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The Editor must be acquainted with the name of the author of any article, whether local or literary.

THE students of some of our Canadian colleges have a method of their own for doing away with the inconvenience of college society meetings. They hold a general students meeting at which they appoint officers, and a committee for the general management of the students affairs, with sub-committees for the separate branches, as Football, Gymnasium, &c. They even elect the editors for their college papers at the meeting. This system may work well, but we would be very sorry to see it inaugurated at Queen's.

THE Secretary of the Rugby Union Club has received a communication from Toronto, anent the formation of a Rugby Association in Canada. A meeting of the local club will be held at once to consider the communication. If the Association be formed, we have no doubt but that it will do

much for the advancement of the game, and we are decidedly of the opinion that the Queen's Club should assist the project as far as it is able. We shall have more to say on this subject when the affair has assumed a more definite shape. For the present we must be content to give our hearty endorsement to the scheme.

ONE of the most enjoyable features of college life is the singing of college songs in the corridors by the more or less musical undergraduates. Yet it seems to us that the classes of 85 and 86 have scarcely yet learned that they are privileged to contribute to this part of college pastime. About the only vestige we have now of this genuinely soul satisfying recreation is by the junior and senior years. Perhaps the lack of participation on the part of the boys in general is due to the fact that we have no book of college songs. If this is the cause the want will, we understand, soon be remedied, as we are informed that a choice selection of college songs and glees has been compiled by a member of the senior year. The work is now in the hands of the binder. We hope that as soon as the book is published every student will make himself the happy possessor of a copy.

WE learn with pleasure that definite steps have at last been taken towards the organization of a "Philosophical Society" in connection with the classes in Mental Philosophy. We are sure that such a Society will prove of great benefit to its members, and will make its influence felt in a most substantial and agreeable way at the

final examinations. It is also proposed by those who have the matter in hand, should they meet with sufficient encouragement, to make arrangements for public lectures to be delivered at not too close intervals during the session by prominent men from other Universities.

We bespeak for this, the latest addition to our list of College Clubs, the friendly support of both students and citizens. In Toronto and McGill, societies working toward a similar end are very successful, and no good reason exists for any want of success at Queen's.

THE following is an extract from an article in the *Toronto Mail* of the 11th inst: "No academic instructor in Canada, and few elsewhere, we fancy, have had so unique an experience as Prof. Marshall. He comes to the task of training Canadian youth from what was not so long since a *terra incognita*, Japan. In that interesting country, where we see in process of working out the problem of grafting a newer and riper civilization upon an older and seemingly stereotyped one, the Queen's Professor of Physics has recently been engaged in kindred works. The Japanese are a quick-witted people, and nowhere could a scientific teacher hope for a more promising field of labor. The very poverty—or rather inadequacy—of the language, so far as scientific terminology is concerned, would presumably furnish a piquant relish to the work. At all events, Prof. Marshall speaks highly of the country, and the wonderful change wrought upon its people by European contact. \* \* \* \* \*

Once more we heartily congratulate Principal Grant and Queen's University upon this new evidence of progressive energy. They have an object in common with all their academic co-labourers throughout the Dominion. Success anywhere is a gain to superior education everywhere; and all the

friends of university work can afford to rejoice with every new tide-mark in its progress. The weak and paltry years of jealousy are past; now is the season for mutual help, sympathy, and good-fellowship."

THE election of officers for the Alma Mater Society is rapidly approaching. As yet we have not heard the names of any candidates, and therefore the present is the most opportune occasion for any remarks which we may wish to offer on this subject. For the best interests of the Society some changes are necessary in the mode of election. When one considers that the success of the Alma Mater Society depends very much upon its officers, and that the necessary qualifications for office can only be obtained by connection with the Society, it would seem almost needless to say that candidates should be chosen from among those who have been or are active members, and that their most pronounced supporters should be men who will be affected by the result. In the past this has not always been the case. The most active agents in the canvass have too often been men who took no interest in the Society either before or after the election, which has very often been influenced by issues quite foreign to Alma Mater work. If outside questions are to be determined why not have a 'cane-competition' such as sometimes convulses political circles? In this, at least, the success of the Alma Mater would not be at stake. Of course some men will find other things more attractive than the meetings of this Society; others again who wish it success are prevented from attending the meetings by good reasons. We do not ask that these men shall not give their support to any particular man, but we do ask that in all fairness to those who are really interested, they will cast their votes as "free and independent electors," having at heart the interests of our Alma Mater Society.

WE have almost determined that the amount of vigor manifested by an Alma Mater Society forms a very fair index of the life of the College with which it is in connection. The only thing that deters us from committing ourselves to this opinion is the fact that we would not like the prosperity of Queen's to be gauged by the present state of its chief Society. There is no room for argument in the statement that this Society should be the most vigorous and interesting in connection with the College. This should be the case for many reasons. It is the students representative in the same sense that the Senate is the representative of professors. And as the latter use the Senate to convey their wishes to the students, it is quite natural that students should use this Society as a means of approach to the Senate. The most important part of the Society's work, however, is not so much in the means of communication which it gives between student and professor, neither is it in strengthening the ties of union between students which must exist in every successful college, but it consists rather in the training which it gives us for after life. It makes us acquainted with the manner of conducting public business, trains us for exerting an influence on men's minds and, what is most important, removes that feeling of embarrassment so prejudicial to our success, and which in after years is so hard to dismiss. Again, after a week's hard work, when the mental strain is removed, and when the rebound "sets the heart on longing" for pleasant social union, it seems the most natural thing in the world that students should look forward to the Alma Mater meeting with the greatest pleasure. It must be confessed that this is not the case to that extent which we might wish. Because the benefits accruing from connection with this Society, as well as the penalty for neglecting it, are not fully apparent till a student leaves college and takes his

intended position in life, and because union with the Society is quite voluntary the result is that many altogether ignore its claims. Some readers of this article may complain that the meetings are not interesting enough to secure their attendance. We would ask these gentlemen what right they have to expect others to furnish entertainment for them during the session unless they are also willing to furnish their quota to the general fund of enjoyment. Although already this session some remarkably good speaking has been done we must admit that the start off has not been enthusiastic enough to carry us on to that point of improvement which we would desire. And, now, at the beginning of the session when a committee has been appointed to formulate "rules of procedure," we would invite all to join in reforming what is weak in the Society, and in adding what will tend to its success. Many suggestions might be made did space permit. The more our attention has been called to this matter, the firmer becomes our belief that the meetings of our Alma Mater do not partake sufficiently of a social character. One great element in success of any meeting is music. As the Society at present possesses no instrument we are debarred from this great enjoyment, but it seems to us that till this want is supplied many enjoyable evenings may be spent in practice of College songs. It is true that this might be made the occasion of practice not very musical by some of the 'irrepressible,' but if they were occasionally withered up by the look of a senior they would soon learn to stand on their good behaviour. At the last meeting a very important project was mooted, namely, the establishment of scholarships for the best speaker and best reader. This is too important a matter to occupy a subordinate place here. We may say more or it anon. To prove that the above suggestions are the best that can be brought forward is not our object. If any changes result from

the present agitation such that the Alma Mater Society is benefited the design of this article shall have been accomplished.

THE account of the proceedings in connection with the Inaugural Ceremonies together with a press of other matter has necessitated the issue of a double number of the JOURNAL.

**MR. SPENCER.**

AS the majority of the readers of the JOURNAL are no doubt aware, Mr. Herbert Spencer, the somewhat celebrated English writer, has completed his American tour, which he undertook for the double purpose of recruiting his shattered health and of collecting statistics and other material for future writings.

Mr. Spencer is one of those few writers who have really succeeded in popularizing the results of scientific investigation in its recently developed form, dealing more particularly, however, with the general sphere of Biology and its various branches. Yet he may justly claim to have had a considerable share in developing, or at least fostering an interest in scientific research among those members of the community whose limited education or want of time prevents them from pursuing the various branches of science with any degree of technical precision, or to any considerable extent. Had Mr. Spencer confined himself more closely to this task, his labours would have been productive of much more valuable results than, it seems to me, they have been. But, unfortunately, he has allowed the strictly scientific element in his writings to be so incorporated with his metaphysical principles that the attention is directed in very many cases to a far greater extent towards the metaphysical theory, for which the facts are made to afford a seeming support, than towards the facts themselves. This is, no doubt, quite natural; for, in the majority of cases, it is the theoretical element which is

set forth as the end to be established, while the facts are simply represented as subordinate to that end, and apparently derive their only value from the fact of their connection with it. This may be looked upon as one of the reasons why so many of what may be called the middle classes in point of education, are inclined to accept such theories of existence and knowledge as those put forward by Mr. Spencer and kindred writers. Another reason is, that such theories are more nearly akin to the conceptions of nature which are formed by the ordinary man than those which are based upon more profound and deeply-reasoned conceptions of the nature of knowledge and existence, and which these classes have never had the inclination or opportunity of investigating; consequently, they are not in a fit position to judge of the relative merits of the various explanations of experience which have been put forward. Again, the attainment of a true knowledge of the nature of existence, implying a true knowledge of the nature of experience also, necessitates a laborious process of reasoning, by which the immediate and uncritical inferences, drawn from a meagre acquaintance with nature and its conditions, are corrected, and truer and more adequate conceptions of these formed.

The savage is no doubt contented with his conception of the nature of existence, simply because, from his limited knowledge and want of critical insight, he is not aware of its inadequacy; and we can only improve his conception and broaden his ideas by showing him the defective nature of the explanation with which he contents himself. And so it is with every individual, whether in civilized or uncivilized communities, he must begin at the beginning and travel over the same road from the first narrow and uncritical conceptions of common sense, on through gradually expanding and more perfect views, until guided by the light of reason, he attains

to the clearest and most adequate conception of existence at which it is possible to arrive, the goal in this case being such a conception of existence, which, while explaining it in all its fulness, will yet be consistent with itself throughout. The nearer we approach to this ideal the more perfect will be our theory. It must be apparent, however, that the further on this road we travel, the fewer will be our companions, for only a very limited number have at once the time, opportunity, and inclination, which must necessarily be possessed by those who endeavour to reach the limit of knowledge in this direction. We need not be surprised, therefore, to find that by far the greater number of mankind adhere to those theories which, though quite inadequate in themselves, are yet best suited to the knowledge and comprehension of the majority. So, it must be quite evident that the mere fact of the number who adhere to any theory does not by any means proclaim that theory to be the most adequate or consistent. Still, we find Mr. Spencer very often making such appeals to the vulgar in support of the principles of his theory. His system of philosophy, however, is one whose principles have been shown time and again since the days of Locke and Hume, to be utterly incapable of accounting for the knowledge of existence; and hence of the nature of known existence itself. Yet, with a strange persistence in error which cannot be looked upon otherwise than as the result of an ignorance of the point at issue, Mr. Spencer, with others of a similar turn of mind, still clings to the conviction that physical science will yet enable us to answer those questions as to the ultimate nature of existence and our knowledge of it, as far as these are answerable. The fact remains, however, that it must be for ever impossible to explain the conditions of existence and knowledge from the operations of physical laws; since the conditions of these very physical laws are involved in the problem to

be solved. And since every physical fact that ever was known, or ever will be, can only be known in one way, it follows that from the very nature of it, we cannot empirically perceive in any completed experience the conditions which renders it possible. The consequence is, that those very difficulties which proved fatal to the system of Locke, must beset every subsequent theory which endeavours to account for experience from the starting point of the known sentient organism as acted upon by a material environment. Such a theory, when reduced to consistency, as is shown in the case of Hume, makes manifest the fact that, adopting its principles, any knowledge whatever is rendered impossible. Notwithstanding this fact, however, Mr. Spencer supposes that he has discovered the universal solvent of all difficulties as to the conditions of experience, in the doctrine of physical evolution. This is the central principle of all his philosophy and all his writings, and by means of this alone he would explain all that is explicable in the sphere of Biology, in the wide sense in which he uses that term. Apart from the doctrine of evolution, however, his theory is just that of Locke in all essential respects; and even if we admit the evolution of the organism, with all its special organs of sense and their connections, yet this does not in the slightest alter the nature of the question concerning the *conditions* of experience which both Locke and Spencer have attempted to answer. When Mr. Spencer has developed the material organism to its present state, he occupies exactly the same position, with regard to the ultimate conditions of experience, which Locke did at the beginning of his theory. Both alike start with the sentient organism, and the question is, can they, from the nature of such an organism and its environment, discover the conditions of human knowledge and the nature of known existence? Evidently not: for the organism it-

self, together with its environment, belong to that existence to be explained, and our knowledge of these is part of that knowledge for which they, as thus known, have to account by their mutual interaction. Hence, from the very nature of the circumstances, adopting this starting point, no explanation can be given which does not beg the whole question to be explained; for, in such a case, all that is derived from the interaction of organism and environment depends upon what we have previously conceived to be the nature of these; in other words, we only spin out of them what we have previously placed in them by assumption. Locke certainly did not perceive the full force of the difficulties in his system. But Mr. Spencer could not fail to have his attention called to these, since Locke's failure had been made manifest in many ways. Instead, however, of comprehending the utter impossibility of the attempt which he was making, Mr. Spencer infers from the absurdities to which he is reduced, not his own error, but the imbecility of the human mind; and, with marvellous inconsistency, abandons the lead of reason as being unable to deliver us from these difficulties, (and no wonder), and proceeds to draw upon his imagination for what is lacking to make his theory complete. That he has not been able to supply the defect even in this way, an examination of the nature of his Unknowable renders very manifest. A theory, however, which sets out to *account* for experience and ends by *contradicting* it is certainly not very reliable; and it is but a poor excuse for the failure of an attempt to explain our knowledge of existence, to say that the mind is incapable of knowing reality; for, were this a fact, the mind would never know that there is any such reality which it is incapable of knowing.

