618. SONCHUS *arvensis*. Field Sow-Thistle.—This is a very excellent food for hogs and tame rabbits.

619. TAMUS *communis*. Black Bryony. — The yonng shoots of this plant are collected by the cottagers as food for hogs, and are said to make them fat.

620. THUJA *occidentalis*. Arbor-Vitæ.—The leaves of this tree bruised and applied to the soles of the feet are said to cure the tertian ague. The usual mode is, to put it close to the soles in a bag, and renew it every other morning.

621. ULMUS *campestris*. Common Elm. — The leaves of this tree are stripped off in Worcestershire and boiled as food for hogs, and are found to be very nutritive to that animal.

622. ULMUS *montana*.—Witch Elm.—The wood of his will strip into thongs, which are used to tie different articles, similar to bass-matting.

Section XIII. — *POISONOUS PLANTS GROWING IN GREAT BRITAIN.*

"On the day that thou eatest thereof thou shalt surely die."

I have found it necessary to be particular in my description of the articles in this section, as I find that, although the knowledge of Botany has in some measure increased, yet, in general, we are not better acquainted with the Poisonous Vegetables than we were thirty years ago. Many and frequent are the accidents which occur in consequence of mistakes being made with those plants; but it in general happens that, from feelings easily appreciated, persons do not like to detail such misfortunes; which not only hides the mischief, but prevents, in a great measure, the antidotes becoming so well known as for the good of society we could wish they were. This I experienced in my researches after several facts which I wished to ascertain regarding this subject. However, whilst we have in common use such plants as Foxglove, Hemlock, and Henbane, and which are now so generally sold in our herb-shops, people who sell them ought to be particularly careful not to let such fall into the hands of ignorant persons, and thereby be administered either in mistake or in improper quantities. Our drug-

gists and apothecaries are careful in not selling to strangers the more common preparations of Mercury, or Arsenic, drugs which in themselves carry fear and dismay in their very names; yet we can get any poisonous vegetables either in the common market, or of herb-dealers, which are more likely to be abused in their application than other poisons which are of not more dangerous tendencies.

The effects of Vegetable Poisons on the human frame vary according to circumstances. The most usual are: that of disturbing the nervous functions, producing vertigo, faintness, delirium, madness, stupor, or apoplexy, with a consequent loss of understanding, of speech, and of all the senses; and, frequently, this dreadful scene ends in death in a short period.

It is, however, fortunate that these dangerous plants, which either grow wild, or are cultivated in this country, are few in number; and it is not less so, that the most virulent often carry with them their own antidote, as many of them, from their disagreeable taste, produce nausea and sickness, by which their mischief is frequently removed; and when this is not the case, it points out that the best and most effectual one is the application of emetics: and it may be almost considered a divine dispensation, that a plant, very common in all watery places, should be ready at hand, which has from experience proved one of the most active drugs of this nature, and this is the Ranunculus *Flammula*, Water-Spearwort. The juice of this plant, in cases of such emergency, may be given in the quantity of a table-spoonful, and repeated every three minutes until it operates, which it usually will do before the third is taken into the stomach.

After the vomiting is over, the effects often remain, by part of the deleterious qualities being absorbed by the stomach; and as it often happens, in such cases, that medical assistance may not be at hand, I shall, under the head of each class, give their proper antidote, which should be in all cases applied as soon as possible, even before medical assistance can be procured. And it should not be forgotten that, in dreadful cases where the medicine cannot be forced down through the usual channel, recourse should be had to the use of clysters.

Under each of the following heads I shall describe such cases as have come under my notice; as they may be useful for comparison: and shall put under each of the more dangerous the *Plantæ affines*, describing as accurately as possible the differences.

BITTER NAUSEOUS POISONS.

These are much altered by vegetable acids in general, and especially by oxymuriatic acid; but they still retain much of their poisonous quality, which appears to be rendered more active by alkalies. The tanning decoctions of nut-galls, acacia, and other strong astringents, Venice treacle, wine, spirituous liquors, and spices, are useful.

