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Saturday Evening Magazine.

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VOL. I.

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No. 2.

SATURDAY NIGHT.

Again the week's dull lab'ors close,
The sons of toil from toil repose;
And fast the evening gloom descends,
While home the weary peasant wends,
This night his eyes, in slumber sweet,
Shall droop their lids; to-morrow greet
A day of calm content and rest—
To Labour's aching limbs how blest!

Now, ere I seek my peaceful bed,
And on the pillow rest my head,
Oh, come, my soul, and wide display
The mercies of the week and day!
From danger who my flame hath kept,
While waking and while slumber slept?
Who hath my every want supplied,
And to my footsteps proved a guide?

'Tis thou, my God!—to Thee be long
Incense of praise, and hallow'd song;
To Thee be all the glory given,
Of all my mercies under heaven.
From thee my daily bread and health;
Each comfort—all my spirit's wealth;
Have been derived; my sins alone,
And errings I can call my own.

Oh, when to-morrow's sun shall rise,
And light once more shall glad these eyes,
May I thy blessed Sabbath prove
A day of holy rest and love.
May my redeemer's praises claim
My constant thought; the Spirit's flame
Descend, my accents to inspire,
And fill my soul with rapture's fire.

And when the night of Death is come,
And I must slumber in the tomb,
Oh, then, my God, this faint heart cheer,
And far dispel the shades of fear,
And teach me, in thy strength, to tread
The path which leads me to the dead,
Assured, when life's hard toils are o'er,
Of rest with Thee for evermore!

THE RIVER ST LAWRENCE.

The St. Lawrence, though not the longest river in the world, is certainly the largest in every other respect, if as appears proper, its immense lakes be considered to form part of it. Under this aspect it will be found that the surface it covers, and the cubic mass of its waters, far exceed those of the Amazon or the Mississippi, but it probably does not carry to the ocean a greater volume of water than either of these two majestic streams. The source of the river St. Lewis, which may be deemed the remotest spring of the St. Lawrence, is in latitude 45° 30' north, and longitude about 93° west. From its source the general direction of the St. Lawrence, through lakes Superior and Huron, is southeast to

Lake Erie, nearly due east through that lake, and then northeast to the Gulf, through which its waters are mingled with the Atlantic Ocean, after an uninterrupted course of two thousand miles.

The Gulf of St. Lawrence, that receives the waters of this gigantic river, is formed between the western part of Newfoundland, the eastern shores of Labrador, the eastern extremity of the province of New Brunswick, part of the province of Nova Scotia, and the island of Capé Breton. It communicates with the Atlantic Ocean by three different passages, namely, on the north by the straits of Belleisle between Labrador and Newfoundland; on the southeast by the passage between Cape Ray, at the southwest extremity of the latter island, and the north cape of Breton island; and lastly, by the narrow channel, named the Gut of Causo, that divides Cape Breton from Nova Scotia.

There are no soundings in the middle of the St. Lawrence until about one hundred and fifty miles up it. The snow on the banks in winter is about five feet deep. Sometimes the soil on the breasts of the hills will shove down with all its trees to the plains below. The spots where these shoves have taken place, are plainly seen from the river, and have a singular appearance. Numbers of shipwrecks occur yearly in the Gulf and River St. Lawrence; this proceeds from many causes. The pilots are none of the most skilful; the navigation is intricate and difficult. Then there are many ships sent out for timber, which are old, crazed, and unfit for any other trade. These are often laden beyond what they can bear; too much deck wood is heaped on them, so that the sailors cannot get to the ropes. To be on board a ship in the Gulf of St. Lawrence in an extremely stormy dark night, when the weather is bitter cold, is perhaps as dismal a situation as human beings can be placed in. Sometimes a blaze of lightning between the squalls will illuminate for a moment the awful scene; then over the bulwarks rises the icy surge, cutting to the bone; while the ropes snap, and the yards and topmasts come thundering upon the deck.

The St. Lawrence is navigable for ships of the line to Quebec, and to Montreal for ships of 400 tons, 500 miles. The distance from Montreal to Lake Ontario is 190 or 200 miles. The tide flows up as far as Three Rivers. Its breadth between Montreal and Quebec is from half a mile to four miles; the average breadth, about two miles. Below Quebec, it gradually widens till it enters the gulf, where, from Cape Rosier to the Mingan settle-

ment on the Labrador coast, it is about 105 miles in breadth. From the beginning of December to the middle of April, the navigation is totally suspended by frost. The breaking up of the ice in spring is described as a magnificent scene. Among the islands in the Gulf of St. Lawrence is a singular one called the pierced island, it is a barren rock, near the base of which are two openings, large enough for a boat to pass through.

SENSUAL HAPPINESS NOT THE HAPPINESS OF A MAN.

