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Lines on Having the Chills and Fever.

I.

Shake—shake—shake
Thro' my spinal vertebræ,
And would I could more than mutter
The thoughts that arise in me!
Oh! well for the fisherman's lad
That he shouts with his sister at play;
For down by the sea it's not so bad—
This terrible miasmay.

II.

Chill—chill—chill,
And burn, burn, burn,
As my veins with creeping fever fill
And my liver's done to a turn.
Sweat—sweat—sweat,
I'm reaching the end at length,
Without the energy left to fret
At my swiftly oozing strength.

III.

O man of the learned terms
And double-refracting lens,
Why don't you consign these ague-germs
To a preter-perfect tense?
Why don't you flatten them out to lay
On your microscopic slides?
And we'll call you a daisy, at least to-day,
Whate'er to-morrow betides.

BOYLE DOWELL.

Louis Pasteur.*

Louis Pasteur has not had to wait for posthumous honors; already in his lifetime Fame has found him, and has proclaimed his merits. He has been fortunate in having of his family, and in his household, a Boswell—who has faithfully chronicled his labors and his achievements, and has invested the life of the patient explorer and brilliant discoverer with the charm of a romance.† Facts

* Adapted from an article in the *Irish Ecclesiastical Record*.

† *M. Pasteur, Mémoire d'un Savant par un Ignorant*—M. Valéry Radot.

are narrated stranger than fiction; full of interest, and fraught with a far-reaching and undying importance—facts which concern the happiness, the well-being and the life of men and of nations, and which draw closer the links that bind in indissoluble union all animated nature. Gifted with splendid genius, he has employed that genius with ceaseless activity, dauntless devotion, and a whole-souled enthusiasm for the benefit of mankind, and for the special glory and advantage of his country; and thus has won for himself the affection of his own countrymen and the homage of men of science in all countries. Yet, although his name is often heard mentioned with respect, his labors are not so well known as they deserve to be. His example is a noble and inspiring one; for he has won his way to distinction from an humble beginning, with nothing to rely on for advancement save his innate ability, developed to the utmost by incessant hard work, and sustained by indomitable energy, perseverance and determination. With these he has conquered his way to success, despite "low birth and iron fortune;" despite opposing ignorance and prejudice, and despite the more terrible disablement which has befallen him amidst his labors—of paralysis caught in his prolonged struggle with the Angel of Knowledge, which has crippled him like the patriarch of old, but still has left him with unclouded brain to interpret for us God's hidden laws and Providence in the Book of Nature, sealed for so many ages by God's wrath at men's transgressions.

What, then, it may be asked, is Pasteur? and what has he done to merit the title of great? He may be described as a "great investigator"; for great he is, in genius, in labor, and in achievement. Pasteur is a man of science, eager in the pursuit of knowledge, and loving it for its own sake as well as for the results it leads to. His mind, says Tyndall, "resembles a photographic plate, which is ready to accept and develop luminous impressions, sought and unsought." His life is one "of extraordinary scientific ardor and success;" he possesses "the divine power of distilling from facts their essences—of extracting from them the principles from which they flow." "Theory may change, and in-

ference may fade away, but scientific experiments endure for ever. Such durability," continues Tyndall, "belongs to the experimental researches of M. Pasteur." This is high praise, yet not too high for what Pasteur has done. From him has originated the germ theory of disease, and the anti-septic system of surgery and medicine which has already achieved the most brilliant results; he has extended his services to the brute creation, and has tracked and combated with marvellous power, patience and success, mysterious diseases which were destroying alike beast and bird and insect, and ruining the prosperity of his country. Thus has he saved man from deadly maladies, fowl and cattle from wholesale destruction, the silk-worm from extinction, the wine-trade from ruin. Last, and greatest, he has grappled with, if not yet overcome, the terrible, death-dealing monster of hydrophobia. We read in the current numbers of the daily and medical journals that people bitten by rabid dogs are being constantly sent to him for treatment. Yet Pasteur is not a physician, although neither Hippocrates nor Æsculapius, nor any of the Asclepiadæ, has ever before owned or wielded such divine power. He has just now completed his 63d year. On the façade of the little house in the Ruc des Tanneurs, in the town of Dôle, where he was born, is a plate which records, in letters of gold:

"Here was born Louis Pasteur,
December 22, 1822."

Five years ago, this tablet was erected in the presence of Pasteur, amid the applause and acclaim of his countrymen. Certainly they manage these things well in France. Pasteur's father was, in early life, a soldier; he had fought under Napoleon, and had been decorated on the battle-field before he became a tanner. From him Pasteur inherited a patriotic spirit, which prompted him, in 1871, when France lay prostrate at the feet of Prussia, to resign the diploma of Doctor, which had been conferred on him three years previously by the University of Bonn—whilst he transmitted the martial spirit to his son who, although hardly eighteen years of age, was fighting in the Army of the East. Pasteur's father and mother watched over their son with ceaseless solicitude, we are told. They were determined, whatever their own deficiencies may have been, "to make an educated man of him." Although full of talent, Louis seems to have been in his youth indolent, and prone to idleness. Fishing was his favorite pastime, and still continues to be. He showed, however, a great aptitude for drawing portraits, a dozen of which are still preserved at Arbois, and display such ability that in the opinion of some good folk there he mistook his vocation, and should have been a painter instead of a chemist—whilst, at a later period, he himself thought that he missed his vocation by diverging from the study of Chemistry and Molecular physics—in which he first acquired fame. Tyndall, nevertheless, is of opinion that he but "yielded to the natural affinities of his intellect, that he obeyed its truest impulses, and reaped its richest rewards in pursuing the line that he has chosen, and in which

his labors have rendered him one of the most conspicuous scientific figures of the age." In his twenty-first year Pasteur entered the *Ecole Normale*, having previously obtained the degree of *Bachelier ès Lettres*, and here he devoted himself with the greatest diligence to Chemistry. He thought of nothing but experiments. He often worked from five o'clock in the morning till nine in the evening at his favorite pursuit. After a time he was appointed assistant to the Professor, M. Balard, but for whose influence he would have been transferred by the Minister of Education as Professor of Physics to the Lycée of Tournon. Under Balard he studied crystallography, and therein achieved his first triumph by discovering the cause of dissymmetry in substances chemically identical—a discovery which had previously baffled the keenest intellects.

This event was of the utmost importance, for, "by a sudden turn," as Pasteur himself expresses it, it unexpectedly threw him on the subject of fermentation, and fermentation led him to the study of diseases. So engrossed was he with this inquiry that "on the very morning of his marriage," we are told, "it was necessary to go to his laboratory and remind him of the event that was to take place on that day." This discovery was the key to all that followed. The substances which formed the subject of these experiments were Tartaric and Paratartronic Acids, and their compounds which, whilst chemically identical, and having apparently the same crystalline form, were found to act differently on light—the then known Tartrate polarising to the right, whilst the Paratartrates had no such action. Pasteur discovered, by careful examination, minute facets in the right-handed Tartrate crystals—like those previously discovered by Biot in rock crystals, some of which were shown by him to be right-handed and others left-handed, although there was no apparent difference of crystalline form. Pasteur now discovered the existence of left-handed crystals of Tartaric Acid; and proved that the neutrality of the Paratartrate was due to the equal admixture of right and left-handed crystals. The Paratartrates were possessed of symmetry, in virtue of the combined presence of right and left-handed Tartrates; whilst each of the latter was shown to be dissymmetrical, the former polarising to the right, the latter to the left. Symmetry, Pasteur illustrates by the example of the human body, which is formed of corresponding parts right and left, whilst these separate unilateral parts have no such symmetry: thus the right and left hands are together symmetrical, but neither separately is so. We have now almost reached the parting of the ways, for Pasteur was not destined to waste upon Tartrates "what was meant for mankind." A German chemical manufacturer had long previously observed that impure Tartrate of Lime, dissolved in water, and contaminated or mixed with organic substances, fermented when exposed to the summer sun. Pasteur found that the right-handed tartrate of ammonia also fermented under similar conditions, owing to the growth and multiplication of a microscopic living organism, or ferment. He next

tried the Paratartrate, and found that it also fermented; but noticed that after fermentation had gone on for some time, the previously neutral solution became possessed of the power of polarising light to the left. On examination he found that all the right-handed Tartrate had disappeared from the solution, and only left-handed remained behind. Thus the equilibrium previously existing in the solution, by the union of the two kinds of crystals, had been destroyed by the removal of the right-handed crystals. The organism had fed upon the solution, and had assimilated the right-handed Tartrate, finding it more digestible than the left. This experiment, the importance of which cannot be exaggerated, was performed with the seed of common mould, *Penicillium Glaucum*, which is to be found everywhere.