623. CHELIDONIUM *majus.* CELANDINE. — The yellow juice of this plant is extremely acrid and narcotic. It is not at all like any plant used for culinary purposes, and therefore there is not any great danger likely to arise from its being confounded with any useful vegetable.

624. CICUTA *virosa.* COWBANE.—Two boys and six girls, who found some roots of this plant in a water-meadow, ate of them. The two boys were soon seized with pain of the pericardia, loss of speech, abolition of all the senses, and terrible convulsions. The mouth closely shut, so that it could not be opened by any means. Blood was forced from the ears, and the eyes were horribly distorted.

Both the boys died in half an hour from the first accession of the symptoms.

The six girls, who had taken a smaller quantity of the roots than the boys, were likewise seized with epileptic symptoms; but in the interval of the paroxysms, some Venice-treacle dissolved in vinegar was given to them; in consequence of which they vomited, and recovered: but one of them had a very narrow escape for her life. She lay nine hours with her hands and feet outstretched, and cold: all this time she had a cadaverous countenance, and her respiration could scarcely be perceived. When she recovered, she complained a long time of a pain in her stomach, and was unable to eat any food, her tongue being much wounded by her teeth in the convulsive fits.

Plantæ affines.

Celery is smaller than this plant.

Parsley is also smaller in all its parts.

Alexanders differs from it, as a plant not of so high growth.

Angelica may be mistaken for this, but has a more agreeable scent.

All the water parsneps may be confounded with it: but these are known by the smallness of the umbels; and they are generally in bloom, so that this circumstance is a good criterion.

Care should at all times be taken, not to make use of any umbelliferous plants growing in water, as many of them are, if not altogether poisonous, very unwholesome.

625. COLCHICUM *autumnale.* MEADOW-SAFFRON.—Baron Stoerck asserts, that on cutting the fresh root into slices, the acrid particles

emitted from it irritated the nostrils, fauces, and breast; and that the ends of the fingers with which it had been held became for a time benumbed; that even a single grain in a crumb of bread taken internally produced a burning heat and pain in the stomach and bowels, urgent strangury, tenesmus, colic pains, cephalalgia, hiccup, &c. From this relation, it will not appear surprising that we find several instances recorded, in which the Colchicum proved a fatal poison both to man, and brute animals. Two boys, after eating this plant, which they found growing in a meadow, died in great agony. Violent symptoms have been produced by taking the flowers. The seeds, likewise, have been known to produce similar effects.

626. ŒNANTHE *crocata*. Hemlock. Water Dropwort.—Eleven French prisoners had the liberty of walking in and about the town of Pembroke; three of them being in the fields a little before noon, found and dug up a large quantity of this plant with its roots, which they took to be wild celery, to eat with their bread and butter for dinner. After washing it a while in the fields they all three ate, or rather tasted of the roots.

As they were entering the town, without any previous notice of sickness at the stomach or disorder in the head, one of them was seized with convulsions. The other two ran home, and sent a surgeon to him. The surgeon first endeavoured to bleed, and then to vomit him; but those endeavours were fruitless, and the soldier died in a very short time.

Ignorant yet of the cause of their comrade's death, and of their own danger, they gave of these roots to the other eight prisoners, who all ate some of them with their dinner: the quantity could not be ascertained. A few minutes after, the remaining two who gathered the plant were seized in the same manner as the first; of which one died: the other was bled, and a vomit forced down, on account of his jaws being as it were locked together. This operated, and he recovered; but he was for some time affected with a giddiness in his head; and it is remarkable, that he was neither sick nor in the least disordered in his stomach. The others being bled and vomited immediately, were secured from the approach of any bad symptoms. Upon examination of the plant which the French prisoners mistook for wild celery, Mr. Howell discovered it to be this plant, which grows very plentifully in the neighbourhood of Haverfordwest.

