

drum membrane is peculiarly liable to laceration. Other injuries may also result to the delicate organ. Every professional man, Dr. Thomas adds, is expected to know all subjects bearing on his art; therefore, a teacher who by his violence produces an untoward result should be held guilty of more than a misadventure, as boxing on the ears is in nowise necessary to tuition, and generally indicates a loss of temper or innate cruelty, both of which are incompatible with the true functions of a teacher of the young, as would be harshness or brutality on the part of a doctor.

Pure Air.—Pure air is an essential of pure blood. Pure blood makes stout nerves; consequently pure air which makes the good blood is an essential of the nervous system. Good nerves insure good digestion, therefore pure air, which through the blood makes the nerves good, is an essential of the digestive functions. Good digestion makes good blood, which brings us to our starting-point, and proves that pure air is the first element in animal existence. From the cradle to the grave we breathe every moment, during working and sleeping hours. Pure living air, therefore, we require every instant. Bad air is a blood poisoner. Air once passed through the lungs is poisonous. It is not only deprived of its living and life-giving constituents, but it is loaded with impurities, especially when expired by unhealthy subjects. Fever malaria comes always from poisoned air. There may be no worse poison than the poison emanating from the skins and lungs of a mass of human beings. If, therefore, you would escape "blood-poisoning," have constant free ventilation.

To Render Corks Air and Water Tight.—The *Chem. Zeitung* suggests the use of paraffine as the best method of making porous corks gas and water tight. Allow the corks to remain for about five minutes beneath the surface of melted paraffine in a suitable vessel, the corks being held down either by a perforated lid, wire screen, or similar device. Corks thus prepared can be easily cut and bored, have a perfectly smooth exterior, may be introduced and removed from the neck of a flask with ease, and make a perfect seal. The method has long been in use in English laboratories.

Paris Letter.

RESTAURANTS IN GENERAL AND RESTAURANTS IN PARTICULAR—HOW THE FRENCH EAT TO LIVE AND LIVE TO EAT.

WHEN I first arrived in Paris, I took up quarters at a hotel where English was spoken, and until about a month ago continued to reside there, when I bethought myself that I might gain much more information of the customs of the people by living in the way the greater majority of them live, namely, by taking apartments and eating at the restaurants. The more so was I anxious to do this as I had heard that Paris was the cradle of high culinary art, and as yet this cradle had seemed rather empty to me. Immediately sought out a *logement de garçon* (a small apartment for a single gentleman), and proceeded to be lonesome and eat.

I had tried this sort of thing only a few days when I concluded that I was never intended to live alone, for I found my own company rather monotonous; so I decided to gain all the information of French restaurants possible in a month, and after that endeavor to find a congenial French family in which to board, as business detains me in Paris.

It will be best to explain that the French daily meals consist of coffee, or chocolate, and a roll early in the morning; *déjeuner* (breakfast), from 11 A.M. to 1 P.M., and dinner from 5 until 7 P.M.

The first thing that I noticed upon commencing this sort of life was the immense numbers who live in this way. I have since been informed that probably one-third of the Parisians take their meals in restaurants, and upon almost every block you can find some kind of eating-house. This idea of taking nothing but bread and coffee in the morning may be all very nice in theory, and beneficial to the health, but at first it is apt to remind an American of the horse whom his master was trying to teach to live on shavings, and just as he got him well taught, "the contrary critter up and died." However, I have survived the effort, and am getting so that I rather like it; perhaps it is because I have discovered the real Parisian style of doing it. At first I was inclined to be rather "high-toned," and went to one of the large restaurants on the Boulevard for my coffee, but I soon noticed that I was not following the steps of the masses, and was paying thirty cents, plus the inevitable *pourboire* (drink money), which in this case is two cents for one cup of coffee and a penny roll. I therefore watched for the place where the larger numbers frequented, and found that the *crémeries* were always full in the morning, and many of them frequented by a good class of people. Here I got twice as much coffee and roll for six cents.

In ordering coffee in Paris at different times of the day, the same command brings different sized cups. In the morning, "café" means a large cup with milk and a roll, but "café, s'il vous plaît," in the afternoon, produces a very small cup of café noir (coffee without milk). If one wishes a glass of coffee, he orders a *Mazagran*.

Why "Mazagran?"

Nobody knows exactly, but the most plausible story of its origin that I have heard, is that it was first drunk by French officers at a place of that name in Africa, and that they imported the habit of taking their coffee in a glass to France, where the habit took immensely, for the French people found that they got twice as much in the glass as they did in the *demi-tasse*, for the same money.

One would have thought that the masters of the *cafés* would have set their faces against the habit, but Frenchmen never go against the whims of their customers. When the habit spread, they simply had the glasses made thicker and smaller, and they have gone on steadily growing smaller and thicker every year, until you scarcely get more in the glass than you do in the *demi-tasse*.

But now that the morning coffee is disposed of, it becomes a more serious task when *déjeuner* and dinner are to be thought of. If you should tell me to go to the best restaurant in Paris, I would answer it would be an impertinence on my part to say which is the best. There are many here which consider themselves first, each of which is quite unwilling to give up its place to the other; but if you should say, then commence at the lowest and gradually ascend, I would absolutely refuse to do this, for I can say which is the most wretched, and would rather be excused from taking my luck there. When I say this, I speak advisedly. The place is known as "*Hasard de la Fourchette*," deriving its name from the peculiarity of the establishment, which is, that each person is entitled, after paying his *sou* (one cent), to take his portion with a large fork from a huge pot or caldron in the center of the room, in which sundry victuals are stewing. The "*Hasard*" consists in the chance of his fishing up nothing. If, however, he is rewarded (it may be with a head of some kind), he blesses his stars and eats—as much as he can. He has indeed been lucky that day, it is not every time that the fork brings up such luxuries.

