaves of hyssop bruised and a little sugar mixed with it, will quickly heal any cut or fresh wound, being applied to it.

TO CAUSE WEeping WHEN YOU WISH A PERSON TO THINK YOU RESPECT THEM.—Bruise onions and mustard seed together and hold them in a white handkerchief near your eyes.

TO STOP QUARRELS.—Be good tempered.

NAMES OF THE LINNÆAN CLASSES AND ORDERS

Class.

- I. MONANDRIA.
 1. Monogynia.
 2. Digynia.
- II. DIANDRIA.
 1. Monogynia.
 2. Digynia.
 3. Trigynia.
- III. TRIANDRIA.
 1. Monogynia.
 2. Digynia.
 3. Trigynia.
- IV. TETRANDRIA.
 1. Monogynia.
 2. Digynia.
 3. Tetragynia.
- V. PENTANDRIA.
 1. Monogynia.
 2. Digynia.
 3. Trigynia.
 4. Tetragynia.
 5. Pentagynia.
 6. Polygynia.
- VI. HEXANDRIA.
 1. Monogynia.
 2. Digynia.
 3. Trigynia.
 4. Tetragynia.
 5. Polygynia.
- VII. HEPTANDRIA.
 1. Monogynia.
 2. Digynia.
 3. Tetragynia.
 4. Heptagynia.
- VIII. OCTANDRIA.
 1. Monogynia.
 2. Digynia.
 3. Trigynia.
 4. Tetragynia.
- IX. ENNEANDRIA.
 1. Monogynia.
 2. Trigynia.
 3. Hexagynia.
- X. DECANDRIA.
 1. Monogynia.
 2. Digynia.

Class.

3. Trigynia.
 4. Tetragynia.
 5. Pentagynia.
 6. Decagynia.
- XI. DODECANDRIA.
 1. Monogynia.
 2. Digynia.
 3. Trigynia.
 4. Pentagynia.
 5. Dodecagynia.
- XII. ICOSANDRIA.
 1. Monogynia.
 2. Digynia.
 3. Trigynia.
 4. Pentagynia.
 5. Polygynia.
- XIII. POLYANDRIA.
 1. Monogynia.
 2. Digynia.
 3. Trigynia.
 4. Tetragynia.
 5. Pentagynia.
 6. Hexagynia.
 7. Polygynia.
- XIV. DIDYNAMIA.
 1. Gymnospermia.
 2. Angiospermia.
- XV. TETRADYNAMIA.
 1. Siliculosa.
 2. Sili quosa.
- XVI. MONADELPHIA.
 1. Triandria.
 2. Pandantia.
 3. Octandria.
 4. Decandria.
 5. Endecandria.
 6. Dodecandria.
 7. Polyandria.
- XVII. DIADELPHIA.
 1. Aentandria.
 2. Hexandria.
 3. Octandria.
 4. Decandria.
- XVIII. POLYADELPHIA.
 1. Pendandria.

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| <ul style="list-style-type: none"> 2. Dodecandria. 3. Icosandria. 4. Polyandria. XIX. SYNGENESIA. 1. Polygamia <i>Æqualis</i>. 2. Polygamia <i>Superflua</i>. 3. Polygamia <i>Frustranea</i>. 4. Polygamia <i>necessaria</i>. 5. Polygamia <i>segregata</i>. 6. Monogamia. XX. GYNANDRIA. 1. Diandria. 2. Triandria. 3. Tetandria. 4. Pentandria. 5. Hexandria. 6. Octandria. 7. Decandria. 8. Dodecandria. 9. Polyandria. XXI. MONŒCIA. 1. Moiandria. 2. Diandria. 3. Triandria. 4. Tetandria. 5. Pentandria. 6. Hexandria. 7. Octandria. | <ul style="list-style-type: none"> 8. Enneandria. 9. Decandria. 10. Dodecandria. 11. Polyandria. 12. Monadelphia. 13. Syngenesia. 14. Gynandria. XXII. DIŒCIA. 1. Monandria. 2. Diandria. 3. Triandria. 4. Tetrandria. 5. Pentandria. 6. Hexandria. 7. Octandria. 8. Enneandria. 9. Decandria. 10. Dodecandria. XXIII. POLYGAMIA. 1. Monœcia. 2. Diœcia. 3. Triœcia. XXIV. CRYPTOGAMIA. 1. Filices. 2. Musci. 3. Algæ. 4. Fungi. |
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THE HERBAL MEDICINES ARE IN DEMAND.