Although the above account, which Mr. Wilmer has so minutely described, seems well attested, and corroborated by the above gentleman, yet I was informed by the late Mr. Adams, comptroller of the Customs at Pembroke, that the Œnanthe does not, that he could find, grow in that part of the country; but that what the above unfortunate French officers did actually eat was the wild Celery, which grows plentifully in all the wet places near that town. I take the liberty of mentioning this circumstance; as it will serve to keep in mind the

fact, that celery, when found wild, and growing in wet places, should be used cautiously, it being in such situations of a pernicious tendency. For such whose curiosity may lead them to become acquainted with the Œnanthe *crocata*, it grows in plenty near the Red House in Battersea fields on the Thames' bank. The water-courses on the marsh at Northfleet have great quantities of the Apium *graveolens* growing in them.

Plantæ affines.

Cultivated Celery differs from it when young, first in the shape and size of its roots. The *Œnanthe* is perennial, and has a large root, which on being cut is observed to be full of juice, which exudes in form of globules. The celery, on the contrary, has roots in general much smaller, particularly when in a wild state.

The leaves of celery have somewhat the same flavour, but are smaller; the nerves on the lobes of the leaves are also very prominent, and somewhat more pointed.

When the two plants are in bloom, a more conspicuous difference is apparent in the involucrum and seeds, the character of which should be consulted.

It may be mistaken for Parsley; but it is both much larger in foliage and higher in growth; it is also different from it in the shape of the roots.

These are the two plants most likely to be confounded with it. But the student should also consult the difference existing between this plant and the following, which, although somewhat alike in appearance, may be confounded.

Angelica.	Cow Parsley.
Chervil.	Lovage.
Alexanders.	Wild Parsnep.
Hemlock.	Fool's Parsley.
Skirret.	Hamburgh Parsley.

627. PRUNUS *Lauro-cerasus.* THE COMMON LAUREL.—The leaves of the laurel have a bitter taste, with a flavour resembling that of the kernels of the peach or apricot; they communicate an agreeable flavour to aqueous and spirituous fluids, either by infusion or distillation. The distilled water applied to the organs of smelling strongly impresses the mind with the same ideas as arise from the taste of peach blossoms or apricot kernels: it is so extremely deleterious in its nature, and sometimes so sudden in its operation, as to occasion instantaneous death; but it more frequently happens that epileptic symptoms are first produced. This poison was discovered by accident in Ireland in the year 1728: before which, it was no uncommon practice there, to add a certain quantity of laurel water to brandy, or other spirituous liquors, to render them agreeable to the palate. At that time three women drank some laurel-water; and one of them a short time afterwards became violently disordered, lost her speech, and died in about an hour.

A gentleman at Guildford, some few years back, also, by making an experiment as he intended on himself, was poisoned by a small dose: he did not survive the taking it more than two hours.

In consequence of the above poisonous principle existing in the laurel, it has been recommended to persons to be cautious how they make use of the leaves of that shrub, which is a usual practice with cooks for giving flavour to custards, blanch-mange, and other made-dishes, lest the narcotic principle should be also conveyed, to the detriment of the health of persons who eat of them.

And the same may be said of the kernels of all stone-fruits; for the flavours given to noyau, ratafia, and other liquors which are highly prized by epicures, are all of them derived from the same principle as laurel-water, and which, on chemical investigation, is found to be prussic acid. This exists in considerable quantities in the bitter almond, and which when separated proves to be the most active poison known, to the human as well as all other animal existence. This principle, and its mode of extraction, should not be made more public than the necessity of scientific researches requires. We cannot with propriety accuse either this tree or the laurel as being poisonous, because the ingenuity of mankind has found out a mode of extracting this active acidulous principle, and which is so very small in proportion to the wholesome properties of the fruit, as not to be suspected of any danger but for this discovery. As well might we accuse wheat of being poisonous, because it yields on distillation *brandy*, which has been known to kill many a strong-bodied fellow who has indulged in this favourite beverage to excess. An eminent chemist informs me, that he has made experiments with the oxalic acid, and found that when this was also concentrated, it has similar effects; insomuch that no animal can contain a grain of it if taken into the throat or stomach: and thus might we also be led to consider the elegant, and in itself harmless, wood-sorrel, as a poisonous plant.

