

SELECT POETRY.

For the Christian Observer.
LAST WORDS OF A WIFE.
When death shall claim me for its prize,
As suddenly he may,
And heaven shall flash upon my eyes,
It's pure unclouded ray—
'Wilt thou, in sullensness repine,
And in thy grief rebel?
Or, meekly say, "the hand is Thine
Who doth all things well."

LADIES' DEPARTMENT.

HINTS ABOUT FEMALE EDUCATION.

BY MRS. L. M. CHILD.
The difficulty is, education does not usually point the female heart to its only true resting-place. That dear English word, "home," is not half so powerful a talisman as "the world." Instead of the salutary truth, that happiness is in duty, they are taught to consider the two things totally distinct; and that whoever seeks one must sacrifice the other.

school. His wife folded her hands and cried, while he, weary, and discouraged, actually came home from school to cook his own supper. At last his patience, and her real love for him, impelled her to exertion. She promised to learn to be useful, if he would teach her; and she did learn! And the change in her habits gradually wrought such a change in her husband's fortune, that she might bring her daughters up in idleness, had not experience taught her that economy, like grammar, is a very tiresome study, after we are twenty years old.

APPEAL TO PARENTS.

Encourage your children to be orderly, and studiously to regard right.
Youth are frequently tempted, by the example of vicious associates, to violate the rules of good behavior, and spend their time in idle mischief, or vain pursuits. As you cannot always keep them removed from pernicious influences, and depraved companions, do all in your power to form in them an abhorrence of all that is evil, and a deep regard for everything that is "lovely and of good report."

Improve every fit opportunity to impress upon their minds the ruinous consequences of vice and idleness; and, at the same time, show them that "Wisdom's ways are pleasantness, and all her paths are peace." Teach them to avoid trifling deviations,—to do right at all times and on all occasions, because it is right, and because, by so doing, they will be more happy and useful. Teach them that it is better to "suffer wrong than to do wrong;" and that the fact, that wrong has been done to them, is no reason why they should do wrong in return. Tell them that kindness will allay wrath, and that it is more noble and manly to return "good for evil," than to give "reviling for reviling."

Encourage your children to be studious, by manifesting an interest in their lessons.
Improve every suitable occasion to converse with them concerning their studies; and do all you can to convince them, that the more diligent and faithful they are now, the brighter will be their prospects for future usefulness and happiness. Do all in your power to inspire them with a love for knowledge, as a source of gratification and improvement. In the morning, enjoin upon them the great importance of diligence during the hours of school; and at night, inquire respecting the studies of the day, and ascertain what new ideas have been acquired, what facts have been stored up, what difficulties overcome, what kindly acts performed. Induce them to examine, to investigate, to think. In a word,—do all you can to cause them to feel the great advantages of education, and the necessity of patient application to obtain it. You will thus increase their interest, and cause them to regard with pleasure exercises that would, otherwise, appear dull and unimportant.

Cultivate, in your children, habits of true politeness and courtesy.
True education requires the full development and exercise of the better feelings of the heart, and the proper culture of these will exhibit themselves in outward actions and expressions. Indeed, we are much inclined to form an estimate of those with whom we meet or associate, from their mode of address, and from external appearances. If they are coarse and rude in their manners, rough and undignified in their salutations and remarks, or un courteous and abrupt in their answers, we are inclined to avoid them, and regard them as unkind and uncompanionable. We do not expect to find much that is attractive in them; and, if they possess some worthy qualities, their first appearance is so repulsive, that we are hardly prepared to witness any subsequent evidences of real humanity and goodness.—Teacher and Parent.