Nor would I care to go to the stall in the Central Market, which is kept for the purpose of buying and selling the refuse from the tables of the

rich. In many of the large houses, all that comes from the table belongs to the chief cook, who takes it to this stall, and disposes of it at quite a good price, to be resold.

Yet it is well not to be rash in selecting a saloon, for one must consider the depths of his purse, especially here where prices are so different. If the purse is deep, go to the "*Maison Dorée*;" not that it is the best, but it is so thoroughly national; all is light, all is life, all is French. But here you must dine many times before you will dine well. By degrees the *premier garçon* will become aware of your presence, and he will say: "Ah! *Monsieur*!" has become one of ours, and then—. It is difficult to express this *then*, it needs to be tasted. To attain this height at once, go there with an *habitué*, let him order for you, and be happy. But this cannot be an every-day luxury, it is too expensive. It is a general custom here for two to dine together, ordering only for one, as in all the first-class restaurants the portion is always sufficiently large for two and sometimes for three.

Nearly all the restaurants are noted for some particular dish, but the one which seems to me most deservedly so, is Marguery's, where the sole is cooked to perfection, and dressed with a sauce of snails. With this on one side of me, and a salad (made of all the vegetables mixed together, and mixed as only the French know how to mix them) on the other, I am somewhat in the condition of a donkey I once saw pictured in *Punch*. The grass had been cut and made up into two little hills, and between the hills stood the donkey, and he hesitated—oh! how he hesitated—unable to decide which he should begin at first.

Even in the less pretentious restaurants you will generally find the cuisine good. The "*Établissements du Bouillon*" are restaurants of a peculiar kind, founded originally by a butcher named Duval. The rooms are always clean, and sometimes very handsomely fitted up. The guests are waited on by women, soberly dressed. Each guest, on entering, is furnished with a card on which the account is afterward written. The napkin is charged for 1 cent, soup 6 cents, fish and meats from 6 to 15 cents, vegetables 10 cents, etc. The portions, however, are always small, so you are obliged to order several courses.

In all the French saloons, when dessert is spoken of, it means generally cheese and fruit—for our delicious pies and puddings are an unknown luxury to them. Pudding they even have no name for in French, so are obliged to say in plain English, pudding: but it is amusing to see the conglomeration they get up and call "plum pudding." As imitators in cookery they are a failure. I would advise them always to stick to their native dishes. If this was otherwise, I would endeavor to explain an oyster stew or a fry to them, with the hope of again tasting of these dishes as I have eaten them in New York. And last summer how I longed for one or two ears of green corn, and longed in vain.

There are, of course, many things we are accustomed to eat in America that are unknown to them here, but there is at least one thing we might learn of the people in relation to eating, and that is the manner of doing it. You never find a Frenchman swallowing down his meals hurriedly, as is the custom with us, and hence indigestion is an unknown complaint with them. They are certainly a people who live to eat, and do not seem to eat to live. Their restaurants are their most attractive places, and they do not care to be cooped up inside by themselves, but when the weather permits, set their tables on the sidewalk. At first I used to go inside, being more accustomed to taking my meals under cover, but by degrees I am becoming French in my habits, and this one, at least, of taking one's meals out of doors, is not a very bad one.

H. C. D.

Cornelia, the Mother of the Gracchi.

(See Steel Engraving from Statuary.)

EVERY one has read the incident in Roman history, which, whether fact or fable, points a moral, good for all time, and in every nation. It records the pride with which a noble Roman matron, when other noble ladies exhibited their jewels, pointed to her young sons, and said, "These are my jewels."

Such an act seems simple enough, but it needed a woman of lofty, truthful, and noble mind to separate herself from the frivolities of the world about her, and consider the human lives for which she held herself responsible, as of more worth than the richest ornaments, trophies of hate, or tokens of love, that other women had to show.

The magnificently sculptured group which we reproduce gives a grand reality to the elevated ideal which has come down to us. Nothing can be finer than the majestic figure of Cornelia, in all its plenitude of matronly proportion, crowned with the dignity and gracious serenity of wife, mother, queen.

The children are models of youthful grace and beauty, and well justify the triumph which filled the maternal heart.

As a copy of the famous original work, it is most truthful, and could hardly be surpassed. As an addition to the gallery of celebrated subjects which we have furnished to our readers it will certainly be highly prized.

Sources of Happiness.

It is worth while to stop and think occasionally how limited our sources of happiness are, and how necessary it is to cultivate those that we have, in order to save ourselves from utter stagnation and indifference to life.

Apart from the cultivation of the taste and the intellect, for which the majority have little time or means, the principal sources of happiness are found in family and friends. In cities the beauties of nature are excluded by bricks and mortar; sunshine or storm makes little difference to those who take their daily exercise in a street car, and see life only out of its window, from the inside of a shop, or the perch of a desk in an office.