The fact is, that Mr. Spencer's system and all other forms of Empirical Realism, are merely so many 'half-way houses' on the

road from mere common sense to a true and consistent conception of that essential unity of all existence, which alone will satisfy the demands of reason. One evident reason why the various forms of this Realism are so prevalent among men of science as well as many others, is that certain metaphysical principles, upon which all Realism rests, have become incorporated, to a very great extent, in the results of scientific progress, and are supposed by many who ought to know better, to be the direct results of scientific investigation, and capable of being verified by actual experiment. The rapid progress, too, which science has made within late generations, together with the above mistaken conceptions, have led many scientists to suppose that their method is capable of explaining everything for which it is possible to account. But, when we abstract from pure experimental science such metaphysical principles and hypotheses as are, for instance, put forward regarding the ultimate constitution of matter, whether they be atomic or dynamic in their character, we perceive clearly that science by no means deals with the ultimate conditions of things, but only with their approximate conditions; and that these ultimate conditions must be established, not scientifically, but philosophically. Yet, as I have said, we find many of these metaphysical hypotheses set forth, and especially in popular works, as actual scientific facts, which come to be looked upon as such by the readers of these works. It becomes, therefore, no very difficult matter to bring in, under the cloak of science, those fictitious theories with regard to the nature of existence and experience, which can be shown to rest upon these metaphysical hypotheses previously introduced; and these theories, being prominently set forth, withdraw the attention to a great extent from the real nature of the scientific facts whose only value is made to appear in the apparent support which they afford to the

hypotheses, and thus the truth is swallowed up of fiction. It is the adoption of such a course as this of which we complain in the writings of Mr. Spencer, and especially is this the case in his productions relating to biology, as taken in connection with the theory of evolution, where there is every indication of his reasoning to pre-determined conclusions and choosing his data accordingly.

In particular, the theory of evolution is made to support the most outlandish statements and implications regarding the nature of the human intellect. Here everything relating to the mental and moral aspects of existence is made to depend upon purely physical processes in the organism, it being distinctly implied that all mental operations are dependent upon, and the direct results of physical states, but never the contrary. Still, when brought to close quarters, he has to admit that the connection between the two sides of existence, the mental and physical, is inconceivable, a necessary result of course of his conception of the nature of material objects. His whole account of the evolution of man is quite misleading, in that, while he explains the physical development of the organism which, like all other material objects, he regards as quite independent of intelligence, he says nothing of the independent development of mind, but regards it throughout as part of, or at least dependent upon, the organism, and thus seems to take it for granted that when he has accounted for the development of the organism, he has also accounted for the development of mind.

Thus his whole method of procedure is one of assumption from beginning to end. He assumes, in the first place, the ultimate reality of matter as independent of intelligence, since this reality of matter is dependent upon the truth of the metaphysical hypothesis of the ultimate reality of some substrate independent of intelligence, which ultimate reality

being a fiction, is fitly termed the unknowable. Here, however, we find ourselves reduced to one of those absurdities which led Mr. Spencer to suppose the mind naturally incapable of arriving at ultimate truth, the absurdity, namely, that matter ultimately depends on mind, and mind itself on this matter again. Then as regards mind itself, he is continually vacillating between two conceptions of it; one, that mind and material existence pursue a parallel course in the known world without affecting each other; and the other and more common conception, that which implies the complete dependence of mind upon a physical organism, of which it is simply a manifestation.

Such is the general character of those metaphysical fictions with which the whole of his scientific discourses are contaminated; hence the reasons for believing that Mr. Spencer, in his works, has been the occasion of much positive injury to the minds of many, who would doubtless have been greatly benefited by his writings, had they been of a more strictly scientific character.

#### INSTALLATION

OF PROFESSOR MARSHALL IN THE CHAIR OF PHYSICS—HIS INAUGURAL ADDRESS—THE STUDENTS ADDRESS OF WELCOME TO PROFESSORS MARSHALL AND MACGOWAN.

CONVOCATION HALL was well filled on Friday evening, the 10th inst., by an intelligent audience, the occasion being the installation of Prof. D. H. Marshall, M.A., F.R.S.E., to the vacant chair of physics. Besides the staff of professors there were also seated on the platform some leading citizens and friends of the University from a distance. The gallery was occupied by students of the different faculties who, as usual, furnished their quota to the evening's programme in the way of college songs. After the installation ceremonies, which were conducted by the Vice-Chancellor of the University, the Rev. Principal Grant, the newly appointed Professor was introduced to the assemblage and at once proceeded to deliver his inaugural address, which was as follows:

When I was asked, after my appointment to the chair of physics in this University, to deliver the opening address for the current session, it became a matter of anxiety to me what sort of passage we should have across the Atlantic. Without a consulting library within reach it would add, I feared, considerably to the difficulty of the situation had I not a steady table even on which to write. But a promise once made must be fulfilled. My

former, though slight acquaintance with our fellow-countrymen on this side of the Atlantic, made me feel that I would have a generous, if not an indulgent audience, and with such a Principal as we have I believed at least every allowance would be made for the circumstances in which I am here now to address you. I propose, on the present occasion, to say a few words on what I believe to be the province of physics as taught in schools of science at the present day, and thereafter to make some remarks on my own experience in teaching that subject to a people who may be said to have been entirely ignorant of it but a quarter of a century ago. Physics, which is the subject I shall have the honour to teach in this University, if taken in its literal sense, would treat of all the phenomena and their relations to one another, with their connecting laws, which take place in the material world. Natural philosophy, the older and yet much cherished name of the same subject, has a similar meaning. But as our knowledge of the material universe has grown, one branch after another, like the branches of the banyan tree, has taken root for itself and grown a tree alongside the mother stem. Medicine, which in its various parts treats of a knowledge of living animals, and especially man, and the relations they have to the material world outside them, has long ago separated itself. In the same way Botany, which unfolds to us the wonders of the vegetable kingdom, Geology, which treats of the crust of our own globe, and tells us of its various changes in the past, Chemistry, which analyses for us the various kinds of matter and repeats the old lesson that we are but dust, and Astronomy, which revels in the starry sphere around us, have all grown such vast subjects both in the amount of knowledge they embrace and in the importance of their practical applications that each can well command the almost undivided attention of its votaries. As such important branches of the parent stem have one by one taken root for themselves, it becomes difficult to define exactly the field which is now investigated under the name of physics. A definition, which as well perhaps as any other can convey to us an idea of what we mean by the term in modern times is this: Physics is the science of energy. By energy we mean capacity to do work. Work, let me remark, in the scientific sense does not mean only useful work, which it does in a popular sense. When a boy *e.g.* throws a stone and breaks a pane of glass, or when a boiler explodes, it will be taught in the class of physics that work has been done in either case, although in another class-room the same phenomena might come under the term mischief rather than work. By work in a scientific sense we mean the overcoming of resistance through space, and the amount of work done is measured conjointly by the amount of resistance overcome and the distance through which it is overcome. The above definition of physics has been suggested by the comparatively recent discovery of the great foundation of modern physics, *viz.*, the conservation of energy. Perhaps no law, not even excepting the great law of universal gravitation has been richer in results than this important generalization. The conservation of energy is that principle which asserts that the total energy in the universe is a constant quantity, and the various changes which go on around us are merely transformations of one form of energy into another. The no less important principle of the indestructibility of mass, which forms the foundation of modern chemistry, has, in like manner, taught us that however great and many are the changes in the forms and other properties of matter which are constantly taking place, there is one great law to which all such changes are subservient, *viz.*, that the total mass remains unchanged. To make what is meant by the C. of E. a little clearer to you, allow me to take a particular case. Heat, you are aware, inasmuch as it possesses the capacity

of driving engines and through them of doing work of various kinds, such as transporting us over land or ocean, is a form of energy. Now our principal source of heat is the sun, and however paradoxical it may appear to you at first sight, I can show you that it is really the heat of the sun that drives our boats across the ocean, whether they be driven by wind or steam. Without considering what becomes of all the heat of the sun you will readily admit that a portion of it comes to our globe. This portion is used in different ways. Part goes to heat the earth's surface, and thence to a great extent is radiated into space. Another part evaporates the waters of the earth, which rise in the form of steam and thereafter condense in the forms of clouds which again fall as rain to form rivers to be borne again to the ocean. Another part is spent in heating the atmosphere around us, and the unequal heating in different parts of our globe is the principal cause of the winds which drive our sailing vessels across the seas. This is a transformation, then, of the energy of heat into that of the visible motion of matter, or, as it is technically called, visible kinetic energy. Presently I shall show you that this kinetic energy is re-transformed into heat. Another part of the sun's heat enables the vegetable world to break up the carbonic acid in our atmosphere into its elements carbon and oxygen, the carbon going to feed the plant, the oxygen the animal. At this stage the energy of the sun's heat is said to be transformed into what may be called the potential energy of chemical separation inasmuch as we can get back again the energy in an active state by the recombination of the carbon and oxygen we have just separated. The plant fed by the carbon, after long ages of decay, becomes coal, and in this form we use it to give us back again the heat of the sun to form steam and drive our steamboats.

But, granted that the boat driven either by wind or steam, has really been driven by the heat of the sun, what becomes of the energy *then* you will naturally ask if it be indestructible. The resistance to be overcome in driving a boat is principally the friction between the boat and the water, and in overcoming this the energy employed is converted into heat, and this is spent principally in heating the water and thereafter diffused through space. To take another example let me explain to you how it is that the sun supplies the inhabitants of Montreal with *running* water in their houses. In the way explained above the sun's heat is transformed into the potential energy of uncombined coal and oxygen, then retransformed into the heat which drives the engines, which work the pumps, which raise the water to the reservoirs on the mountain. At this stage the energy is in the form of the potential energy of a *head of water*. When in any house the water is turned on we have a transformation of part of this potential energy into the *active* form of running water. By friction and concussion it is again retransformed into heat to be diffused through the earth and thereafter dissipated in space, though not destroyed. We may learn another lesson from these two examples I have chosen of the *transformation of energy*, *viz.*, that to the sun we owe many, if not all of the comforts of life. It is indeed the medium which the Great Creator has set in his heavens to give us life itself, and surely we ought to feel pity rather than contempt for those nations, who have not yet been taught by a higher power to look from the thing made to the maker, for worshipping the ruler of the day. If they cannot express they at least have instinctively imbibed the lesson that life on earth is but a part of that bright orb. As in the examples I have just given we can trace more or less perfectly the various changes which any portion of energy passes through, and satisfy ourselves that no portion is destroyed. Our conviction, however, of the truth of this law as of all the laws of nature is derived more

from the fact that when we use it as a foundation on which to build, we invariably find that deductions from it are in consonance with what we see to be the course of nature. It is indeed only on the foundation of the indestructibility of mass that researches in quantitative chemical analysis can be made, and the indestructibility of energy is the principle which has led to the immense strides which have been made in the investigation of nature within the last half century.

In the examples above given of energy being transformed from one form into another we have left it finally in the state of heat diffused through space. In this form, though not destroyed, it is in a state which prevents us from making further use of it, *i.e.*, for doing useful work for the purposes of man. They are particular cases of another of the great generalizations of modern times. Whilst energy cannot be destroyed, in every transformation which takes place there is always some energy degraded from a higher to a lower form, and this process of degradation will go on until the total energy in the universe is in the form of uniformly diffused heat, after which no further transformations can be made. This principle is known as the dissipation of, or better as the degradation of energy. The principal divisions of our subject are dynamics or the science of force, heat, light, sound and electricity and magnetism. Under the term dynamics we treat of what may be called the forms of visible energy, such, *e.g.*, as the energy of motion of a projectile or other moving mass, (take that of a ball projected from the cannon's mouth, the destructive effects of which are too well known); of the energy of position of a head of water, (a fine example of this is seen at Lake on the Mountain where the energy of position of a fine head of water is taken advantage of by the proprietor, Mr. Wilson, to drive his machinery by means of turbine wheels to which the power is directly led); of the energy of a mass of compressed air or other gas, (it is only necessary to mention the power of doing work contained in the compressed steam in a boiler). Under the head of dynamics we might also include those more recondite forces known as the molecular forces, adhesion, crystalline force, diffusive force, &c., whilst under heat, light, sound, electricity and magnetism are discussed the various forms of invisible energy. To enumerate in detail the various advances made in these several parts of our subject in modern times would be to me in the circumstances an impossible task. A few words may, however, be not uninteresting. In dynamics there is, perhaps nothing since the publication of Newton's Principia, which has so much stimulated the study of the science of dynamics as the well-known work of two Scotch Professors—Thomson and Tait's Natural Philosophy. Almost every book on dynamics which has appeared since that work has been influenced by it. The advances made in this subject are more or less of a mathematical character, and as such are of the greatest importance in their applications. In the science of heat not only have important advances been made in our knowledge of the nature of heat and wrong theories given up, but laws and data of the greatest practical importance have been discovered. Chief amongst the latter is the determination of the mechanical equivalent of heat. It is indeed a triumph of science to be able to say that the heat required to raise the temperature of a pound of water by  $1^{\circ}$  C. would, if properly applied, be able to overcome the weight of the same water through a distance of 420 feet, or that if the same water were allowed to fall in vacuo through the same height and all its energy of motion used to heat it, that its temperature would be increased by  $1^{\circ}$  C. It may interest you to know a physical fact of some importance which comes under the subject of heat, and which only within the last year has been proved in the physical laboratory of the University of