This brings us to the question of fermentation. Pasteur has proved that fermentation is due to the agency of very minute living organisms, which feed on the substances formerly regarded as ferments. To their action all fermentation and all putrefaction are due. Putrefaction is, indeed, merely fermentation under another name, that smells less sweet. Thus the fermentation of sugar might be called putrefaction of sugar. There are various ferments; in fact, they are, in number, numberless. Principal amongst them, and of first industrial and commercial importance, are the Yeast-plant, or *Torula Cerevisiæ*, as it is named; and the Vinegar-plant, or *Mycoderma Aceti*. Each of these ferments, and every ferment, is special and distinct, and forms a special product as the result of its fermentation or life. Thus the yeast ferment produces alcohol, the acetic ferment, vinegar. Ferments are of one or other of two classes—*Ærobie*, and *Anærobie*; the former requiring air or oxygen for their vitality, whilst to the latter it is fatal. The yeast-plant grows best when air is freely supplied, but ceases to act as a ferment under such circumstances; whilst in the brewing vat it is cut off from the air and surrounded by carbonic acid gas. Air, on the other hand, is fatal to the Butyric ferment—which is, notwithstanding, the most widely distributed ferment in nature. This ferment was discovered by Pasteur, who showed it to be the natural heir, so to speak, to the Lactic ferment, with which it had been previously regarded as identical. Fermentation, then, is the result of the nutrition and life of a ferment, which by its vital power breaks up, disorganizes, and decomposes the substances on which it feeds. So fermentation is disintegration or decomposition; the substance acted upon is broken up into its elements. Fermentation, and therefore putrefaction, is thus a phenomenon of life—it is due to the life of a microscopic organism, vegetable or animal, capable itself of increase and of disintegration and death. For ferments die and are decomposed by other ferments that feed upon them. To quote the lines of Swift:—

“So, naturalists observe, a flea
Has smaller fleas that on him prey;
And these have smaller still to bite ’em,
And so proceed *ad infinitum*,”

“Mildew, mould, bacteria,” observes Pasteur,

“monads, two thousand of which would go to make up a millimeter, all these microscopic organisms are charged with the great work of re-establishing the equilibrium of life by giving back to it all that it has formed.” “It is life,” he adds, “that presides over this work of death.” Thus, yeast exposed to the air in summer, languishes and loses its vitality, and is attacked from without by ærobie organisms, such as the germs of mould, whilst within anærobie vibrios carry on the work of destruction. Ærobie and anærobie strive with one another, and rend one another asunder; each feeding on, and deriving its sustenance from the other, and so the cycle of life and of death goes on; forms change and perish, but life endures, flowing permanently on, building up, animating, destroying. When life departs from plant or animal, other life succeeds, myriads of lives to one, restoring ready to the Maker’s hand the material from which new forms are built up. We can now, perhaps, see what a useful and necessary function is performed by the germs of putrefaction. “If,” says Pasteur, “we could suppress their work, the surface of the globe, encumbered with organic matter, would soon become uninhabitable.”

Pasteur next proceeded to investigate the theory of Spontaneous Generation; and, by a succession of the most brilliant and conclusive experiments, proved that “there is not one circumstance known at the present day which justifies the assertion that microscopic organisms come into the world without germs or parents like themselves. Those who maintain the contrary have been the dupes of illusions and ill-conducted experiment, tainted with errors which they knew not how either to perceive or avoid. “Spontaneous Generation is,” he exclaimed, “a chimera!” He showed how the most putrescible fluids remain pure and fresh *when exposed to air from which germs have been excluded*. These germs of putrefaction are found to be more plentiful in towns than in the country; being most plentiful near human dwellings; they are more abundant in plains than on mountains, and disappear altogether from the higher regions of the atmosphere.

More interesting still, and of still greater importance to France and to science, were Pasteur’s experiments with regard to the diseases of silk-worms. The chapters dealing with the subject are the most fascinating in this fairyland of fact. For sixteen years—from 1849 to 1865—the silk trade, one of the greatest industries of France, had been threatened with extinction by a terrible plague which attacked the silk-worm, and persisted with fearful severity, in spite of every remedy that could be devised. Silk-worms were imported from abroad, but this only stayed the plague for a while. The epidemic extended; Spain and Italy were attacked; then the Islands of the Archipelago; next Greece and Turkey; lastly, Syria and the Caucasus. Of silk-producing countries, Japan alone escaped. In France the production of cocoons sank from 26,000,000 kilogrammes in 1853, to 4,000,000 in 1865, entailing a loss to the revenue of 100,000,000 francs. The country was appalled, and the entire world felt the loss. So much depends upon the

health, the digestion, the life of a worm! More, indeed, than even this, as Darwin has shown, depends upon the life of the much-despised earth-worm. Where all had failed, the splendid, comprehensive genius of Pasteur succeeded in detecting and differentiating the causes of the disease, or rather diseases, and devising a remedy. He was at first unwilling to undertake the investigation, but yielded, for the sake of friendship and of France. He was assisted and encouraged in his work by the presence and co-operation of Madame Pasteur, and his daughter, and was favored by Imperial patronage. The Emperor placed a villa near Trieste at his disposal, and subsequently nominated him a Senator—an honor which he never enjoyed, for Sedan quickly followed. Pasteur made a more princely return; for the sale of cocoons, which previously had brought no recompense, soon yielded a net profit of 26,000,000 francs! The distressed agriculturists were made glad once more by the produce of their silken "kine."

It was towards the close of this inquiry, in October 1868, that Pasteur, then forty-five years of age, was struck with paralysis of the left side, from which he yet halts, although his intellect is as bright as ever. Struck down by what was regarded as a fatal illness, he dictated to his faithful wife a last note, which was, as he intended, to be communicated to the Academy of Sciences after his death. "I regret to die," he said; "I should wish to have rendered more service to my country." Happily, his life was spared to more than realize that hope. It is remarkable that when he undertook this inquiry, he was entirely ignorant of the life-habits of the silk-worm; and was, therefore, perhaps, the better qualified for the task, which he approached with unbiased mind and calm judgment. His example is an encouragement to investigators and reformers who are sometimes taxed with incompetency or unfitness, simply because they possess no material interest in the evil which they seek to remedy. "But consider," said Pasteur, in reply to the entreaties of his master and friend, M. Dumas, "that I have never handled a silk-worm." "So much the better," replied M. Dumas; "if you know nothing about the subject, you will have no other ideas than those which come to you from your own observations." M. Radot draws charming pictures of the happy, yet anxious, every-day life of the people employed in the silk-worm culture, and M. Pasteur, in his quiet laboratory in the Cevennes, nestled amongst woods and surrounded by hills, up whose terraced sides mulberry trees grow, seeking with ardor the means of arresting the progress and preventing the recurrence of the plague which was blighting one of the greatest industries of his country. "The solitude was profound. Madame Pasteur and her daughter constituted themselves silk-worm rearers—performing their part in earnest; not only gathering the leaves of the mulberry trees, but also taking part in all the experiments. The assistants from the *Ecole Normale* were grouped around their master." Pasteur found that there were two diseases at work, instead of one, as had previously been

believed. He carefully traced the stages and progress of the diseases, discovered their causation, and pointed out the means of prevention. He showed that the diseases could be communicated through the integument by abrasions, or, as more usually happened, by means of the intestinal canal. Almost everything was shown to depend on the worm's power of digestion; for so long as the worms were in full vigor, with digestion unimpaired, all went well; germs were prevented from developing, and were actually digested; but when, from any cause whatever, the health or digestive power became impaired, the germs of disease acquired a fatal mastery.

From Pasteur, Sir Joseph Lister, as he himself has confessed, got the idea of antisepticism in surgery, which has made his name famous, and has conferred an almost miraculous power of healing on the hands of surgeons. Medicine has benefited in no less degree. "For the first time in the history of science," writes Tyndall, "we are able to entertain the sure and certain hope that, in relation to epidemic diseases, medicine will soon be delivered from empiricism, and placed upon a real scientific basis." And, assuredly, as Tyndall has elsewhere written, "never before, during the long period of its history, did a day like the present dawn upon the science and art of medicine." We can but mention Pasteur's discoveries in virulent diseases, such as fowl-cholera, splenic fever and septicaemia, and his method of vaccination by artificially-attenuated *virus*. The success of that method has been marvellous. Its latest application has been to the dreadful malady of Hydrophobia—due to canine rabies. The investigation is still proceeding; it is still *sub judice*; evidence is being taken, and it is not too much to say that the world waits attentively and anxiously for the verdict. It is awaited with hope and with confidence, for the proofs are accumulating in the hands of Pasteur—proofs, many, authentic, and irrefutable. What a triumph that will be for mankind and for science! Nay, what an overwhelming debt of gratitude does not humanity, does not all animated nature, already owe to the genius and the labors of Louis Pasteur!

Purification.

Ni faute, ni péché, ni tache originelle:
Miriam n'a point d'Adam l'héritage fatal.
Moins innocente et moins douce est la tourterelle
Qui, de son nid, n'a vu que son arbre natal.

Moins blanche, aux pics glacés, est la neige éternelle
Que, seul, le vent du nord effleure de son aile,
Moins pur et moins brillant est le plus pur cristal,
Moins clairs sont les rayons d'un ciel oriental.

Quand au temple, mêlée aux vulgaires parents,
Elle accomplit la loi qui n'était pas pour elle;
Quand elle dit à Dieu, présentant son enfant:

Vous me l'avez donné, Seigneur, je vous le rends.
Marie aux mortels semble une simple mortelle,
Mais elle est devant Dieu divine et toute belle.

L. E. (French Class.)

Religion and Science.

(CONCLUDED.)

A few years ago, the story that a man had bled to death in New York and was brought to life by infusing the blood of a sheep into his arteries, went the round of the newspapers, and created, of course, quite a sensation—all that it was intended for. Nothing is more easily believed than the marvellous and the incredulous, and especially when some such authority as Agassiz, Tyndall, Huxley, or Lyell supports it. Let one of these gentlemen start the wildest and most unfounded theory, and without further proof or examination, merely because a Tyndall, or a Huxley, or a Darwin says so, it is at once accepted as true. Who would doubt the word of Lyell, or call in question the fallacious arguments of Darwin and Huxley? We should be laughed to scorn were we to manifest the least disposition to reject their arguments as so many expressions of ignorance. Is it, perhaps, because Mr. Lyell bears the titles of "Baronet and F. R. S., LL. D.," "President of the Geological Society of London," "Corresponding Member of the Geological Society of France," etc., etc., that his authority is so great? Such titles are cheap now-a-days. In fact, one is sometimes tempted to believe that most scientists of a certain kind have established a society for mutual admiration; and, judging from the names of the members of certain scientific societies, we think we are not far from the truth.