ACRID POISONS.

These should be attacked by strong decoctions of oak-bark, gall-nuts, and Peruvian bark; after which soft mucilaginous matters should be used, as milk, fat broth, or emulsions.

628. ACONITUM *Napellus*. Blue Monkshood. — This is a very poisonous plant; and many instances have been adduced of its dangerous effects.

It has probably obtained the name of Wolfsbane, from a tradition that wolves, in searching for particular roots which they in part subsist upon in winter, frequently make a mistake, and eat of this plant, which proves fatal to them.

A weaver in Spitalfields, having supped upon some cold meat and

salad, was suddenly taken ill; and when the surgeon employed upon this occasion visited him, he found him in the following situation:— "He was in bed, with his head supported by an assistant, his eyes and teeth were fixed, his nostrils compressed, his hands, feet, and forehead cold, no pulse to be perceived, his respiration short, interrupted, and laborious."

Soon after he had eaten of the above, he complained of a sensation of heat affecting the tongue and fauces; his teeth appeared loose; and it was very remarkable, although a looking-glass was produced, and his friends attempted to reason him out of the extravagant idea, yet he imagined that his face was swelled to twice its usual size. By degrees the heat, which at first only seemed to affect the mouth and adjacent parts, diffused itself over his body and extremities: he had an unsteadiness and lassitude in his joints, particularly of the knees and ancles, with an irritable twitching of the tendons, which seemed to deprive him of the power of walking; and he thought that in all his limbs he perceived an evident interruption to the circulation of the blood. A giddiness was the next symptom, which was not accompanied with a nausea. His eyes became watery, and he could not see distinctly; a kind of humming noise in his ears continually disturbed him, until he was reduced to the state of insensibility before described.

Plantæ affines.

Although the mischief which is recited above occurred from the root having been purchased at market, I do not know of any vegetable in common use likely to be confounded with this. It might by chance be mistaken for the smaller tubers of Jerusalem artichoke.

In foliage it comes near to the other species of Aconitum, and to the perennial Larkspurs.

However, as this is a plant much grown in pleasure-grounds on account of its beautiful blue flowers, great care should be taken not to use any roots taken from such places that cannot be well ascertained.

629. ACONITUM *Lycoctonum*. YELLOW WOLFSBANE. — Every part of this plant is accounted poisonous. In fact, I think it is proper that all the species should be considered as such, and never be made use of, either in medicine or otherwise, without great care in their administration.

630. ACTÆA *spicata*. BANEBERRY.—This plant is also considered as a deadly poison; but we have no authenticated accounts of its mischievous effects, although Parkinson has mentioned it in these words:—

"The inhabitants of all the mountaines and places wheresoever it groweth, as some writers say, do generally hold it to be a most dangerous and deadly poison, both to man and beast; and they used to kill the wolves herewith very speedily."

This is not a common plant, growing only in some particular situations, as near Ingleborough in Yorkshire.

631. RHUS *Toxicodendron.* Poison-Ash.—The juice of the leaves of this plant is so very acrid as often to corrode the skin, if the leaves are gathered when the dew is on them. Great care should certainly be taken in the giving such a medicine internally, as also in its preparation, it being usually administered in a dried state.

Planta affinis.

Rhus radicans differs from this in having a more trailing habit of growth; otherwise it is scarcely different, so little so, as to baffle a distinction being made by description alone.

STUPEFYING POISONS.

The substances that deaden the effects of the poisons of this class are vegetable acids, which should be thrown into the stomach in large quantities. After the operation of emetics, cream of tartar is also considered of great use, as also oxymuriatic acid, infusions of nut-galls, oak bark; warm spices are considered also of use, for they may separate some part of the deleterious matter, as is shown by their effect when mixed with decoctions of these plants; acerb and astringent wines are also of great use.