Edinburgh. To the inhabitants of a land of snow and ice like this it is probably well-known that the freezing point of water or melting point of ice is lowered by pressure, a fact predicted from theory more than 30 years ago. That if water *e.g.* were subjected to a pressure of 133 atmospheres instead of 1, as it is under ordinary circumstances, its freezing point instead of being  $0^{\circ}$  C would be  $1^{\circ}$  C, *i.e.*, 1 degree below the ordinary freezing point. It is this lowering of the freezing point under pressure which explains, to us the gradual but ever onward flow of glaciers, and the same fact explains to us how snow when it has just fallen and a sleigh or heavy cart passes over it, the portions compressed are converted into ice. When the sleigh or cart presses on the snow the latter is partially melted because the melting point is lowered, but as soon as the pressure is removed, the water just formed is again frozen as ice. This, of course, would not take place if the snow were originally at a temperature considerably below the ordinary freezing point. In the case of water another interesting temperature is its maximum density point, which under the ordinary atmospheric pressure is  $4^{\circ}$  C. It is this remarkable property of water, of having a maximum density above the freezing point, taken along with the bad thermal conductivity of ice, which explains to us how the bottoms of rivers and lakes are seldom frozen, even after a long winter—a remarkable provision of nature for the preservation of the lives of fishes during winter. Now it has within the current year been proved in Prof. Tait's laboratory in Edinburgh University that the maximum density point of water, as I have just said has been known for over a quarter of a century to be the case with the freezing point, is lowered by pressure, and to the extent (so far as I at present remember) of  $2.5^{\circ}$  C for a pressure of 1 ton weight per square inch, or 150 atmospheres. The subject of light supplies us with a fine example of how the greatest geniuses may be used to support a false theory. Sir Isaac Newton was a supporter of the corpuscular or material theory of light. After the complete establishment of the Wave theory, and the brilliant predictions which were made from it, and afterwards verified, to the extent even of producing darkness from light, we might have thought that our knowledge of light would be completed by it. Who amongst the early supporters of the undulatory theory could have imagined that by its own light the sun would tell us of what it is formed. It required a Newton to teach us how to measure the mass of the sun; in the present century we have learned of what that mass is made. Is it not a lesson ennobling and raising us far above the sordid pleasures of life, which teaches us to look on the Great Ruler of the Day and learn what are its motions, to measure as with a rule its distance from us and its size, to weigh as in a balance its mass, and like a chemist in his laboratory even to tell of what it is formed? I would not exchange such knowledge for the wealth of a millionaire. And, if we take a view of the practical side of science, is it the diggers of gold, or searchers of diamonds, or hunters after wealth that have given us the material comforts of our modern homes, that have taught us in such luxuriance fearlessly to cross the restless ocean, that bring us in such comfort to view the beautiful places of earth, that enable us to look with admiration rather than fear on the less common phenomena of nature, be they comets, eclipses, lightnings or thunder, or have by electric speech brought all men so near to one another that they cannot but feel that they are all children of one beneficent Father?

In the science of sound it will suffice to mention the name of the great German Philosopher Helmholtz to remind ourselves that researches of the most important kind have but recently been made in this branch of physics.

Amongst the many interesting instruments invented for the better understanding of the nature of sound this side

of the Atlantic can claim the phonograph, an instrument which, like the radiometer, if it be not yet of much practical importance, reveals to us points of the greatest theoretical interest.

To give the great modern discoveries in electrical science would be to give the history of electricity. So rapid has been the development of this branch of science, especially in its practical applications to telegraphy and electric lighting that a new profession has been created—that of telegraph engineering.

The name of Sir William Thomson is perhaps more associated in our minds with the great advances made in this subject than that of any other philosopher. and well may Glasgow be proud of having such a man to adorn its class-rooms. No physical laboratory can be said to be furnished unless it be supplied with the fruits of his genius. But whilst the great scientific leaders are ever astounding us with new discoveries and new applications of scientific principles, there are scientific teachers who do no less important work, viz., in spreading the knowledge of science amongst the masses of mankind. In this important work scientific men are not behind in modern times. This is easily seen in the great improvement which has taken place in modern text-books and subjects taught in schools. With your permission I shall say a few words as to the progress made in a country that I have recently been connected with for several years, and to you, perhaps, a country yet little known—I mean Japan. It is not 30 years ago since Japan was to all nations, except the Dutch, a practically unknown country. Even yet we find such errors as these amongst educated people; that Japan is a hot country, that it is dependent on China, or forms part of that great empire of the East, that its people are barbarians or semi-civilized, &c. Far from this the winters in many parts of Japan are as cold, though not nearly so long, as in some parts of Canada; instead of being dependent on China it boasts in its history of having conquered the Chinese and made Corea a dependency, and its people, far from being barbarians, were civilized when our own ancestors were little better than savages, and at the present day might be a model of politeness to the most polished nations of Europe. Their works of art, I needn't add, have a world-wide reputation, and have had a very great influence in art education at the present day. For several centuries the rulers of this interesting country adopted a policy of exclusiveness; they believed that all other men, except their neighbours the Chinese, were nothing but ignorant savages. It fell to our southern cousins, under the leadership of Commodore Perry, to teach this nation how fatal in many respects was this policy of its rulers. Nothing impressed the proud defenders of that land of the rising sun more than that magic power which drove Perry's ships of war out and in their bays. (I use the adjective magic, for all the European inventions of steam-engines, telegraphs, photography, &c., when first seen by the Japanese were thought to be magic, and probably confirmed in their minds our close relationship to His Majesty of the Nether World. "Red-haired devil" was a common epithet of contempt long applied to the foreigner.) They soon saw that to hold their own with other nations they must learn the sciences of the West, and to this end, after a period of great disturbance the Government engaged men of different nations to teach them the branches of scientific knowledge in which each was supposed to excel. French officers were engaged to teach military tactics, Germans to teach medicine, Englishmen to teach naval tactics, engineering and agriculture, and Americans among other subjects to shew them how best to colonize their most northerly island. Colleges were established in the capital Tokio for this purpose. It will suffice in the meantime to give you some information of the college with which I was myself con-

nected viz: the College of Engineering. This college was founded by the Minister of Public Works in the year 1873, and for this purpose he engaged a Principal, who was also Professor of Engineering, Mr. Dyer of Glasgow University, and 5 professors to teach Mathematics, Physics, Chemistry, Drawing, and English, and 3 assistants who had been all trained as practical engineers. With this staff the college was started, and, whilst teaching was begun in temporary buildings, the necessary buildings were erected under the superintendence of an English architect according to the requirements of Principal and Professors. As all the lectures were given in English it was necessary that the students should know this language, and to this end the matriculation examination (which was open to all Japanese subjects) included English speaking, reading and writing to dictation, translation from Japanese into English, and from English into Japanese, as well as arithmetic, geography, and the rudiments of geometry and algebra. These subjects were already being taught in elementary schools both in the capital and chief towns of the provinces. The students were all boarded within the college walls, a plan we found almost indispensable, for Japanese habits were so different from our own, that it would have been difficult for them to have taken full advantage of our teaching, did they not first acquire European ways of working. The curriculum extended over 6 years. The first two were called the General and Scientific Course, and during these two years the students attended classes in English, Mathematics, Drawing, Physics, and Chemistry. After passing an examination in these subjects they entered upon their Technical course which extended over the next two years. At this stage the students were divided into sets according to the professions they intended to follow; civil engineers, mechanical engineers, telegraph engineers, chemists, mining engineers, metallurgists and architects. In the third year of the college's history I should mention that the government had engaged additional professors of engineering, surveying, geology and mining and architecture. During the technical course the students attended classes which fitted them for the several professions which they intended to follow, *e. g.*, the civil engineers attended classes in engineering, surveying, higher mathematics, higher natural philosophy, technical drawing, and worked as much as possible in the engineering laboratory; the telegraph engineers attended classes on Telegraphy, Higher Mathematics, Higher Natural Philosophy, Technical Drawing and Surveying, and spent much of their time in the Physical Laboratory, and so on. The last two years formed the practical course, and during these two years the students were sent to assist in actual works carried on by the government: the civil engineers to assist in the construction of railways and bridges, the mechanical engineers to work in the government dock yards, and so on. When I add that the college contained physical, chemical and engineering laboratories, well supplied with apparatus, had museums for the study of geology, engineering, telegraphy, and chemistry, and further possessed a good library and a handsome examination hall, you will agree with me that the present Japanese Government have adopted a wiser policy than that of their predecessors. And if they but overcome the national weakness of fickleness, there is doubtless a great future before them. The other colleges in the capital although perhaps not so completely equipped as that of the college of engineering were nevertheless well supplied with the material necessary to carry on their work, and were important educational institutions, I have mentioned the case of Japan as specially bearing on scientific progress in respect of scientific knowledge being spread amongst great masses of people. So eager did we find our Japanese students to learn the sciences of the West that a rule had

to be made in the college compelling them to take daily exercise out-of-doors. Nowhere could it be more necessary to instil the lesson of the old Latin poet: "Mens sana in sano corpore."

Our experience in Japan gave us considerable insight as to the best way of teaching science and especially physics, with which I am more specially concerned. You might think that it was very hard to make our students study science in a foreign language. This on the contrary was the very best thing for them. When we arrived in Japan we came amongst a people who were totally ignorant of the very simplest scientific instruments with which in this country you are familiar from your childhood; a people who had no means of telling differences of temperature other than by the rude and imperfect method of touch, who didn't know that you might go on heating water until it boils, but that after that how-ever much heat you apply it gets no hotter; who could hardly form an idea of what was meant by weighing the air around us, and knew no better method of measuring the height of a mountain than by the length of the road to the top of it. The magnet, the directive property of which was first discovered by the Chinese, was perhaps the only physical instrument known to them, if we except such as are used in the mechanical arts—rude turning appliances, pumps of a simple nature, bellows, &c., I might give you some amusing instances of how the universal ignorance of differences of temperature was brought to our notice. In travelling in the country, *e.g.*, having been accustomed to tea prepared in China for the European market we daily required boiling water to infuse our tea. But we everywhere found that the people had no idea that boiling water differed in any way from very hot water which was far from the boiling point, and to get what we wanted we had either to go to the kitchen ourselves to superintend the infusing, or get brazier and kettle in our rooms where we could infuse it ourselves. The Japanese merely dry well their tea leaves as a sufficient preparation, and in this partially green state experience has taught them that water of a medium temperature (if you will pardon such an unscientific expression) is the best to bring out the full flavour of the tea. When water boils it is said in Japanese to 'stand,' but even 'standing water' doesn't bear along with it the idea of having a maximum temperature.

Such a people you might imagine not only had no words to express our modern scientific ideas but their language was not even capable of expressing them. In these circumstances it was much better to use words already invented by the discoverers of the ideas themselves, and indeed by doing this they did nothing more than Europeans have themselves done, for nearly all our scientific terms are of Greek origin. To learn the English language was to the Japanese student the greatest boon, for thereby a great literature was made available to him, and in no better way could the store of modern scientific knowledge be thrown open to him.

In teaching Physics to the Japanese I found that by far the best way was to make them thoroughly familiar with at least the simplest scientific instruments, such as balances, thermometers, pumps, magnets, &c., and to measure for themselves some of the simpler physical quantities, such as specific gravities, temperatures, dew points, electric resistances, &c. Having spent a session in such simple laboratory work they came well prepared to understand thoroughly a course of lectures illustrated by experiments during a second session. And while I mention this as having been a method of teaching most successfully applied in the case of Japanese I am convinced from my experience of Scotch students, and especially from my own education (for I know well in my own case how much better such a method of being taught

would have been) that it is the best method not only for Japanese, but also for Scotch or Canadian or any other students. The most formidable objection to such a method of teaching Physics is that it becomes expensive for the student. To this I answer that to those who desire a thorough education in Physics, although expensive at first, it is on account of the time it saves the cheapest way in the end, and for all of us I think it is better to have a few correct ideas so thoroughly mastered that we can apply them in after life, than a mass of hazy scientific notions which we cannot even clearly express, not to say apply in practice. While I say it is most valuable to be able to apply our knowledge in practical life I desire you by no means to suppose that I think this the ultimate end of an education in Physics or any other branch of learning. I am quite in agreement with those who think that the true end of education, and especially of a university education, is to cultivate the mind, and thus to fit us better for any profession whatsoever in after life, an education which prepares us to seek and helps us to find a reason for every action of our lives, which teaches us to walk manfully through life by having made us sure first of the stability of the ground on which we are to tread, and whose influence is to make us soar far above every mean action. And I am bold enough to say that Physics is as important a branch as any other in the University Curriculum for this purpose. It is the highest development of a mathematical course of study, and thus is invaluable in leading us to correct modes of reasoning, and guarding us against hasty induction and rashly attributing results to wrong causes. It above all other subjects teaches us to methodize and arrange our facts, and thus instils into us habits most valuable in after life. In Physics we have a perfect blend of the purely mathematical and purely experimental sciences, and its student is thus trained in the two great means of arriving at truth—reasoning and observation. Physics brings before us the smallest as well as the greatest objects in the material world—the minutest organisms visible only under the highest powers of the microscope, and the inconceivably great masses in the starry sphere above us. It teaches us to contemplate the most insignificant as well as the most impressive phenomena in nature, be it the fall of a stone to the ground, the rise of smoke in the air, the grand motions in infinite space of the earth we inhabit, or the path of light from the twinkling star trillions of miles distant. And above all it leads us from studying the creation, to think of the Great Creator to whom every action of our lives is known.