Still, human nature hungers for something reviving, cheering, stimulating, and encouraging, and almost the only way it can be obtained is within the home-circle, in the society of friends, and the cultivation of the ties of kindred. It is very important to us, therefore, to multiply these sources, and above all things to assist in making our own homes as attractive as possible, so that the restless young mind will not find it necessary to go outside for enjoyment.

Once it gets outside there is no possibility of controlling the influences with which it is brought in contact. But if, on the contrary, we bring the outside world into our homes, we are in a position to guard against what is injurious and false.

It is wise, therefore, for parents to cultivate a social life at home to the extent of their means, have nothing that is too good to use, nor that their family and friends may not share. Use a little self-denial if need be in order to create a bright and cheerful social atmosphere, and make their children acquainted with the intelligent and cultivated as far as it is practicable.

It is a far better investment for men to put money in their own homes, in their enlargement, in adding to their comfort, in a wise and bountiful provision for their necessities than in adding to their land, or in speculative crazes, which in ninety-nine cases out of a hundred, come to grief and leave the victim poor, soured, hard, and unwilling to visit upon those he is bound to protect, the

hardships which he has created for himself. The best things we get out of life are self-development, the cultivation of our own faculties, and their exercise in companionship with and for the good of others. In neglecting these things for visionary wealth, we repeat the old folly, and sell, not only our own birth-right, but that of others, for only a prospective mess of pottage.

Cupids Sharpening their Arrows.

(See Oil Picture.)

THE Borghese Gallery which contains this Corregio, is considered one of the finest collections of pictures in Rome. It contains eight hundred, the three most celebrated of which are Raphael's Entombment of Christ, Domenichino's Sybil, and Titian's Love. They occupy twelve rooms in the Borghese Palace, and Mrs. Hawthorne in her diary of travel states that she looked at them all. Of course she could only allude to the Corregio.

The gallery and all the rooms in the Palace are richly inlaid with marbles.

The building stands on a hill commanding a fine view of Rome.

The Borghese villa is four miles in circumference, and with its gardens, which are open to the public, its statues and fountains, it is deemed worthy of comparison with the famous villa of Sallust. The original of the chromo is mentioned in Burkhardt's Handbook of Italian Art.

As for Corregio himself he was classed as one of the four great painters, and considered the founder of the school of Parma, sometimes called the Lombard school.

The marked feature of this school was excellence in fore-shortening, as delineation of nerves was the characteristic of the Florence school.

As Titian was the great color painter, so Corregio stood first in chiaroscuro.

His real name was Antonio Allegri, but he was called Corregio from the place where he was born in 1534.

It was for some time supposed that his parents were poor, but it is now generally admitted that his father was a tradesman in comfortable circumstances.

Corregio's greatest work was the decoration of the dome of the Cathedral of Parma, known as "The Assumption of the Virgin," who is soaring to heaven while Christ descends to meet her. The cartoons of this work were discovered thirty or forty years ago in a garret in Parma. We can imagine the pleasure of finding them after so long a time. They are now in the British Museum.

Corregio was particularly celebrated for his children and the flesh-like tint imparted to them. This Mr. Ruskin, the art-critic, finds fault with. The painter married at twenty-five, and lived to the age of forty-one, leaving a son of twelve years of age and a daughter.

The son, Pompónio Allegri, afterwards became a painter, but not of much note. Corregio left many celebrated works.

The Dresden Gallery contains six, one of which is the famous "Notte," another the still more famous "Magdalen Reading the Scriptures," which the King of Poland kept under lock and key. There are five of his pictures in the National Gallery, London, two in the Louvre, and three in the Naples Collection, beside many others.

EDITH D. SOMNER.

Paris Letter.

I THINK I must have been born under a lucky star, for I have at last found what so many look for in vain, "a private French family," where I am received as a friend and boarder. I was somewhat surprised, at first, that this family would

consent to admit a young gentleman in their midst, as two of its members are young ladies of a marriageable age; but my being an American broke down this seemingly unsurmountable barrier, and the remarks of *le père de la famille* upon my introduction to him accounted more fully for my kindly reception. He said: "We have a son who, in a few years, as soon as he has finished his education, I shall wish to send on a visit to America, and I am anxious that through you our families may become acquainted, and be of mutual benefit to each other. A home for you while in Paris, the same for my son while in New York."

Since taking up my abode here, I have been keeping my eyes and ears open, and am learning some very peculiar facts of these people, which a transient visitor would fail to elicit. I remember particularly my first Sunday afternoon, which is their reception day. I had been out taking a walk, and returned about four o'clock, when I found the *salon* full of visitors. Of course when I entered I expected an introduction; but not so. *La mère* as also the daughters, arose to receive me, and that was all. No introductions took place. I was at a loss to account for this, and feeling ill at ease, found a seat in a corner and prepared to be neglected; but I soon found my mistake, for the lady next me immediately opened a conversation with me, and soon I was drawn into the general discussion on Republicanism. On this subject these *dames* differed considerably in opinion, the majority being in its favor. All, however, owned that if France was really a Republic like the United States they could better brook it, but the half-way business is what they deprecated.

From a comparison of the two countries in this respect, the conversation gradually drifted into comparing the people of both nations. The young ladies thought it really too bad that they should always be tied to their mothers' apron-strings, while their American sisters were allowed such freedom.

"Why should not we," they said, "be allowed to take a short walk alone like we see them doing every day in our own streets?"