E. You say, if I mistake not, that a wise man pursues only his own private interest; and that this consists only in sensual pleasure: for proof whereof you appeal to nature. Is not this what you advance?

L. It is.

E. You conclude, therefore, that as other animals are guided by natural instinct, man too ought to follow the dictates of sense and appetite.

L. I do.

E. But in this, do you not argue, as if man had only sense and appetite for his guides? on which supposition, there might be truth in what you say. But what if he hath intellect, reason, a higher instinct, and a noble life? If this be the case, and you, being a man, live like a brute, is it not the way to be defrauded of your true happiness? to be mortified and disappointed? Take a hog from his ditch or dung-hill, lay him on a rich bed, treat him with sweetmeats, and music, and perfumes: all these things will be no amusement to him. You can easily conceive, that the sort of life which makes the happiness of a mole, or a bat, would be a very wretched one for an eagle: And may you not as well conceive, that the happiness of a brute can never constitute the true happiness of a man.—BISHOP BERKELEY.

SPONTANEOUS COMBUSTION.—That animal bodies are liable to internal combustion is a fact which was well known to the ancients. Many cases which have been adduced as examples of spontaneous combustion are merely cases of individuals who were highly susceptible of strong electrical excitation. In one of these cases, however, Peter Bovistean asserts that the sparks of fire thus produced reduced to ashes the hair of a young man; and John de Viana informs us, that the wife of Doctor Frielas, physician to the Cardinal de Royas, Arch-bishop of Toledo, emitted by perspiration an inflammable matter of such a nature that, when the ribbon she wore over her shift was taken from her, and exposed to the cold air, it instantly took fire and shot forth like grains of gunpowder. Peter Borelli has recorded a fact of the very same kind respecting a peasant whose linen took fire, whether it was laid up in a box when wet or hanging in the open air. The same author speaks of a woman who, when at the point of death, vomited flames, and Thomas Batholia mentions this phenomenon, as having often happened to persons who were great drinkers of wine and brandy. Ezekiel de Castro mentions the singular case of Alexandrius

Megeteus, a physician, from one of whose vertebrals there issued a fire which scorched the eyes of the beholders, and Kantius relates, that during the war of Godfrey of Boulogne, certain people of the territory of Nivers were burning with invisible fire, and that some of them cut off a foot or a hand where the burning began in order to arrest the calamity.—

ENGLAND'S MERRY BELLS.

Hail! hail to England's merry bells!
How oft, when in a foreign clime,
We heard the never varying chime,
Which falls like sadness on the ear,
And speaks of vows and penance drear!
How oft my wandering thoughts would roam
To England's free and happy home,
Her cultur'd fields and woody dells,
And sigh for England's merry bells!
Hail! hail to England's merry bells!
Long stand those holy fanes! which send
Your peaceful music o'er the land!
May they resound to latest days
With sacred hymns of prayer and praise!
And long may public, private weal,
Be welcomed by an echoing peal!
I love to hear that joyful tone,
Which makes our neighbour's bliss our own,
Of frank and social joy it tells,
Diffused by England's merry bells!

JEFFERSON'S TEN RULES OF OBSERVANCE IN ORDINARY LIFE.

- 1 Never put off till to-morrow what you can do to-day.
- 2 Never trouble another for what you can do yourself.
- 3 Never spend your money before you have it.
- 4 Never buy what you do not want because it is cheap; it will be dear to you.
- 5 Pride costs us more than hunger, thirst, and cold.
- 6 We seldom repent of having eaten too little.
- 7 Nothing is troublesome that we do willingly.
- 8 How much pain the evils have cost us which have never happened.
- 9 Take things always by the smooth handle.
- 10 When angry count ten before you speak; if very angry, a hundred.

When worthy men fall out, only one of them may be faulty at the first; but if strife continue long, commonly both become guilty.—FULLER.

ABATTOIR.

This is the name given by the French to the public slaughter-houses, which were established in Paris, by a decree of Napoleon, in 1810, and finished in 1818. Paris, previous to the arrangement thus made for the public health and comfort, was, as London now is, subject to the nuisance of having cattle driven through a crowded city, to be slaughtered in yards and hovels of the closest streets. But that capital was not still further exposed, as our metropolis is, to the fruitful annoyance of a great cattle-market, held in the very heart of the city: the cattle were bought and sold at the adjacent villages of Scéaux and Passy. Assuredly, the beast-market

of Smithfield, and the slaughter-houses of Warwick-lane, and of many other thoroughfares, are evils which ought not to exist in a period of high civilization. The abattoirs of Paris are five in number; three being on the right bank of the Seine, and two on the left. These buildings, which are of very large dimensions, consist of slaughter-rooms, built of stone, with every arrangement for cleanliness, and with ample mechanical aids; and of ox and sheep pens. Each butcher has stalls set apart for his beasts, and conveniences for securing his own forage. A fixed price is paid for the accommodation of the building, and for the labour of the persons engaged in the usual duties of the establishment. In 1824, these payments from the butchers of Paris amounted to a million of francs—about £40,000. When it is considered that about two million head of sheep, oxen, calves, and hogs, are annually slaughtered in London, it is evident that the most serious inconvenience must result from the continuance of the system in which we have so long persevered; and that the establishment of beast-markets, and public slaughter-houses, in suburbs where the population is least dense, would be a measure of great utility. [See *Dulaure, Histoire de Paris*, tom. ix.]