Our friends on the other side patronize herbal medicines freely, and most of their renowned medicines sold here by druggists are of vegetable composition. The natural mode of curing disease consists in first finding out the real causes, even remote causes also; secondly, in removing those causes by every habit being so regulated as to answer that purpose, taking such alterative herbal medicines at the same time as will assist in so doing, into which is combined some cleansing and strengthening properties in order that the patient's blood may be clean and healing in its nature when it flows to the diseased part.

NOVEMBER POETRY.

Prepare the henhouse, barn and stable,
 To keep out wind, rain, frost and snow,
 If you would have them comfortable
 For your poultry, horse and cow.

The best plan is for hens and roosters,
 To take down roosts, and give them straw,
 'Twill keep them fat, and make 'good roosters,
 And keep them free from frozen claw.

Perennial roots should be protected,
 Either in heuse, by frame or straw.
 Your spreading roots, should be dissected,
 And vacant ground plough'd up for snow.

Look well to pot-herbs, keep them dry,
 And covered up from smoke and dust.
 Or Christmas meat, to season high,
 Through your neglect, go short you must.—V. B. H.

To spend a dull month, among dull men, in dull times, is
 dull indulgence. The duller this month appears, the more
 lively will next month appear, when it comes

With merry, happy, jolly faces,
 And gorgeous, plenteous, table graces.

Slothfulness makes all things difficult.

Religion is the best armour, but the worst cloak.

Use pastime so as not to lose time.

Who looks not before, finds himself behind.

Every man is the architect of his own fortune.

Nothing to be got without pains—but poverty

The three great physicians—Nature, time, and patience,—

Their three assistants—Food, medicine and rest.

Clean your chimneys before your snowy roofs prevent you,
 bag up your soot, and in one of the Spring numbers for the
 next year, I will show the use of it.

Attention is called to inducements on next page.

CORRESPONDENCE.

No letters can be answered in the ensuing number which are received later than the third Saturday in the Month. Letters to be addressed to V. B. HALL, Post Office, Hamilton, or messages left with W. Johnson, 42 James Street, up stairs.

P. B.—I cannot inform you for certainty where, but I have heard there is plenty further north, they stand the cold well, they are perennial.

S.—Get turnip, artichoke and parsnip roots, cut them in slices, place them in a large jar or bowl and spread sugar between each slice, cover over with a plate or something cold, and stand in a cold place for three hours, you can then strain off the liquor that has distilled from them for use. It will keep, if well corked up, and should be kept in the cool and in the dark.

SUBSCRIBER.—Yes, I think so, I mean to make the offer to all those who obtain five yearly subscribers at \$1.00 in advance. I will give one copy free for the year.

F. D.—You should use my breast plaster.

To Country, Town and Village Booksellers.

Upon application to me by letter with amount enclosed I shall be happy to supply you with these Magazines at 25-100 rate. Post paid by me to all parts of Canada. Price \$1.00 per annum.

To Tobacconists, General Store-keepers, &c.

The famous Lung Restorative known as Botaca, used by those who cannot, through chest and lung complaints, make use of tobacco. A great relief and often proves curative to those who are troubled with Asthma. May be had of me, for sale at 25-100 rate. Retail price 5 cents and 10 cents a packet.

Advertisements are inserted in these covers by special arrangement with me.

An apprentice wanted to learn the Trade and Profession of Medical Botany.

INDUCEMENTS.

To those who obtain ten subscribers at \$1.00 I will give one well bound volume of the Good Canadian, of 12 numbers, and one monthly copy for the next year through also.