But to a Canadian audience it is needless for me to advocate the importance of a subject which is made in all parts of the world an essential part of a liberal education.

In conclusion, ladies and gentlemen, let me thank you for the indulgent way in which you have listened to what I have said. Whilst I feel the responsibility of the position I have accepted to teach Physics in this honourable University I assure you that no effort will be wanting on my part to prove myself worthy of your confidence and of that of the University authorities to whom I owe my appointment.

Not the least pleasing feature of the proceedings of the evening was the reading of an address of welcome by the Students of Undergraduates of the University to Professors Marshall and McGowan, which was presented at the conclusion of the inaugural address and which was replied to by Professor McGowan in suitable terms

THE ADDRESS.

REV. PRINCIPAL,—

On behalf of the students of the University, we beg to tender a welcome to the recently appointed Professors of Chemistry and Physics

TO PROFESSORS MCGOWAN AND MARSHALL :

GENTLEMEN,—The students of Queen's are glad to have this opportunity of publicly extending a cordial and hearty welcome to you as additional members of the teaching staff of our University, whose advancement and aggrandizement are always near to our hearts.

From the old motherland we welcome you to youthful Canada, whose people are just as loyal, though further from the throne. You have come to a country blessed, especially at this time, by a benign Providence; to whose vast resources the eyes of the world now turn; to which thousands are flocking. Signs of progress and growth we see in all around us. He would be a bold prophet, indeed, who would dare to predict the glory of Canada's future! And this coming greatness of our nation must to some extent be due to your individual efforts, for yours is the task of moulding the plastic mind of the youth of our land.

To this historic city we welcome you; among its hospitable citizens we believe you will find a happy home. Such, at least, has been our experience.

We are happy that we can bid you welcome within the walls of so fine a building as that which, thanks to the citizens of Kingston, thanks to our Principal, we occupy to-night. It was not ever thus. Queen's has had dark days and times of adversity. Yours will be an easy task to labour amid such pleasant surroundings, compared with the toil of those who have preceded you, who, notwithstanding so many difficulties, with their few advantages, have achieved so much.

We feel this to be an auspicious day in the annals of our Alma Mater, when two distinguished lights from renowned seats of learning in the old world come to eradicate truth amongst us. From all we have been able to learn—and we have been inquisitive—we are assured that you may be looked up to as men well fitted by nature and cultivation, to be our guides through the misty fields of science. Moreover, had we never heard of your many and varied attainments, yet have we such faith in the judgment of the Board of Trustees, and in the wise discernment of our esteemed Principal, that we would have rested entirely satisfied with their choice.

One circumstance increasing the cordial feeling is, that you have come from the land whence the founders of this institution sprang.

"Sons of the old race we, and heirs of the old and the new,  
From no place, next to Canada, would we rather greet you."

Thence came, long years ago, to nurse and rear this now vigorous institution, the pioneer professor, the venerable Dr. Williamson, whose retirement from the chair of Physics alone casts a shadow on this day's rejoicing. In and for Queen's have been generously spent his brilliant talents, through the choicest years of a long and noble life. We rejoice that his fatherly council will still be ours. Long may he be our Vice-Principal.

Prof. Marshall, we can express for you no better wish than that you may occupy among the students of the future, the position that he has held with us and the past graduates, in whose memories the old man's immortal name is enshrined in grateful recollections.

He who for fifteen years past has been the Professor of Chemistry, has earned within and without the college the enviable reputation of being a clear expounder, as well as master, of his subject—a subject which by his ability as a lecturer he has converted from an abstruse into a pleasurable study.

May your efforts, Prof. McGowan, be as highly appreciated! May your command such respect and admiration as have always been given your predecessor.

Gentlemen, since you assume the responsibility of such important chairs, up to this time so ably filled, we extend our best wishes, and promise you day by day our hearty sympathy in your arduous tasks. This we can feelingly do, for every student here knows what hard work is, else he soon learns what plucking means. We hope, however, none of us will learn it at your hands.

We grant you whatever amount of sympathy and respect you see fit to demand of us.

Within these limestone walls may your voices long be heard! May the combined efforts of yourselves and your colleagues be crowned with such success that the day be not far distant when there shall be no place in all the great round earth in which the name of Queen's shall be unknown, her influence unfelt.

Our thoughts to-night are well expressed by our Canadian poetess, as she sings:

Break dull November skies, and make  
A sunshine over wood and lake,  
And fill your cells of frosty air  
"With thousand, thousand welcomes to  
The worthy pair."

#### UNIVERSITY SERMON.

ON Sunday afternoon (Nov. 5.) Rev. Dr. Williamson, of Queen's College, preached the following sermon to the students in Convocation Hall:

Jer. 9, 23.—"Let not the wise man glory in his wisdom; neither let the mighty man glory in his might; let not the rich man glory in his riches; but let him that glorieth glory in this, that he understandeth and knoweth Me, that I am the Lord who exerciseth loving kindness, judgment and righteousness upon this earth; for in these things I delight, saith the Lord."

Men have in all ages been prone to plume themselves on their power, or riches, or their superiority in ability and knowledge. On the ground of these distinctions, real or supposed, they have been ready to hold their heads high above their fellows, as if such things were fit matters for boasting, and were the chief objects which men ought to prize and to aim at.

On the folly of men glorying in mere commanding station or wealth, possessions so unstable, and at best so fleeting—possessions too not their own, but talents given to be rightly used, we shall not here dwell. But what shall we say to intellectual powers and an extensive acquaintance with literature and philosophy? These may be viewed by their possessor as placing him in a position from which he may look down upon others—on an eminence of which he may be proud, and by some even as the main objects of their being and enjoyment. This form also of glorying, however, the glorying in our wisdom, is emphatically condemned by our text, and where is it more fitting, that its admonitions in this respect should be heard and pondered, and obeyed, than in the seats of learning. "Let not the wise man glory in his wisdom—but in this that he understandeth and knoweth Me, that I am the Lord who exerciseth loving kindness, judgment and righteousness upon the earth, for in those things I delight, saith the Lord."

#### HUMAN KNOWLEDGE.

The wisdom, or human knowledge, which forms the ordinary field of study in a University is to be very highly valued, although it is not to be sought or regarded as our great end. Christianity, so far from being opposed to its cultivation, desires it to be pursued to the utmost limit of human capacity, and teaches us that we are responsible for the right use of our mental faculties, as well as for the actions of our lives. It has been in fact in countries where the religion of the Bible has had the greatest influence, that the powers of the mind have had their freest scope in every path of knowledge, and the manifold inventions of modern times, of which we are constantly receiving the benefit, have had their rise. Admitting, however, to the fullest extent the importance of advancement in all human lore, and the eminent attainments which some have made in its several departments, such attainments can never afford just cause for boasting. Men may make a parade of their learning, as if it were wholly of their own getting, and not mainly the result of faculties, and advantages, for the possession of which they can claim no merit. Some may have much learning, but little judgment. Some again are ready to decry all other learning but their own. Of such it may be said in the words of the Apostle: "We know that we all have knowledge; knowledge puffeth up, but charity edifieth, charity vaunteth not herself; if any man thinketh that he knoweth anything, he knoweth nothing yet as he ought to know." The most talented and erudite in any case have much reason for modesty, none for self-conceit. But intellectual skill and acquirements, greatly as they are to be valued, and diligently as they are to be cultivated, estimating them at their utmost worth, are after all only subordinate attainments. What possible ground can he have for self-elation, who, though he must justly occupy one of the foremost places in one or other of the walks of science, looks upon this as his only aim, and is ignorant of the highest and best of all knowledge, that of his God, and his relation to him? This knowledge, our text declares to be the only solid ground for satisfaction and rest to the Spirit of man. Without it all other knowledge is as nothing.

Were the soul mortal, and were there no God, men might have some reason for at least regarding their human learning and research as their noblest employment,

although what would it profit, if their half finished schemes, and their most matured and valuable meditations, were alike to be forever broken off, if all were to terminate with this life, and what real comfort would they give in bereavement, sickness, and death? The immortality of the soul and the being of God, however, are truths which revelation and the highest reason alike teach us, and, in considering the question, in what knowledge its truest sense consists, the monstrous and abnormal pretensions of the materialist and the atheist are at once to be set aside, and we must look not only to the present, but to the future, and to God.

MORAL KNOWLEDGE OF GOD.

Let the lover of the study of nature and philosophy, however, have drawn from them the most convincing proofs of the infinite wisdom and might of the Creator; is such a one to be reckoned to understand and know God according to the meaning of our text? Plainly not; even his is the knowledge here spoken of. For, observe, that it makes no immediate reference to the power and wisdom of God, which, if men will but let reason speak, the heavens and earth declare, but refers explicitly and specially only to his moral perfections, His "exercising loving kindness, judgment and righteousness upon the earth, and His delighting in these." It is that knowledge, in short, which influences the heart and life, not merely the mental, but the moral and spiritual nature. It is not merely the abstract recognition of His moral perfections, but that genuine knowledge which leads us to fear, to love and to obey. It is sufficiently obvious, that it is in this latter sense that it is spoken of in the passage before us, just as when it is said of the Christian life, "This is eternal to know the only true God, and Jesus Christ whom he has sent." The terms "knowledge," and "wisdom," are in fact again and again used in Scripture as synonymous with a godly inner life and a consistent daily walk. Thus it is said, "The fear of the Lord is the beginning of wisdom." "The wisdom that cometh from above is first pure, then peaceable, gentle and easy to be entreated, full of mercy and good fruits, without partiality, and without hypocrisy." Thus also the Apostle, addressing the Ephesians, after speaking of the idolatry and pollutions of the Gentiles, says, "But ye have not so learnt Christ, that your knowledge has made you better and happier men," "if so be that ye have heard Him, and been taught by Him, and the truth is in Jesus, that ye put off concerning the former conversation, the old man which is corrupt according to the deceitful lusts, and be renewed in the spirit of your minds, and that ye put on the new man which after God is created in holiness and in righteousness." That knowledge of God of the true dignity to which we are here called presupposes indeed the contemplation of Him as the Author of this marvellous universal frame, and therefore as the object of our most profound reverence and awe, but it regards Him above all as exercising goodness, justice and mercy, as hating evil and loving righteousness, in other words, as our Benefactor and Redeemer, our Lawgiver and our Judge, who has every claim to our service, and whose loving and loyal subjects we seek to be. He, and he only, who thus knows God is declared by our text to have attained the supreme good and glory of man.

With all your studies, gentlemen, ever remember this, and let this knowledge be your chief aim. Let me only further briefly endeavour to bring before you some of the reasons for adopting this course which the consideration of the subject suggests. And

First, the very nature of being, when rightly viewed, teaches us this lesson. While allied to earth by our bodily frame, we are allied to God by the mind, and this latter ennobling relationship implies in it the obligation above all to seek to become acquainted with the Divine

Spirit by whom mind has been imparted, and what He would have us to do. We have been moreover endowed with affections which can find their most worthy object only in the Giver, and with a moral sense which speaks of Him as our Judge, and His law as our rule. Every faculty, mind, affections, conscience points to Him, and ought to converge in him, in the knowledge of His wisdom, love, holiness and justice, and in its blessed fruits a godly and righteous life.

HUMANITY'S SAFEGUARD.

Consider again that the prevalence of this knowledge is essential to the highest interests of humanity. The best hopes of earth centre in its power to elevate mankind by making them acquainted with the perfections of the Almighty, with a divine example, and a wise and overruling Providence in which the people of God can at all times confide. It would be a melancholy and hopeless prospect for the progress and happiness of our race, if human nature were to be left to itself to rise to a loftier position. The imagination, that its elevation would in such circumstances be the result, could be entertained only by the most credulous of men. Yet such are the views of a certain class of scientists in the present day. Verily, "professing themselves to be wise, they are become fools." Experience has sadly taught us that it is vain to expect that human nature, where the being of God is not acknowledged, or is openly denied, will raise and purify itself. The very reverse has proved to be the case, and it must ever be so. For the thankful service of pure and upright hearts can proceed only from the knowledge and belief of a holy, and loving God, who is willing and waiting to receive all who come unto Him with a true repentance, and simple dependence on His redeeming grace. And it is the glory of the Gospel, that it has clearly revealed what it most important for us to know, the righteousness and mercy of Him with whom we have to do, the sanctions of His law, and how His pardon and favour are to be secured. It is the glory of the Gospel that it has manifested His moral perfections, and thus laid the foundation for the highest excellence of man.

Let me, in conclusion, exhort you, gentlemen, to make this knowledge your chief study, to count all things but loss for its excellency, as essential to your own most vital interests for time and for eternity. Contemplate your Heavenly Father as He is set before you in His word, in His infinite holiness and justice, that you may see and feel your own sinfulness and need of the Saviour, and in His infinite mercy in the way of salvation which he has opened up, that you may trust and love, and serve Him with all your hearts. Follow on that you may, in the intense language of our text "understand and know" the Lord, that you may know Him more and more, and, beholding in Christ Jesus the brightness of His glory and the express image of His person, may be changed into the same image and be made partakers of the divine nature by the Spirit of all grace. This knowledge alone will fill the soul with contentment where else there would be a dark and dreary void, will sustain you amid the trials and temptations of the life that now is, and prepare you for an inheritance above, where you will behold His glory face to face, and be admitted to farther and wider discoveries of His glorious works and ways.

TRISECTION OF AN ANGLE.

SOME years ago a paper was put into my hands containing some mathematical work which professed to be a solution of the celebrated problem known to Geometers as the "Trisection of an Angle."