Let Dr. Büchner, the apostle of materialism, stand before a fashionable Cincinnati audience, or Huxley before a New York one, or Ingersoll before one of Chicago, and they can deal out to their hearers all their sophistry; they are believed, and no one dares stand up and contradict them. Let Büchner affirm that there is nothing in existence but "matter and force," and scarcely one is found to oppose him, unless it be some member of the Catholic clergy. In confirmation of which we may cite the following letter, addressed to Büchner, a few years ago, by the Rev. Father Schwenniger, of Cincinnati:

"CINCINNATI, April, 19, 1873.

"MOST HONORED SIR:—Without doubt you belong to those who recognize the equal standing of all thinking men before the tribunal of science. Now, although of two contrary opinions only one can be true, it is, nevertheless, understood among all honorable men that two opponents should treat each other courteously. You, most respected sir, have pronounced your opinion touching matters of opinion and faith in a way that is not customary among educated men, especially among men who, in their scientific investigations, seek only the truth. Now, since remaining silent is equivalent to assenting, I take the liberty of bringing your lectures, to which I have listened attentively, under an impartial criticism, to take place next Wednesday, the 23d of April, at half-past seven p. m., in Mozart Hall. Enclosed, please find a ticket for my public criticism; I shall be pleased to see you among the audience. Of course, a reply on the same neutral grounds remains open to you. My intention is no other than to show that matters do not stand so ill with certain 'nursery stories' as you would imagine.

"Yours, sincerely,

"A. SCHWENNIGER."

Dr. Büchner could not appear on the night announced, as he had an engagement to speak on that occasion in Columbus, Ohio. Although Father Schwenniger published his discourse, he has never received a reply to it from Dr. Büchner, and probably never will. When I stated that the Catholic priest stands firmly against any one who dares attack his religion in the name of misinterpreted science I am not without authority; in confirmation of which I will quote Mr. Huxley himself.

In a lecture delivered before the Liverpool Philomathic Society, in April, 1869, on "Scientific Education," he says:

"It was my fortune, some time ago, to pay a visit to one of the most important of the institutions in which the clergy of the Roman Catholic Church in these islands are trained; and it seemed to me that the difference between these men and the comfortable champions of Anglicanism and of Dissent, was comparable to the difference between our gallant volunteers, and the trained veterans of Napoleon's Guard. The Catholic priest is trained to know his business, and to perform it effectually. The professors of the college in question, learned, zealous and determined men, permitted me to speak frankly with them. We talked like outposts of opposing armies during a truce—as friendly enemies; and when I ventured to point out the difficulties their students would have to encounter from scientific thought, they replied: 'Our Church has lasted many ages, and has passed safely through many storms. The present is but a new gust of the old tempest, and we do not turn out our young men less fitted to weather it than they have been in former years to cope with the difficulties of those times. The heresies of the day are explained to them by their professors of philosophy and science, and they are taught how these heresies are to be met.' I heartily respect an organization which faces its enemies in this way, and I wish that all ecclesiastical organizations were in as effective a condition. I think it would be better, not only for them, but for us."

Undoubtedly, there is no man better qualified to judge of these matters than Prof. Huxley. For are not these the men that effectually oppose him, and call out to him at every step as he advances in his theories, "Prove first your premises, and then you may draw your conclusions? You are not allowed to draw a general conclusion from one or two particular cases; never try to prove more than your premises warrant you; do not argue from the possible to the actual," etc. Our age is decidedly materialistic in its tendency; it is only the legitimate outgrowth of the deification of human reason during the last century. Voltaire, the blasphemous sneerer at everything sacred to mankind, had succeeded but too well in destroying Faith among both the learned and the illiterate; and to find aping followers, such as Ingersoll. Kant, Fichte, Hume and Shelling who are his prophets and apostles, and the exponents of modern philosophy; and what kind of philosophy? A philosophy without God, without truth; a denial of certitude and metaphysics: for what is idealism but a denial of certainty and objective reality?

But it is in psychology we meet with the most absurd theories. Dr. Büchner—the representative of modern materialism—in his work entitled "Matter and Force" regards the brain as the substance of the soul. The brain alone, according to him, performs all intellectual and sensitive operations in the same manner as any other organ in the human body performs its own physiological function.

Life, according to others, is nothing but a force correlative to the chemical and physical forces in nature, which implies, of course, a mutual convertibility of the one into the other. Food-stuffs, according to this theory, have a certain chemical and physical power which, when coming into contact with the tissues of the body, under certain conditions, will be converted into life-force. But Prof. Huxley advances one step farther; he maintains that there is even a physical basis of life, or a so-called life matter to which he gives the name of protoplasm. With him, of course, this substance appeared at first in nature spontaneously, and thus would be shown the absurdity of the necessity of creation and a Creator, who, to use the very words of La Place, "is an exploded hypothesis."

From these considerations we may see that as soon as these great (?) men get rid of the Creator, there is no theory too absurd for them to hold in explaining the origin of the world and the beings that live in it. Oken, a German naturalist, will tell you confidently that matter is eternal, and that everything, not even man excepted, must come from the sea. The origin and development of life he explains in what he considers a simple and satisfactory manner. He says:

"Whatever is large has not been created thus, but developed first from the brute, and the brute from some smaller animal, as a mollusk or monad, which itself has been smitten into life by the action of electricity upon a portion of gelatinous matter."

Whether Oken himself ever believed half the stuff he wrote is doubted by some of the best naturalists. He could not account for the appearance of man in a satisfactory way, therefore, it appears, he wanted to pass over this question by a crude joke. Of course, stupid or ignorant people take this piece of nonsense on the credit of Oken's just celebrity as a naturalist, and reasonable people are prevented from refuting him seriously for fear of bringing ridicule on themselves.

I might enumerate an indefinite number of the most absurd theories and speculations brought forth during the last half century,—theories which were current for a time, and then were put on the shelf as so many idiosyncratic fossils of perverted human minds. The great fault with these theories in science is, that they are based on two weak and shaky arguments of deduction and induction; the scientific method of reasoning is pre-eminently inductive. From a few particular facts nothing will do but a general law must be deduced; from the fact that by artificial selection man can produce in a few animals varieties so marked that they constitute races, Mr. Darwin induces at once that what can be done artificially by selection *may* also be done naturally by nature herself. The *may*, of course, is soon changed into *is*, and then a grand *general* conclusion is soon brought out of the *particular* facts. This is what Mr. Darwin calls "Natural Selection." But he does not stop here; he advances still further in his lame logic, and maintains (at least he tries) that by "natural selection," not only varieties or races *may* be produced, but also species genera and classes *are* produced; and then, to make the generalization complete, he applies

his theory also to the production of man—body and soul. So much has been said and written of late concerning this theory of Darwin that I deem it unnecessary to enter here upon its further discussion; it is certain, however, that the origin of species may be attributed to different—even natural—causes besides those of "natural selection," "survival of the fittest" or "struggle for existence."

What is to be done to check the evil influence these pernicious theories must, of necessity, have on the minds of the ill-instructed? Shall we quietly look at the ravages caused by them in the intellectual world, or shall we engage, unprepared, in a scientific warfare, and thus add shame to our inevitable defeat in the controversy? No: the only, and best, and most effective remedy against these pernicious doctrines, and the only means to counteract their bad influence over the better world, is for the defenders of orthodox doctrines in science to rise to a level with the intellectual scientific standard of their opponents, and when thus completely prepared, let the battle be fought on purely scientific grounds—religion has nothing to do with the question. Until this mode of warfare be adopted, we shall have to dread and deplore the fatal ravages caused by misinterpreted science.

The reader will permit us to add the concluding words of an article we wrote some years ago for the *American Catholic Quarterly Review*:

"To the ignorant, there may be an apparent disagreement between science and revealed religion, but only to the ignorant or those who are prejudiced; that is, those who endeavor to make science conflict with religion, but who, when not falsifying one or both, can never succeed.

"Between science and religion there can be no contradiction. Science, the volume of creation, is the best commentary on the volume of revelation, and the greater our knowledge of both, the better we are enabled to perceive that they both come from the self-same Creator, for it is impossible to find a vestige in the one to contradict an expression in the other. I hope that, from the controversy in regard to scientific theories and religion now existing in the world, conclusions will be drawn that are neither on the one hand irreligious, nor on the other unscientific.

"Evolution—a theory that has been started anew by Darwin after it lay buried in oblivion for thousands of years—is the one that now especially agitates the world. But this theory conflicts with religious principles only when it is pushed beyond its legitimate bounds, and when evolutionists, or Darwinists, attempt to so generalize their theory as to bring in and include the development of man, body and soul, from a now extinct form of ape. Evolutionists—or, better, Darwinists, or any other scientific men or philosophers—can reach the soul in no other way than through the teachings of revelation; to go beyond this is simply scientific lunacy—of which there is, however, a great deal in the world. The attempt to prove the evolution of the human body from some lower animal is no more antagonistic to the Bible than it is to science itself. And why have recourse to

such extravagant theories when the truth that is sought to be impugned is much more simple and reasonable than the theory these scientific monomaniacs would impose on us in the name of science? I ask you, is it not much easier to believe and to understand that God formed man from the slime of the earth and then breathed into him the breath of life than to endeavor to account for his existence in ways that are, to say the least, neither plausible nor satisfactory, when science itself, far from bearing out the shallow reasoning of Darwinists, contradicts it in the broadest and most unequivocal manner?

"These men think they are at liberty to bring, and actually pretend to bring, everything, even the highest mysteries of Faith and religion, before the tribunal of human reason. Although they cannot understand some of the most trifling and insignificant things that have come from the creative will of God, they would, in their self-conceit, reject everything that they cannot understand, thus blasphemously putting themselves on an equality with Him, or even as judges of Him, who knows all things, and who gave them their existence; who gave them that very reason which they would deify. Ah! the pride of man will bring him to ruin! What blasphemy! What prostitution of a free will and of the noblest of created faculties! Man,—ungrateful man! the favorite work and masterpiece of God, highly gifted and endowed as he has been by the Cause of his being,—he alone refuses to fulfil the end of his creation; and although holding the first place in nature, he may sink deeper in depravity than the animal. Man is the most perfect of all creatures; he was constituted by his Creator master of all creation; but, unfortunately,—or, as St. Augustine would say, fortunately—*O felix culpa!* "happy fall!"—disobeying the command of God his Creator, the other creatures in their turn revolted against him; his understanding became darkened after his fall, but he still knows enough to enable him to be happy, to be wise, to be contented; and the study of nature, if well directed, may still become a good for the heart, showing him the greatness and loftiness still of his own position above irrational creatures, and, on the other hand, the immense distance that separates him, the creature, from God his Creator, who endowed him with the various attributes which he possesses.