Send in subscriptions for next year early, in order that it may be estimated whether the same or a larger number is requisite to be printed monthly. Messages by Post Card from any subscriber will be promptly attended to

THE GOOD CANADIAN ;

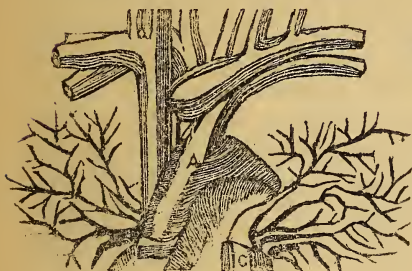
OR,

HOUSEHOLD PHYSICIAN

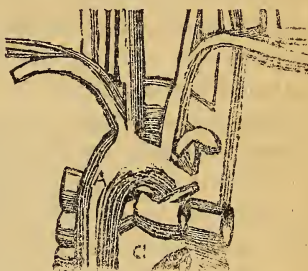
Happy the man who by Nature's laws, through known effects can trace the cause.

ANATOMY OF THE HEART.

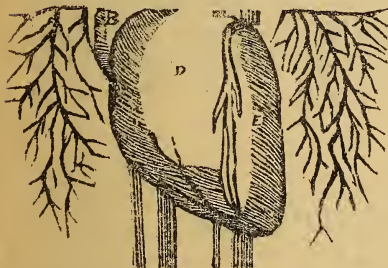
FRONT VIEW, UPPER PART.



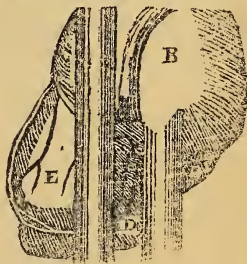
BACK VIEW, UPPER PART.



FRONT VIEW, LOWER PART.



BACK VIEW, LOWER PART.



FRONT AND BACK VIEWS OF THE HEART.

The vessels at the upper portion of each engraving represent the jugular veins and carotid arteries of the neck ; those that branch beneath them in lateral directions spring from the shoulders and arm-pit, to supply with blood the upper extrem-

ities. In the front view, A is the aorta, the largest and most important artery of the body. The same letter, in the back, view represents the same blood-vessel, but descending, to supply the trunk of the body and lower extremities. Both in the front and back view, B represents the right auricle of the heart; C the left auricle; D the right ventricle; and E the left ventricle. The branches from the sides, especially in the front view of the heart, represent vessels going to permeate the lungs.

The heart is the noblest organ of animal life, its substance is of muscular flesh, for the heart is a muscle of various orders of fibres, by which means it is capable of contraction and dilatation. In the heart are two large cavities called Ventricles, the right and left; above each of these is an Auricle or little ear; In the right Auricle opens the Vena Cava, and the Vena Pulmonalis in the left. The Arteria Pulmonalis arises from the right ventricle of the heart, and the Aorta or great artery from the left ventricle. In the dilatation of the right Auricle the blood rushes in from the Vena Cava, which, by its contraction, is thrust into the right ventricle, which, by its contraction, drives it into the Pulmonary Artery, by which it is circulated through the Lungs, and then returned by the Pulmonary Vein into the left Auricle, and from thence into the left Ventricle, which, by its contraction, forces it into the trunk of the Aorta, which carries it to all parts of the body; from whence it is returned by the veins to the right Auricle. And thus by an alternate dilatation and contraction (called the Diastole and Systole) of the Auricles and Ventricles of the heart, the circulation of the blood is effected, which is the proper function of the heart.

BOTANY OR PHYTOLOGY.

Continued from Page 106.