THE JEWS.—DAVISON, in his *Discourses on Prophecy*, uses the following beautiful illustration, when speaking of the modern Jews. Present in all countries, with a home in none; intermixed, and yet separated; and neither amalgamated nor lost, but like those mountain-streams which are said to pass through lakes of another kind of water, and keep a native quality to repel commixture; they hold communication without union and may be traced as rivers without banks, in the midst of the alien element which surrounds them.

ABORIGINES.

Aborigines is the term by which we denote the primitive inhabitants of a country. Thus, to take one of the most striking instances, when the continent and islands of America were discovered, they were found to be inhabited by various races of people, of whose immigration into those regions we have no historical accounts. All the tribes, then, of North America may, for the present be considered as aborigines. We can, indeed, since the discovery of America trace the movements of various tribes from one part of the continent to another; and, in this point of view, when we compare the tribes *one with another*, we cannot call a tribe which has changed its place of abode, aboriginal, with reference to the new country which it has occupied. The North American tribes that moved from the east side of the Mississippi to the west of that river are not aborigines in their new territories. But the *whole mass* of American Indians must, for the present, be considered as *aboriginal* with respect to the rest of the world. The English, French, Germans, &c., who have settled in America, are, of course, not aborigines with reference to that continent, but settlers, or colonists.

If there is no reason to suppose that we can discover traces of any people who inhabited England prior to and different from those whom Julius Cæsar found here, then the Britons of Cæsar's time are the aborigines of this island

L'ACADÉMIE FRANÇAISE.—We shall not here notice the ancient society established, it is said, about the middle of the twelfth century, at Toulouse, for the cultivation of poetry, or, as it was then called, the *Gay Science*, although it has been sometimes designated an academy. The earliest of the French Academies, properly so called, is of much more recent date. The Académie Française was instituted in 1635 by Cardinal Richelieu, for an object of the same nature with that proposed by the Academy della Crusca at Florence,—the purification, regulation, and general improvement of the national tongue. This society, in imitation of its Italian model, published in 1694 the first edition of a French Dictionary, known by the name of the Dictionary of the Academy, to which it afterwards made many additions in successive reprints. This work, however, has scarcely perhaps attained the same authority with that of the *Della Cruscan* academicians; partly owing, no doubt, to the comparative immaturity of the French language when it was thus attempted to restrain its further growth. The original number of the members of the Académie Française was forty, from whom were elected a director and a chancellor every three months, as well as a secretary, who held his office for life. It used to meet three times a week in a hall appropriated to its use in the Louvre. This constitution it continued to retain till the year 1793, when it was abolished, with most of the other establishments which had subsisted under the ancient government. Two years after it was restored as part of the *Institute*, of which we shall presently give an account. The next of the French academies, in point of antiquity, is the *Académie Royale des Inscriptions et Belles Lettres*. It was established in 1663, in the reign of Louis XIV., by Colbert, and consisted originally of a few members selected from the Académie Française, who used to meet weekly in the library of that minister, and to employ themselves in inventing designs for medals to be struck in commemorations of the royal victories, examining the paintings and sculptures proposed for the embellishment of Versailles, and discussing the manner in which the gardens of that place should be laid out and the apartments decorated. They were called, and not inappropriately, if a reference was intended to their occupations as well as to their numbers *La Petite Académie*, the little academy. Their place of meeting was afterwards changed to the same room in the Louvre in which the Académie Française assembled, and they then began to hold two sittings in the week. In 1701 this academy was placed, by an edict of the king, upon a new and extended foundation; and from this date it published every year a volume of memoirs, many of great value, till it was suppressed at the Revolution. It consisted, at the period of