REMOVING A RING FROM A YOUNG LADY'S FINGER.—Dr. Castle communicates to the Boston Medical and Surgical Journal, the following ingenious method, devised by him, for extricating a young lady's finger from a ring which was too small for her. We give his story in his own language:

An interesting young lady about seventeen years of age had presented to her a gold ring, which she forced over the joints of her middle finger. After a few minutes the finger commenced swelling, and the ring could not be removed. The family physician, Dr. —, was sent for, but could do nothing. The family, and the young lady especially, were now in the greatest consternation. A jeweler was sent for. After many futile attempts to cut the ring with cutting-nippers, and to saw it apart with a fine saw, and after bruising and lacerating the flesh, warm fomentations and leeches were applied, but all without affording the slightest benefit. Dr. — requested my presence, with the compliment that "perhaps my mechanical ingenuity might suggest something." I at once proceeded to the house of the patient, and found the young lady in a most deplorable state of mental agony, the doctor embarrassed, and the family in a high state of excitement. I procured some prepared chalk, and applied it between the ridges of swollen flesh, and all around the finger, and succeeded in drying the oozing and abraded flesh; then, with a narrow piece of soft linen I succeeded in polishing the ring, by drawing it gently round the ring between the swollen parts. I then applied quicksilver to the surface of the ring. In less than three minutes the ring was broken (by pressing it together) in four pieces, to the great relief of all parties.

In a similar manner—without the chalk—I some time since extracted a small brass ring from the ear of a child, who, child-like, had inserted it into the cavity of its ear. The operation was more painful and tedious—but was equally successful.
"The modus operandi. The quicksilver at once permeates the metals, if clean, (with the exception of iron, steel, platinum, and one or two others), and amalgamates with them. It immediately crystallizes and renders the metal as hard and as brittle as glass. Hence the ease with which metals amalgamated with quicksilver can be broken."

General happiness can have no other basis than the universal law of justice and love.

YOUTH'S DEPARTMENT.

ST. PAUL'S CATHEDRAL.

This magnificent edifice stands on high ground, in the centre of the city of London, and is a noble object of admiration for miles around. It is one of the largest buildings dedicated to religious purposes in the world—being second only to the Roman Catholic cathedral of St. Peter at Rome. The present church occupies the site of an ancient cathedral of the same name, which, after having weathered the storms of several centuries, was so severely injured by the great fire of London, in 1666, as to be deemed insecure. It was therefore removed, and the present noble pile erected—"a lasting memorial of the genius of its great architect, Sir Christopher Wren." It is a fact, worthy of notice, that the erection of this cathedral, which occupied thirty-five years, was performed under the superintendence of one architect, the work undertaken and prosecuted entirely under one contractor, and the whole completed whilst one bishop occupied the episcopal chair. It cost the country a million and a half in its erection, which sum was raised by a small tax on coal.

The building covers an area of two acres sixteen perches, and is erected in the form of a Greek cross. Over that part where the lines of this cross intersect each other, a stately dome towers to the skies; this is surmounted by a lantern, embellished with Corinthian columns; and above the whole is placed a ball of gilt copper, terminated by a cross likewise gilt; the weight of this ball is five thousand six hundred pounds, and of the cross three thousand six hundred. At the foot of the lantern is a balcony, from which the dizzy eye can survey the magnificent wonders of the great metropolis below.

The principal entrance is ornamented by numerous lofty pillars of the Corinthian order, and colossal figures of the four Evangelists, together with St. Paul, St. Peter, and St. James. The clock is also situated here; the dial is fifty-seven feet in circumference, or nearly twenty feet in diameter; the length of the minute hand is eight feet, and of the hour hand five feet five inches, and the pendulum is forty feet long, carrying at its extremity a weight equal to one hundred and twelve pounds. The marble statue in front, represents Queen Anne in her robes of state, holding in her hands the emblems of royalty. In the interior are found numerous monuments, erected to the memory of the great and brave—of men who have bled for their country, in battles by sea and land, and of others who have carried out for themselves niches in the temples devoted by fame to the votaries of art, of science, or of literature. But the most noble monument is that dedicated to the memory of the master spirit, who designed the wonderful work we now describe. His worth is told in Latin, on a marble slab erected over the entrance to the choir. Translated into English, it reads thus:—

"Beneath lies Christopher Wren, the architect of this church and city, who lived more than ninety years, not for himself alone, but for the public. Reader, do you seek his monument, look around!"