WORMWOOD.—There are three wormwoods familiar to us The Sea Wormwood hath so many names, as Seriphian, Santonicon, Belgicum, Narbonese, Xantomicum, Misnense and many more. The seed of this wormwood is that which women usually give their children for worms, yet it is of a weaker

kind than others ; the seeds of the common wormwood are far more useful for this purpose, but the Seriphian wormseed being the weakest may be most fit for weak bodies. The leaves of Seriphian wormwood made into a decoction and drank, strengthens digestion, corrects acidities and supplies the place of gall, as in some constitutions that is deficient. The Sea or Seriphian Wormwood has many round woody hoary stalks from the root, three or four feet high. The leaves are long narrow white and hoary, like southernwood, only broader and longer ; in taste rather more salt than bitter, which is owing to its growing near the salt water. At the joints where the leaves are towards the top, it bears little yellow flowers. Common Wormwood is well known, its properties are the same as the Roman Wormwood, the stalks of which are slender and shorter than common wormwood, the leaves and stalks are hoary ; blossom, pale yellow, not quite so bitter as the common wormwood and of a sweeter smell ; it is a mountain herb. It is hot and dry in its nature, the same heat as our blood and no hotter ; it cleanses the blood of choler, provokes urine, hinders surfeits, is good for swellings in the belly, it causes an appetite to meat, it is good for the yellow jaundice, it provokes terms, it is a remedy both drank and applied for the bitings of small animals, cures many diseases of the throat, it is good for diseases of the eyes and a remedy for all kinds of bites and stings. Mix a little wormwood with ink and neither rats or mice will touch paper that is written with it ; and laid among clothes keeps moths away. Class VIII, page 41.

VERVAIN COMMON (*Verbena officinalis*).—A perennial, two feet high, purple blossom in spikes, calyx in five divisions ; corolla funnel shaped, with a tube bent inwards and an unequal border with five divisions, stamens four, fertile but bladdery, covered, withering, seeds four, leaves in many divisions. The root is small and long and not of much use. The stem is square. Class XIV, page 42. It is an excellent herb for the womb, to strengthen it. It is hot, dry and bitter, opening obstructions, cleansing and healing. Is good for yellow jaundice, dropsy, gout and defects of the lungs ; also all inward pains and torments of the belly. The leaves being boiled and drank

kills and expells worms in the belly, and causes a good color in the face and body ; strengthens and corrects diseases of the stomach and lungs, coughs, shortness of breath and wheezings, and is very good for the dropsy and defects of the reins and bladder, and for the stone and gravel. Heals all wounds, both inward and outward, and stays bleedings, and used with honey heals ulcers in all parts of the system. The distilled water from the herb, when it is in full strength, dropped into the eyes cleanses them from films, clouds or mists that darken the sight, and wonderfully strengthens the optic nerves. It is a servicable herb for both inward or outward use.

THE TWELVE MAIN TERMS OF BOTANY.



a, the Calyx ; *b*, the Carolla ; *c*, the Petal ; *d*, the Stamens ; *e*, the Filament ; *f*, the Anthers ; *g-i*, the Pistil ; *g*, the Ovary ; *k*, the Style ; *i*, the Stigma.

PRIMROSE (*Primula vulgaris*).—A Perennial, four or six inches high, blossom yellow, capsule with one cell, corolla funnel-shaped, having a passage at the opening, stigma round, leaves egg-oblong, toothed, wrinkled, hoary beneath flower, stalks as long as the leaves. It grows best in clayish soil, it is most probably the origin of all the garden poly anthuses. The seeds may be sown in spring or fall, and the roots of fine sorts may be divided. It answers best in shade and moisture.—class XXII, page 56. The leaves of this herb makes a good healing salve for fresh wounds.

1. On the outside of the Primrose a green sort of cup is seen, in which the colored part stands as an egg in an eggcup or as the acorn in the acorn-cup. This, which is marked by the letter *a* in the engraving, is the flowercup, but botanists call it by the Greek name Calyx.

2. Within this flowercup or calyx, which may be cut off, to show what it contains, is seen the colored part of the flower—the part, I mean, which is yellow in the primrose, blue in the violet, and red in the rose. This colored part, the blossom, botanists call by the Latin name Corolla.

3. The blossom or corolla may now be cut off, when it will be seen, in the primrose, to be of one piece, while in the rose and other flowers, it is of several pieces or leaves, each of these pieces may be called a flower leaf, but botanists call it a Petal.