its suppression, of ten honorary members, ten pensionaries, and twenty associates, exclusive of several corresponding members. The Académie Royale des Sciences was originally established by Colbert in 1666, but was entirely remodelled in 1699. By the new constitution its researches were confined to the department of the physical sciences. The Académie des Sciences first began to publish its Transactions in 1666, and from 1699 a volume appeared regularly every year till the academy was suppressed in 1793. These three academies, together with the Académie Royale de Peinture et de Sculpture, which had been rather a school of painting than an association of cultivators of the art, were restored by the Directory in 1795, and united into what was called the National Institute. A new organization was given to this establishment by Napoleon in 1802; and it was finally remodelled in the form in which it still exists soon after the second restoration of the Bourbons in 1816. As now constituted, the Institute, or Académie Royale, consists of five divisions; the first called the Académie des Sciences, composed of sixty-five ordinary and one hundred corresponding members; the second called the Académie Française, composed of forty members; the third called the Académie des Inscriptions et Belles Lettres, composed of forty ordinary and sixty corresponding members, together with eight associates; the fourth, called the Académie des Beaux Arts, composed of forty-one ordinary and thirty-six corresponding members, with eight associates; and the fifth, which has been only lately added, called the Académie des Sciences Morales et Politiques, composed of thirty members. Each class meets by itself once a week. Vacancies are filled up by the votes of the members, subject to the approval of the king; and each of the regular members receives a salary of 1500 francs par annum. The meetings of all the classes are held in the hall which was formerly the Chapel of the College of the Four Nations, now called the Palais des Beaux Arts. The French Institute has, since its establishment, ranked as the very first of the scientific associations of Europe, the most illustrious of whose philosophers have usually been comprehended in the list of its members.

There is also in Paris the Académie Celtique, founded in 1807, and now called the Société des Antiquaires de France, which has published several volumes of interesting and important *Mémoires*. There are likewise academies in many of the provincial capitals of France; among which the chief are those of Soissons (1675), of Nismes (1682), of Angers (1685), of Lyons (1700), of Bordeaux (1703), of Caen (1705), of Montpellier (1706), of Béziers (1723), of Marseilles (1726), of Rochelle (1732), of Dijon (1736), of Toulouse (1746), of Rouen (1744), of Montauban (1744), of Amiens (1750), of Besaçon (1720), of Châlons sur Marne (1753). Many of these institutions have attained considerable celebrity, and some of them have published their Transactions.

UMBRELLAS.

Umbrellas, fifty years ago, were not ordinary things; few but the macaronis of the day, as the dandies were then called, would venture to display them. For a long while it was not usual for men to carry them without incurring the brand of effeminacy, and they were vulgarly considered as the characteristics of a person whom the mob hugely disliked, namely, a mincing Frenchman! At first, a single umbrella seems to have been kept at a coffeehouse for some extraordinary occasion—lent as a coach or chair in a heavy shower, but not commonly carried by the walkers. The Female Tatler advertises, “the young gentleman belonging to the customhouse, who in fear of rain borrowed the umbrella from Wilks’ coffeehouse, shall the next time be welcome to the maid’s pattens.” An umbrella carried by a man was obviously then considered as extreme effeminacy. As late as in 1778, one John Macdonald, a footman, who has written his own life, informs us that when he used “a fine silk umbrella, which he had brought from Spain, he could not with any comfort to himself use it, the people calling out, ‘Frenchman! why don’t you get a coach?’” The fact was, that the hackney coachmen and the chairmen, joining with the true *esprit de corps*, were clamorous against this portentous rival. The footman, in 1778, gives us farther information. “At this time there were no umbrellas worn in London, except in noblemen’s and gentlemen’s houses, where there was a large one hung in the hall to hold over a lady or a gentleman, if it rained between the door and their carriages.” His sister was compelled to quit his arm one day from the abuse he drew down on himself and his umbrella. But he adds, that “he persisted for three months, till they took no farther notice of this novelty. Foreigners began to use theirs, and then the English. Now it is become a great trade in London.” This footman, if he does not arrogate too much to his own confidence, was the first man distinguished by carrying and using a silken umbrella. He is the founder of a most populous school. The state of our populations might now in some degree be ascertained by the number of umbrellas.—*New Monthly Magazine*.

SAVING OF MARGAROT.

When Maurice Margarot was tried at Edinburgh for sedition, Lord Justice Clerk Braxfield, who always talked broad Scotch upon the bench, said, “Hae ye ony counsel, man?” “No.” “Do you want to hae ony appointit?” “No; I only want an interpreter to make me understand what your Lordship says.”

SMOKING IN GERMANY.