632. ÆTHUSA *Cynapium.* Fool's Parsley.—Fool's Parsley seems generally allowed to be a plant which possesses poisonous qualities. Baron Haller has taken a great deal of pains to collect what has been said concerning it, and quotes many authorities to show that this plant has been productive of the most violent symptoms; such as anxiety, hiccough, and a delirium even for the space of three months, stupor, vomiting, convulsions, and death.

Where much parsley is used, the mistress of the house therefore would do well to examine the herbs previous to their being made use of; but the best precaution will be, always to sow that variety called Curled parsley, which cannot be mistaken for this or any other plant. We might also observe, that the scent is strong and disagreeable in the Æthusa: but this property, either in the plant or the poison, is not at all times to be trusted in cases of this nature.

Plantæ affines.

Parsley. The lobes of the leaves are larger in this plant, and are not quite so deep a green. The leaves of fool's parsley are also finer cleft, and appear to end more in a short point.

Celery, being much larger, cannot easily be confounded with it.

Chervil. Fool's parsley, when young, differs from this plant but very little, being much the same in size, and the laciniæ of the leaves of a similar form. Chervil, however, is much lighter in colour, and the flavour more pleasant, both to the taste and smell.

Hemlock is commonly a larger plant; and, exclusive of the generic distinctions, may be generally known by its spotted stalk.

When fool's parsley is in bloom, it is readily known by the length of the involucrum.

633. ATROPA *Belladonna*. Deadly Nightshade.—Some boys and girls perceiving in a garden at Edinburgh the beautiful berries of the deadly nightshade, and unacquainted with their poisonous quality, ate several. In a short time dangerous symptoms appeared; a swelling of the abdomen took place; they became convulsed. The next morning one of them died, and another in the evening of the same day, although all possible care was taken of them.

Another case is related by Dr. Lambert, who was desired to visit two children at Newburn, in Scotland, who the preceding day had swallowed some of the berries of the deadly nightshade. He found them in a deplorable situation. The eldest (ten years of age) was delirious in bed, and affected with convulsive spasms: the younger was not in a much better condition in his mother's arms. The eyes of both the children were particularly affected. The whole circle of the cornea appeared black, the iris being so much dilated as to leave no vestige of the pupil. The *tunica conjunctiva* much inflamed. These appearances, accompanied with a remarkable kind of staring, exhibited a very affecting scene. The symptoms came on about two hours after they had eaten the berries: they appeared at first as if they had been intoxicated, afterwards lost the power of speaking, and continued the whole night so unruly, that it was with much difficulty they were kept in bed. Neither of these ever recovered.

634. DATURA *Stramonium*. Thorn-Apple.—The seeds and leaves of the thorn-apple received into the human stomach produce first a vertigo, and afterwards madness. If the quantity is large, and vomiting is not occasioned, it will undoubtedly prove fatal. Boerhaave informs us, that some boys eating some seeds of the thorn-apple which were thrown out of a garden, were seized with giddiness, horrible imaginations, terrors, and delirium. Those that did not soon vomit, died.

635. HYOSCYAMUS *niger*. Henbane.—Henbane is a very dangerous poison. The seeds, leaves, and root, received into the human stomach, are all poisonous.

The root in a superior degree produces sometimes madness; and if taken in large quantity, and the stomach does not reject it by vomiting, a stupor and apoplectic symptoms, terminating in death, are the usual consequences.

A case of the bad effects of the roots of this plant, which occurred in Ireland, is mentioned by Dr. Threlkeld. In the winter season, some men working in a garden threw up some roots which were supposed to be Skirrets, and those were cooked for dinner. About two hours after they were eaten, a person who partook of them was taken

with an unusual lassitude, as if being much fatigued, heat and dryness both in the mouth and throat, a giddiness accompanied with dimness of sight, and a partial stoppage in his urine. Several others who had eaten at the same table, as also servants who had partaken, were subjected to the like influence. Medical assistance being at hand, by the use of emetics they were relieved; but it was many days before the whole of them had recovered from those dreadful symptoms.