4. Within the flower-leaf or petal, in the primrose, five small bodies may be seen standing round in a circle, with their little tips shaped somewhat like a barley corn but small and a slender stalk to support these, each of the five small bodies may be called a male, but botanists call it a Stamen.

5. The male part or stamen as we have seen, has two parts the under part and the upper part. The stalk or under part botanists call the Filament.

6. The upper part of the male may be called the tip, but botanists call it the Anther.

7. When the tip or anther of the male is broken or bursts, as it always does of itself as soon as it is ripe, a colored powder is seen, which may be called the tip-dust, but botanists call it Pollen.

8. When the calyx, the corolla and the stamens are all cut away the centre part of the flower alone will remain on the top of the stem, this part may be called the female, but botanists call it the pistil.

9. The female or pistil consists of a base, middle and top. The base of the pistil is always, more or less, bulged out and from its containing the seed, it may be called the seed organ, but botanists call it the ovary.

10. The middle of the pistil may be called the pillar, but botanists call it the style.

11. The top of the pistil may be called the summit, but botanists call it the stigma.

12. There is only one more term to be mentioned here which applies to a peculiar sort of leaf, sometimes according to the sort of plant found on the flower stem, often at the base of leaves, and sometimes surrounding fruits, as the calyx does the corolla. This, which botanists call by more than one name, according to its situation, I shall, for ease and convenience, call the scale.

These twelve terms will be found useful in reading the botanical description of the various herbs in this Magazine.

WATER COLORS.

Continued from Page 171.

LEMON YELLOW.—An extremely pale lively yellow, entirely free from the slightest tinge of orange: it has not much power, and is semi-opaque. In distance its light wash is used with great effect for cool sunny greens, for which purpose a minute quantity of Emerald Green may be added to it. It is employed for points of extreme high light. It is quite permanent, and washes well if skillfully prepared.

GALLSTONE.—A deep-toned gorgeous yellow. It affords richer tints than any other yellow, but cannot be depended on for permanency, and for this reason is seldom employed.

NAPLES YELLOW.—A pale semi-opaque but clear yellow, sometimes used in architectural works: The Naples Yellow here spoken of is manufactured with a Zinc instead of a Lead base, as is usual, and is consequently permanent.

BURNT SIENNA.—A rich transparent brown orange, much used in every department of water color painting. It yields fine olive greens by admixture with Antwerp Blue (or Indigo) and Yellow or Roman Ochre, Raw Sienna, or any other transparent yellow; and these tints may also be saddened into fine

olive neutrals by the addition of Sepia. It is inflexibly permanent, and washes and works well.

MARS ORANGE.—A very clear and beautiful orange, of the Burnt Sienna character, but without that tendency to brown which distinguishes the latter; it is consequently valuable in its pale wash for bright sunny tints, and is unequalled for clearness of tone. Very permanent.

BROWN OCHRE.—A dense, deep-toned, brownish yellow, fine in sandy foregrounds. Brown Ochre and Indian Yellow give a deep autumnal tint of great richness. Permanent.

CARMINE.—A very brilliant, deep-toned crimson, possessing great power in its full touches, and much clearness in its pale washes, although in this latter quality not equalling Madder Lake. It flows and washes extremely well, but is seldom used in landscape painting.

CRIMSON LAKE.—Similar in its character to the preceding, but deficient in some of its richness and brilliancy. This color is generally useful in all departments of the art.

SCARLET LAKE.—More scarlet in its hue than the last, but not so transparent.

PURPLE LAKE.—A transparent, deep-toned Lake, useful in shadows.

MADDER LAKE, OR ROSE MADDER.—A very delicate carnation, much clearer in its pale tints than either Crimson Lake or Carmine, but wanting in intensity. It is much used in all classes of water-color painting, on account of its superior permanency.

VERMILION.—An opaque bright scarlet red, higher in its tone than any others; but a want of transparency, and its not flowing well, precludes its being used so generally as would be desirable: it stands well.

SCARLET VERMILION.—Has properties the same as above, with the exception of being a little more scarlet in its tint, and washing better.