The problem, which is of only speculative interest, may be stated as follows: If an architect, engineer, or any

other draughtsman has an angle drawn upon his paper he can divide that angle into *two* equal parts by drawing certain circles and straight lines as described in any work upon practical Geometry. But if he desires to divide the angle into *three* equal parts he must resort to a method of trial as no combination of circles and straight lines has ever yet been discovered competent to effect the division into three equal parts geometrically. The problem then is to discover some way of combining only straight lines and circles so as to divide a given angle into three equal parts.

In plain or Euclidian Geometry the only instruments admissible are the compass and straight edge, by which we are enabled respectively to draw the elements specified, the circle and the straight line. If we go beyond these the "trisection" of an angle becomes simple enough. In the paper to which reference is made above, the author introduced the use of a *string*, and although by this means he succeeded in dividing an angle into three parts, yet he failed to solve *the problem of a trisection of an angle*, because he employed other means than those allowed.

Recently the results of another attempt to solve the problem have been put into my hands. The pamphlet appears to have gone through more than one edition: and I have been told that the author, who is a resident of Ottawa and that section of the Province, spent five years upon the problem, because, as he says in a short preface, he was "prompted by an undying belief that it was capable of an accurate geometrical solution." The latter author has not, like the former, gone beyond the means allowed him, but for that very reason he failed to solve the problem. After reasoning at some length upon various lines and angles, a slip occurs in the logical process which vitiates the demonstration, and thus renders the conclusion thence drawn not only untrustworthy but false.

What a pity it is that men of some ability should waste such an amount of time upon a mere chimera.

It is not easy to prove a negative, but the probabilities are millions to one that the problem transcends the power of plane geometry; and we are consequently compelled to place angle trisectors, and circle squarers in the same category with searchers for "perpetual motion," men who from insufficient elementary training are able neither to form proper conclusions upon the possibility or impossibility of a problem for themselves, nor to follow the course of reasoning by which others more competent have arrived at conclusions upon these matters. D.

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→ CONTRIBUTED. ←

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**COLLEGE PATRIOTISM.**

NOT the least important factor, in the beneficial results flowing from a university education, is the well known feeling of patriotism kindled in the breasts of students who, as a class, seldom fail to duly venerate their Alma Mater, and to regard her with sincere affection.

Within her sacred enclosure was the arena where friendly competitions, intellectual and physical, were of frequent occurrence; within her spacious walls the rich treasures of the "poet" (*i.e.*), scenes of classic lands, were laid at their feet; within her class-rooms were pondered over, criticised, and admired, the matchless word-painting of those great masters of history and song, who have been the admiration and the delight of every age. Sitting side by side at such intellectual repasts, tasting the luscious viands which have been kept for ages in the cellars of antiquity, drinking the sweet draughts of ever new and ever fresh delight from the wondrous goblets of Thessaly and Folerin. It is thus no wonder that students love to entertain sentiments of veneration and gratitude towards their good old mother, or that they cherish sentiments akin to love to those who have been their companions there for many years, in enjoying classic lore. This feeling of friendship represents patriotism, when they emerge from the classic shades of College life and enter the broad field of the world, as has been beautifully exemplified in the case of the alumni of this University. Wherever they chance to meet, whether on the banks of the St. Lawrence, the Ganges, or the Rhine, whether on the lakes of Switzerland, Scotia, or of Canada, whether on the Pampas of the South, or on the Prairies of our North-west, wherever and whenever they meet, they grasp each other's hand with a brother's grip and are at once friends and brothers. They have but to recur to the common topic of interest—the College, where they spent so many happy years; the Professors, who always awakened sentiments of admiration in their minds. The little college incidents which have been handed down from one generation of students to another as their common heritage. The manly sports in which they engaged on the College Campus. These all have each a charm to endear, and a bond to tie them fast to one another. Hence there is a common rejoicing among them when good news arrives of some new honor conferred upon any of their number, and a feeling of sadness when they hear of the misfortune of any of their fellow alumni.

But it is when "She," their Alma Mater, cries aloud for assistance that the grand scene occurs of their rallying to a man and coming to her aid. This was nobly exemplified a few years ago, when this noble University was threatened financially by the withdrawal of the support which she had long received, and had annually depended on, when her sons came to her rescue and gold flowed in from every avenue. Her children felt proud that they could be of service to her, and treated her with marked liberality; and she felt proud on her part that her multitudinous progeny, scattered over the face of the world, substantially proved that they had not forgotten her.

Long may this noble sentiment of patriotism continue. May her sons ever vie with each other in noble aims and noble deeds on the broad arena of the world; and may this mason-like brotherliness characterize them more and more, as illustrious sons of an already illustrious University.

ALMA MATER.

**DIVISIBILITY OF MATTER.**

**M**ATTER, as we are acquainted with it, presents itself to us in the form of a solid, a liquid, or a gas. Its leading mechanical properties are divisibility, porosity, compressibility, elasticity, indestructibility and attraction.

As to the divisibility of matter, it is susceptible of mechanical division beyond any known limits. It is a well known fact that a grain of musk is capable of perfuming for several years a chamber 12 feet square, without sustaining any sensible diminution of its volume or weight. Such a chamber contains nearly 3,000,000 cubic inches, and as the odor of the musk pervades every part of the room, a certain number of particles is contained in each cubic inch. The air of the room may be changed many times, and a new supply of odorous particles furnished to each successive portion of air. If we try to comprehend the number of particles diffused throughout the room, we find it exceeds all computation, though the weight of the substance is not sensibly diminished. Of course we cannot apprehend a substance, giving off particles, no matter how minute they may be, which will always retain the same weight. Accordingly, as we would imagine, the substance in time loses weight; but consider the time required before you would notice any sensible diminution in weight, and the number of particles that must have been given off during the same time, we see the particles must be infinitesimally small, so small that we can form no idea of their size. In a soap bubble, thin as it is, the particles must be close, and compacted in order to present a continuous surface; the thin film of the bubble may contain several hundreds of these particles in its thickness, yet according to Newton the thickness of the bubble before it bursts is only the four-millionth part of an inch. What must be the size of the particles or atoms when we may have several hundreds in such a small thickness? Their size and shape are beyond our conception, and the only conclusion we can come to is that they do exist, that all matter is composed of them and that they are infinitesimally small.

J. M. D.

→ **CORRESPONDENCE.** ←

\*.\*We wish it to be distinctly understood that the JOURNAL does not commit itself in any way to the sentiments which may be expressed in this department.

**MARMION.**

To the Editor of the Journal:

**T**HE learned Principal of this University, in the course of a recent address, expressed in a somewhat forcible manner his personal views anent the "Marmion" controversy. I do not desire to perpetuate a discussion which, unfortunately, has become a mere string in the hands of political wire-pullers, but I cannot allow the remarks of Principal Grant to pass without protesting against the illiberal language made use of, in which a sweeping reflection is cast on those who chose to differ with the speaker. Every one who approaches the question of whether

"Marmion" is a fit and proper composition to be placed as a text-book in the hands of the young has a decided right to his individual opinion regarding its suitability, and when either Principal Grant or Archbishop Lynch expresses his individual opinions, they have, doubtless, more or less weight with the community. But when we are arbitrarily informed by the former of these gentlemen that those who choose to discuss the question on its merits "are hopelessly and helplessly stupid" we have a spectacle of narrowness which ill becomes the recognized head of a liberal college, and the teacher of a liberal system of theology. It is beyond question that the present controversy concerning the use of "Marmion" as a text book originated with certain exceptions taken to the poem by ecclesiastical leaders in the Roman Catholic church.

These functionaries, desirous of withholding from the perusal of Catholic youth a work which contains an undoubted reflection on the purity of certain orders of the church, have seen fit to object to its compulsory employment as a subject of study in High Schools. Whether the Canadian people as a whole will sustain the action of the Minister of Education in deferring to the wishes of a small minority, by making the subject an optional study, is a question foreign to the point, and does not affect the discussion proper, which, in our opinion, should be as free as possible. Can the immature mind of youth come in contact with a picture of immorality in any form, poetic or otherwise, without taint? is a question which has been answered in widely different ways by the guardians of public morals, and if the Roman Catholic dignitaries who have been outspoken in the present controversy have had unlimited ridicule heaped upon them in their objections to "Marmion," they have also the satisfaction of knowing that thousands of parents have been aroused to examine the books read by their children. If the effect of it shall be the vetoing of unwholesome literature whenever found, then the "Marmion" controversy shall not have been fruitless. At all events I concede the prerogative of the Roman Catholic church, or any other body, to object to a work which the Government had placed in schools to be read by all students alike, and it is a satisfaction to know that the attempted "gag" of the Rev. Principal already referred to will not be heeded by fair-minded individuals.

The utterances of Principal Grant on public questions are usually characterized by a commendable catholicity of feeling, but in the present instance I regret that the only interpretation which an unbiased mind can place upon his remarks is one which does not find an echo in the breasts of those who desire to see unanimity of aim and sentiment in the different religious communities.

UNDERGRADUATE.

**ALMA MATER SOCIETY.**

To the Editor of the Journal:

**A**S a sincere well-wisher of the Alma Mater Society I would like to suggest that the mode of conducting the business discussions be rectified in some way. As it

is, much valuable time is wasted in fruitless discussion, which often extends until the evening is too far spent to admit of a debate being held; and as the chief interest of the meetings centres in the debates, I would like to see some plan put in practice by which more time might be given to these; and if this were done I am sure it would be far more beneficial to all concerned.

A MEMBER.

### QUEEN'S vs. VICTORIA.

THE FOOTBALL CLUB'S VISIT TO COBOURG—THREE GOALS TO NOTHING—A JOLLY TRIP.

"SAY, boss, hurry up, we ain't got any time to spare." The speaker was the driver of Wilson & Davis' "bus," the time about three a.m. Saturday, and the person addressed the writer of this article who had been entrusted with the duty of calling for the various members of the Football Club which was to visit Cobourg that day. Half an hour later—the "boss" having discharged his duties satisfactorily—the round of the boarding-houses was completed, and a hasty roll-call showed that all were present, the "all" being Messrs. A. McLeod, Alex McLachlain, J. P. McNaughton, John Young, L. A. Irving, J. C. Stirling, J. A. Bertram, G. W. Mitchell, A. Pierrie, O. D. Bennett and D. M. Robertson, who formed "the team," Wm. Wightman, spare man, Mr. A. Givan, umpire, and Mr. E. H. Britton.

"Litoria," "John Brown," "Hoe de Corn," and the other classic poems usual on such occasions, enlivened the drive to the station. The comet was duly admired and the customary jokes on the length of the tail perpetrated without any serious results—excepting, indeed, that one junior attributed his loss of appetite (?) to the remark made by a class-mate that their was no use trying to "comet" over him with stale jokes about "detail and retail." But the drive was not a long one, and sleepy residents whose slumbers had been disturbed by the racket were probably just dozing off again as the whole party boarded the western express. A merrier crowd it would have been difficult to find, and from the time of starting until the arrival at Cobourg, a mincing fire of good anecdotes, bad puns and noisy songs were maintained. One or two who had no souls for music attempted to snatch a few minutes sleep, but the attempt was futile, for hardly had their heads touched the pillow—figuratively speaking, we mean the back of the seat—when they would be most thoroughly aroused by a well-aimed "whack" with the football, and a "corner-kick" yelled in their ears. A brakesman who rendered himself obnoxious by a too close attention to his duties and a not too politely muttered request to "here, now, stop that 'ere singing" was greeted each time he passed through the car with a perfect volley of derisive cheers, until, finally, a station was reached and he opened the door to shout Brighton." This gave some one an opportunity of remarking in an audible tone of voice that he was a "Bright 'un." Upon

which the poor deluded man vanished not to appear again. One of the "forwards," who had been too sleepy to enjoy the fun as thoroughly as the others, was at least observed to be smiling, but his ardour must have been considerably damped by the withering comment made in the adjoining seat to the effect that "—— was smiling now. He'd laugh if his ears weren't in the road." But there is no need to multiply incidents. Every member of the party was at one time or another made the subject of a more or less good natured badinage and all were in the best of spirits. Singing, of course, was one of the features of the trip. The praises of the "Bingo Farm" were sung in a manner worthy of a Manitoba auctioneer. Queen's College was over and over again declared to be a "jolly place," and the passengers were overwhelmed with invitations to "Drink her Down," the old time favourites "Litoria," "Ella Ree," and "He-ta-i-roo" received our attention;" the inimitable "O, Yea; O, Yea; O, Yea," which all attendants at the "Concursus Iniquitatis" have learned to know and dread, was given at intervals with great effect, and just as the sixty-seventh verse of "Old Grimes" was concluded, the train drew into Cobourg Station. Here, after greetings had been exchanged with the members of the Victoria team and a large number of students who had assembled to welcome the visitors, a procession was hurriedly formed and both teams marched into the Dunham House, where breakfast awaited them. The ample justice that was done to the meal can only be fully appreciated by those who have travelled five hours before eight o'clock on a November morning.

After breakfast every one went whether his own inclination let him. Some started out to make morning calls on acquaintances in the town, others took a short "nap" preparatory to the struggle of the afternoon, but the majority preferred to inspect the University building and grounds. Our Victorian cousins made the most charming of *cicerones*, and everything was seen to the best advantage. Faraday Hall came in for the admiration due to it as the finest Hall of Science in Canada. It is a large, irregular, brick structure occupying a prominent position and commanding a beautiful view of the surrounding country. The older and larger, though far less ornate building, which is the home of all the classes save those in Science, was also visited under the guidance of our hosts, the rounds being completed in time to witness a football match between the Cobourg Collegiate Institute and Port Hope Clubs.