The interior surface of the dome is beautifully embellished by a series of paintings, by Sir James Thornhill, illustrative of the extraordinary events in the life of St. Paul. An anecdote is related, that when the gifted artist was painting this cupola, a gentleman of his acquaintance was one day with him on the scaffolding, which, though wide, was not raised; he had just finished the head of one of the apostles, and, running back, as it is customary with painters, to observe the effect, had almost reached the extremity; the gentlemen, seeing his danger, and not having time for words, snatched up a large brush, and smeared the face—Sir James ran hastily forward, crying out, "Bless my soul! what have you done?" "I have saved your life," replied his friend. Within this dome is the whispering gallery, long famed for its extraordinary reverberation of sound; it is reached after ascending two hundred and eighty steps, and from it you have the best view of the paintings which adorn the interior of the dome.

The great bell weighs four tons and a quarter, and is ten feet in diameter. It is tolled only on the death of a member of the royal family, the lord mayor, the bishop of the diocese, or the dean of the cathedral.

In the crypt under the church are deposited the remains of many who in life were the wisest or the bravest of their age, and whose deeds are inscribed on the marble monuments in the sacred edifice above.

LOVE TO INSTRUCTORS.

I hope you do not forget, dear children, every night and morning, in your prayers to ask God's blessing on your benefactors. All who have given you good advice, or gifts of knowledge, should be thus remembered. Since useful knowledge is one of the most precious attainments, your instructors should be ranked among your most prominent benefactors. Be docile to their directions. Carefully treasure their precepts. When you cease to be their pupils, consider them as friends. Wherever you meet them, show them marked respect, with words and smiles of affection. "Esteem them very highly in love, for their work's sake." It will be cheering to their hearts.

It is one way to find out good children, if their instructors approve and regard them; and by their love for their instructors, they also prove their own wisdom, inasmuch as they justly prize knowledge and are capable of gratitude. L. H. S.

BREAKING THE RULES OF SCHOOL.—Three brothers are confined in the Ohio penitentiary, two for seven years, and one for three. They, with others, had formed a secret society for the purpose of carrying on a regular business in housebreaking, the plan of which was found in their pockets when they were arrested.

Now it is well for every boy to know what the apprenticeship of such a business was, and let them mark it seriously. They began law-breaking by violating and defying the just rules of school. Young men and boys are very apt to think it quite manly to rebel against rules, and show their independence of teachers. But it is a very bad sort of manliness. Submitting to and respecting lawful authority is just the discipline you need in order to be worth any thing. These three boys were expelled from school and from college for wilfully breaking the laws. Having all restraint, they tried

to get their living by their wits instead of their labor; and the consequence is, that they are now confined where public security and justice demand that they should be. "The way of transgressors is hard."—Child's Paper.

FARMERS' DEPARTMENT.

From Dr. Johnston's Agricultural Chemistry.

DRAINING.

The practical benefits of draining may be stated generally as follows:—

A. It is equivalent not only to a change of soil, but also to a change of climate, both in reference to the growth of plants and to the health of the population.

B. It is equivalent also to a deepening of the soil, both by removing the water and by allowing those noxious ingredients to be washed out of the subsoil which had previously prevented the roots from descending.

C. It is a necessary preparation to let many other means of improvement which may be applied to the land.

You will now be able to perceive in what way it is possible that even light and sandy soils, or such as lie on a sloping surface, may be greatly benefited by draining. Where no open outlet exists under a loamy or sandy surface soil, any noxious matters that either sink from above, or ooze up from beneath, will long remain in the subsoil, and render it more or less unwholesome to valuable cultivated plants. But let such an outlet be made by the establishment of drains, and that which rises from beneath will be arrested, while that which descends from above will escape. The rain-waters passing through will wash the whole soil also as deep as the bottom of the drains, and the atmospheric air will accompany or follow them.

The same remarks apply to lands which possess so great a natural inclination as to allow the surface water readily to flow away. Such a sloping surface does not necessarily dry the subsoil, free it from noxious substances, or permit the constant access of the air. Small feeders of water occasionally make their way near to the surface, and linger long in the subsoil before they make their escape. This is in itself an evil; but when such springs are impregnated with iron the evil is greatly augmented, and from such a cause alone a more or less perfect barrenness not infrequently ensues. To bring such lands by degrees to a sound and healthy state, a mere outlet beneath is often alone sufficient.