Two children having both eaten of the *berries* of this plant, the one a boy (who recovered) being taken ill, vomited, and was supposed to have thrown them off his stomach: the other, a little girl, died in convulsions the next morning. As mothers and kindred souls do not like names to be made public in these cases, I cannot help feeling some desire to suppress a publicity of a fact in which a near and dear relative was materially interested. In justice, however, to the public, I must mention that I can vouch for the fact, and trust it may not pass without notice, so far as to let the berries be supposed any thing but wholesome.

Plantæ affines.

The idea of Skirrets being confounded with this plant, is, I think, erroneous, if it has leaves on, as they are not pinnated, and very different from it. When the Hyoscyamus is in bloom, it has curiously-formed flowers of an uncommonly disgusting hue. The scent of this plant, on bruising it, and its general appearance, render it almost impossible that any one should mistake it. The roots, in the winter season, when destitute of leaves, may, however, be mistaken for those of Parsnep, Parsley, Skirret, and many others of similar shape, and of which it is out of our power to give a distinguishing character.

636. LACTUCA *virosa*. Strong-scented Wild Lettuce.—The juice of this plant is a very powerful opiate, and care should be taken how it is made use of. I have not heard of any dangerous effects having been produced by it. The strong and disagreeable scent and bitter nauseous taste will most likely always operate as a preventive to its being used for food; and as a medicine, it is hoped its use will be confined to the judicious hand of a medical botanist.

Plantæ affines.

All the kinds of garden lettuce; but it may be distinguished by its spines on the back of the leaves. It may be remarked, that the milky juice of all lettuce has similar properties to the above; but the juice is not milky till such time as the plant produces seed-stalks, and then the taste in general is too nauseous for it to be eaten.

637. SOLANUM *Dulcamara*. Bittersweet. — The berries of this plant have been sometimes eaten by children, and have produced very alarming effects. It is common in hedges, and should be at all times as much extirpated as possible.

638. SOLANUM *nigrum*. Black Nightshade.—Webfer has given us an account of some children that were killed in consequence of having eaten the berries of this plant for black currants. And others have spoken of the direful effects of the whole plant so much, that, from the incontestable proofs of its deleterious qualities, persons cannot be too nice in selecting their pot-herbs, particularly those who make a practice of gathering from dunghills and gardens Fat-Hen, &c. as there is some distant similitude betwixt these plants, and their places of growth are the same.—*Curtis's Fl. Lond. fasc.* 2.

Plantæ affines.

All the Chenopodia grow with this plant wild, and are somewhat alike in appearance; but the Solanum may at all times be distinguished by its disagreeable strong scent.

FŒTID POISONS.

These come near to the Stupefying Poisons; but they are not treated in the same manner; for ether, wine, or acids combined with spirits, appear the properest things to destroy their deleterious properties: spices are then indicated, except for savine, which requires instead thereof acids.

639. CONIUM *maculatum*. Hemlock.—Two soldiers quartered at Waltham Abbey collected in the fields adjoining to that town a quantity of herbs sufficient for themselves and two others for dinner when boiled with bacon. These herbs were accordingly dressed, and the poor men ate of the broth with bread, and afterwards the herbs with bacon: in a short time they were all seized with vertigo. Soon after they were comatose, two of them became convulsed, and died in about three hours.

Plantæ affines.

Parsley differs little from this except in size and colour of the leaves.

Celery is also much like this plant, and particularly so if found wild; but which, for reasons given before, should never be collected to be eaten.

Fool's parsley is very like it; and when the hemlock is in a small state, and this plant luxuriant, I have been in some doubt as to pointing out a perfect difference, especially when they are not in fructification. The spots on hemlock form generally a distinguishing mark.