We have already pointed out the dangerous effects of smoking, now one of the most vulgar accomplishments among young men. The following observations in a Hamburg journal shew the extent to which this vicious and mean indulgence is carried in Germany:—“The propensity of smoking

is declared by the physicians to be actually one of the most efficient causes of the German tendency to diseases of the lungs. In point of expense, its waste is enormous. In Hamburg alone, 50,000 boxes of cigars have been consumed in a year, each box costing about £3 sterling: £150,000 pulled into the air! And it is to be remembered, that even this is but a part of the expense; the cigar adorning the lip only of the better order, and even among those, only of the young; the mature generally abjuring this small vanity, and blowing away with the mighty meerschaum of their ancestors. This plague, like the Egyptian plague of frogs, is felt every where and in every thing. It poisons the streets, the clubs, and the coffee-houses; furniture, clothes, equipage, person, are redolent of the abomination. It makes even the dullness of the newspaper doubly narcotic; the napkin on the table tells instantly that native hands have been over it; every eatable and drinkable, all that can be seen, felt, heard, or understood, is saturated with tobacco; the very air we breath is but a conveyance for this poison into the lungs; and every man, woman, and child, rapidly acquires the complexion of a boiled chicken. From the hour of their waking, if nine-tenths of the population can ever be said to awake at all, to the hour of their lying down, which in innumerable instances the peasantry do in their clothes, the pipe is never out of their mouths; one mighty fumigation reigns, and human nature is smoke-dried by tens of thousands of square miles. But if it be a crime to shorten life, or extinguish faculties, the authority of the chief German physiologists charges this custom with effecting both in a very remarkable degree. They compute, that of twenty deaths of men between eighteen and thirty-five, ten originate in the waste of the constitution by smoking. The universal weakness of the eyes, which makes the Germans *par excellence* a spectacle nation, is probably attributed to the same cause of general nervous debility. Tobacco burns out their blood, their teeth, their eyes and their brains; turns their flesh into mummy, and their mind into metaphysics.

CURIOUS DISCOVERIES IN PRACTICAL SCIENCE.

In the Granite Quarries, near Seringapatam, the most enormous blocks are separated from the solid rock by the following neat and simple process. The workman having found a portion of the rock sufficiently extensive, and situated near the edge of the part already quarried, lays bare the upper surface, and marks on it a line in the direction of the intended separation, along which a groove is cut with a chisel, about a couple of inches in depth. Above this groove, a narrow line of fire is kindled, and this is maintained till the rock below is thoroughly heated, immediately on which a line of men and women, each provided with a pot of cold water suddenly sweep off the ashes, and pour the water into the heated groove, when the rock at once splits with a clean fracture.

Square blocks of six feet in the side, and upwards of eighty feet in length, are some-times detached by this method.

Hardly less simple and efficacious is the process used in some parts of France, where mill-stones are made. When a mass sufficiently large is found, it is cut into a round form, several feet high, and the question then arises how to divide this into pieces, of a proper size for mill-stones. For this purpose grooves are chiselled out, at distances corresponding to the thickness intended to be given to the mill-stones, into which grooves wedges of dried wood are driven. These wedges are then wetted, or exposed to the night-dew, and next morning the block of stone is found separated into pieces of a proper size for mill-stones, merely by the expansion of the wood, consequent on its absorption of moisture; an irresistible natural power thus accomplishing, almost without any trouble, and at no expense, an operation which, from the peculiar hardness and texture of the stone, would otherwise be impracticable but by the most powerful machined, or the most persevering labour.

Abundant examples might be cited of cases where the remarks of experienced artists, or even ordinary workmen, have led to the discovery of natural qualities, elements, or combinations which have proved of the highest importance. Thus (to give an instance), a soap-manufacturer remarks, that the residuum of his ley, when exhausted of the alkali, for which he employs it, produces a corrosion of his copper boiler, for which he cannot account. He puts it into the hands of a scientific chemist for analysis and the result is the discovery of one of the most singular and important chemical elements, *iodine*. The properties of this, being studied, are found to occur most appositely, in illustration and support of a variety of new, curious, and instructive views, then gaining ground in chemistry, and thus exercise a marked influence over the whole body of that science. Curiosity is excited; the origin of the new substance is traced to the sea-plants, from whose ashes the principal ingredient of soap is obtained, and, ultimately, to the sea water itself. It is thence hunted through nature, discovered in salt-mines and springs, and pursued into all bodies which have a marine origin; among the rest into sponge. A medical practitioner (Dr. Comdet, of Geneva), then calls to mind a reputed remedy for the cure of one of the most grievous and unsightly disorders to which the human species is subject, the *goitre**, which infests the inhabitants of mountainous districts, to an extent that in this favoured land we have, happily, no experience of, and which was said to have been originally cured by the ashes of burnt sponge. Led by this indication, he tries the effect of *iodine* on that complaint, and the result establishes the extraordinary fact, that this singular substance, taken as a medicine, acts with the utmost promptitude and energy on *goitre*, dissipating the largest and most inve-

* Large wens, or swellings about the neck and throat.

rate tumours in a short time, and acting (of course, like all medicines, even the most approved, with occasional failures), as a specific, or natural antagonist against that odious deformity.