ORANGE VERMILION.—Rather more transparent than the others, with a clear but not bright orange tint; it washes better than the other descriptions of Vermillion, and is for landscape purposes more useful.

LIGHT RED.—A clear and transparent, but not a bright red, with somewhat of a tinge of orange; it is generally useful in landscape; with Cobalt it yields fine grays; with black and brown pink fine warm near tones. Permanent.

VENETIAN RED.—Is a very servicable colour for general purposes; its tints, though not bright, are clear, and it mixes and works kindly with cobalt or with French blue, affording fine pearly grays. Heightened by madder lake, it affords a fine glowing red, very servicable in some descriptions of skies; and saddened by black, gives low-toned reds of good quality for buildings.

INDIAN RED.—This deep lakey red earth, when skillfully prepared, affords fine clear tints in the light washes, and useful shadows when mixed with indian ink. It is much used for grays when mixed with indigo or with cobalt. Quite permanent.

PURPLE MADDER.—An intensely deep, rich and warm purple, affording the greatest depth of shadow, without coldness of tint. The clearness and beauty of its delicate tones render it valuable in every stage of drawing. With indigo and raw sienna, it gives beautiful shadow tints, and may be relied on for permanency.

MADDER BROWN.—This rich lakey brown is, if prepared with skill, of intense depth and transparency, affording equally the richest description of shadows and the most delicate pale tints. With cobalt, or with French blue, a set of fine warm or cool grays are compounded, in proportion as the brown or the blue predominates.

VANDYKE BROWN.—This very rich transparent brown is employed in almost every department of the water colour art. It is clear in its pale tints, and deep and warm in shadows. With indigo it gives very clear, sober, neutral greens for middle distance. Permanent.

SEPIA.—Unless artificially warmed by mixing other colors with it, this pigment is of a pale brown tint. Its pale washes are extremely clear, but its coloring property is so very strong, that, unless used with caution, it is apt to engender heaviness in its shadows. It is perhaps the best washing pigment we have. With gamboge it affords, for landscape, a range of fine neutral greens which are permanent. Indigo and sepia give very cool dark greens, and with Prussian or antwerp blue, low olive greens.

There are also two other descriptions of sepia; one called warm sepia, the other Roman sepia. They are tints compounded by the admixture of red and of a yellow with the natural sepia; the latter however is the only kind required by the landscape painter.

COLOGNE EARTH.—A cool brown, useful for the shadows of buildings: does not wash so well as sepia, and is preferred for some purposes on that account. Permanent.

BISTRE.—A fine brown color that washes well, and has a clearness about it suited to shadows in architectural subjects. Permanent.

BURNT UMBER.—A quiet brown color, affording clear and warm shadows. It is apt to look rather turbid if used in great depth, but it washes and works beautifully, and in buildings it is invaluable.

RAW UMBER.—A quiet yellowish brown, not perfectly transparent.

INDELIBLE BROWN INK.—Although this cannot be classed as a pigment, yet being very useful in the art, it may be proper to describe its qualities. This ink is a rich brown fluid, and, as its title imports, is indelibly fixed on the paper soon as it is dry; thus allowing the artist to work or wash over it repeatedly, without its being disturbed. If diluted with water to its faintest tint, it still continues to possess these qualities undiminished. It is generally used with a reed pen, and employed principally in architectural details.

BROWN PINK.—This color is almost indispensable in landscape, affording generally the rich foliage tints in foregrounds.

It may be modified by admixture with burnt sienna, [or gamboge, a compound which, with the addition of a small quantity of indigo, gives a warm green.

OLIVE GREEN.—(Sometimes called Dewint's green.) A fine deep olive green, of sober richness, much used in landscape. Permanent.

EMERALD GREEN.—A vivid light green, immediately attracting the eye to any part of the picture in which it may be used. It has the effect, where properly placed, of toning down at once, by the force of contrast, all the other greens in the picture. In its pure state, it is employed generally in draperies of landscape figures, heads of boats, or the like, and generally very sparingly. Where required however, no mixture will serve as a substitute.