"But while the philosopher and scientist are busy in studying secondary causes, the admirer and student of nature should never lose sight of the one great primary cause by whom all things are made, by whom all things are governed, in whom we also "live, move, and have our being." Neither chance, nor any natural law, has brought forth man from the ape, as the Darwinists try to show. God has created us, and not only created us, but also redeemed us by shedding even the last drop of His Blood;—God whose will is sufficient to make a thousand worlds like this in an instant."

A. M. KIRSCH, C. S. C.

A good book is the precious life of a master spirit, embalmed and treasured up.

College Gossip.

—Of the 5,342 students who are at present attending the Berlin University, 1,128 belong to European countries other than Russia, while 334 come from extra-European lands. America sends 123 of her sons to the seat of learning in the German capital; Asia is represented by ten students, and Africa and Australia have also their contingents.

—A young society belle from Manhattan, who was making a visit in Boston not long ago, sat next a Harvard student at a dinner party. In the course of conversation she said to him: "And what do you do with yourself all the time?" "Oh! I read a great deal. At present I am reading Kant." "Oh! are you? It's by the author of 'Don't,' I suppose?"—*Ex.*

—Yale College has long been receiving \$7,500 a year from the State as a bonus for maintaining an agricultural course in the Scientific School. But as only six students have been graduated from that course in twenty-one years, there is a public demand that the stipend be transferred to the State School of Agriculture where practical instruction is given and a large number of pupils attend.—*Sun.*

—"Pa, I'm not going to learn any more geography lessons." "Why? Have you been excused from geography lessons?" "No, but—" "I presume your teacher has got tired of such a stupid pupil." "Teacher nothin'. I'm the feller that's got tired. I read in a paper that the geography over half the globe would be changed by future explorations, and I am going to wait. I want to get it straight before I put in so much hard work."—*The Judge.*

—One of the best known professors of Harvard College is an instructor in Greek. A few days ago his wife gave a reception. The evening was passing pleasantly, and the talk was confined to Greek art and dress and the language of the country. Finally, a Sophomore engaged in conversation with the lady about Greek art, and, pleased with the attention shown him, looked around condescendingly to his classmates; then, addressing her, said, with a self-satisfied air: "By the way, speaking of Greek art, have you seen the Mikado yet?"—*Chicago Rambler.*

—The learned Canon Isidoro Carini has again begun his course of paleography, or instruction in the deciphering and reading of ancient manuscripts, and historical criticism in the school instituted for this study by His Holiness Leo XIII, near the Vatican Archives. At the inauguration of the course, amongst other learned men present, was the illustrious scholar, Professor Theodor Sickel, Director of the Austrian Historical Institute in Rome, one of the most celebrated masters living of paleographic and diplomatic learning. Canon Carini, in his opening lecture, traced in a general way the history of Latin writing from the fall of the Roman Empire to the present time. The celebrated German Professor expressed high praise of the idea of Canon Carini, and of the method he is pursuing in his course.

NOTRE DAME SCHOLASTIC.

Notre Dame, January 30, 1886.

The attention of the Alumni of the University of Notre Dame and others, is called to the fact that the NOTRE DAME SCHOLASTIC has now entered upon the NINETEENTH year of its existence, and presents itself anew as a candidate for the favor and support of the many old friends that have heretofore lent it a helping hand.

THE NOTRE DAME SCHOLASTIC Contains:

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All the weekly local news of the University, including the names of those who have distinguished themselves during the week by their excellence in Class, and by their general good conduct.

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If a subscriber fails to receive the SCHOLASTIC regularly he will confer a favor by sending us notice immediately, each time. Those who may have missed a number, or numbers, and wish to have the volume complete for binding, can have back numbers of the current volume by applying for them. In all such cases, early application should be made at the office of publication, as, usually, but few copies in excess of the subscription list are printed.

The Editor of the SCHOLASTIC will always be glad to receive information concerning former students and graduates of the University.

Our Staff.

FRANK H. DEXTER,
F. J. HAGENBARTH,

P. J. GOULDING,
T. J. CLEARY.

—The semi-annual examinations were begun on last Tuesday morning, and will close to-day (Saturday). The SCHOLASTIC of next week will contain the "Averages" of each student, except, of course, those—if any—whose percentage may be so low as to be undeserving of publication. From present indications, the latter will be very few in point of numbers. Indeed, so much satisfaction is thus far expressed by the members of the various boards at the general excellence in the manner in which the classes pass, that we doubt if any name will have to be omitted from the report on account of a low average. This fact is very gratifying to the authorities, as it is creditable to the students. It forms the fitting termination of a session well spent, and augurs well for the good beginning and successful completion of the second session. We hope that the same good spirit will continue to the end.

—It is in every way desirable that the new session, on which we are now about to enter, may witness the awakening of a general and active interest in the study of vocal music. So many and so frequent are the occasions presented here at Notre Dame for the cultivation and practical exercise of a beautiful and ennobling power, that we wonder that the past five months—if we go no further back—should show, as they do, its total neglect in some instances, and its irregular and discordant application in others. It goes without the saying that Notre Dame, now at the height of its prosperity and renown as an institution of learning should possess all the excellencies which she possessed during the days of trial and struggle. Yet there are old timers who will tell us that, in the musical line, we are woefully inferior to our predecessors of ten or fifteen years ago. What has been done can still be done, and more perfectly now by reason of the greater advantages and facilities possessed. This defect certainly deserves attention; for there is no occasion of any public assembly when it is not so striking as to cause general comment.

The Study of English Literature.

There is no branch of education more important to the American student than the study of English literature. The character of the language, so heterogeneous in its formation; its rapid assimilation of foreign elements; its wonderful flexibility; its almost perfect reproduction of whatever is excellent in other languages, be they ancient or modern; the great activity of the English-speaking people in discovering all kinds of knowledge or of appropriating it when found by others, all tend to make this literature a grand storehouse in which may be found the riches and treasures of the past and everything valuable of the present.

In order that the student may be able to enter upon these collections of all ages with pleasure and profit to himself—that he may recognize in them whatsoever there is of good, and may know that which is worthless—to increase his love for that which is good, beautiful and true, and to refine and improve his taste, are what is aimed at by schools in the study of English literature. Now, what are the best means of attaining these ends? How shall these things be accomplished without exhaustion to mental energy? We have many excellent treatises on English literature, in which there are biographies of every writer who has attained any distinction whatsoever. There are other text-books in which there are hasty criticisms given by men who could not possibly have given the authors that attention which was needed. Will the mere study of these biographies and criticisms suffice for the student who desires to take up English literature with the ends in view as mentioned above? We think not. Something else is wanted. We are apt to look upon this study as something different from every other branch taught in the

schools. The student is generally satisfied with the opinions of the author. But tastes differ, and in literature everything mostly is a matter of taste. What a professor of one school admires, another may condemn. Ought the student, then, to rest satisfied when he has the opinion of the author of the text-book? We think not. The student should receive from the teacher the canons of criticism, or rather he should have received them before entering the class, and should, by examining the works of authors, test their merit by these canons and judge accordingly.

The fact is, we do not follow our teachers thoroughly in their teaching. They would have us apply the rules of criticism to authors, but we do not do it. We wish to study our English literature in a way that would be ridiculous were we to follow it in any other branch. What would be thought of the student who, in order to learn chemistry, would begin by studying alchemy? And would not that student be thought mad who would begin a course of astrology before he began astronomy? It is the same thing with us when we would endeavor to acquire a knowledge of literature by studying simply the biography of writers; and we act even more stupidly when we content ourselves with the *dictum* of another as to the merits and demerits of this or that poet.

We must, then, if we wish to study English literature with profit,—if we would desire to increase our love for the good, the beautiful and the true, if we would improve and refine our tastes—read authors intelligently and critically.

B.

An Interesting Letter.

[We think that all our readers will find as much interest and pleasure as we ourselves in the perusal of the following letter, written by a well-known, tried and generous old-time friend of Notre Dame. Despite the complimentary nature of the opening paragraph we have presented the letter entire, thinking that any omission or alteration would only tend to mar its style and detract from its general interest. The writer herein gives another proof of the continued interest which he takes in our little paper, as well as the prosperity of Notre Dame, and the cause of education in general. Of this interest, so creditable to his mind and heart, he has given many striking evidences in times remotely and proximately past, and his many friends and well-wishers at Notre Dame hope that his reward will ever attend him in his own prosperity and happiness. We hope, too, that his example in recalling old-time reminiscences will be followed by other old friends of Notre Dame whom these publications will remind of events of "days of yore." Now, that our *Alma Mater* is old enough to have a history, all these recollections are of more than ordinary interest to every one who would know something of the rise and progress of an institution, which an eastern periodical—the *Catholic Review*—has named "The Queen of the West." The letter is as follows:]

EDITOR "NOTRE DAME SCHOLASTIC":

If there is anything that I admire in you apart from your journalistic ability,—which none can help appreciate,—it is your modesty in not calling upon your patrons to "square up" at the end of the year. Modesty, like consistency, is a jewel; and while the latter is very often misconstrued, the former

can be misapplied. To prevent you from error in one case at least, I enclose a *preventive*, intended to warn you not to let *your* modesty carry *me* too far into arrears, regardless of how much good you may do in any other direction by being modest.