In needle-manufactories, the workmen who point the needles are constantly exposed to excessively minute particles of steel, which fly from the grindstones, and mix, though imperceptible to the eye, as the finest dust in the air, and are inhaled with their breath. The effect, though imperceptible on a short exposure, yet being constantly repeated from day to day, produces a constitutional irritation dependent on the tonic properties of steel, which is sure to terminate in pulmonary consumption, inasmuch that persons employed in this kind of work, used scarcely ever to attain the age of forty years. In vain was it attempted to purify the air, before its entry into the lungs, by gauzes, or linen guards; the dust was too fine and penetrating to be obstructed by such coarse expedients, till some ingenious person bethought him of that wonderful power which every child who searches for its mother's needle with a magnet, or admires the motions of a few steel filings on a sheet of paper held above it, sees in exercise. Masks of magnetized steel-wire are now constructed and adapted to the faces of the workmen. By these, the air is not merely *strained* but *searched* in its passage through them, and each obnoxious atom arrested and removed.

Who would have conceived that *linen-rags* were capable of producing more than their own weight of *sugar*, by the simple agency of one of the cheapest and most abundant acids (the Sulphuric)? That *dry-bones* could be a magazine of nutriment, capable of preservation for years, and ready to yield up their sustenance in the form best adapted to the support of life, on the application of that powerful agent, steam, which enters so largely into all our processes, or of an acid at once cheap and durable? that *saw-dust* itself is susceptible of conversion into a substance bearing no remote analogy to bread; and though certainly less palatable than that of flour, yet no way disagreeable, and both wholesome and digestible, as well as highly nutritive?—HERSCHEL'S *Natural Philosophy*, in the *Cabinet Cyclopadia*.

POLITICAL ECONOMY.—The following estimates from the Family Lyceum are worthy of general attention; they would furnish our legislators with more available data than many of the pages of Adam Smith.

« The interest of the money expended in erecting a prison at Philadelphia is sufficient to pay the tuition of 10,000 children at infant schools.

« The expenses of the militia of Massachusetts is not less than half a million annually, which is more than sufficient to establish a Lyceum Seminary, or self-supporting school, in every county in the state, at 30,000 dollars each. The one expenditure designed to enable men to kill and devour each other; the other designed to aid each other in every good work.

« In Ohio, and the other western states, those towns which, at their commencement, from twelve to fifteen years ago, established schools and public worship, are now accommodated and ornamented with good roads, comfortable dwellings, framed, tow stories, and painted, with commodious barns, productive orchards, safe enclosures, and above all with intelligent, moral, and refined society; while those which have been settled from 20 to 30 years, and have neglected schools and churches, have few buildings but log houses, with one room, no roads but such as nature furnishes, no orchards, no barns, and little cultivated land except a few acres around their cabins sufficient to raise corn for their bread; and they are even unable to find time to comb their children's heads or wash their faces.

« Throughout New-England, those towns whose citizens have erected for their schools commodious houses have been able also to erect for themselves neat or elegant dwellings. While those which are unable to build school-houses, are also unable to erect dwellings, except plain, unpainted, one story buildings. Where they are able to erect churches at an expense of five or seven thousand dollars, they are able to ride in chaises, worth \$250, while those who have the poorest churches ride to them in waggons, on horseback, or go on foot.»

ENCOURAGEMENT TO PERSONS OF MATURE AGE TO CULTIVATE THEIR MIND.—Instances have frequently occurred of individuals, in whom the power of imagination has at an advanced period of life been found susceptible of culture to a wonderful degree. In such men what an accession is gained to their most refined pleasures! What enchantments are added to their most ordinary perceptions! The mind awakening, as if from a trance to a new existence, becomes habituated to the most interesting aspects of life and of nature; the intellectual eye is «purged of its film,» and things, the most familiar and unnoticed, disclose charms invisible before. The same objects and events, which were lately beheld with indifference, occupy now all the powers and capacities of the soul; the contrast between the present and the past serving only to enhance and endear so unlooked-for an acquisition. What Gray has so finely said of *the pleasures of vicissitude*, conveys but a faint image of what is experienced by the man who, after having lost in vulgar occupations and vulgar amusements his earliest and most precious years, is thus introduced at last to a new heaven and a new earth;

« The meanest flowret of the vale,
The simplest note that swells the gale,
The common sun, the air the skies,
To him are opening Paradise.»

THE ROMANS.—Pliny asserts that the Roman citizens, in early times, ploughed their fields with the same diligence that they pitched their camps, and sowed their grain with the same care that they formed their armies for battle.