#### THE MATCH.

The Victoria-Queen's match, the event of the day, of course, was advertised to take place at three o'clock. Accordingly after an excellent dinner at the Dunham House, a general move was made for the field, a large enclosure situated a short distance east of the College. Punctually, at the time appointed, the men came on the field, the "Vics" dressed in scarlet and black jerseys and stockings, blue knickerbockers and tuques; the Queen's men in blue jerseys, dark trousers and red polo-caps.

The names and positions of the men were:

VICTORIA—Goal, A. L. Langford; backs, M. C. Rumball, G. M. Atkinson; half-backs, M. F. Libby, J. D. Hayden; forwards, A. G. Browning, P. H. Punshon, W. H. Williams, G. S. Deeks and J. J. Stobbs (Captain.)

QUEEN'S—Goal, J. Stirling; backs, Bertram, Pirie; half-backs, McNaughton, Robertson; forwards, McLachlan, Mitchell, Young, Irving, Bennett and McLeod (Captain.)

Umpires—A. Givan, C. I. T. Gould.

Referee—Wm. Atcheson, President of the Coburg Club.

During nearly the whole of the first game the ball was kept in the vicinity of the Queen's goal. Indeed, Sterling's prompt checking, and Pirie's magnificent "headers" saved it half a dozen times. After thirty minutes play, however, Williams made a good diagonal shot and the first game was scored for the "Vics." The second game lasted twenty-five minutes and was hotly contested although the ball persisted in showing a most alarming partiality for the Kingston end. Finally, Libby made a well-directed shot straight on goal. The leather was, however, sharply kicked out by Stirling, but striking immediately on one of the 'Vics' forwards who was close on goal, it bounded back past Stirling and between the poles. The ball was soon in play again from a kick from centre-field, but had only passed up and down the field once or twice when half-time was called by the referee. During second half-time our men showed much improved play, and to a very great extent reversed the course which matters had taken during the first part of the game. Notwithstanding this shortly after play had begun the ball passed up the field towards the Queen's goal when a long kick from Deeks brought it where it required attention from the Queen's goal-keeper, who, supposing it to be too high for goal, allowed it to pass over his head. Game was, however, claimed by the "Vics," and was allowed by the referee. From this until time was called Queen's boys succeeded in keeping the sphere well up on the "Vics" home, and though they made many vigorous onsets on their opponents defence they were unable to score a goal.

There were certainly as good individual players on the "Queen's" side as on the other, but the team was deficient in that united action, that play-into-one-another's-hands method which proved the main strength of their opponents. By general consent the players who most distinguished themselves were Hayden, Pirie, McNaughton, Punshon, Libby, Williams, Bertram, Irving and Browning.

At the conclusion of the game three rousing cheers were given by each side for the other, and for the umpires and referee by both. The greatest harmony and good feeling prevailed throughout, and the very unusual admission was made by the vanquished ones that they had been beaten simply by their antagonists superior play.

IN THE EVENING.

After tea about fifty students gathered in the parlour of the hotel and, as may be imagined, an exceedingly enjoyable time was spent. The musical programme, al-

though entirely impromptu, was a capital one. Mr. P. H. Punshon contributed a number of highly amusing solos, as did Mr. Atcheson, Mr. Young and Mr. Wightman. Choruses and speeches were also in order, and the very window rattled a forced accompaniment to "Hey-Diddle-Diddle," "Gaudeamus," and others of

"Those college chaunts,  
In which all students take delight."

Finally, all joined hands and "Auld Lang Syne" was sung in true Scotch style.

About eight o'clock an adjournment was made to the residence of Mr. William Kerr, Q.C., ex-M.P. for West Northumberland, who had extended to the players and their friends a most cordial invitation to be present at what he modestly called "an oyster supper," but which proved to be something far more sumptuous.

After supper Mr. Kerr, in a speech fairly brimming over with kindly sentiments, proposed the health of the visiting students. As an old graduate of Victoria it gave him the greatest pleasure to see the friendly relations springing up between the sister institutions, and he felt certain that these relations would grow more intimate year by year. He had always—although more than twenty-five years had elapsed since his graduation—taken a great interest in the welfare of the students, and he liked to associate himself as far as possible with their struggles and their victories or defeats as the case might be.

Responses were made by Mr. McLeod and Mr. Britton on behalf of Queen's and by Mr. Herrington and Mr. Snelgrove in the name of the "Vics"—all four speeches breathing "brotherly love" in every syllable. At the conclusion "For they are Jolly Good Fellows," was sung, it being understood that, in defiance of grammar, but in accordance with fact, the "Jolly Good Fellows" included Mr. Kerr and family.

The "bus" calling at about ten o'clock was a forcible reminder that "time was nearly up," and a start was made for the station. If the writer should live a thousand years—which would be a tolerably good spell—he would retain, on the day of his death, a lively recollection of that memorable bus ride. The vehicle was originally intended to accommodate perhaps fifteen or sixteen. It did accommodate on this occasion perhaps forty-five or fifty. The roof was creaking and groaning beneath the unaccustomed load, the inside was almost literally "solid," for nobody had more than six inches of room to start with and then there were three or four on top of him. And the noise! the singing! the shouting!! But words are poor weak things anyway, and the language which could faithfully describe that drive with its jerky solos—jerky because of the eccentric movements of the men on top of the vocalist—its glorious, ringing choruses, its numberless funny incidents—well, such language would need to be inspired. And the scene at the station! More noise, more songs, hearty hand-shaking, another cordial interchange of "For they are Jolly Good Fellows." More cheers, such as only students can give, and the visitors—with the exception of one who found the attractions of Co-

bourg too strong for him—are on their way home, the remembrance of this defeat almost lost in the remembrance of the universal kindness of which they had been the recipient.

We have "passed" in English (fact!), we have on rare occasions performed that verbal operation known as administering "taffy," we have even—true it was a long time ago and we only did it once, still we *have* exaggerated a little, and yet we find ourselves, with all this experience, entirely at a loss for suitable words in which to thank our Victorian friends for their generous, boundless hospitality. It was more than hospitality. It was a sort of whole-souled princeliness which was as becoming to the hosts as it was delightful to the guests. They are, indeed, model entertainers—those students of "Old Vic," and to them each member of the F. B. C. will always be ready to refer to the words of the old ballad:

"For they are right glorious fellows, my boy;  
Whole-souled, jolly and true;  
And whoever says aught against them, my boy,  
Has to quarrel with me and you."

We trust that the visit of Saturday will be returned at no distant date. Whenever the Cobourgers do come to Queen's we can assure them that they will receive a hearty welcome from all hands. We will even endeavour to return the compliment and send them home *minus* about three goals.

### COLLEGE SOCIETIES.

#### GLEE CLUB,

**A**N adjourned meeting of the Glee Club was held on Wednesday afternoon last, when the election of officers took place. The following officers were elected: Hon.-President, J. R. O'Reilly; President, A. McLachlan, '84; Vice-President, T. Cumberland (Med.); Instructor, F. C. Heath, B.A.; Secy.-Treasurer, J. Sherlock, '83; Committee, T. A. Moore (Med.), G. F. Henderson, '84, and G. Neish (Med.) The members of the Club express their intention of doing all in their power to aid the Football Club in the Campus improvement scheme, and the Glee Club will take a prominent part in the proposed concert.

#### ALMA MATER SOCIETY.

**T**HE Alma Mater Society's meeting on the evening of Saturday, Nov. 11th, was one of the most important which has been held this session. The chief interest of the meeting centred around the report presented by a Committee appointed to frame a set of rules for the conduction of debates. After a lively discussion the Society expressed itself satisfied with several of the recommendations of the Committee, and referred the report back to them, in order that it might be amended and put in proper shape for adoption at the annual meeting. The first year students were received as members of the Society. Two proposals were made by Mr. MacLeod, the first that an entertainment should be given under the auspices of the Society to aid its finances. The second was a scheme for

levelling the campus, in regard to which some steps should be taken, as all that would be necessary would be for the students to raise between \$50 and \$100. Owing to the length of time occupied in the discussion of these matters the meeting was adjourned without the usual debate.

#### GYMNASIUM.

**A**T the annual meeting of the Gymnasium Club, held in the Classical Class-room some time since, the following officers were elected for the present session: Honorary President, Professor Nicholson; President, James Brown ('83); Secretary, G. W. Mitchell; Treasurer, T. A. Bertram; Executive Committee, A. L. Smith, J. P. McNaughton, R. M. Dennistoun, J. M. Dupuis,

At a subsequent meeting of the Executive Committee on Nov. 9th, arrangements were made for a more systematic management, and to this end a set of regulations were drawn up and adopted which it is intended to strictly enforce. The Committee fixed the membership fee at fifty cents, and appointed some of their members to canvass each year in the different faculties with the view of increasing the membership of the Club and increasing its finances. In order to carry out the proposed improvements it was also decided to ask the present members to renew the payment of their membership fee, a plan which it is proposed to follow in the future; so that, hereafter, an annual fee of fifty cents will be required of all members. The Gymnasium will be open at regular hours, and some member of the Committee will be present and see that the regulations are adhered to.

#### MISSIONARY ASSOCIATION.

**T**HE annual meeting of this Association was held on the 11th instant, in Divinity Hall. The Vice-President occupied the chair, and conducted the opening devotional exercises. In absence of the Secretary, John Hay, R. C. Murray was appointed Secretary *pro tem*. The following officers were then elected for the ensuing year:—L. W. Thom, President; D. McTavish, M.A., Vice-President; S. W. Dyde, Recording Secretary; P. M. Pollock, B.A., Corresponding Secretary; J. McLeod, Treasurer; A. Patterson, Librarian; J. Young, B.A., J. Anderson, N. Campbell, and F. W. Johnston, Committee. Reports were read from the retiring officers, showing that the Society was in a good, healthy condition. The Treasurer reported that though the Association had employed five student missionaries during the summer of 1882, still there was a balance on hand of \$43. This, however, will all be required, since the amount expended this summer will be far in advance of the previous one, as there have been eight students employed in the mission field this year. The following, who labored under the auspices of the Association, were appointed to give a report of their mission work, during the summer, at next regular meeting: R. C. Murray, B.A., Grand Valley, Manitoba; F. W. Johnston, C.P.R.; D. Munro, Sarbot Lake.

With the history of the past to encourage, kind friends

to aid, and the blessing of Almighty God to crown our efforts with success, we enter on our session's work with the assurance that there are yet greater blessings in store for our Association.

Y. M. C. A.

**T**HE Y. M. C. A. is at present one of the most vigorous societies connected with the College. Since the beginning of the Session the meetings for prayer and the study of Scripture, on Friday afternoons and Sabbath mornings, have been well attended and characterized by much life and earnestness. To many a student they are as seasons of refreshing after the strain and monotony of the week's work, and add not a little to the pleasure of college life and association.

At the monthly business meeting held Saturday, Nov. 4th, the Convener of the Membership Committee nominated a number of new students for membership. The Convener of the Religious Work Committee reported that the work carried on last Session in the outskirts of the city had been resumed, and that arrangements were now being made to maintain a regular service in these places every Sabbath during the winter.

The past week has been observed by all Y. M. C. A.'s throughout the world as one of special prayer for young men. Accordingly on Sabbath evening, Nov. 12th, a public meeting was held in St. Andrew's Hall, when a large number of Christian people united with the members of the Association in offering up special prayers in behalf of young men. Afterwards short stirring addresses were delivered; the subject, as chosen by the International Committee, being, "I would become a Christian but I want to have a good time." During the week a number of the students have gathered, for a short time in the evenings, for the purpose of uniting in prayer and praise, and have always had a *real good time*.

→ ROYAL COLLEGE. ←

A SCIENTIFIC CAT-ASTROPHE.

**T**HE subject of Physiology, as taught by our accomplished and competent Professor, is one of the most, if not the most interesting in the curriculum, and aside from the nature of the study, this is due in a great measure to the fact that the professor spares no pains to render the lectures as clear and practical as possible. During the past four days he has been elucidating to his very large class, which, by the way, includes the lady students, the subject of the circulation of the blood and the heart's action in relation thereto.

The other day, wishing to give the students an opportunity of viewing the heart's action during life in an animal under the influence of chloroform he made the request that some member of the class would furnish a cat for that purpose on the following day. If he had specially designated some student for this purpose, the laughable incident which we are about to relate would not have occurred.

On the following morning the professor was surprised by the visit to his surgery of a small boy with hand-cart attached bearing a bag containing no less than four beautiful specimens of the feline tribe; Fastened on the bag

was a small card with the words, "A tribute to Science. From the hopeless old maids." This was evidently a contribution from the lady students. The bag was carefully set aside until the hour for the lecture, when it was duly conveyed to the class-room. But there were more to follow. The lecture had scarcely begun when the good order which always characterizes this particular class was interrupted suddenly by the entrance of a tall student of the primary year who was persuading an unwilling disturber of the night to enter the room by means of gentle traction on a string attached round its neck. The animal was placed beside the bag, the string being tied to the professor's desk, and a broad grin was noticed on the countenances of those present. Scarcely had this student taken his seat when the door opened and in came another primary, leading another cat, which, amid the plaudits of the assembled medd, was duly placed beside the others.

Even the learned professor smiled blandly as he thanked the students for the way in which they had responded to his request. He said that he had been more liberally supplied than he had ever hoped for, and as he made this remark he held up to the view of the whole class the bag with the placard which had been presented by the lady students. This action was greeted with loud applause, which had hardly died away when a burly Freshman came in, having in tow another fair specimen of the feline tribe in good condition. The students were now fairly convulsed with laughter, and it was some time before quiet was resumed and the real work of the hour proceeded with.