640. DIGITALIS *purpurea*. Foxglove.—A few months ago, a child was ill of a pulmonary complaint, and the apothecary had desired the nurse to procure a small quantity of Coltsfoot and make it a little tea; and accordingly the good woman went to a shop in London, where she procured, as she supposed, three pennyworth of that herb, and made a decoction, of which she gave the patient a tea-cupful; a few mi-

nutes after which she found symptoms of convulsions make their appearance, and sent for the apothecary: but who, unfortunately, was so totally ignorant of botany as not to know the plant, but supposing it to be Coltsfoot, after the infant died, took his leave, without any remark further, than that the disorder which occasioned its death had arisen from some accidental and unusual cause. The nurse, however, did not feel perfectly satisfied of this fact, and carried the remainder of the herb to Apothecaries-Hall; and having applied there for information, was referred to Mr. Leffler, a gentleman who had from his botanical researches that season obtained the Sloanean prize; who told her the mistake. He also went and saw the body, and investigated the whole case in a way that has done that young gentleman great credit: and from him I have been favoured with this account. Had the medical attendant but known the difference between the two plants when he was called in first, there was a chance of the child being saved to its distressed parents. And here was certainly a striking instance of medical men neglecting so far the study of botany, as not to know one of the most useful as well as one of the most dangerous plants of the present Pharmacopœia.

641. HELLEBORUS *fœtidus*. Bearsfoot.—The country-people are in the habit of chopping up the leaves of this plant and giving it to children for removing worms; but it is a dangerous medicine, and should be made use of with great caution. It is also recommended as a medicine for the same purpose in horses. As much of the chopped leaves as will lie on a crown-piece, given amongst a feed of corn for three days, and remitted three days, and repeated thus for nine doses, has been known to remove this disease.

"I heard a melancholy story of a mother in this city; viz. that a *Country Calleagh* gave some of this plant to her two sons, one of six, the other of four years of age, to kill worms; and that before four in the afternoon they were both corpses."—*Dr. Threlkeld, in a short account of the plants in the neighbourhood of Dublin.*

642. JUNIPERUS *Sabina*. Savine.—The expressed juice of this plant is very poisonous, and often known to produce the most violent effects. It is sometimes used by persons for expelling worms in children, but should be used with great caution; for, if the quantity taken into the stomach is more than it can digest, all the dreadful effects of the poisons of this class are certain to be the immediate consequence.

643. SCROPHULARIA *aquatica*. Water-Betony.—Every part of this plant is said to be violently narcotic; but its very disagreeable strong scent and extremely bitter taste render it not likely to be used in mistake for any culinary vegetable; and although we know what its effects are from report, we do not think it of so dangerous a tendency as some of our other poisonous vegetables.

DRASTIC POISONS.

These purge both upwards and downwards with great violence by means of their acrid poisonous resin, which also violently affects the throat and passages. Although alkalies have been recommended in this case, in order to divide this resin, and that a solution of soap is proper, yet the vegetable acids are also very useful, and have a great effect in diminishing the purgative effect. Besides this, it appears still more advantageous to give astringents: Venice treacle, decoctions of bark or cascarilla, pomegranate rind, and balaustines; all which certainly precipitate this drastic principle.

644. ASCLEPIAS *syriaca*. Syrian Dogsbane.—All the species of Asclepias have a white acrid juice which is considered poisonous. It is observed to be very acrid when applied to any sensible part of the mouth or throat.

645. BRYONIA *alba*. Wild Vine, or White Bryony.—The berries of this plant, when hanging on the hedges, have the appearance of white grapes, and have been eaten by children. They are known to produce dreadful effects; but it frequently happens that they produce nausea on the stomach, by which they operate as an emetic of themselves.

646. EUPHORBIA *Lathyris*. Caper Spurge.—A plant common in old gardens, but not indigenous. The seed-vessels are much in shape of caper-buds: hence its name. People have been in the habit of pickling these berries, from which some dangerous symptoms have arisen; it is probable that the vinegar may have been the means of checking its bad effects. It should, however, never be used as food.

647. EUPHORBIA *amygdaloides*. Wood Spurge. — The juice of this plant has been known to produce very dangerous swellings in the mouth and throat of persons who have occasionally put it into their mouths. We do not know that it is very dangerous; and nothing is likely to tempt any persons to use it as food or otherwise.