WHAT different ideas are formed in different nations, concerning the beauty of human shape and countenance! A fair complexion is a shocking deformity on the coast of Guinea: thick lips and a flat nose are a beauty. In some nations, long ears, that hang down upon the shoulders, are the objects of universal admiration. In China, if a lady's foot is so large as to be fit to walk upon, she is regarded as a monster of ugliness. Some of the savage nations in North America tie four boards round the hips of their children, and thus squeeze them, while the bones are tender and gristly, into a form that is almost perfectly square. Europeans are astonished at the absurd barbarity of this practice, to which some missionaries have imputed the singular stupidity of those nations among whom it prevails. But when they condemn those savages, they do not reflect that ladies in England had, till within these very few years*, been endeavouring, for near a century past, to squeeze the beautiful roundness of their natural shape into a square form of the same kind.—SMITH,

ON THE SABBATH.

Without reference to the divine origin of the Sabbath, the appropriation of one day in the week for religious and moral instruction, for reflection on our duties, our errors, and the means of amendment; for reviewing our condition here, and weighing our hopes hereafter, seems the wisest institution, for the promotion of virtue and happiness.

It is thus alone that the hard-wrought labourer finds leisure to receive instruction, or to communicate to his children the fruit of his experience; while the eager man of business, as well as the abandoned libertine, meeting with these frequent intervals of religious worship, are led to think of their duties, as well as of their gains or their pleasures.—From this spring of instruction and serious reflection, knowledge and good morals naturally flow; and the blessings of a wise and vigorous government become inviolable, because they become thoroughly understood.—*Lives of eminent British Statesmen.*

Low station is no obstacle to God's favour. St. John was the son of a fisherman; recommended to our Saviour, neither by refinement of education, nor by honourable employment, he was diligently engaged in the labours of an humble occupation, when chosen to accompany his Lord. For those, indeed, whom it hath pleased God to place in the higher walks of life, it is right that they should endeavour to perform the duties of their stations, by a due cultivation of their talents, by the acquirement of suitable accomplishments, and by acting up to the rank in society, to which, by the good providence of God, they are born and designated. Nor can such persons act more agreeably to the will of God, nor more effectually for his glory and their own

* The author refers to the square stomachers which were usually worn when hoop petticoats were fashionable.

salvation. At the same time, the poor and lowly may reflect, that their poverty and lowliness does not preclude them from the enjoyment of God's favour, and his love in Christ Jesus, provided they be diligent in discharging the duties of their station.—“The beloved disciple of Jesus” was, when called upon to follow him, “mending his net” on the lake of Gennesareth.—BISHOP MANT.

EPITAPHS.

We purpose presenting to our readers, occasionally, some of the best Epitaphs in our language, and commence with the following lines, which come plainly from the heart, and must reach the hearts of all who read them.

Who'er, like me, with trembling anguish brings,
His heart's whole treasure to these healing springs; *
Who'er, like me, to soothe disease and pain,
These healing springs has visited in vain;
Condemn'd, like me, to hear the faint reply,
To mark the failing cheek, the sinking eye,
From the child's brow to wipe the damps of death,
And watch in dumb despair the shortening breath;
Behance direct him to this artless line,
Let the sad mourner know—his pangs were mine.
Ordin'd to lose the partner of my breast,
Whose virtue warm'd me, and whose beauty blest,
Framed every tie, that binds the soul to prove
Her duty friendship, and her friendship love;
But yet remembering that the parting sigh,
Appoints the just to slumber, not to die:
The starting tear I check'd; I kiss'd the rod,
And not to earth resign'd her, but to God.

MUSICAL EPITAPH.

At Paris, in 1764, the premature decease of a young nobleman, ascribed to his violent attachment to Mademoiselle Miré, a public singer of a most abandoned character, gave rise to a witty epitaph on him, composed of five musical notes—

mi re la mi la

Miré la mi la.—Miré has laid him there.

COURTS OF JUSTICE AMONG CROWS.—These extraordinary assemblies, which may be called crow-courts, are observed in the Feroe Islands, as well as in the Scotch Isles; they collect in great numbers as if they had been all summoned for the occasion. A few of the flock sit with drooping heads; others seem as grave as if they were judges, and some are exceedingly active and noisy, like lawyers and witnesses; in the course of about an hour the company generally disperse, and it is not uncommon, after they have flown away, to find one or two left dead on the spot. Dr. Edmonstone, in his view of the Shetland Islands, says that sometimes the crow-court or meeting, does not appear to be complete before the expiration of a day or two, crows coming from all quarters to the session. As soon as they are all arrived, a very general noise ensues, the business of the court is opened, and shortly after, they all fall upon one or two individual crows (who are supposed to have been condemned by their peers) and put them to death. When the execution is over, they quietly disperse.

CUNNING is a crooked wisdom; nothing is more hurtful when cunning men pass for wise.—BACON.

* Bristol Hot Wells.

ON THE CONVERSION OF BEET-ROOT INTO SUGAR.