SAP GREEN.—A transparent gummy green juice, inspissated and formed into a cake; not strictly permanent; of little use in landscape painting, as the mixed greens are better.

GREEN OXIDE OF CHROMIUM.—A deep-toned green, bright, but not vivid, as a landscape green; and in the hand of a master, it is occasionally employed with great effect, by admixture with either brown pink, Italian pink, or Indian yellow, and has then a fine lustrous appearance. Is extremely permanent but does not wash well in flat tints.

IVORY BLACK.—Is the richest and most transparent of the blacks, and has a slight tendency to brown in its pale washes.

LAMP BLACK.—Is not quite so intense nor so transparent as that made from ivory, but it is less brown in its pale tones; it has a very strong body that covers readily every underlay of color. Lamp black mixed with French blue or cobalt affords good cloudy grays, which are sometimes used for the shadows of heavy stormy clouds; but it should be used sparingly in a landscape, as it is a dangerously heavy color.

BLUE BLACK.—Is a black of a weaker body than the other two blacks, and consequently better suited for general mixed tints, in which it is not so likely to look dense and sooty as the others may do; it also affords a servicable cool shadow tint. Is permanent.

NEUTRAL TINT.—A compound shadow color, of a cool neutral, character.

PAYNE'S GRAY.—Similar to the neutral tint, but having a little more lilac in its hue. By itself it gives a clear violet shadow. With a small portion of burnt sienna, it makes a clear neutral tone; and all the mixtures, whether the gray or the burnt sienna predominates, afford serviceable tints.

CHINESE WHITE.—A material of great importance to water color art. It is prepared beautifully white, and possesses the desirable quality of dense body; so much so, that, as the painter works, his effect remains unaltered by the drying of the color. It works and washes with great freedom, has no paste or clogging qualities like the imperfect whites formerly in use, and its permanency is unquestionable. The various methods of employing the Chinese White in landscape painting will be adverted to hereafter. It will be sufficient at present, to observe, that the following colors blend very satisfactorily with the white for opaque lights, viz., Gamboge, Cadmium Yellow, Vermillion, Light Red, and Yellow Ochre.

It will be apparent that the *whole* of the foregoing colors are not required for any single work, but that a selection, according to the painter's intention, must be made from them. For general use the following list will be found serviceable and convenient:—

Gamboge,	Yellow Ochre,
Burnt Sienna,	Light Red,
Indian Red,	Purple or Crimson Lake,
Rose Madder,	Purple Madder,
Brown Madder,	Cobalt,
French Blue,	Indigo,
Vandyke Brown,	Sepia,
Olive Green,	Blue Black.

PHYSIOLOGY OR NATURAL PHILOSOPHY.

SELENOGRAPHY has for its subject the description of the Moon pertaining to our earth, for though there is other Moons

in the planetary system, yet they are not of so direct importance to us as this one. (1.) Her body is dark, uneven, spherical and apparently like our earth in matter and form. (2.) That the bright parts are the more eminent parts of the land, as mountains, islands, &c. (3.) The dark parts are thought to be seas, lakes, valleys, &c., which reflect no light. (4.) It is said there is an atmosphere of air about her, and if so, then (5.) there is wind, clouds rain, &c., as here; (6.) and in consequence is inhabited by living beings of some kind. (7.) The diameter of the moon is about 2175 English miles; her circumference 6829; her superficies 14,855,440 square miles, her solid contents 5,386,333,000 solid or cubic miles; yet of late these figures are doubted, and a final conclusion is not accepted yet. (8.) The moon revolves about the earth with a very irregular and elliptic motion, in about 27 days, 7 hours and 33 minutes, at a mean rate, from west. to east (9.) The mean diurnal arch described by the moon is, therefore, $30^{\circ} 10'$ of the ecliptic. (10.) By this means she appears to rise and set each day about an hour later than another, (11.) according to the different position of the moon in her orb. With respect to the sun and earth she puts on various aspects and phases, as new, first quarter, second quarter, third quarter and full. (12.) And since the moon never appears at the same distance from the sun of a different face. It appears she must have a diurnal motion about her own axis, completed in the same time as her periodical revolution about the earth. (13.) That the lunarians have their days and months of equal length.