It is to this lingering of unwholesome waters beneath, that the origin of many of our moor-lands, especially on higher grounds, is in a great measure to be attributed. A calcareous or a ferruginous spring sends up its waters into the sub-soil. The slow access of air from above, or it may be the escape of air from water itself, causes a more or less ochrey deposit, which adheres to and gradually cements the stones or earthy particles, among which the water is lodged. Thus a layer of solid stone is gradually formed—the moor-land pan of many districts—neither allow the roots of plants to descend nor the surface water to escape. Hopeless barrenness, therefore, slowly ensues. Coarse grasses, mosses, and heath, grow and accumulate upon soils not originally inclined to nourish them, and by which a better herbage had previously been long sustained. Of such lands many tracts have been reclaimed by breaking up this moor-land pavement, but such an improvement, unless preceded by a skilful drainage, can only be temporary. The same natural process will again begin, and the same result will follow, unless an outlet be provided for the waters from which the petrifying deposit proceeds.

It ought to be mentioned, however, that where a ready passage and escape for the water is provided by an efficient drainage, and especially in light and porous soils, the saline and other soluble substances they contain will be liable, in periods of heavy rain, to be more or less completely washed out and carried off by the water that trickles through them. While, therefore, the establishment of drains on all soils may adapt and prepare them for further improvements, and may make them more grateful for every labor or attention that may be bestowed upon them—yet after drainage they must be more liberally dealt with than before, if the increased fertility they at first exhibit is to be permanently maintained or increased.

Alexander Humbolt says, in his Geographie des Plantes, when speaking of cultivated vegetables or trees, "Plants are the most sensible thermoscopes; the more or less success with which they are cultivated indicates the smallest climatic differences." Long experience has shown to the inhabitants of Europe which are the kinds and varieties of fruit which will best succeed with them, and a careful observer will find that every province, or even every district, cultivates different varieties of fruit from that of neighboring provinces, either for market or home consumption, and that only the gardens of amateurs or nurserymen contain long lists of varieties.

and salt (about half a pound) which have been dissolved in a small quantity of hot water, are added, and the skins left to steep all night. They are taken out in the morning and hung over a pole to drip. When all the alum water has dripped off they are spread out on a board to dry, and are carefully stretched, with the hand, from time to time. Before they are thoroughly dry, a composition of two table-spoonsful of alum, and the same of saltpetre are ground to a powder, in a mortar or otherwise, and sprinkled carefully on the fleshy side of each skin. They are then placed the one on top of the other, leaving the wool outside, and hung upon a rack of slats, in a barn, shed, or dry, airy place, for about three days, or until they are dry—they should be turned every day. After this they are taken down and the fleshy side is scraped with a blunt knife, and each skin trimmed for a mat. The flesh side may then be rubbed over with pipe-clay, beat with a switch, and will then be found supple, of a beautiful white color, and fit for a door mat for a mechanic or a prince.

KNOWLEDGE FOR THE PEOPLE.

POPULAR CHEMISTRY.

Why is our earth a globe?
Because of the general attraction by which all its parts are drawn towards each other, that is, towards a common centre; by which means the mass assumes the spherical or rounded form.

We have interesting instances of roundness from the same cause in minute masses,—as the particles of a mist of fog floating in air,—there, mutually attracting and coalescing into larger drops, and then forming rain—dew-drops—water trickling on a duck's wing—tears dropping from the cheek—drops of laudanum—globules of mercury, like pure silver beads, coalescing when near, and forming larger ones—melted lead allowed to rain down from an elevated sieve, which, by cooling as it descends, retains the form of its liquid drops, and becomes the spherical shot-lead of the sportsman.—Arnott.

Why is the prescription of medicine by drops an unsafe method?
Because, not only do drops of fluid from the same vessel, and often of the same fluid of different vessels, differ in size, but also drops of the same fluid, to the extent of a third, from different parts of the lip of the same vessel.