"Ah!" answered a fond mother, "you forget that these young ladies have been brought up among honorable men, and not among these profligate Frenchmen."

Surely, I thought, this lady cannot be French to express so openly such sentiments against her countrymen, but what was my surprise when all acceded to this opinion. Was I then in France, or was I dreaming? I looked around for an explanation, and received it in this wise:

"*Monsieur*, you must remember that Frenchmen are not what they once were. The first Napoleon robbed us of our *men*, and we now have a nation of dwarfs, both in stature and mind, and possessing as little liberality. Of course you must understand that there are grand exceptions to this rule, but they are few and far between. We French women marry for freedom, not for love, and being married, regret it so fully that if the divorce law existed in France the same as in America, nine-tenths of us would take advantage of it. For what do our husbands marry us but our dowry? Be we ever so pretty and accomplished it goes for nothing if we are minus our dowry. Be we even deformed, if our dowry is large what difference makes the wife? She is no companion, but only a means to retrieve the fortune of a man after he is about forty, he having wasted that left him by his father. I have been both pleased and surprised," said this lady, "in conversing with American gentlemen, for after but a few words of conversation they almost invariably show you the pictures of their wife and children, which they always carry about them. Compare this with men of Paris. When *away* from home they are always unmarried, and when at home they are married too much, and

to forget it, leave their families and seek amusement elsewhere. Why should we not be afraid of our daughters, with such men to deal with?" Now notwithstanding this entirely coincided with my own observations, still I am afraid I would not have been at liberty to express it so freely as did this lady.

It has often appeared to me that the reins are held too tightly on these daughters, sometimes even to a ridiculous point. For example, not long since I attended a *soirée* where there were two *salons* to dance in, the door between them being rather small. In this door an immensely fat lady was continually getting jammed. I remarked to a friend, "Can't we contrive to get this lump of humanity out of our way?" "I doubt it," said he, "and to prove it will introduce you to the young lady now sitting beside her, who is quite a good waltzer, having learned the American style." Hearing this, I was in hopes of having at last one good dance, and was promised the next waltz. It seemed to me this fat individual was more in our way than ever, and having encountered her several times in the door, I made the remark to my companion that it was getting slightly monotonous.

"Yes," said she, "it is my mother; she always acts like that. I wish I could tire her out for once." To this task we immediately set ourselves, but in vain; each time we passed through that door *la mère* would follow, never letting her daughter be out of her sight for an instant. Of course this was an exaggerated case, and served to furnish amusement for all present; but still the same principle is always carried out, only somewhat modified. In fact I was really surprised the other day at being left in the parlor alone with one of the daughters for fully five minutes. I conclude I must be growing in favor with the old folks.

I imagine it must be very expensive for a young man to pay his attentions to a young lady here, for every time he is inclined to visit a place of amusement with the object of his affection, mamma must always be counted in, and often other members of the family.

Speaking of places of amusement reminds me of what I saw at a theater I visited a few days since, at which they were playing "*Around the World in Eighty Days*." One can comprehend, after seeing this piece as put on the stage in Paris, where the foreigners get such erroneous ideas of America. Imagine an American dressed in a habit consisting of full pants, extending a little below the knees, met by high gaiters, and in these a knife stuck; the coat, a long blouse, belted in at the waist, and each side ornamented with a revolver of immense size! Add to this, that the man who took the character weighed at least 250 pounds, and you have the typical American as represented in one of the first-class theaters of Paris. At the arrival in each country, the orchestra was supposed to play the national air of that country, but what was my surprise when they struck up for that of America—the *fisher's horn-pipe*!!!

What with the cars being stopped on the plains by Indians, the passengers carried off, etc., one would be led to believe that America was anything but an enviable country in which to live, and that it had this effect upon the audience was evident, for from several I heard the remark "*quel pays!*"

How I shall long, and long in vain, to be in America for the holidays, for here very little is made of Christmas, it being no more than any of the numerous saint days that occur during the year, and New Year's day is not much better.

However, on the latter day, there is one custom in France which many might wish was in vogue in the United States. The young ladies are allowed to receive boxes of *bombons* from their gentleman friends, and in return therefor allow themselves, though of course with much reluctance (?) to be kissed.



Science in Every-Day Life.

BY MRS. SARAH BRIDGES STEBBINS.

SCIENCE is from the Latin word *scientia*, derived from *scire*, to know; in philosophy, a clear and certain knowledge of anything founded on self-evident principles or demonstration. In this sense, doubting is opposed to science, and opinion is between the two. Science more particularly indicates a formed system of any branch of knowledge, comprehending the doctrine, reason, and theory of the thing, without immediate application of it to any of the uses or offices of life. It should not, therefore, be confounded, as it often is, with art, which is really the practical application of science, derived from a Greek word signifying "utility," and defined by Bacon as a proper disposition of the things of nature by human thought and experience, so as to make them answer the uses and designs of mankind; as, for instance, all mechanics are arts, being the reduction of the science of statics into practice.

In the eighth century the whole circle of the sciences were illustrated by the seven "liberal arts," as they were called: viz., Grammar, Rhetoric, Logic, Arithmetic, Music, Geometry, and Astronomy. Now the branches of knowledge, under the titles of Science, Celestial, Terrestrial, Psychological, and Physical, have so greatly increased, that if we have an educated discernment, we can perceive a science behind almost everything that surrounds, everything that we use or enjoy; and in every direction an augmented knowledge of underlying and proved facts will add to the usefulness, the advantage, the happiness of the human race.

