

man will thrive on nothing besides rich tea without bread or other qualifying substances: dogs have actually been starved to death by feeding them on nothing but rich soup.

When, on the other hand, there is not sufficient water, every body knows that plants will wither, and when not enough of carbon, it is equally ascertained that they become pale or yellow; while a deficiency of nitrogen to cresses, cabbages, mustard, and turnips, will render them rapid, and deficient in flavour.

Besides these causes of injury, there are certain substances which act even in smaller quantities as direct poisons. Arsenic, for example, will completely destroy the life of a plant, or of a seed, and M. Leuchs proved that the nine thousandth part of a grain was hurtful. Opium, likewise, will put the sensitive plant to sleep in half an hour, and laudanum will kill a kidney bean in one day. Cherry laurel water produces effects similar to arsenic. Iron, in the form of oxide, at least, when in any considerable quantity, is by no means favourable to vegetation, though iron finds its way in minute portions into most plants, and may be observed in some vegetable ashes in the form of the red oxide, or rust. It may be observed in the same form in soils of a reddish brown colour, many of which are far from barren; though they certainly do not owe their fertility to the iron, but are fertile in spite of it, owing to some other causes.

De Cudolle seems to doubt iron being injurious, but the experiments of Dr. Home put this beyond question. One drachm of copperas, or sulphate of iron, in the rich mould of a garden, killed some plants of barley when an inch high; and he found most dark coloured infertile under soils, or till, owed their barrenness to iron. This result was confirmed by Sir H. Davy, who placed a primrose root in a solution of oxide of iron in vinegar, which soon acted as a poison and turned the leaves yellow; and he proved that the iron had entered the plant by testing the decoction with infusion of galls. Plants, as I have observed, which are grown by cottagers in old iron, or white iron pots, do not thrive, no doubt from the same cause, and it may be partly on the same account that granite soils are infertile.

Magnesia, it has also been found, is poisonous to plants; and hence, burnt lime from the lime stone containing magnesia, as about Belfast, Durham, and some parts of Yorkshire, Derbyshire, Leicestershire, Shropshire, and Somersetshire, when laid upon land, has been found to prove very injurious. It may be, that the small particles of the magnesia, which are insoluble in water and do not readily attract carbonic acid gas, get into the minute suckers at the tips of the root-fibres and obstruct them, though no solid substance whatever can get into a plant; for it is found that when mixed with fat peat earth, magnesia does good rather than harm, because, in this case, it finds abundance of carbonic acid gas, by which it is converted into a carbonate of magnesia, that will partly dissolve in water by means of humic acid, and, consequently, supply plants with wholesome nutriment.

It must be evident, that besides having a due quantity of wholesome food provided for plants, this must be so placed as to be within reach of the suckers of their root fibres, since they cannot move about in search of it themselves; a subject, which, with some others, may be treated of under the head of Physics; a term now commonly used, and pretty generally understood, to comprehend explanation of facts from mechanical, as distinguished from chemical, principles.

TEN THOUSAND PERSONS in the United Kingdom still wear hair powder, or at least pay the tax for its use.—*English Paper.*

VARIETY.

EDUCATION.—INTERROGATION.—There is no way in which the correctness or incorrectness of a child's ideas on any subject can be so effectually ascertained, as by proposing a series of questions; their extent and bearing being determined for the most part by the answers received. A teacher who has not been in the habit of doing this, can form no adequate notion of the amount of ignorance and misapprehension which his ploughshare of mind will turn up. Miss Hamilton, I think, mentions the case of a gentleman, who, in his childhood, reading to his mother something about the patriarchs, stumbled at the hard word, and called it partridges. The good lady at once set him right as to the pronunciation, but never dreamed of telling him the meaning of the word, he therefore continued to associate the idea of a bird with it. Hence, the next time he encountered the word patriarchal, he again asked for assistance, exclaiming, "Here, mamma, here are these queer fowls again; and to the latest day of his life, he declared he could not get rid of the association.

Mr Wood, in his account of the Sessional school, relates several ludicrous stories of a similar character; and in illustration of the absurd notions which prevail amongst the lowest orders of the people as to the value of reading, apart from the power of comprehending the meaning of that which is read, quotes Tickell's lines on "The Hornbook."

"The good peasant on his latest bed
Wished for a friend some godly book to read;
The pious grandson thy known handle takes,
And (eyes lift up) this savoury lecture makes;
'Great A,' he gravely reads; the important sound
The empty walls and heavy roof rebounds.
The expiring ancient reared his drooping head,
And thanked his stars that Hodge had learned to read."