648. MERCURIALIS *perennis*. Dog's Mercury.—This plant is of a soporific deleterious nature, and is said to be noxious to both man and beast. Many instances are recorded of its fatal effects.

Mr. Ray acquaints us with the case of a man, his wife, and three children, who were poisoned by eating it fried with bacon: and a me-

lancholy instance is related in the Philosophical Transactions, Number CCIII., of its pernicious effects upon a family who ate at supper the herb boiled and fried. It produced at first nausea and vomiting, and comatose symptoms afterwards; two of the children slept twenty-four hours; when they awoke, they vomited again, and recovered. The other girl could not be awakened during four days; at the expiration of which time she opened her eyes and expired.

Plantæ affines.

It appears that the different species of Chenopodium have been mistaken for this plant. I do not see myself any very near likeness: but as all the species of Chenopodium have been called English Mercury, it is possible that the name may have been the cause of its mistake.

649. MERCURIALIS *annua.* ANNUAL DOG'S MERCURY. — Persons who are in the habit of gathering wild herbs to cook, should be careful of this. It grows plentifully in all rich grounds, and is common with Fat Hen and the other herbs usually collected for such purposes in the spring, and from which it is not readily distinguished: at least, I cannot describe a difference that a person ignorant of botany can distinguish it by.

650. PERIPLOCA *græca.*—This is an ornamental creeping plant, and commonly grown in gardens for covering verandas, and other places for shade.

I once witnessed a distressing case. A nurse walking in a garden gathered a flower of this plant, and gave it to a child which she had in her arms. The infant having put it to its mouth, it caused a considerable swelling and inflammation, which came on so suddenly, that, had it not been that one of the labourers had met with a similar accident, no one would have known the cause. The child was several days before it was out of danger, as the inflammation had reached the throat.

651. VERATRUM *album.* WHITE HELLEBORE.—The roots of this plant, and also of the Veratrum *nigrum*, have been imported mixed with the roots of yellow gentian, and have proved poisonous.—*Lewis's Materia Medica.*

POISONOUS FUNGI.

The deleterious effects of these generally show themselves soon after they are in the stomach. Vomiting should be immediately excited, and then the vegetable acids should be given; either vinegar, lemon-juice, or that of apples; after which, give ether and antispasmodic remedies, to

stop the excessive bilious vomiting. Infusions of gall-nut, oak-bark, and Peruvian bark, are recommended as capable of neutralizing the poisonous principle of mushrooms. It is however the safest way not to eat any of these plants until they have been soaked in vinegar. Spirit of wine, and ether, extract some part of their poison; and tanning matter decomposes the greatest part of it.

Agaricus *bulbosus.*
——— *necator.*
——— *mamosus.*
——— *piperitus.*
——— *campanulatus.*
——— *muscarius.*

These are known to be poisonous. But the fungi should all be used with great caution; for I believe even the Champignon and Edible mushroom to possess deleterious qualities when grown in certain places.

SECT. XIV.—*PLANTS NOXIOUS TO CATTLE.*

THE foregoing lists of poisonous plants are most of them of less dangerous tendency to cattle than to the human species: for although many of them may be mistaken for wholesome, yet, when they are growing wild, it will be observed, that the discriminating powers of the brute creation in this point are so correct, that very few have been known to be eaten by them.

The following are a few of a different class, which, as not containing any thing particularly disagreeable to the taste of cattle, are frequently eaten by them to their injury.

The agricultural student should make himself perfectly acquainted with those.

652. CICUTA *virosa.* COWBANE.—Linnæus observes, that cattle have died in consequence of eating the roots. It is fortunate that this plant is not very plentiful: it is poisonous to all kinds of cattle except goats. The flower of this plant is not unlike that of water-parsneps, which cows at some seasons will eat great quantities of.

653. BEAR'S GARLICK. *Allium ursinum.* } These plants very fre-
654. CROW GARLICK. *Allium vineale.* } quently occur in meadow-land, and have the property of giving a strong garlic flavour to the milk yielded by cows that feed there; and which is often also communicated to the butter.