But the fun wasn't over yet; for a tap at the door brought the student sitting nearest, to his feet to answer the summons. After a moment of silence he turned around and said: "Mr. C, a lady wishes to see you." Mr. C. was surprised, and the more so when he beheld in the door-way the indignant countenance of the owner of the cat which he had borrowed. He smiled when she demanded her cat, but was compelled to hand over her only protection against rats.

Meanwhile the remaining cats had commenced to spit and claw at each other until a general fight appeared imminent, compelling the professor to desist from lecturing and proceed to his practical demonstration.

So having selected the largest and ugliest feline of them all, the rest were given their liberty, and very soon were conspicuous by their absence.

The victim was handed a handkerchief saturated with the anæsthetic to smell, and was soon under its influence, when the operation was performed to the satisfaction of all.

We always knew that the boys could be successful in a cat-hunt on short notice, but the question arises: How did the ladies become possessed of four such lovely specimens?

ANNUAL DINNER.

The annual dinner given each session by the students of the Royal College was to have taken place on Thursday evening, the 23rd inst., at the British American Hotel, but owing to the death of Dr. Dickson, the President of the Faculty, which took place on the morning of that day, it was necessary to postpone the event.

Mine host Davis had his preparations all completed, but under the circumstances consented to the postponement. The dinner was held on Monday evening, the 27th inst. A full report will appear in our next issue.

THERE is corn in Egypt yet. Our dissecting room is well supplied. So, ruralist, trot out your defunct.

WE miss the cheerful face and portly form of our genial comrade Roy. Oh, where! oh, where is he?

GRIND ON SCROFULA.—Prof.—Would you find any enlargement in the neck?

Student—Yes; the lymphatic glands would be enlarged.

Prof.—Where are they situated?

Student—Oh, in the back of the neck.

Prof.—If a man caught a hold of you by the back of the neck, would you say "Let go of my lymphatic glands." Please be a little more definite.

#### THE TALE OF A TOM CAT.

BROTHERS, sisters, kittens, convened here,  
List to a terrible tale of terrible fear,  
A tale which conjures murder, with each thought,  
And revives kitten's tales long since forgot.  
Mark you my ears, note how they shake with dread,  
My fierce mustachios angled from my head,  
My fiery optics, fierce, and wild with ire,  
My ruffled coat, that breathes electric fire,  
My dental structures, gleaming keen and bright,  
My tuks unsheathed from out their velvet right.  
Note all these signs—these harbingers of fray,  
And let your Tympanums vibrate my say.

A horrid man, with legs and hairless paws,  
In power placed to issue certain laws,  
Gave forth a mandate stern unto his slaves,  
For a general massacre of feline braves.  
Forth went his *berluddy* crew, with horrid speed,  
To steal the noblest of our noble breed.  
To alleys, cellars, rooftops, everywhere,  
Where we alone at night were wont to dare,  
They went, they stole, and pillaged feline clay,  
And three times three in number bore away.  
Ye fiercer spirits, 'twere vain to ask you spare  
Ye tenderer creatures, ye had but two pair.  
In bags, in baskets, bonds and arms conveyed,  
We reached a room and on the floor were laid,  
Short silence fell, on all our foes around  
Our plaintive murmurs were.  
But hark! a voice exclaimed, "My cat, my cat,  
My sole protection 'gainst the mouse and rat;"  
My poor heart quaked, my tail alone was waved,  
My mistress grasped, I alone was saved.

At an evening party where I played a part,  
I first was pierced by Cupid's fatal dart;  
There I first met Miss Kitty, called the dove,  
There I first felt for her the spark of love.  
My mournful tale she heard and then replied,  
Her sire was in that dread room destroyed.  
She told me how her drugg'd sire fell,  
Nor mewed a mew, nor yelled a single yell;  
How deep within him sped the fatal knife,  
And without a kick, he yielded up his life.  
Still'd though his vital force, his strong heart checked,  
His mangled corpse a moment forc'd respect,  
Till Science gorg'd, discarded useless clay,  
And a noble Tom became the worm's prey.

#### SELECTIONS FROM PATIENCE, OR, THE IMPATIENT STARVELINGS.\*

##### I.—Chorus of Famished Students:

Twenty grub-struck students we,  
Grub-struck all against our will,  
And for nine months we shall be  
Twenty grub-struck students still.

[Enter Grubstruck, a Famished Poet.]

All—O, Mr. Grubstruck, read us one of your own poems.

Grub—I will! I will! 'Tis a wild, weird, filthy thing;  
yet very tender, very yearning, very precious. It is called,

'Oh, hash, HASH, HASH!' It is the wail of the poet's heart in discovering that all is HASH. To understand it cling passionately to a Bologna sausage, and imagine the aroma of loud Limburger.

#### SONG.

If you want a receipt for that popular mystery  
Known to the world as boarding-house hash,  
Take all the ingredients in natural history,  
Mix them together without any splash.  
The remnants of day before yesterday's dinner,  
Debris of turkey, or mutton, or ham,  
Cold water in plenty (to make the stuff thinner),  
Head of a bullock, or horns of a ram;  
Then carrots and turnips (the dirt still adhering),  
Pepper to season and give it a spice;  
Potatoes (that food to the Irish endearing);  
Plenty of onions, and cabbage and rice;  
Okra tomatoes, and dried Lima beans,  
And what was left over from yesterday's greens,  
Bread crumbs, and other tit-bits from the table,  
Salt, mustard and vinegar (if you are able),  
Flavor with any ingredient you choose,  
And add enough catsup to give one the blues;  
Take of these elements all that is fusible,  
Melt them all down in pipkin or crucible,  
Set em to simmer and take off the scum,  
And a Boarding-House Hash is the residuum.

#### Chorus of Famished Students.

Yes! yes! yes! yes!

A Boarding-House Hash is the residuum.

##### II.—Song—Scientific Student.

If you're eager for to pass in the mathematic class as a  
man of genius rare,  
You must conquer all your hate, and learn to integrate, no  
matter how or where;  
You must lie upon your bed with a towel round your  
head, and devour your calculus,  
And frantically try to understand the dry and boring syl-  
labus.

And every one will say,

As you walk your studious way,

'If this young man expresses himself in formulæ to me,  
Why, what a very formidably formulated youth this for-  
mulated youth must be!'

Be eloquent in praise of the very dull old ways by which  
we differentiate.

And convince 'em, if you can, that a Big Math. man has  
neither peer nor mate;

Of course you will pooh-pooh whatever's fresh and new,  
and declare it nonsense all;

For Math. stopped short in the little orchard court where  
Newton saw the apple fall.

And every one will say,

As you walk your lofty way,

'If that's not math. enough for him which is math. enough  
for me,

Why, what a mathematical kind of youth this kind of  
youth must be.'

Be a high cockalorum on the Pons Asinorum and Bernou-  
ille's Lemniscate;

Have a fancy rare and rich for the fascinating witch, and  
take your algebraic pate.

Though linguistic men may jostle, you will rank as an  
apostle in the scientific band,

If you stalk up the Lawn with a Brachistochrone in your  
vast Newtonian hand.

And every one will say,

As you walk your Sturmian way,

'If he's content to be a tracer of curves which would cer-  
tainly not suit me,

Why, what a very singularly sinuous youth this sinuous youth must be.'

III.—*Enter Patience (disguised as a boarding-house keeper.)*  
In the centre of the stage stands an allegorical representation of a plum pudding.

*Patience* (sings)—  
I know not what this hunger can be  
That cometh to students but not to me.  
It cannot be kind, as profs imply,  
Or, why do these students sigh?  
It cannot be joy and rapture deep,  
Or, why do these manly students weep;  
Alas! what can this hunger be?  
Ah, miserie!

*Enter Grubstruck—(gazes at the plum pudding—Recit.)—*  
Ah! Plum Pudding, I am pleased with thee. The empty-stomached one, who finds all else dyspeptic, is pleased with thee. For you are not dyspeptic, are you? Alas! She answers not. (To *Patience*)—O, boarding-house keeper, do you know what it is to be Boss-hungry? Do you know what it is to yearn daily for unlimited Plum Pudding and to be brought face to face semi-weekly with infinitesimal Prune-Pie? Do you know what it is to seek Champagne and find Deep-Rock? To long for a swallow-tail and have to put up with a dressing-wrapper? That's my case. Oh, I am a cursed thing!

*Patience*—You are an impudent rascal. Not a bit of plum pudding shall you have. Off with you.

*Grubstruck*—I go, heart-crushed, I go,  
(*Recites*)—Oh! to be wafted away  
From this black Aceldama of sorrow  
When the scraps of a hashy to-day  
Are the hash of a scrappy to-morrow.  
'Tis a little thing of my own. I call it 'Anti-Dyspeptic Drops.' I shall not publish it. Farewell.

IV.—*Chorus of Students.*

It is clear that Spartan fortitude alone retains its zest;  
To accommodate our stomachs we have done our little best.

We're not quite sure if all we do doesn't make the matter worse;

In addition to our hunger we have got the keeper's curse.  
You hold your paunch like this (*attitude*)  
You hold your paunch like that (*attitude*)

By hook and crook you try to look both healthy, well and fat. (*Attitude.*)

We venture to expect  
That what we recollect  
Though but a bit of Spartan grit,  
Will have its due effect. (*Exeunt.*)

V.—*Recit. Famished Student.*

Clean done for by this boarding-house barbarity,  
By the advice of my solicitor (*introducing solicitor*)  
To pay my debts (a most deserving charity)  
I've put myself up to be raffled for.  
Come, walk up and purchase with avidity,  
Doctors, pritheer overcome your natural (?) timidity.  
Tickets for the raffle should be purchased with avidity;  
Put in half a dollar a skeleton to gain—  
Such a perfect specimen of rare attenuation;  
Such a splendid chance for anatomic demonstration;  
Put in half a dollar all ye doctors of the nation,  
Such an opportunity may not occur again.

VI.—*Recitation.*

I.  
Gentle John was a very good boy,  
He was his professor's pride and joy;

He never cut lectures to idle and play,  
And came out all right on the exam. day;  
He put his diplomas in a bran new case,  
And went home to his pa with a smiling face.

II.

Terrible Tom was a very bad boy  
Who gave his professors much annoy;  
He never attended a lecture at all,  
But played at pool—called fifteen ball;  
He drank mean whiskey and ran up big bills,  
And when last heard from was in the Black Hills.

VII.—*Song—Beardless Student.*

A student sat in a barber's shop  
And all around was a loving crop  
Of scissors and bottles and combs and brushes,  
Eyeing his curly locks with blushes.  
But for these the student felt no whim  
Though his locks charmed them, they charmed not him  
His fancy was coy and nothing could please her  
For he'd set his love on a bran new razor.

*All*—A bran new razor!

*Student*—A bran new razor!

His most æsthetic,  
Peripatetic  
Fancy took this phase, ah!  
"My locks bring blushes  
To combs and brushes,  
Why not to a bran new razor?"

And combs and brushes expressed surprise,  
And bottles expanded their necks likewise.  
The scissors declared the nselves 'cut out,'  
And the rest of the instruments 'gan to pout:  
They flew at the youth in a frightful rage  
And his head was soon bare as a virgin page,  
And heavens! the mischief they might have done  
Had not the barber caught every one.

*All*—Caught every one!

*Student*—Caught every one!

While this presumptuous  
Very scrumptious  
Liver he lived to learn  
That a beardless youth  
Can never in truth  
Cause a razor with love to brrn.

VIII.—*Duet—Fast and Studious Student.*

*Fast Student*—When I go out of door  
Of creditors a score  
(All rushing and running  
And dragging and dunning)  
Will follow me as before;  
I shall, with frantic haste,  
Around the town be chased,  
And never a drop

Of beer or pop,  
Without the cash I'll taste.  
A busted-up young man,  
A clean-dead-broke young man,  
A once quite respectable, now indelectible,  
Kicked-out-of-college young man.

*Both*—A busted-up young man, &c.

*Studious Student*—Conceive me, if you can,  
A cram-night-and-day young man,  
A dyspeptical type  
Of learning o'er-ripe—  
You could knock me down with a fan;  
Who thinks professor's whims  
As sacred as solemn hymns;  
Who loves not his dinner  
But ever gets thinner,  
Both in his body and limbs.

—*Virginia University Magazine*

**MATRICULATION EXAMINATIONS.****THEOLOGY.**

(ORDER OF MERIT.)

<i>Hebrew</i> —	<i>Confession of Faith</i> —
Paul F. Langill.	John Hay.
John Hay.	Paul F. Langill.
William Hay.	William Hay.
	James A. Brown.
<i>Hill's Lectures</i> —	<i>Mark, Greek and English</i> —
John Hay.	John Hay.
Paul F. Langill.	Paul F. Langill.
James A. Brown.	James A. Brown.
William Hay.	William Hay.

## SCHOLARSHIPS AWARDED.

David Strathern Dow—\$100—to John Hay.  
 Dominion—\$80—to Paul F. Langill.