Your article, "An Interesting Paper," in the issue of the 9th inst., I have read with much more than the usual interest; for you must know there is the universal inquiry on Saturday eve, or Sunday morning, "Has the SCHOLASTIC come?" heard at our house as regularly as the day arrives. But this "interesting paper," with the names mentioned in it, carried me back over a period of thirty-six years to the time when I was a boy with the boys at Fort Wayne, Ind., from whose ranks the list of students was partly made up. Well do I remember the day when Fred and Frank Wolke and Calvin Anderson started for college; the former, together with the writer, were members of a band, in the organization and equipping of which good old Father Benoit was the chief mover. The parting members were serenaded the evening prior to leaving. Then followed some such conversation as this:

"Going to Notre Dame."

"What? Way over to France in the old country?"

"Why, no! Notre Dame in America, near South Bend."

"But where is South Bend? How do you get there? Going on horse-back? The canal is not open yet, no boats yet—how will you go?"

"By stage to Sturgis, from there to Niles in another stage, till we get to Notre Dame."

Two days only required for the whole trip; just think of it! only two days, including all stops! Well, the boys left the next morning, and two weeks later we heard of their safe arrival at Notre Dame by letter, sent unpaid (presumably, because Father Maher was not there then to call on them for "stamps"). So the Band Treasurer had to levy a special tax on the boys to get the letter out of the Post Office, then kept by Geo. Mayer. The letter was addressed to the "Fort Wayne Brass Band"; but old George would have his little five cents in silver—brass no good!

Students of the present day can hardly realize what a trip to Notre Dame from Fort Wayne then meant. There were at that time comparatively few people in the State who had ever seen a railroad; Fort Wayne had none; South Bend had none; the Michigan Central had only just been completed, and the Michigan Southern came into existence two years later. Little did I then think that I should ever be so fortunate as to see Notre Dame, and not only that, but that in after years I should become so warmly attached to its institution of learning, and an admiring patron of its excellent schools—a privilege for which I shall always feel grateful.

But the names of Anderson and Wolke are not the only ones who have attracted my attention. There is Theo. Coquillard (poor fellow! he has passed off the stage of life); there are the Mitchells, of Kendalville; James Aveline, of Peru; the

Drapers, of South Bend; Lafontaine, of Huntington, all of whom I became acquainted with in later years in business intercourse, and who never failed to speak a good word for "Notre Dame College," as it was commonly called. And last, but not least, the names of Fathers Gillespie and Vagnier, both of whom it was my good fortune to meet at Notre Dame and to know intimately during the years since passed.

Of the Faculty of 1850 I know only the Very Rev. Founder, Father E. Sorin (I am happy to say I know him still among the living, and long may he live to enjoy the fruits of his ardent labors), and Prof. Girac, the teacher of Music, who, I believe, died at the College. Speaking of Father General—a name more appropriate than which can hardly be applied to him, for it requires a general to accomplish that which is truly grand,—what a blessing it must be to him to have been permitted to accomplish so much, and to have seen Notre Dame grow to its present vast extent from what it was when he and his trusty followers first set foot in St. Joseph County! Few, indeed, there are who can cast a retrospective glance upon the past with as much cause for satisfaction and true gratefulness as he can! And, unlike almost all other great men, I find him free from pride, still laboring, never tiring.

But I feel my recollections will carry me too far, so I will close this disconnected epistle, trusting that it may be my constant privilege during my earthly sojourn to hear of, and witness Notre Dame's continued success.

Yours respectfully,

AN OCCASIONAL VISITOR.

JANUARY 25, 1886.

De Omni Re Scibili et Quibusdam Aliis.

A young friend of ours, now an alumnus of an Eastern College, and resident not very far from Atlanta, once told us that he had achieved quite a local reputation as a first-class humorist by repeating in the vernacular upon several occasions those *bon-mots* in the back part of Yenni's Greek Reader—modestly headed "Witticisms"—each one of which, as you may remember, commenced with the word *Σχολαστικός*, indifferently translated by "a scholar" or "a simple fellow." In the same way the Latin *Rusticus* would be indifferently rendered by our intelligent dictionary as "A Countryman" or "a clown." And as the latter word in the American language has come to be exclusively applied to the harlequin of the circus, I am afraid that we, beginners in Latin, had rather an erroneous idea of the general make-up of the Roman farmer. But to resume—as John Sherman would say—we are confident that with the little volume recently issued from the Greek press at Notre Dame, we can rival, if not soon eclipse, our friendly alumnus who was constantly hampered in working off his *bon-mots* by indecision as how to translate the ever-recurring *Σχολαστικός*.

I have just about come to the conclusion that sleeping car porters should be abolished. I positively refuse to perceive in these overrated nuisances either beauty or utility. The mere work of making up the berths amounts to nothing at all; an able-bodied boy ten years old could make up the bunks for a whole train and then complain that he had nothing to do. The sleeping car porter bases his claim to existence on far different foundations. In the first place, he is supposed to act as an *extinguisher* to the conductor. In this line of the business he is certainly a success. But, after all, it is only a change from one despot to another. The conductor gives you some moments of apparent independence; the porter, none. I am not at all an upholder of race prejudice, but I must say that I prefer a white king to a black one. So much for claim No. 1.

But the porter is supposed to be of general use to the passengers; he is especially provided for the female contingent of the travelling public. But these assumptions, we fear, are entirely gratuitous. It is a very common thing about supper-time to see a lady tell the porter to go into the station and get her a cup of tea. Does he go? My Christian friend, you know not the porter! No railroad dining-room man in the United States would trust a sleeping car porter with a plated silver spoon! If he were given a twenty-dollar bill he might go through the forms of getting the tea so he could the more easily be left behind with the nineteen dollars and ninety cents. That would be the extent of his services.

But then he is supposed to take your clothes at night and brush them up and get all the dust off them, etc. He does the last-mentioned service to a T; and in the conscientious discharge of his duty gets all the superfluous *dust* out of your pockets also.

Finally, it is urged for this aggravated nuisance that he is willing to blacken the passengers' boots. Well, this has to be admitted, with the observation that he doesn't do it out of charity. The average porter will strike the average car for ten or twelve dollars as a reward for doing the work done every day in Cincinnati or Chicago for twenty-five cents. People often wonder why they so seldom encounter sleeping car porters a second time. The explanation is that they retire early; they are satisfied with half the earth.

Let us, therefore, cease to taunt the hard-working plumber and the half-frozen ice-man with their fast-growing riches. Let us turn our attention, let us make our respectful salaams to the sleeping car porter. *Vive le Porteur!*

The Directors at Longview Asylum have found a new and effectual system of decreasing the number of insane people in Ohio. They put two desperate lunatics in the same cell, and they kill one another. It is known as the "Kilkennykat System," and is meeting with unparalleled success.

MOORE A. NON.

Books and Periodicals.

A DICTIONARY OF THE ENGLISH LANGUAGE, Pronouncing, Etymological and Explanatory. Embracing Scientific and other Terms, and a Copious Selection of Old English Words. By the Rev. Jas. Stormonth. The Pronunciation carefully revised by Rev. P. H. Phelps, M. A. New York: Harper & Bros., Franklin Square. 1885.

This work, since its first appearance in 1871, has met with such a favorable reception from the general public as to call for seven large editions and create a demand for its publication in its present form in large type. Excellent as are the standard works already existing in the language, Stormonth's Dictionary claims and possesses many points of superiority which make it particularly invaluable to the student and *littérateur*. The author, in his exposition of the general plan of the work, says:

"The Dictionary words are placed either in groups or in single entries, and are printed in bold black letters. Each single entry, as well as the leading word of a group, has a larger and bolder face of type than the subsidiary words, or those treated as such, for the reader's guidance of the eye. The words grouped are: (1) those which are naturally derived from the leading or key word of the group; (2) those which are connected intimately with the leading or key-word in etymology or signification; (3) frequently a few words are grouped together as a mere matter of convenient arrangement. This system of grouping presents at once to the eye all the derived and related words, and phrases in good use. The leading word of a group, or of a single entry, is followed by the abbreviation indicating its part of speech, and by a re spelling for pronunciation, and this again by the etymologies, etc., enclosed within brackets; after which come the definitions, separated from each other by semicolons. The subsidiary Dictionary words with their accompanying definitions, etc., are separated from one another by colons, and are only accented when not phonetically re-spelt or but partially so. Phrases, idiomatic expressions, and short proverbial sayings have been extensively introduced into those groups with which they have a natural connection. Great care has been taken to explain these, and to trace their origin as far as possible."

Special features will also be found in the completeness, clearness and general accuracy of the definitions, etymologies, and pronunciation of words. To these may be added the introduction of a number of terms which the progress in the arts and sciences has of late years called into existence. The general student will find a particular utility in the retention, or rather insertion, of many words from old English authors, and a number of English words which have survived only as provincial and colloquial terms. The names of plants have added their specific names and the names of the orders to which they belong. There are also a number of appendices, viz., (1) *Prefixes and Postfixes*; (2) *Abbreviations*; (3) *Foreign Phrases*; (4) *Scriptural Proper Names*.

The book is in large 8vo, printed in clear, large-faced type, and gotten up in that excellent style for which the publishers are so well known.

—The February number of *St. Nicholas* has a richly varied table of contents. Among those articles which may be classed as timely is an out-door sketch, entitled "Fish-Spearing Through the Ice," which shows how some clever boys improved on an ingenious Indian mode of fishing; "Badminton," a sort of in-door tennis for winter days, is the sub-

ject of a paper by C. L. Norton; Sophie Swett has an amusing "coasting" story, called "The Girl who Lost her Pocket"; and there are bright Valentine verses by Elizabeth Cummings, and others. Then, appropriate to February 22d is the second installment of Horace E. Scudder's "George Washington"; and the comparison between the governments of England and America, in "Among the Law-Makers," will interest all patriotic boys and girls. Of a somewhat more practical nature is the "Ready for Business" paper on electrical engineering; while Helen Jackson (H. H.) gives a few useful hints in her "New Bits of Talk for Young Folks"; and Frank Bellew, in a clever little story, explains how the brain receives, stores, and uses all its impressions. There are two interesting letters on the subject of "Curved-pitching," in the "Editorial Notes"; and in the "Agassiz Association," Prof. W. O. Crosby, of the Boston Society of Natural History, begins a free course of instruction in mineralogy, with practical experiments, open to all readers of the magazine.