It is hardly possible to estimate the enormous advance in civilization made by modern cultivation of science, and imagination is powerless to penetrate the illimitable resources of future development to be contributed by the unguessed discoveries of untiring research, and the gradual unfolding of indisputable laws, for all science, rendered serviceable by its handmaids, invention, art, and manufacture, will, at some time, sooner or later, be employed for the benefit of mankind, whether actively or intellectually; so that scientific inquiry is important, whether at first its profitableness be ascertained or not; and it is almost always some small and isolated beginning which has conducted, through long and patient investigation, to inestimable and splendid results, as for instance, that the observation of a dead frog's legs jumping when touched by two different metals, should have led to the discovery of the electric telegraph, and that the chemical compound of chloroform, scarcely known a few years ago but to a few scientific chemists, should have become, through careful experimenting, the greatest boon bestowed on suffering humanity.

No finer illustration of the power with which science draws her votaries step by step on the path of correlating knowledge can be presented than by a condensed relation of the invaluable and suggestive services of Pasteur, the French originator of the germ theory of disease, which has already occasioned great changes and improvements in hospital treatment. From 1850 to 1865 the silk-worm plague swept over France, reducing the silk product from 130,000,000 francs in value to less than 30,000,000 francs, thus occasioning a loss of 100,000,000 francs in the year 1865. Pasteur was called upon to investigate this disease, which had proved so terrible a blight to one of

the principal industries of the country, and he arrived at the conclusion that the malady was caused by a minute animalcule or "germ," and pointed out the means of preventing its spread. The resemblance of this curious epidemic to those of the human system induced him to institute further research in that direction, and a new view of the origin of these disorders has been taken, and new measures adopted to control their dissemination; and by this light also, a different treatment of fractures was devised, as it was experimentally ascertained that inflammation and other symptoms were produced by germs in the atmosphere, so that by the exclusion of air, and application of carbolic acid, recovery was hastened and rendered more certain, while amputation in countless cases was thus rendered unnecessary. Continuing his investigations of the germ theory, as applied to fermentation, Pasteur indicated the remedy for diseases, if they may be so called, of beer and wine, and thus saved a vast revenue, heretofore lost, especially to Germany; and in other useful directions connected with every-day life, this indefatigable savant has made the same application with valuable effects.

How little the uninformed realize that it is science which has yielded them the greatest pleasures of their gratified senses; and how almost incomprehensible it seems that in chemistry, the youngest of the sciences and which has worked almost incredible change and progress in the arts which have availed themselves of its assistance, the great fundamental discoveries upon which it and the other sciences based upon it rest, were made only one hundred years ago; and to chemistry we now owe innumerable daily benefits, such as the preservation of food, the delight in colors, the enjoyment of perfumes; and these last two, in their most exquisite perfection, produced by this wonderful agent which disdains nothing, from so repulsive and unlikely a source as pitch and coal tar; for the chemistry of colors, dyes, and pigments has become one of the most important of arts; and though it is scarcely fifteen years since the aniline colors were first discovered, their manufacture and use have become so immense that the area of European empire would scarcely suffice to supply the deficiency if it should have to be made good from the vegetable kingdom. Among these, some celebrated chemists have succeeded in preparing artificially from coal tar products the dye called alizarine, which was originally the principle of madder, and should the fabrication of this article prove a success, thousands of acres of land in Alsatia, now devoted to the cultivation of madder, would be restored to agriculture, and new crops would have to be introduced. It is thus that a simple experiment in a laboratory can affect the destiny of whole provinces, and divert into different channels the capital long invested in important enterprises. Chemistry has even, by a recently discovered process, utilized old boots and shoes, by making a good article of glue of them; and we scarcely care to be reminded how old bones become converted into calf's-foot jelly; and other refuse, which must formerly have been the despair of housekeepers and street-cleaning contractors, has been transmuted into similar marvelous transformations, for chemistry is the true magician, before whom Pharaoh's wise men of Egypt would be totally abashed, since by no manner of means could they in their day do likewise; though from a certain sudden diffusion of insect life, it seems likely that Moses must have understood spontaneous generation better than the disputing doctors of the present time.

But already well-known volumes have been filled with histories of the services of science to common life, and her valuable journals are distributing in comprehensible form the acquisitions and results obtained by slow and patient methods

QUESTIONS.

"COR. CLASS :—How can I paint magic lantern slides?
ANNA H."

"COR. CLASS :—How is etching done on glass ware of all kinds?
DRUGGIST."

"COR. CLASS :—How to size or varnish small chromos. Can it be done with Dammar varnish and common brushes?
J. E. B."

"COR. CLASS :—How is painting on velvet done?
"ARTIST."

Paris Letter.

THERE is, perhaps, no people in the world more patriotic than the French, and, among that people, none who love their native city as the Parisian loves Paris. Paris, the city of pleasure, has been made, I believe, for that class of Frenchmen who are distinguished for their frank and inexhaustible gaiety, their carelessness, their natural vivacity, and the acuteness of their wit and feelings. I cannot tell if Paris would be itself without the Parisians; but I think the Parisians could not live without their city. They love its paved streets, and even its horizon, which is narrowed by the height of the houses; they love its heavy and sometimes deleterious atmosphere, each monument, each edifice, just as others love a blue sky, vast horizon, pure air, verdure, flowers, birds, etc.; and the sort of fascination which the *grande ville* exercises upon its children is ever an enigma even to a Frenchman (from the provinces, of course), and can still less be understood by us Americans, whom they call the "*éternels voyageurs*." Therefore, we must be contented to state it without trying to explain.