**MEDICINE.**

<i>Latin</i> —	Annie E. Dickson.	} equal.
C. Collins.	C. Collins.	
A. Dywer.	E. J. McCardel.	} equal.
J. Casselman.	H. Dawson.	
E. McLaughlan.	<i>Arithmetic</i> —	} equal.
E. J. McCardel.	C. Collins.	
A. F. McVety.	A. N. White.	
A. N. White.	W. C. D. Clark.	
F. B. Smith.	E. J. McCardel.	
H. Dawson.	H. Dawson.	
W. C. D. Clark.	A. E. Dickson.	} equal.
<i>Physics</i> —	<i>Geometry</i> —	
J. Casselman.	C. Collins.	} equal.
W. A. Kyle.	A. N. White.	
E. McLaughlan.	E. J. McCardel.	} equal.
W. C. D. Clarke.	W. C. D. Clark.	
A. Dywer.	H. Dawson.	} equal.
H. Dawson.	<i>Algebra</i> —	
J. M. Connerty.	A. N. White.	} equal.
J. A. Stirling.	C. Collins.	
E. J. McCardel.	W. C. D. Clark.	} equal.
<i>English Grammar</i> —	E. J. McCardel.	
W. C. D. Clark.	E. McLaughlan.	

**→ POETRY. ←****PAST, PRESENT AND FUTURE.**

**T**HE past! In even our oldest songs  
 Regret for older past appears;  
 The past! with all its bitter wrongs,  
 And bitter, buried years.  
 The past! with all its crimes and shames,  
 Its rule of sword, and king and cowl;  
 Its tortures, scourges, axes, flames,  
 And myriad murders foul!

The future! to our latest lays  
 A common strain of longing clings  
 For future nights, and future days,  
 And future thoughts and things;  
 The future! Who of us will see  
 That future? in its brightness bask,  
 Ye ask the future? Let it be;  
 Ye know not what ye ask!

The present! Ah, the mightiest mind  
 Holds only *that*! We may not see  
 The dead days, nor the undefined,  
 And unformed ages yet to be.

Enough for us—that if we do  
 The present deed that should be done,  
 The *three* shall open to our view;  
*Past, present, future—One!*

GEO. F. CAMERON, '86.

**→ PERSONAL. ←**

DR. S. S. SCOVIL, '77, is practicing in Rat Portage, Man., and doing well. Since his removal to the Prairie province his health has much improved.

JOHN HAY, B. A., '82, was suddenly called home on account of the serious illness of his brother. We have since been pleased to learn that the illness is not likely to prove fatal.

PAUL F. LANGILL, B. A., '81, who has filled the post of missionary at Mattawa for the past year and a half, was, we learn through the columns of the *News*, presented by his congregation with a purse of \$110 and a complimentary address, previous to his departure for the college.

A FORMER managing editor of the *JOURNAL*, J. B. McLaren, M. A., '78, does such a flourishing law business at Nelson, Man., that he concluded to take a partner. No one would suit him but one from Gananoque, and we must say we can congratulate him on his choice. The Rev. E. D. McLaren, M. A., B. D., '73, last Wednesday evening assisted in drawing up the articles of union, and the Rev. J. G. Stuart, B. A., '76, and J. R. Lavell, B. A., '77, were aiders and abettors in the transaction. We wish the new firm of McLaren *et uxor*, *nee* Miss Wilhelmina Brough much joy and prosperity.

**→ DE + NOBIS + NOBILIBUS. ←**

**T**HE annual excitement anent the Alma Mater elections is beginning to show itself again, and considerable canvassing has already been done.

We understand that some members of the choir are agitating for a move up to the gallery. In our opinion this would be a decidedly good change.

INQUISITIVE Soph. (to Professor in History), "Well, wouldn't there be considerable danger of fire when the barns were so close together as under the Mark System?" Irrepressible Junior: "Fire that man out, some one!" *Omnes stampunt*, and the Prof. concludes that the question does not need any answer.

JUST as the Principal was about to commence his address, on the occasion of the Installation the other evening, he was interrupted by a sound closely resembling the bray of an ass, emitted from a reed instrument in the hands of a student in the gallery. The Principal was, as usual fully equal to the occasion, and quietly remarked with a smile, "well, I hope that gentleman is not speaking in his own vernacular."

THE following note, sent by a Junior to a fellow class-mate, who boards in the next house, about eleven o'clock one evening last week, will explain itself:—

DEAR JIM,—Je suisallee blokee upee; j'ai (hic) just got in, und ich wish like the dickens (hic) vous would pretez moi votre Latin Prose equus, parceque—(blot)—Dod gast (hic), this measly (hic) pen! Slide in the (hic) bicycle, old man, anyway (hic). I'm bust—(blot). You know me, (hic) dont you?

CHARLEY.

THE freshman class is in despair. This is the way they express the state of their feelings:—

"Oh, to be wafted away  
From this black Aceldama of sorrow,  
Where the Latin of prosy to-day,  
Is the prose of the Latin to-morrow!

We wish we could help them but fear there is no remedy but hard work.

PROF. in Science (commenting on the last monthly examination in Botany, in which quite a number had failed to get the requisite forty per cent). "You cannot put off study till the end of the session, for although "distance lends enchantment to the view," it is not always so when you get there. This is specially true, gentlemen, in the case of an examination. So, beware!"

HE was a freshman and as he slowly walked up and down on Princess Street, there was an uncertain look in his eye, like the expression on the facial area of a soph. about to ask his landlady for a third supply of hash. From time to time indistinct mutterings escaped from his lips, the meaning of which was very vague. "If any of those seniors should see me," hang the girls anyway," "I've got to get it somewhere," and so on, his perplexity seeming to increase each time. Now and then a student would pass, but he paid no attention to any salutation whatever. At last he muttered, "I'll have to risk the Con-cursus," and glancing hurriedly up and down the street, he buttoned his coat up tight and dashed into the seven cent store, at the pace of a badly scared mud-turtle. No less than two of the fair attendants, seeing that he was a student, at once stepped forward, and smilingly inquired his pleasure. He was evidently embarrassed, but at last managed to stammer out, blushing to the extreme ends of his capillary appendages, "weel—ur—hum— got any ink bottles?" "certainly, what kind will you have? Here's a splendid one, now," answered one of the damozels, picking up a nice cut glass bottle with a bronze stand, "only a dollar and a half." The fresh, was evidently tickled to death by something, for he actually summoned up a faint smile, and remarked that he only wanted one up a faint smile, and remarked that he only wanted one to carry in his pocket, and when the girl went off to find such a one, he muttered, "wonder if they have any seven-centers." Just then in walked a Junior and Senior, and the fresh, with a groan of despair, dodged behind a rack of nick-nacks, and by the time the ink-bottle was produced, he had edged towards the open door and bolted. What a blessing it is to be bashful!

SURELY Queen's is getting more classical day by day. The following notice was posted on the students bulletin board a few days since:—

ABESTE PROFANI!

Qui in Classe chem. Sc. librum meum invenerit is velit referre

Ad. Carolum C.—n.

A METAPHYSICAL EFFUSION.

LAST summer, among the 1000 Islands of the St. Lawrence, there was a camp of students—Medicos and Arts. One day a wordy metaphysical battle took place between two representatives of the respective faculties belonging to the party, as to the immortality of the soul. The medico claims to have gained the victory, and speaking of his victim, says, "His blood waters the rocky surface of the ground. Yea, and years hence some metaphysical shoots will wave their tall and stately heads over the grave of the murdered S—, while the hooting owl will croak his melancholy lay above, and so does one dear departed friend sleep on his profound sleep." The medico shortly afterwards wrote an epitaph for the tombstone which was to be raised in memory of his defeated and departed friend. The epitaph:

Say, stranger, rest thee now I pray,  
Beside this green grave here;  
For cold the wind and dark the day,  
The clouds o'erhead are drear.

These tangled grasses, that bestrew  
This grave,—through cold neglect,  
No moisture knew, but heaven's dew,  
Nor tears of sad respect.

Wipe off wet horror from thy brow,  
And fear from thy pale face,  
The Material present think of now,  
The Ethereal past efface.

For he, whose earthly remnants lie  
Beneath this heavy sod,  
Believed in Life, when Flesh should die,  
That Soul returned to God.

Believed that Soul and Thought were one,  
And from the Flesh distinct,  
And thought, when each one's race was run,  
That Soul still thought to think,

Departed shade! Illustrious one!  
Beneath these upheaved banks  
Thy body came, when Life was done.  
Thou'rt dead, old Snoozer. S—.

THE Rev. Mr. Carmichael, of King, Lecturer on Church History, delivered a lecture on "Ossian" before the Ossianic Society and some of its friends, on the evening of Monday, the — inst. We will give an account of the lecture in our next issue.

MR. EDITOR, tell me why colonel  
Is spelt in a style so infolonel?  
Cast one ray of light on a sorrowing wight,  
Who for years has subscribed for your jolonel.

THE new play of "Kick up Thunder" was performed in the front seats in the gallery in Queen's College last night. It was written by the author of "The Bloody Putty Knife."—Daily News.

REV. J. CARMICHAEL, of King, and the Rev. D. Ross, B. D., of Lachine, officiated at the afternoon services in Convocation hall on Nov. 12th and 19th respectively. On both occasions the audiences were large.

THE history class claims to have better singing of college songs in their class-room than any other class in

college and challenge all comers. Their melodious howl may be distinctly heard every afternoon, (Saturdays and Sundays excepted.) as far away as the Kingston hospital.

THE author of the following lines says that they represent the scene in a certain class-room the other day when the Prof. fined each member of the class fifty cents for "cutting."

The Professor came down like a wolf on the fold,  
And his hand was stretched out for the silver and gold,  
And the gleam of his eyes was like that of a cat,  
And with anger the tassel stood up on his hat.

Like the leaves of the forest when summer is green,  
That class with its note-books at roll-call was seen,  
Like the leaves of the forest when autumn has flown,  
That class at dismissal was withered and lone.

For the voice of the Senate had spoken the word,  
And the shivering students in sorrow had heard,  
And their pockets were lightened of "money to spend,"  
And cutting forever had come to an end.

And there sat the freshmen, with terror struck dumb;  
In his eye was a tear, in his mouth was his thumb,  
His brow was o'er clouded, his soul was opprest,  
And thoughts of his mother were racking his breast.

And there sat the sophomore angry and pale.  
She cried if a lady, he swore if a male;  
And the junior, he thought of cigars and of rum,  
And 'five into fifty,' he groaned for "adsum."

But the senior redolent of Lubin and Kant,  
From the ethical standpoint began to descant.  
He appeared metaphysical, dignified, calm,  
Advising the freshman, consoling the *lamb*.

THE College parody fiend has broken out again in a new place. Hoping that he may have a relapse, should he see some of his efforts in print, we insert these:—

"Heavy Tom was a great big lad,  
Who made the Brockville players mad;  
He pushed them about, and kicked their shins,  
And often knocked them off their pins;  
He didn't seem to care a red,  
Whether he stood on his heels or his head.  
When the game was through, all went to dinner,  
And here again Tom came in winner."

Truly poetic, is it not? But try another:—

"The freshmen of our class  
Are bound in friendly tether;  
Through every pluck or pass,  
We're sure to stick together,  
The Sophomores may vaunt  
Their slight advantage o'er us;  
No matter how they taunt  
We still will sing our chorus, &c."

But enough of this, if he torments us any more we will publish his name, sure.

CONUNDRUM.—1st student (after lecture on philosophy with regard to ancient atomists and their theory as to the nature of atoms)—Why is an old maid like an atom? 2nd student (who distinctly remembers one characteristic of an atom) confidently—Because she ain't *squeezable*. (Query.)

It is reported that a certain Freshman had to leave his boarding house the other day on account of being too highly fed. Can this be possible?

SUBJOINED is the list of University preachers prior to the Christmas holidays:—Nov. 26, Rev. Dr. Grant, Principal; Dec. 3, Rev. Dr. Elliott, of Chicago; Dec. 10, Rev. Prof. J. Clark Murray, of McGill College, Montreal; Dec. 17, Principal Grant.

LOVE's young dream is made of caramels and garden gate farewells, with many a silver quarter laid out in soda water.

### → ITEMS. ←

HE was an '86 man, she, a blooming *college widow*. He writes to his father announcing his engagement. The reply:

MY DEAR SON:—Accept my heartiest congratulations. I was engaged to the same Miss Bunter when I was in college, and can appreciate the fun you are having. Go it while you are young.

Your loving father,

AUGUSTUS DEFOREST.—*Williams' Athenaeum*.

HEY diddle daddle, the press and the twaddle,

The copy jumped into the fuss;

The college boys laughed to see the fun,

And the joke ended up in a muss.

THE above appeared in the *Brounonin*, under the heading, "College Nursery Rhymes." It seems appropriate.

A MOTTO for young lovers: So-fa and no father.

THE millenium must soon be near at hand—the Freshman and Seniors play foot-ball together. Now trot out the lion and the lamb:

MAUD: "And now you've shown me all your favors, dear, do tell me who was there—the men, of course, I mean." Alice: "Oh, let me see! There were lots of college men, of course—yes, and some *real men*."—*Ex.*

Professor: "The order of this class is intolerable."  
Student: "Please repeat that statement, sir."

HE was sitting in the parlour with her, when a rooster crowed in the yard. Leaning over, he suggested, "Chatter." "I wish you would," she replied; "I'm as sleepy as I can be." He cleared.

A FRESHMAN wrote to his father: Dear Par—"I want a little change." The paternal parent replied. Dear Charlie—Just wait for it. Time brings *change* to every body.

Opera—Billee Taylor;

Last week, Friday night.

She, full dress with lillies,

Opera-cloak of white.

Only met on Tuesday,

Impudence ungraced,

Trys to put, however,

Arm around her waist.

Heavens! how she shuddered,

Shivered like a saint,

Whiter than her lillies,

Seemed to want to faint.

He began to stammer,

Not a word would come;

She, "Sir, oh, how dare you!

Wait till coming home."