At the commencement of the war of the French revolution, a scarcity of sugar was experienced in France, on account of the difficulty of importing this article into that country from the West India colonies, every sea swarming with British Cruisers, and whole fleets of French merchantmen falling monthly into the hands of the English. Under these circumstances it became necessary to procure a substitute for this most necessary article, and it is thought that some account of the eminent chemist who was applied to on this occasion would not be unacceptable to the readers of the *Saturday Evening Magazine*.

FRANÇOIS CHARLES ACHARD, a chemist and experimental philosopher, supposed to have been of French extraction, was born at Berlin in 1753 or 1754, and died in 1821. He was the author of various works, written in the German language, on experimental physics, chemistry and agriculture; and he was long an active contributor to different scientific journals, particularly the *Memoirs of the Academy of Berlin*. In 1780 he published at Berlin, a work entitled *Chymisch-Physische Schriften*, which contains a great number of experiments on the subject of the adhesion of different bodies to each other. Tables containing the results of these experiments, which seem to have been conducted with great care, may be seen in the *Encyclopédie Methodique—Chimie*, tom. I, p. 469.

Achard is, however, chiefly known for his proposal to extract sugar from beet-root. Another Prussian chemist, Margraff, had discovered the existence of a certain portion of sugar in this root, as early as 1747. He communicated his discovery to the Scientific Society at Berlin; but he himself thought it of little practical importance, as he declared he could not produce sugar under 100 francs the pound.—Achard, who in this particular appears to have been somewhat of a visionary, on the contrary, described the beet-root as 'one of the most bountiful gifts which the divine munificence had awarded to man upon the earth. He affirmed that not only sugar could be produced from beet-root, but tobacco, molasses, coffee, rum, arrack, vinegar and beer. 'The Institute of Paris,' in 1800, gave Achard the honour of a vote of thanks; but after a series of careful experiments they reported that the results were so unsatisfactory, that it would be unwise to establish any manufacture of sugar from beet. But Napoleon, in 1812, succeeded in forming an imperial manufactory of sugar at Rambouillet, when his decrees had deprived France of the produce of the West Indies. The sugar made at home was sold at a great price; and, consequently, after the peace, when foreign sugar was once more introduced, its cheapness put an end to the beet-root establishments. The government of France, however, chose to levy high duties upon the sugars of English colonies to protect those of Martinique, Guadaloupe and Bourbon; and the tax upon English colonial sugar, being now 95 francs the 100 kilogrammes, or about half a franc per pound, amounts to a prohibition. The beet-root manufac-

ture, therefore, was revived and is now flourishing, for the sugar so produced pays no duty whatever. In plain words, the manufacture is flourishing, because the people of France are compelled to buy dear sugar instead of cheap. Sugar in that country is only consumed by the wealthy. The average yearly consumption of sugar in France is 4 lbs. for each individual of the population; in the United Kingdom it is 30 lbs. The expectations which Achard formed of the blessings which the beet-root was to produce have not therefore been realized. His plan, like all other plans for raising an article at home which could be obtained better and cheaper by exchange, has only had the effect of keeping the great body of consumers ill supplied, that a few might thrive by monopoly.

FACTS.

The sea is to the land, in round millions of square miles, as 160 to 40, or as 4 to 1.

Fraimhofer, in his optical experiments, made a machine in which he could draw 32,900 lines in an inch breadth.

There are 7,700 veins in an inch of colored mother-of-pearl. Iris ornaments of all colors are made by lines of steel from 200 to the $\frac{1}{1000}$ part of an inch.

The coal mines, which in Staffordshire have been burning for 200 years, consist of pyrites, subject to spontaneous combustion. Water will not extinguish them because when drawn off or absorbed, the pyrites burns more than before.

Botanists record 56,000 species of various plants; and 38,000 are to be found in the catalogues.

The height of mountains in the moon is considerable; ten or five miles or nearly; and eight are from 3 to 4 miles. Three of the hollows are from 3 to 4 miles; ten are from 2 to 3 miles, and as many are nearly two miles.

Teeth are phosphate of lime and cartilage, but the enamel is without cartilage.

The muscles of the human jaw exert a force of 531 pounds, and those of mastiffs, wolves, &c. far more. The force is produced by the swelling of the muscles in the middle and dilating again.

The number of ribs vary, being twelve or thirteen on a side.

SALT IN INDIA.—The soil of Hindostan is so much impregnated with salt, that a saline effervescence is seen in almost every low spot.

Bishop Heber observes that the tendency of the soil in Bengal to produce Saltpetre is so great, that it encroaches upon walls and floors of the houses to an extent often rendering them uninhabitable in a few years. The saltpetre corrodes the best of bricks and crumbles them.

MUD IN RIVERS.—The weight of mud daily carried down the river Ganges is calculated at 74 times the weight of the great pyramid of Egypt.

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