FRENCH AND ENGLISH REVOLUTIONS CONTRASTED.—In France, the battle has always been against the persons; in England, against the principles of the aristocracy. In France, the nobility was completely separated from the people—even in Paris, living secluded from the popular sight and noise: the palace of the noble, built between the court and the garden, presented to the street only a naked wall, that prohibited even a glimpse of the interior. But the people exasperated by this complete separation, broke into the sanctuary whence they were excluded, and destroyed the palace on which they were forbidden to look. In England, on the contrary, personality has nothing to do with principles, and the most glaring contradictions in this respect are, in fact, the order of the day. The wildest Radical never transgresses the aristocratical forms of society; the most incarnate Tory would never think of arrogantly recoiling from contact with the people; and England's most liberal nobleman, the Earl of Durham, is the haughtiest peer in three insular kingdoms. In France, the incorporated aristocracy fell, head by head, under the axe of the guillotine; whilst in England, without blood or tears, the principle falls,—one intellectual power conquered by another and greater intellectual power. In France, the nobility allied itself indivisibly with the court, the chasm yawned between it and the people, and its fall dragged down the monarchy with itself. In England, on the contrary, the peerage is connected with the people by the entitled younger sons of the peers; its interests were never exclusively the interests of the court, and the House of Lords has adhered faithfully to its principles; opposing alike the prerogative of the crown, and the democratic will of the people. Hence has every change in the constitution been slowly effected by moral energy, a revolution like the French being impossible.

THE TOBACCO NUISANCE.—It is a remarkable instance of the perversity of the human will when left to itself, that while coffee, with all its singular pow-

ers of cheering the mind and refreshing the nerves, took nearly four hundred years to make itself known in Europe, and while the potato is scarcely more than coming into use in a large portion of the continent, tobacco took little more than half-a-dozen years to be known as far as ships could carry it; that it is now the favorite filth of every savage lip within the circumference of the globe—that it fills the atmosphere of the continent with a perpetual stench—that the Spaniard sucks it, as he says for the heat—the Dutchman for the cold—the Frenchman because he has nothing else to do—the German because he will do nothing else—the London apprentice because "it makes him look like a gentleman," and all because it is in its own nature the filthiest, most foolish, dullest, and most disgusting practice on the face of the earth.—*Blackwood's Magazine.*

COLONIAL.

PROGRESS OF ORGANISATION IN LOWER CANADA.—The Permanent Committee of Two Mountains, have, at a late meeting, resolved that the vacancies occasioned in the Magistracy, by the late odious dismissals by the Governor, shall be filled up by the popular election of the People; and all true reformers are required on pain of public odium to bring all their matters of dispute, for adjudication before their own Justices, with appeal to the Permanent Committee for final decision. Those disregarding these injunctions are to be subjected to the following penalties:

1st. They shall not be allowed to vote at any public meeting, nor be elected by reformers to any office; and if they are members of the Permanent Committee or any local Committee, they shall no longer sit there, and upon conviction, the Committee shall order the erasure of their names from the Registers.

2d. The censure of the Committee shall be entered on its minutes and publicly announced at the Church door of the parish to which he who will be thus dishonored may belong, and at the Church doors of the neighbouring parishes, and the whole shall be published in such manner as ordered by the Permanent Committee.

3d. From that time forward, the Reformers of the County shall strictly refrain from having the least friendly communication or any dealing (*relation d'intérêt*) with him and he shall be considered and treated by Patriots as an enemy of his fellow citizens, and as a friend of those who desire the dishonor and degradation of the country.

4th. It shall be lawful to the Permanent Committee, according to circumstances, to increase, modify, or remit in whole or in part the foregoing penalties.

[The following is the Fifth Resolution passed at the same Meeting.]

That the Reformers who have begun to drill, shall form themselves, in each parish, in volunteer companies of Militia, under the command of officers elected by the militia-men, and shall be drilled in the management of fire arms, and in light infantry evolutions and movements.

Returns of such corps shall be transmitted, from time to time, to the Permanent Committee which binds itself to provide for those of the said corps who shall distinguish themselves by their good order and superior discipline, whatever arms and accoutrements they may require.

Officers of militia already dismissed by the Governor in-Chief, or shall hereafter be deprived of their Commissions because of their patriotism shall be re-elected by the militia-men.

THE Montreal Vindicator of the 13th instant, says,—"We learn from the Halifax Telegraph, that by the verdict of the supreme Court held at Pictou last September, the captain of the Cape Breton steamer has been obliged to pay a debt contracted in the Province by an itinerant dancing master, who left Nova Scotia in his steam-boat, without a pass from the Secretary of the Province! The consequence is, that the captain now refuses to receive any passengers on board his vessel unless they have a passport from the Provincial Secretary, or give security to protect him from loss on their account. The consternation which has ensued among travellers, on the sudden issuing of the Captain's placard, is described as extreme and ludicrous.

We hope the above verdict will have the effect of removing the obnoxious law from the statute book. We cannot see why Captains of steamers, or of other vessels, should be agents of police for merchants or