—The *Popular Science Monthly* for February offers an unusually attractive group of papers of merit on topics of current interest and real importance. At their head stands an account of "The Improvement of East River and Hell Gate," by General John Newton, the originator of the plan and director of works. This paper is historical and descriptive, beginning with an account of the original condition of Hell Gate, recording all that has been done toward clearing it out, with particular descriptions of General Newton's own work on Hallet's Point, and other reefs, and detailed accounts of the operations and apparatus by which Flood Rock was undermined and blown up; to which is added an estimate of the work that is still to be done. The article is accompanied by new maps and illustrations. Mr. Henry James Ten Eyck has an important essay, of home and personal interest to every reader, on "Recent Experiments in State Taxation." In "Bishop's Ring Around the Sun," Mr. William M. Davis describes a curious solar coronal phenomenon which appears to be a legacy left by the "red sunsets." Mr. Chauncey Smith's, "Influence of Inventions upon Civilization" has an interest in which every one's experience makes him a participant. Mr. John McElroy's "The Musket as a Social Force" is an eminently readable account of important social and political phenomena. "Discrimination in Railway Rates" is thoughtfully and competently treated, with apparent impartiality by Mr. Gerrit L. Lansing. An interesting address on "Acclimatization," by Professor Rudolph Virchow, is published. Dr. F. L. Oswald shows how instinct may be regarded "As a Guide of Health." With a few shorter articles and papers of a more miscellaneous character, are given two biographical sketches, with accompanying portraits, the subjects being Dr. William B. Carpenter, the famous English physiologist who recently died, and James B. Eads, the constructor of the St. Louis Bridge. The editor discusses standards of truth, under the title of "Beecher's Position" on Evolution. New York: D. Appleton & Co.

Local Items.

—How did you pass?

—Who has the best average?

—It was a success—a grand success!

—The second session begins next Monday.

—Now let our literary societies begin to think of public debates.

—The Thespians are ready now to begin preparations for the 22d.

—Bro. Leopold has the thanks of the Juniors for favors in connection with their Bazaar.

—The Juniors are the boys who never do anything by halves. Hurrah for the Juniors!

—Lost—A scarf pin. The finder will please hand it to Father Regan or Bro. Emmanuel.

—Prof. Lyons left for Cleveland last night, to visit his railroad friends in the interests of the University.

—The regular lecture in the course of Political Economy has been postponed until this (Saturday) evening.

—We hear there will be a public examination of the Elocution classes. It will be well worth attending.

—The examinations this week have engrossed so much attention that local items are as scarce as hens' teeth.

—Steele's Punch & Judy exhibitions were presented to large audiences of delighted Preps. during the week.

—The "Averages" of the Semi-Annual Examination, which closed this (Saturday) morning, will be published next week.

—Leo Scherrer secured the musical instrument given to the Bazaar by Mr. Austin, of Chicago, for the best-looking boy.

—Exact number of beans in the jar, 3805; nearest guess, 3802. Turkey awarded to Father Regan, who presented it to B. Leander's table.

—There have been a number of new entries this week, marking the opening of the second session with a notably increased attendance.

—Gus. wanted the earth, and he got it in the form of a handsome revolving globe, presented to the Bazaar by George Rhodius, of Indianapolis.

—There is now an abundance of snow in this locality. The excellent sleighing has brought numerous visitors to the College during the week.

—The Band and Orchestra were not heard at the last entertainment; but we presume they are resting and will agreeably surprise us on the 22d.

—The rumor lacks confirmation that our friend Joe, the honorable and handsome Treasurer of the Baseball Association, is busily studying the map of Canada.

—Next Tuesday is the Feast of the Purification. Solemn High Mass, preceded by the ceremony of the blessing of the candles, will be sung at 10 o'clock a.m.

—Preparations are being made for thoroughly refitting the gymnasiums. Should certain well-known conditions be complied with, work will begin very early next week.

—The Sorins will give an entertainment next Saturday evening in honor of the seventy-second anniversary of the birthday of their venerable Patron, Very Rev. Father General.

—The voting for the medal was the cause of considerable enthusiasm. Exactly at nine by the clock Friday evening, the polls were closed. 6,200 votes were cast for Cooper, and 4074 for Benner.

—Our societies have not done much during the week. The members have been completely taken up with the examinations. However, reorganizations for the second session will be in order during the coming week, and then we may expect some lively times.

—The "banner boys" of the Senior department held a very pleasant sociable last Wednesday evening. We have not learned the particulars, but expect that our reporter will have recovered from the effects of the "Semis" sufficiently to prepare a report for next week.

—The melodeon was presented to Senn, one of the hardest workers at the Bazaar. The large cake was presented to Roberty, the card receiver to G. Myers; the mosaics to Inderrieden; a beautifully-framed picture of Father Sorin to J. Courtney, and the accordeum to Father Regan.

—The special courses of Science in the Preparatory Department will be inaugurated during the coming week. It is expected that the classes in these elementary courses will be largely attended, as they will be made unusually interesting and instructive by Rev. Fathers Zahm and Kirsch and Prof. Johnston.

—The snow, which covers the lakes, revives the old subject of a skating rink. We understand an attempt was made, some years ago, to form a rink in the Seniors' Campus, but owing to the unskilfulness of the engineer, or for other reasons, it proved a failure. We think, however, the project is feasible, and suggest another trial.

—The new large dynamo reached here last Wednesday, and, with the new pump, has been placed in position. Work on "wiring" the College and introducing the necessary fixtures is now completed. It is expected that everything will be in working order this evening. In our next issue we hope to give a detailed description of the electric light plant, and the work done in the various College buildings.

—The Minims' examination, which commenced on Friday, was honored by the presence of Very Rev. Father General, Rev. President Walsh, and Rev. Father Granger. The intelligent answers given by the Princes to some test problems in Arithmetic, proposed by Very Rev. Father General and the Rev. President, were a most satisfactory proof to the examiners of how faithfully the Princes have worked since September.

—The monthly "banner boys'" celebration in

the Junior reading-rooms was held Saturday evening, Jan. 23d. As it was the last of the session, and very few names had been omitted from the "Roll of Honor" for the month, all were invited to attend. The Crescent Club Orchestra furnished very good music, and all enjoyed the calisthenic exercises. Refreshments were served in due season, after which all retired, promising themselves to be present next month.

—The *Scholastic Annual* for 1886 lies on our desk. It contains the cream of the cream of the articles which appeared last year in the NOTRE DAME SCHOLASTIC, and leads to two correct conclusions—that that college paper has some mighty clever contributors, and that Prof. Lyons is a man of taste and judgment. This *Annual* is worth binding, and that means it is not only worth reading, but worth reading more than once. Its price is 25 cents.—*Catholic Columbian*.

—The grand success that attended the efforts of the Juniors to secure funds for their Athletic Association is due to the energy and tact of Messrs. Benner, Cooper, Wabraushek, Myers, Mulkern, Borgschulze, Preston, Fehr, Porter, Cartier, McVeigh, Senn, Scherrer, Regan, Courtney, Redlich, Dillon, and others. The Juniors are indebted to Bro. Alexander, Bro. Lawrence, Bro. Marcellus, Bro. Elias, and Bro. Marcellinus, for the interest they took in making the Bazaar a success.

—The Junior Bazaar was the great event of the week. It lasted four evenings, and was very successful in its results. The amusements were many and varied. There were games of cards and billiards, and bean jars and grab bags, fish ponds, etc. Refreshments were served at moderate prices. The visitors had even a more pleasant time than they had anticipated. A nice little sum (\$240.00) was realized with which to secure an elegant and complete outfit for the Baseball Association.

—We are indebted to the Hellenists of Notre Dame for a collection of anecdotes, enigmas, poems, etc., selected, composed, and printed by themselves in the Greek language and character. Whether by accident or design, they could not have hit upon a better method of becoming familiar with the language, and fixing it permanently in memory, than this of setting it in type. The work is well executed, and a credit to the Hellenists, both as students and amateur printers. Many thanks.—*Ψs-lanti Sentinel*.

—Among the visitors who registered during the week, were: Geo. B. Haynes, Baldwinsville, N. Y.; J. C. Decker, Laporte, Ind.; Mrs. M. A. Campeau, Detroit, Mich.; G. E. Richmond, Grand Rapids, Mich.; J. A. Papper, Brookville, Ind.; Mrs. John Rix, Fort Madison, Iowa; Mrs. H. C. Weston, Chicago, Ill.; Miss Laura M. Pool, Marquette, Mich.; J. W. Weldon, '70, Detroit, Mich.; Mrs. J. Strauss and Miss E. Hess, Ligonier, Ind.; Mr. Alf. B. Miller, Editor of the *South Bend Tribune*, and the Misses Floy Rich, Portland; and M. B. Burchard, Clinton, Mich.

—The portrait of the Rt. Rev. Dr. Egan, first

Bishop of Philadelphia, lately painted by Signor Gregori from descriptions given by Mr. M. I. J. Griffin and others, has been pronounced a good likeness by persons who knew the deceased prelate. Archbishop Ryan, in a letter to Professor Edwards, says: "It will gratify you and Signor Gregori to learn that a few old people who knew Bishop Egan say that the picture looks like him." And Mr. Griffin writes: "One old lady, when she saw the photograph of the painting, said: 'I saw that face years ago.' When some one asked her if it looked like Bishop Egan, she exclaimed: 'That's it! I knew I had seen it.'" Mr. Griffin is now preparing to publish all the information he has collected relating to the life of Bishop Egan, and he intends to place an engraving of the portrait as a frontispiece to the work.