Why do certain bodies solidify?
Because their parts cohere so firmly as to resist impression.

Why do blue and yellow powders, when mixed, form a green powder?
Because of the mere effect arising in the eye from the intimate mixture of the yellow and blue light separately and independently, reflected from the minute particles of each; and the proof is had by examining the mixture with a microscope, when the yellow and blue grains will be seen separately and quite unaltered.—J. F. W. Herschel.

Why is there a difference in the specific gravity of different bodies?
Because one body is larger, or takes up more room than another of the same weight, when the heat is said to be specifically lighter than the other, and vice versa.

Why will not oil and water mix in a vial upon being violently shaken?
Because the water and the oil have no affinity for each other; but if some caustic ammonia be added, and the vial then agitated, the whole will be mixed into an ammoniacal soap. This is what is called disposing affinity, or uniting bodies, which apparently have no tendency to unite of themselves, by the addition of another substance.

Why do small needles float on water?
Because the particles of water cohere among themselves, and the weight of the needles is not sufficient to overcome that cohesion.

Why do a pound of water, and a pound of salt when mixed, form two pounds of brine, but then occupy much less bulk than when separate?
Because the atoms of the one are partially received into what were vacant spaces in the other. A similar condensation is observed in many other mixtures; as a pound of sugar in a pound of water. Tin and copper, melted together to form bronze, occupy less space by one fifth, than they do when separate.—Arnott.

Why is heat produced on slacking quick-lime?
Because of the violence of the chemical action, and the solidification of the water. In this process 68 parts of lime solidify 32 parts of water; but it is remarkable, that in making what we call lime-water, 500 parts of water are required to dissolve one part of lime.

Why are not bitter and sweet essential qualities of matter?
Because, as Dr. W. Herschel has recently discovered, the mixing of nitrate of silver with hypsulphate of soda, both remarkably bitter substances, produces the sweetest substance known. Thus, bitter and sweet, as well as sour, appear not to be an essential quality in the matter itself, but to depend on the proportions of the mixture which composes it.

Why has strong salt and water a pellicle (or film) on its surface?
Because the attraction of the saline particles for each other is becoming superior to their attraction for the water. This is the common criterion of the fitness of a solution for crystallization.

Why will not salt crystallize when dissolved in a considerable quantity of water?
Because the particles of the salt are too far asunder to exert reciprocal attraction; in other words, they are more powerfully attracted by the water, than by each other.—Brande.

Why do certain salts (called freezing mixtures) convert water into ice?
Because, as heat is required to convert solids into liquids, it follows, that in cases of sudden liquefaction, (as when the salts are dissolved in the water) cold will ensue; hence its production during the solution of many saline bodies, and hence, also, the explanation of the theory of freezing mixtures.

Why do many salts, when exposed to the air, effloresce, or fall to powder?
Because they lose their water of crystallization.

Why do some salts deliquesce, (or become moist or liquid) by exposure to the atmosphere?
Because they attract water from the atmosphere.

Why do sheepskins for door mats. Take two long woolled white sheepskins, and make up a strong lather of soap—the sign of proper strength is when the lather feels slippery between the fingers. When the lather is cold wash the skins carefully in it, squeezing them between the hands so as to take all the dirt out of the wool. When this is accomplished, lift out the skins and wash them well in cold water until all the soap is extracted. Have a vessel of clean cold water ready, to which some alum

FROM FANNY FERN.—Fanny Fern, who has recently removed to New York, publishes in a London sketch—the text being gathered from an exchange who happened to remark "There is an object in nature so beautiful as a conscientious young man."

Well; I've seen the "Sea-Dog," and "The Lady," and Tom Thum, and Kossuth; the "Leopard," and Canille Urso; the "white negro," and "Stowe"; "Chang and Eng," and Jenny Lind, and Miss Bremer, and Madame Sontag. I have been to the top of the State House, and the "Public Garden," and crossed the "Frog Pond," ridden in an omnibus, heard a locomotive, and I once saw the sun rise; but I never, never saw "a conscientious young man."