Some very good works of latest scientific improvements are published, with full details upon phisiology, quite recently, which I can obtain for any one desirous of entering into this subject fully.

MISCELLANEOUS RECIPES.

FOR BROKENWINDED CATTLE.—take water agrimony and cut it up with their food.

TO STRENGTHEN THE LUNGS.—the water, agrimony, boiled and a half cupful of the decoction drank every morning is one of the greatest strengtheners of the lungs that nature affords.

Good Canadian—DECEMBER—Household Physician.

The year is now complete. Thanks to friends, and your renewal at once is requested. Strict attention will be given to the arrangement and contents of next year, with improvements. A very nice Front Design is being prepared for the the front of next year's numbers. Correspondence will be promptly attended to. By subscribing in advance, Subscribers will save 20 cents in the year, besides allowing me the opportunity of sending by post, and thereby save time. Subscribe at once, in order to give this good enterprise a good prospect for the coming year. A Merry Christmas and Happy New Year.

Subscription, \$1.00 per annum in advance, payable at Post Office, Hamilton, or at the author's residence, Mountain View Cottage, Hamilton. Subscribers for ten and for five are offered inducements. See correspondence page.

No Room for anything on Phrenology this month ; also a piece on the Medicine Chest, and other articles is obliged to be left out of this year.

The Water Color has certainly taken a good space this month, but many young persons are interested in it for winter evenings.

DECEMBER POETRY.

This month your roots, dried herbs and seeds
 You will find become so useful,
 To flavor meats, your friends to feed,
 When you have got an housefull.

Potatoes, turnips, carrots, beets,
 Parsnips and horseradish
 Will find much work for busy feet,
 Your tables to replenish.

'Thyme, savory and marjoram,
 Carraway and coriander
 Will flavor dishes so nice, Ma'am,
 You never saw things grander.

CORRESPONDENCE.

No letters can be answered in the ensuing number which are received later than the third Saturday in the Month. Letters to be addressed to V. B. HALL, Post Office, Hamilton, or messages left with W. Johnson, 42 James Street, up stairs.

A Office for the Good Canadian Magazine Will be opened in January, Listers Block, 42 James St., up stairs.

W. D. C., Stratford.—I will send you any information you require when you commence working the ground in the Spring,

Answers sent by Post Card.

A. B.—Subscriber F., S. and W.

P. S., Woodstock.—You cannot do better than keep them in your cellar till the frost is gone, then divide the roots, planting them in rich soil.

A. West.—You cannot do better than use my Spinal Plaster, as you are so subject to cold in the loins and kidneys. You will find them no hindrance in business.

A. Friend.—You should have a flannel belt, made very thick, and $\frac{1}{4}$ yard wide, to wear during the cold weather.

Attention is called to my special list of articles for winter. See on cover.

To Country, Town and Village Booksellers.

Upon application to me by letter with amount enclosed I shall be happy to supply you with these Magazines at 25-100 rate. Post paid by me to all parts of Canada. Price \$1.00 per annum.

To Tobacconists, General Store-keepers, &c.

The famous Lung Restorative known as Botaca, used by those who cannot, through chest and lung complaints, make use of tobacco. A great relief and often proves curative to those who are troubled with Asthma. May be had of me, for sale at 25-100 rate. Retail price 5 cents and 10 cents a packet.

Advertisements are inserted in these covers by special arrangement with me.

An apprentice wanted to learn the Trade and Profession of Medical Botany.

INDUCEMENTS.

To those who obtain ten subscribers at \$1.00 I will give one well bound volume of the Good Canadian, of 12 numbers, and one monthly copy for the next year through also, and for five, a copy free for the year.

Send in subscriptions for next year early, in order that it may be estimated whether the same or a larger number is requisite to be printed monthly. Messages by Post Card promptly attended to.

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