Roll of Honor.

SENIOR DEPARTMENT.

Messrs. Ancheta, Ashton, Aubrey, Burke, Becerra, C. Bowles, Bryar, M. Burns, Baca, F. Browne, A. Browne, Becker, Conlon, J. Crowe, Congdon, Craig, Chapin, Cusack, Waiter Collins, Crilly, Fred Combe, Cassidy, Dohany, Dempsey, De Haven, Dexter, Dolan, Fogarty, Finlay, Forbes, Ford, A. A. Gordon, A. Gordon, Goble, Goulding, J. Gallardo, Glenn, Hamlyn, Horn, C. Hagerty, E. Hampton, Hagenbarth, Harrison, Holden, Judie, Jackson, Jess, Jeffs, Kondelka, Keys, Kreutzer, H. Kenny, J. Kenny, Keegan, Kegel, Kleiber, Ley, Latshaw, H. Luhn, W. Luhn, Martinez, B. Morrison, Murphy, McNulty, Mathers, Murdock, McGuire, Miller, Moon, Neill, O'Rourke, Ott, O'Connell, P. Prudhomme, C. Paschel, H. Paschel, P. Paschel, Padilla, Perley, T. Ryan, Remish, E. Riley, C. Rothert, Rochford, Regan, Rodriguez, Shaide, Stubbs, Saviers, Sheridan, Strasser, Soden,* Snapp,* Vandercar, C. Williams, W. Williams, White, Wagoner, Woodbridge, Zeitler.

JUNIOR DEPARTMENT.

Masters Adlesperger, Adams, Austin, Arts, Ackerman, Akin, Berry, Benson, Brabrook, Blakeslee, Brownson, Boos, Bowles, F. Benner, Bunker, Borgschulze, Bacigalupo, E. Benner, Cleveland, Colina, Courtney, Cain, Cleary, Chute, Chaves, Coles, Coad, Cavaroc, Decker, Doss, Duffield, Dillon, Darragh, Dungan, Edgeworth, Epple, Frain, Finch, Flood, Fehr, Fisher, Fitzgerald, Fitzharris, Fontanel, Grothaus, Goebel, Galarneau, F. Garrity, Houlihan, Houston, Hayes, T. Hake, A. Hake, Holman, Harris, Hiner, Inderrieden, Jewett, P. Jacobs, N. Jacobs, Jeffs, Jacobi, F. Konzen, W. Konzen, Luther, Lesh, Long, McKendry, McCourt, McConn, Meehan, McVeigh, Mulkern, McPhee, McIntosh, Myers, Nealis, L. Newton, Noud, R. Newton, Nations, O'Connor, O'Gorman, Oxnard, O'Kane, Portillo, Prudhomme, Preston, Regan, Ratighan, C. Ruffing, A. Ruffing, Robinson, Ramirez, L. Smith, F. Smith, H. Smith, S. Smith, N. Smith, Short, Shields, Spencer, Scherrer, Stattman, Sandoval, Steele, L. Thompson, W. Thompson, Talbot, Tarrant, Tidrick, Valasco, Walsh, Welch, Wabraushek, Wagoner, C. West, Williamson, Woodman.

MINIM DEPARTMENT.

Masters Ackerman, Bailey, Bull, Barger, Ciarcoschi, E. Connors, J. Connors, Chute, Cubbs, Crotty, Campeau, Dunford, E. Doss, L. Doss, Dewald, T. Falvey, F. Falvey, E. Falvey, Fontanel, F. Garber, E. Garber, Griffin, Grant, Graham, Healy, O. Haney, Inderrieden, Jones, Jewett, J. Kintz, A. Kintz, O. Kintz, P. Keefe, F. Kellner, Klaner, G. Landenwich, F. Mainzer, Moncada, McIntosh, Morgan, McGill, M. McCourt, McNulty, Murphy, H. Mooney, C. Mooney, Munroe, Mitchell, Nester, Nussbaum, C. Nealis, B. Nealis, O'Neill, Paul, Piero, J. Peck, F. Peck, Quinlin, Ramsey, Riordan, Stone, G. Sweet, D. Sweet, W. Smart, A. Smart, C. Scherrer, E. Scherrer, Sullivan, Tillenburg, Williamson.

Saint Mary's Academy.

One Mile West of Notre Dame University.

—The examination in the Academic Department began on Tuesday.

—Miss Laura Pool, of Grass Lake, Mich., a former pupil is a welcome visitor.

—The programme for the semi-annual concert was beautifully done on the Type-Writer by Miss Munger.

—Very affectionate and pleasant letters have been received from Miss Emily Mohl and Miss May Adderly, pupils of former years.

—Of the Minims, Mary Lindsey, Flora Johnson, Edna Burtis, Maude Goetz, Dotty Lee, Fannie Spenser, Ella Blaine, Lottie Caddagan, are worthy of mention in Elocution.

—Miss E. Balch won the Roman mosaic cross, but yielded the honor to M. McEwen. Those who drew with them were the Misses Bragdon, Coll, Griffith, Hertzog, Keyes, Odell, Prudhomme, Sheekey, and Smart.

—On a late visit to Very Rev. Father General, the Princesses were informed that they were to be made the recipients of some very rich Florida oranges. In advance they thank their Very Rev. benefactor for his thoughtful remembrance of their pleasure.

—Very Rev. Father General attended the examination in music on Monday evening, when a very enjoyable programme of both vocal and instrumental music was presented; he expressed himself charmed, and wished that a thousand could have enjoyed the treat.

—Rev. Father Stoffel presided at the examination in Christian Doctrine of the First Senior Class; Rev. Father Saulnier of the Second and Third Seniors, and Rev. Father Zahm of the Preparatory Classes. The earnest study of the pupils has been well rewarded in their marked success.

—On Sunday the classes in Christian Doctrine and Catechism were examined. As a matter of course, the most careful preparation and attentive solicitude to pass well in these all-important studies were the preludes to the examination. To their praise be it said, no honor is so earnestly emulated among the pupils as that of standing first in Christian Doctrine.

—The music examinations, which have occupied the time from half-past four till half-past six every evening during the week, were suspended on Monday and resumed at the *soirée* of Saturday, the 30th. The execution of the young ladies on Saturday, the 23d, and Monday, the 25th, is deserving of praise. The programmes of each evening were composed of well-selected pieces, both instrumental and vocal, and executed with credit.

—The examination of the Graduates in Christian Doctrine and Mental Philosophy on Sunday was honored with the presence of Very Rev. Father

General Sorin, Rev. President Walsh, Rev. Father Fitte, of the University, and Rev. Father Shortis. The highest satisfaction was expressed by the venerable examiners upon the successful and even brilliant result of the examination, upon which teachers and the young ladies are to be warmly congratulated.

—The deepest sympathy is extended to the family of the late Mr. John Cochrane, of Chicago, and in particular to Mrs. Ryan—*née* Miss Mary Cochrane Class '73,—in their present deep affliction. Immediately upon the reception of the despatch conveying the intelligence that Mr. Cochrane was dying, the requested prayers were fervently offered. Since the sad event of his death, Masses and Communions for the dear departed have not been wanting at St. Mary's. May he rest in peace!

—A happy reminder of a compact to recite the "Psalter of Jesus" on the Feast of the Holy Name was received from the distinguished art writer, Miss Eliza Allen Starr. Mrs. Harriet Redman, for many years a beloved member of the Board of Music Teachers at St. Mary's, and who died in Aug. 1880, was one who, with Mrs. M. M. Phelan, and some of the religious of the convent, had entered into this pious compact. *Souvenirs* of those who were so intimately connected with the progress of the Academy are very dear when they come on such a day as the Feast of the Holy Name.

—In the approaching exhibition of art works in St. Luke's Studio, the exceptional perfection of the Lustra Painting will command admiration. One large piece on dark crimson plush is particularly noticeable. The painting is of a peacock perched above a cluster of autumnal woodbine leaves. The brilliant freshness of the party-colored plumage of the bird as if bathed in the clear light of the rising sun, and of the crimson glowing woodbine, sparkling as if with dew, forms a vividly beautiful picture. Another piece in Lustra, equally distinguished for its richness, is a sofa pillow on dark maroon plush, lined and trimmed with light blue satin. The work is of leaves and Christmas roses. The durability of this work is one of its excellent features. Time, and even the dusting-brush will not mar the delicacy of its exquisite coloring.

—The closing exercises of the Semi-Annual Examination will take place this (Saturday) afternoon. The following is the

PROGRAMME:

Glee.....	Case
Vocal Class	
Recitation—The Story of King Rhoud.....	M. Vandeigft
Miss Williams.	
Kamennon,—Ostrow—Portrait No. 22.....	A. Rubenstein.
Miss Bruhn	
Essay "Denkmäler".....	Miss Horn
Aria from the Creation	Haydn
Miss B. English	
Andante Spiniato and Grand Polonaise (Op. 22) F. Chopin	
Miss Shepard.	
Essai—"Les Grands Pensées Viennent du Cœur"—	
Miss Bruhn	
Vocal Duett—Tyrolienne.....	Hewitt
Misses St. Clair and Murphy, Acc'd by Miss Barlow.	

Essay—"The Star of Our Hope"—.....Miss Munger
 Variations de Concert.....*F. Benedict*
 Miss Bruhn.
 Recitation—"Gualberto's Victory"—Miss E. C. Donnelly
 Miss S. St. Clair.
 Reminiscences de Lucia—Fantasia Dramatique—*F. Liszt*
 Miss Barlow.
 Water Nymph.....*A. Rubenstein*.
 Solo, Miss Lauer, Vocal Class, Acc'd by Miss Shephard

Frankness.