Yet no true Parisian would think himself worthy of that title if he did not indulge in some disloyalty to his good city and leave it, at least for a few days during the year. The season is now approaching when those in favor with fortune will repair to the sea shores, or mountains; but the workers, who are attached to their labors, and the ancient bondman was to his glebe, must and also will have their *parties de plaisir*. There are very few who will not go to spend the Sundays in summer *à la campagne*. For that purpose the father will toil during the whole week, while the mother economizes, and on Sunday morning, the whole family, dressed in fresh clothing, will start on their excursion, as careless and joyous as birds, to spend nearly the whole product of six days of labor, forgetting the hardness of fate in the pleasure of the moment.

The environs of Paris, which, for several miles around, are pompously called *campagne*—whereas they really are only the countrified suburbs of the great city, with a larger horizon, a little more space, sun, light, and trees—become the pleasure-ground of the French people during the summer. Sometimes at one place, sometimes at another, during the whole season, *fêtes* follow *fêtes* without interruption, and nothing which can allure the people and tempt them to spend their money is missing. You can see, ranged closely in a line from one to two miles long, temporary buildings for the exhibition of ferocious beasts or of marvelous animals which waltz, dance on their hind feet, play dominoes, and beat the *tambourin* with their fore-feet; awnings shading those who sell *bonnons*, cakes, gingerbread, lemonade or *jouets* of every kind; hobby-horses; wheels of fortune; *jeux de roulette*; stages for showmen, jugglers, acrobats, *bateleurs* with their *tours de passe-passe*, fortune-tellers, etc.; games of all sorts, among which are pistol-shooting and archery; immense tents sheltering singers, or numerous dancers, etc., etc. Each show-man finds his separate group of admirers without much trouble, and

without breaking the broad line of human beings that glides like a sweeping wave, and carries you along in its windings. Great is the delight of most of the bystanders, loud their laughter, and witty and sarcastic their jests. All this, mingled with the sounds of musical instruments, the beating of drums, pistol reports, shouts of the winners, and yells of wild animals, produces a hubbub which, though it seems to be the natural element of the Parisian, yet is a little disconcerting to the *provincial*, and quite bewildering to the foreigner, the more so if he be an easy-going American whose pastimes are of a more calm character. Here the least crowd is always boisterous. The turbulent spirit of the Parisians will not permit them to remain silent; they must talk and jest, even on occasions of the greatest gravity.

After gliding through the throng and doing your utmost to keep all your limbs unimpaired, you at last arrive at a comparatively more quiet quarter of the grounds. You see immense tents, under which you venture, and find hundreds of people, men and women, seated on stationary chairs or benches placed in rows, and separated by small tables, with so little space between them that one is obliged to squeeze into a seat. On each table are glasses, containing whatever beverage each one has chosen to ask for, and at the farther end of the tent is a lofty stage, upon which singers, of both sexes, do their utmost to affect the mien of favorite actors, and entertain their audience, who do not always grant them much attention, but, nevertheless, applaud boisterously. Among the crowd you may see some who do not join in the noise, but only communicate, with a calm smile upon their lips, some remark to their neighbors: these, like yourself, have come there only to observe, and it is not a rare thing to recognize among the latter some of the most popular writers of the day.

The coming of night does not interrupt the revel, but, on the contrary, brings to it a new element. Even the *bourgeois* does not then disdain to mingle with the multitude and participate in the *divertissements*. Fireworks, games, and races on the river, by *canotiers* (rowers) in splendid dresses; lively music, *retraites au flambeau*, etc., occupy a good part of the night, after which each one thinks of *regagner le logis*. Now is the turn of the *bateaux-mouches*, omnibuses, and street-cars, the latter called *trampways*. All these conveyances generally do their service until midnight; but a large majority of the spectators postpone their departure till the last minute, thinking that many will have been wise enough to go first, and, as in a crowd, every one is apt to show himself a true "*mouton de Panurge*," the result is that, at the last hour, the station office is unapproachable. In America, the largest crowd would soon be cleared off; but here, where the conveyance is methodically arranged, and the conductor may only admit a limited number of passengers that can be accommodated in the seats, it is different. Travelers are not stowed away as in our American cars (an improvement on our system which is most enviable); but each one must enter the station office and there receive a ticket with a number printed upon it. These tickets are numbered consecutively, and on the arrival of the car or omnibus, the conductor calls out as many numbers as there are vacant seats. This lasts for hours, as the vehicles are in many cases nearly occupied when they arrive, and this gives a splendid occasion for more laughter and *quolibets*. At last comes midnight, and with it the last conveyance. No order then is kept; seats are assaulted, and very little deference is paid to ladies; and the last resort is to use *floures*, whose *cochers* are not to be trusted too implicitly—they being usually, at that time of night, exhausted with fatigue and wine.



Cleanliness.

BY JENNY BURR.