If there is such an organization on the periphery of this globe, I should like to see him. If he is where he is? Who owns him? Where did he raise him? What does he feed on? For what does he vote? On what political platform does he conscientious toes rest? Does he know the difference between a Whig and a Democrat? Between a "Hunker" and a "Barn-burner"? Between a "hard shell" and a "soft-shell"? Between a "uniform national currency" and a "sound constitutional currency"? Does he have chills, or a fever, when he sees a bonnet? Does he look at it out of the side of his eyes, like a bashful, barn-yard lantern, or dare he not look at all? Does he show the "white feather," or coward defiance? Does he "go to rest" at sun-down; and does he rest on an aristocratic perch? I'm all alive to see the specimen. My opera-glass is poised. Can't you give me his portrait? Will he be at the World's Fair? May I be permitted to shake hands with, and congratulate him? I pause for a reply.

WHAT YOU MAY HEAR IN A BELL.—A philosophical philosopher of our acquaintance says, "I can always tell what kind of master and servant there are in an establishment by the way in which the bell is rung and answered. If the bell rings sharply, or snappishly, or at all loudly, I am myself, you are hard masters, impatient, impatient, making no allowances, and always expecting a thing to be done before it is even asked for. My suspicions are generally verified by the ringing the bell a second time more loudly than the first; and if the servants take a long time in answering the bell, I say to myself, You are hard masters, either lazy, or pampered, or spoiled by much indulgence, and evidently taking but little interest in your master's wishes. It is a sign that there is not much peace or comfort to be had with in the house where the master rings sometimes for everything he wants; and where the servants require the bell to be rung twice before they think of answering it."—Punch.

THE ROAD IN 1853.—The days of the Highwaymen are over; but that need not be lamented by the admirers of the robbers of the good times. The Highwaymen have been supplanted by the Railwaymen.—Jb.

A RAP FOR THE CZAR.—A great deal of gold coin is in circulation, but the worst sort of that has come before the public lately is the PERFOR OF RUSSIA.—Jb.

TOO MODEST BY HALF.—Most of the illustrations in honour of the Emperor's fete at Paris displayed the glittering initials, N. E. This was only telling half the truth. It wanted the initials of R. O., for the French nation clearly do not stand in whose honour the fete was given.—Jb.

ANOTHER DIETETIC RULE OF CONDUCT.—In order to send a servant out on an errand after dinner, but always a little before. It is extraordinary how very quick, in the latter case, he (or she) will turn.—Jb.

A young Irish servant girl coming from America recently in one of the night steamers, had desired to lose the "recommendation" which had been given her on leaving her last place. She brought, however, the accompanying "ticket," which she presented to a friend of ours:

"This is to say, that Kathleen O'Brian had a character when she left Albany, but she lost it on board the Steamer coming down."

"Will you keep an eye on my horse, my wife, while I step in and get a drink?"

"Yes, sir."

Stranger goes in, gets his drink, comes out, and finds his horse missing.

"Where is my horse, boy?"

"He's run'd away, sir."

"Didn't I tell you to take care of him, you scamp?"

"No, sir, you told me to keep my eye on him, and I did, till he got clean out of sight."

ENIGMA. BY A DEAF-MUTE. I AM composed of 12 letters. My 1, 2, 6, 6, was the founder and legislator of Pennsylvania. My 2, 1, 2, 2, was the inventor of the Dead Weight Dumb alphabet. My 3, 8, 2, is a name of a plant. "4, 8, 1, 2" is an adjective. "5, 3, 5, 9," is the classic name for the rainbow. "6," is a letter. "7, 2, 2," is an insect. "8," is a letter. "9, 1, 8, 3," is used for gentlemen in riding. "10, 2, 4, 6, 5," was one of the most eminent Italian poets. "11, 6, 6, 5, 8, 9," was an early Latin poet. "12, 3, 4," is a verb. My whole was a distinguished lawyer, and formerly one of the Board of Directors of the Dumb and the Blind. GOSLIP.

Answer to Enigma in last week's paper.—REAL ZIGZAG TAYLOR.