Webster gives three gradations in his synonyms of ingenuous: "Open, frank, ingenuous"; but sincerity embraces the sentiment and disposition—an idea of which these terms in their best sense convey. Dissembling may sometimes be pardonable—as in the case of Mardochai, who concealed his relationship with his niece, Queen Esther, to more effectually ensure his plan for the protection of the Hebrews; but duplicity is a trait that does not belong to a worthy character, though the Magi wisely "went another way," though Constantine the Great maimed all the post horses from Rome to Colchester to evade the pursuit of Galarius.

The charm of childhood and youth is guilelessness; and they who retain the sunny smile and open brow of life's sweet dawn till the shades of sunset fall along the path of years are the very persons whose souls keep ever fresh and bright the transparency of that undisguised truthfulness which renders youth so winning.

Prudence is not an enemy of frankness, nor is modesty its foe; they are but the crown of its beauty, and the guarantee of its truth. Simplicity is the spotless vesture by which it is distinguished, and peace of mind the legacy it bestows upon its possessor.

With these almost axiomatic truths before us, why do we see so many who take up with artifice, and who look upon sincerity as a fabulous trait, or even worse—as a quality to be despised? It is because superficial judgment is common; because the inclinations of the heart are far from trustworthy. To be able to appear wise, to know more than others, is a satisfaction to narrow natures. To learn realities, and never to assume to know very much, is equally a gratification to those more liberally endowed. Simplicity is, in truth, the ruling instinct of the gifted. Brazen-faced effrontery is a proof of weak intellect, and, worse than that, the total want of Christian culture.

Frankness does not, however, imply that one must open her heart to every one she meets. Quite the reverse. The pure simplicity of a really frank character disposes the possessor to enlist herself in what interests others, and a modest reserve respecting what concerns herself is with her almost a second nature. Self-consciousness is unknown to her; therefore she is at ease, and of all others she is most likely to acquire that very enviable social trait—the power of proving an interesting and pleasant listener.

Quite subversive of ingenuousness is the rude habit that prevails in some circles—which certainly

cannot be called well-instructed—of conversing on topics or of matters not understood by everyone present. Perhaps a sudden burst of laughter or a covert smile may pass between two individuals, and the other members of the circle, ignorant of the cause, be left to draw whatever conclusion they please. Frankness would instinctively repair the indignity by a suitable explanation. The dissimulator would, ten to one, aggravate the incivility. Thoughtlessness, more often than ignorance, betrays the inexperienced into misdemeanors. Frankness is so ready with the appropriate acknowledgment that the mistake in question is promptly forgiven.

Deception is never admired. Even those who are so unhappy as to practise the follies to which it leads will never be so foolhardy as to pronounce its eulogium. The open-hearted are ready to endure any humiliation rather than to betray the truth. Self-respect—the duty which, as members of a Christian commonwealth, each one owes to God—imparts that love of truth which makes us shrink from any act of duplicity. Respect for others—that sentiment which by excellence is the rich emanation of the golden rule—causes the delicate avoidance of even slight misrepresentations. The action of the mind is so rapid, rash judgments so ready to misconstrue motives, crafty dealings, alas! are so common, that integrity of character, frankness, ingenuousness should be more than ever cherished, and the smallest departure from the "straight and narrow way" through which they were given to guide us should be scrupulously avoided. The mazes of duplicity never bring us to a safe road. Perfect sincerity will surely guide us to God.

Roll of Honor.

FOR POLITENESS, NEATNESS, ORDER, AMIABILITY, CORRECT DEPORTMENT, AND OBSERVANCE OF RULES.

SENIOR DEPARTMENT.

Par Excellence—Misses Allnoch, Allwein, J. Barlow, Bruhn, Butler, Brady, Blair, Bub, C. Brown, Baschamang, Carney, Clendenen, Considine, Claggett, Coll, Carmien, Cox, Carroll, Dillon, A. Donnelly, B. Donnelly, Desenberg, Ewing, Egan, Fuller, Fehr, Farnsworth, Fenton, Griffith, Alice Gorden, Guise, Green, A. Heckard, B. Heckard, E. Horn, Hummer, Henry, Haas, N. Keenan, Kearns, Kingsbury, Kennedy, Lang, Lyons, Lev, Lauer, Livingston, Laskey, Lawrence, Munger, J. McHale, M. F. Murphy, L. Meehan, N. Meehan, Monahan, Miller, H. Nagle, North, Rowley, Riedinger, Rose, Robb, C. Scully, M. Scully, S. St. Clair, L. St. Clair, Sullivan, Stadtler, Shields, A. Shephard, Stafford, Williams, White, F. Wynn, Q. Wynn, M. McNamara. *2d Tablet*—Misses Kearsey, Haines, Walsh.

JUNIOR DEPARTMENT.

Par Excellence—Misses E. Balch, O. Boyer, L. Bragdon, M. Coll, M. Duffield, L. Griffith, F. Hertzog, A. Keyes, M. McEwen, A. Odell, Pierce, Prudhomme, E. Sheekey, Smart. *2d Tablet*—Misses T. Balch, M. Barry, Campeau, Clifford, Mason, Steele, M. Smith, Snowhook, Simpson.

MINIM DEPARTMENT.

Par Excellence—Misses E. Blaine, E. Burtis, L. Caddagan, M. Goetz, F. Johnson, M. Lindsey, E. Qualey, F. Spencer, J. Wallace.

[From the "Salt Lake Tribune."]

St. Mary's Academy, Salt Lake.

This useful institution, established in 1875, has steadily made its name by its efficient teaching, judicious discipline, and first-class accommodations, till it stands one of the best and most flourishing of its kind in the Great West. It is under the charge of the Sisters of the Holy Cross, from the justly celebrated institution of St. Mary's, Notre Dame; Ind. From there they receive their teachers, after many years spent in carefully preparing themselves for the great work—the proper education of youth—to which in singleness of purpose they consecrate their lives.

The Academy is intended for girls only, either as boarders or day pupils. Its object is to impart to them a thorough education; not only to lead out the great faculties of the mind, but also to unfold the golden treasures of the heart, and thus make the rising youth intelligent, good, virtuous and refined members of society. Everything in, and connected with, the Academy is designed with a view to the attainment of this object.

The course of study embraces all the branches considered necessary to constitute a first-class education. It runs through ten classes, or grades, from the primary elements to the graduating class, including algebra, geometry, trigonometry, philosophy, logic, rhetoric, course of history, and general literature. Special attention is given to book-keeping—single and double entry—and business transactions. Four hours weekly are given to composition and letter-writing. French and German languages, although belonging to the English course, are optional studies. They are taught by Sisters, natives of France and Germany, respectively. The elements of vocal music, linear drawing and perspective, being included in the English course, form no extra charge.

The department of music is modelled on the plan of the best conservatories in Europe and America. Here every facility is afforded to pupils, who wish to excel in music, by teachers whose training and talent fit them for this science. The musical department includes nine classes in instrumental, five in vocal culture, two in thorough bass and harmony, and five in the science of music. The hall is provided with fourteen pianos, several guitars, organs, a grand double action harp, and other musical instruments.

The Art School is in the new building; it includes drawing and sketching, enlarging of portraits, some beautiful pastel, crayons and etchings, painting on plush, velvet, satin and kensington.

The beautiful grounds of St. Mary's, and the varied landscapes on all sides, afford unusual facilities for landscape sketching and painting. Valuable additions are made continually to the studies, and a collection of choice engravings and standard books on art has been made for the studio library, the intention being, not only to teach the pupils how to draw and paint, but to give them intelligent views on art in general. Every step in the course is marked with precision, beginning with lines,

angles, and simple forms, and progressing till the time when the pupil is considered qualified to graduate with the same honors as in the academic or musical courses. Many fine landscapes and enlarged portraits, some done by a Sister artist, many the work of the pupils and several ladies of the city, can be seen in the Academy studio and parlor.

The pupils get special good points of honor for the perfection with which they keep their wardrobes in repair; also for darning, plain sewing, general house-keeping and a spirit of order, neatness and care. The sewing circles are placed under the direction of competent teachers, who give full and careful instructions to the pupils.

While the solid studies are regarded as the most important, much attention is given to those graceful accomplishments which throw a charm over domestic life, and contribute to elevate the tone of society. Many neatly and exquisitely wrought works are now to be seen in the ornamental needlework room.

Every provision is made for the protection and promotion of health. The housekeeping arrangements leave nothing to desire; plenty of good, healthy, substantial food, well prepared and regularly served; milk, tea or coffee as the pupils desire. The main building is a large and imposing brick structure, three stories high, situated on an elevated site in the most healthy part of the city, commanding a charming view of the valley and the great lake with its island-mountains.

The music hall, lying to the west of the Academy, and the new building to the south, erected within the last two years, and connected by several verandas with the main building, are also brick, two stories high. On the first floor of the former is the dormitory for small children. In the basement of the new building is the steam apparatus, low pressure, for heating the three buildings. Two sets of hose hang screwed to the water faucets on each floor. Hot and cold baths are in connection with the sleeping apartments. Safety lanterns which have no oil except what is saturated in the wicks are used in all the sleeping apartments. The corridors, recitation and dining-rooms are all spacious, well lighted and kept thoroughly ventilated; the height of ceilings run between sixteen and thirteen feet. Besides two broad stairways ascending from the upper floor, there is another easy stairway on the outside, to insure a safe exit to its inmates in case of accident, and connecting with the fourth broad corridor and stairways from the new building and the music hall. Connected with the Academy are large and beautifully laid out play grounds.

A tender child of summers three,
Seeking her little bed at night,
Paused on the dark stair timidly:
"Oh, mother! Take my hand," said she,
"And then the dark will all be light."

We older children grope our way
From dark behind to dark before;
And only when our hands we lay,
Dear Lord, in Thine, the night is day
And there is darkness nevermore.

—Whittier.