THERE are clean people and clean people in the world. Even in the ranks of respectability the standard of cleanliness is a very adjustable one. What woman who has two house-cleanings a year, does not regard with suspicion her neighbor who has only one? And that pink of neatness, who scours, and whitewashes, and airs her apartments regularly with the four changes of the seasons looks upon them both as comparative heathen.

One lady instructs her servants to use separate waters in washing the different sets of dishes; one for the soup-plates, another for the meat-dishes, and so on, while another smiles at such a finical absurdity. She cannot taste the difference; yet she is clean.

A family in New York, living on a down-town street, and opposite livery stables at that, were so fastidiously neat that the faintest suspicion of a spot on the table-cloth would not be tolerated. It might have been superbly laundried, and used but once, yet that one little spot banished it from the table. Never could they live in the same world with people who change their table-linen only once a week!

Then as to little personal habits, what a variety of usage prevails among clean people! One man takes a full bath every day, while another considers two or three a week sufficient, and he may even confine himself to one, and feel that he has not sacrificed his title to cleanliness. What a distance lies between the lady whose linen is always white as snow, whose hair is pure and soft with frequent washing, whose finger-nails show delicate and constant attention, whose laces are absolutely fresh, and whose skirts never touch the streets: what a distance between her and her next-door neighbor who cleans her teeth but once a day, who wears a soiled collar, and whose garments trail freely over the pavement! But they have similar tastes, and move in the same society.

The down-town family above mentioned, in the matter of the table-cloth at least, used the eye in judging of what was clean. They carried their cleanliness into the region of esthetics. For people in general, a better and truer test would be the nose. This organ is not as much consulted as it should be by people who wish to be clean. Properly cultivated, it is an infallible guide. A lady, whose sense of smell was suspended during an attack of hay fever, said, "Usually, I know everything that goes on in the house by my nose. It tells the whole condition of things. Now I am lost and ignorant. A part of the world seems to have fallen out."

The dullest nostril perceives the difference between a house freshly aired, and one shut up for hours; but who does not feel brighter and more buoyant after a room has been swept, dusted, and renovated generally, than before it was done? And it is the nose and the lungs which rejoice in the change, quite as much as the eye. That sense of purity and freshness which a new, unused house conveys is not an imaginary sense. There is a difference between it and the most thoroughly-cleaned house which has been lived in for years. If it were possible to preserve in houses the untainted, delicious freshness of the out-doors, the

ending. If, in George Sand, spiritual culture had kept pace with mental culture, if her aspiration toward things high, holy and ennobling, had equaled her worldly ambition, those declining years, so full of sadness and unrest, might have been the serene, starry evening that succeeds the toilsome, heated day, and death would have come to her as an angel of love, rather than a messenger of fear.

Those to whom God gives transcendent powers must accept with them a greater measure of responsibility. George Sand could not say in dying, that she had written no line she would wish to blot. Her works have left their impress upon their generation; it is no transient impress, it will remain for generations yet to come, an influence for good or evil upon the minds of men. Her word-paintings will live when many a masterpiece that now gazes down upon us from the breathing canvas is forgotten; her ideal creations, sculptured from the purest prose language offered, will endure when even the solid marble crumbles into dust. But is the world better or happier for her having lived in it?

Paris Letter.

PARIS. SNOW. Certainly these two words seem hardly to suit each other, and yet during the last few days they have been mentioned often in conjunction. We have not, as usual, simply seen a whitish tinge upon the house-tops, but have really been blessed (?) with real snow several inches deep. It has been amusing to watch many a good woman, standing with arms akimbo, shovel and broom at hand, undecided how to begin clearing a path. For this is no yearly occurrence; not since 1871 have they been visited by such a downfall, and this recalls to their minds reminiscences of that terrible year, and stories still more terrible arise in their imagination, and are told with a volubility that would puzzle many an adept shorthand writer to note. Within the last few years they have had cold snaps, but not so much snow as now. I remember one winter, in particular, of which they never tire of telling you. On the first evening of January of that year, the theaters were crowded, but when the people were ready to go home, they found the streets covered with ice, so that it was impossible to walk. All the coachmen were obliged to take their horses from their carriages and leave them in the street, and many persons, who found it impossible to proceed, remained in these all night, or found shelter in the deserted omnibuses, whose conductors had detached their horses, and were trying to get them to their stables without accident. This, however, was a difficult task, which was proven by the shops for selling horse flesh being overstocked the following day. Many persons were obliged to crawl, and numbers only reached their homes by removing their shoes, and depending on their stockings to keep them from falling. Now, however, this is all prevented by the snow, but travel has been very difficult. Stages, in spite of extra horses and strong adjectives of drivers, have often been blocked, and the horse cars have been really a novel sight, with eight horses attached—for they have no snow-plows here. The occupants seem to be the only ones who enjoy it, and salute each entering acquaintance with "*Eh bien! Voilà la neige!*" which exclamation sounds very much like "Would you have thought it possible?"

In entering the busy parts of Paris, you are struck by a novel sensation. The usual rattle of wheels has altogether ceased, and carriages and carts glide through the street, putting you much more in mind of the ghost in Hamlet than they can do at home, where we are used to this sort of

thing. Everything seems hushed; even the unceasing prattle of the Parisian is subdued.

Walking up the *Avenue de l'Opéra*, you behold a pretty sight. The morning is now somewhat advanced, a faint ray of sun has brightened for a moment the somber atmosphere, and before you, at the extremity of the avenue, appears the Opera House, with its golden statues reflecting the sunlight that has given to those parts covered with snow a delicate pink hue. But alas! as the day advances, what a change takes place! The immaculate whiteness is replaced by a grayish substance, half water and mud, through which you have to paddle your way as best you can. Fortunately, you are not long before having some hopes that things will soon improve. In almost every street appears a small army of improvised scavengers, recruited from unemployed working-men. They set to work with a will, and before long the crossings are cleared, and then they commence on the sidewalks, for in Paris these are considered as belonging to the public, and therefore it is the place of the public to keep them clean. One and all are of the opinion that the Government should take such measures as would prevent the citizen deriving any inconvenience from an occasional snow-storm. It is surprising they should complain, when there are so many employed to keep the city clean. The last fall may have been a little too strong for the municipality; nevertheless, as a rule, Paris is very well prepared to deal with such phenomena. In fact, a whole army of sweepers are employed—25,000 in ordinary times, and 2,000 auxiliary sweepers, who work only half a day. In exceptional cases, the street administration engages as many special hands as it thinks fit—sometimes as many as 1,500 or 2,000. The administration, therefore, disposes of some 7,000 workmen, including the heads of brigades and the inspectors. A brigade is composed of 115 men and women, for women are employed as well as men. In ordinary times, their day begins at three o'clock in the morning, and ends at four o'clock in the afternoon, and the half day at ten o'clock in the morning. The half day is paid twenty-four cents to thirty-five cents, and the supplementary hands are generally paid at the rate of six to eight cents per hour.

The grand annual fair, that I failed to mention in my last, was a great success this year. This fair, which commences at Christmas and lasts for a fortnight, is really a great affair for the young and old, rich and poor. It is the huge Paris Christmas tree. Its boughs extend from the *Madeleine* to the *Bastille*, from the Observatory to the "*Gare de l'Est*," and each of these inimitable thoroughfares are lined on either side by a string of stalls, crammed with the latest productions of Parisian ingenuity, and admired by the strangest crowd that a large city can produce. For once in the year the boulevards become the resort of all classes of society. The aristocratic lady of the *Champs-Élysées* is elbowed by the working girl from the dingiest suburbs; the swell, by the workman; the elaborately got-up son and heir by the shoeless urchin; all eager to gaze on the amazing objects displayed before them. Here is a wonderful doll, dressed in the height of fashion, there skillful acrobats, delightful tea sets, Noah's arks, with all the beasts of creation, trumpets and drums, guns and swords, glittering trinkets, laces, ribbons of all colors, sweets of all kinds, objects to satisfy all. How the venders exert themselves, as only the French can, in showing off all these wonders! How they coax good-natured fathers and kind-hearted mothers to loosen their purse-strings, and what rebuffs and back-handed slaps they give the poor waifs, who, having got too near, and having no money to spend, have to satisfy themselves by feasting their eyes! With unflinching energy will these

enticing salesmen offer their wares; until, at length, the police authorities notify them that it is time to shut up shop. Then you will hear them shout, in the highest pitch of what remains of their voice, that now is the time to buy, for they are not selling, but "*donnant tout pour rien*" (giving everything for nothing). And to some extent this is true, for, on the last day of the fair, it is sometimes remarkable the bargains one can find.

Of course during the past month the excitement has been the great lottery of the Exposition, but now it has about blown over, as all the things of value have been drawn. If you are still a holder of a ticket, it is hardly worth while to search for your number, for, if it is found among the winners, it will probably have drawn a bundle of candles, a box of toilet soap, a pound of candies, a cake, or something of the sort; and yet, even with these small prizes still out, there is some little interest left; but now nearly every one is of the opinion that those who failed to buy were the most fortunate; at any rate, the most sensible.

Yesterday I heard of one man who had drawn—with only *twenty tickets*, at one franc each—three prizes, amounting to the enormous value of eleven francs. These three prizes consisted of a broom, a bottle of wine, and a pair of baby's shoes—(report says that he is a bachelor).

Last week two soldiers drew, on a joint ticket, a piano, and, being unable to decide which should have it, sawed it in two. I have not yet heard of any particular case of lunacy on account of having drawn a great prize; but as all Paris was not long since about crazy on the subject, the particular cases were indiscernible.

Our Easter Cross.

SWEET Easter flowers
That blossomed fair
In sunny hours
So bright and rare,
To weave a cross
For us to bear—

A cross of flowers, from Flora's bowers,
Oh, never in this world of ours,
Can we be called upon to take
A sweeter burden for Christ's sake;
And as with joy this cross we bear,
Let glad rejoicing fill the air.

For angels bright
From worlds of light,
Have rolled away
The stone to-day,
And from the tomb,
Mid dust and gloom,
The Saviour stands
With upraised hands!
Ascending high
Beyond the sky,
He intercedes
For us, and pleads
That we may stand
At His right hand.

Suburban Dwelling.

THE carefully planned and commodious dwelling presented in this number, and shown by the plans and perspective, will need only to be examined to be appreciated. The interior is systematical and convenient; while the exterior is elegant and imposing. The design is a combination of the best ideas produced by architects, and is the prevailing style now in New York, New Jersey, Connecticut, and Massachusetts. The structure is of brick, with outlines of dark-colored brick. The windows and doors have sills and caps of stone moulded.