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University of Toronto Monthly

VOL. I.

JULY, 1900.

No. 1.

SALUTATORY.

A UNIVERSITY cannot do its highest work without the co-operation of its graduates. A body of graduates cannot maintain its *esprit de corps* without some constant bond of union. To strengthen the co-operation between the alumni and the university, and to supply a bond which shall unite more closely the scattered alumni, is the work that calls into being the "UNIVERSITY OF TORONTO MONTHLY."

The idea of such a publication is not new. Almost every large United States university has its alumni publication; some of these are published weekly, some monthly and some quarterly. At one time *Varsity* was taken by many of the graduates. That cannot be said of the present undergraduate journals. The growth of the graduate and undergraduate bodies has made the ground too wide to be covered by one publication. The Alumni Association felt that a new publication was necessary, and they have issued it, trusting that it might find favour with those who are interested in the university life of which the Provincial University is the centre.

The "UNIVERSITY OF TORONTO MONTHLY" is established to promote no other interests than those of our university. It has no doctrines to propound, no praises to sound, no reforms to advocate. Its pages are open to receive articles which may propound wholesome doctrines, which may sound deserved praises, or which may advocate reasonable reforms. It will publish no anonymous editorials or articles. Every contribution which appears in its pages must be signed, and must rest entirely on its inherent merit.

The Board of Management would respectfully suggest to all graduates that a prompt response to its appeal for support is the only response that will be really valuable.

And just a word to prevent misunderstanding. The men who have suggested this publication, assisted in starting it and offered to serve on the Board of Management, have done so for no other reason than that they desire to be of service to their Alma Mater. Their only reward can be the appreciation of their fellow alumni.

THE ALUMNI ASSOCIATION.

THE Registrar's printed list of graduates and undergraduates of the University of Toronto contains almost 10,000 names, and this number does not include the additions of the last two years. These figures, large as they are, give but an inadequate idea of the enormous influence exerted by this throng of educated men and women upon the intellectual and moral life of Canada.

Up to the present year, strange as it may seem in an age of organization, no society had been formed uniting all these vast forces in a common object. This anomaly has now been removed, the Alumni Association is an accomplished fact, and already gives promise of valuable service in the interests of Alma Mater. Although the desirability of organization had long been felt, the first practical movement in that direction came from the Graduates' Club of the city of Ottawa, which in the month of March last issued a circular urging that some practical step should be taken to this end. The appeal found a ready response, and a provisional committee was named by President Loudon to make arrangements for a public meeting in Toronto.

The meeting for organization which was held on the 17th April last, was a memorable occasion in the history of the university. In spite of a wet evening, the lecture-room of the Chemical Building was filled with an audience overflowing with enthusiasm for the new project. President Loudon, who was voted to the chair, welcomed an audience representing the alumni of all faculties, and gathered together not only from Toronto but from the Province at large. Continuing his remarks, the President referred to the necessity for organization, and urged the alumni, hitherto acting as units, to unite in a society to promote the general interests of the university. The new Vice-Chancellor, the Honourable Charles Moss, next addressed the meeting; his assurance that he intended to be a working officer was particularly well received. From his reminiscences of occasions in the past when circumstances such as the fire of 1890 had united the graduates in a common effort, he inferred the possibilities for good of the contemplated organization. Chancellor Burwash followed with a rousing appeal to the alumni of all faculties and schools to unite in the building up of a great national university. The Rev. Dr. Teefy, Superior of St. Michael's College, in an eloquent address, enlarged upon the same theme with particular reference to University College. Mr. Otto Klotz, of Ottawa, concluded this part of the programme with some practical remarks, in which he described in detail the working of the University Club of Ottawa, and the objects and methods of the very successful alumni association of the State University of Michigan.

The meeting next proceeded to the consideration of the draft constitution prepared by the provisional committee, which was unanimously adopted in the following form:—

I. NAME.—This association shall be known as "The University of Toronto Alumni Association."

II. OBJECT.—The object of the Association shall be to unite the Alumni in promoting the interests of the University of Toronto.

III. MEMBERSHIP.—The membership shall consist of all graduates and undergraduates in any faculty or department of the University of Toronto, and of all persons who have attended the regular exercises of any department of the University for a whole session, and of all members of the governing and teaching bodies of the University and of federated and affiliated institutions.

IV. OFFICERS.—The officers of the Association shall consist of an honorary president, a president, three vice-presidents, a secretary, a treasurer, and twenty elected councillors; and these officers, together with such *ex-officio* councillors as are provided for in Art. VI. below, shall constitute the Executive Committee, to which shall be entrusted all the ordinary business of the Association. The officers shall be elected at the annual meeting of the Association.

V. MEETINGS.—The annual meeting shall be held in Toronto in June in Convocation week. Special meetings of the Association shall be called by the president on the requisition of any ten members, and the president shall have power to summon the Executive from time to time. Twenty-five shall form a quorum of the Association, and five a quorum of the Executive.

VI. BRANCH ASSOCIATIONS.—Members residing outside of Toronto shall be empowered to organize themselves into associations for the promotion of the general objects of this Association, and, when formed, shall be considered as being in affiliation with this Association. The president and secretary of such associations shall be *ex-officio* councillors of this Association.

VII. PUBLICATIONS.—It shall be the duty of the Executive Committee to provide as soon as possible for the publication of a journal in the interests of the Association.

VIII. FEES.—There shall be imposed upon each member of the Association an annual assessment of one dollar, provided, however, that the non-payment of said assessment shall not be construed as vitiating the membership of any individual; and provided, further, that said annual assessment shall not be cumulative.

IX. AMENDMENTS.—The constitution shall not be amended, except at an annual meeting. Notice of all proposed amendments to the constitution shall be communicated to the Executive Committee at least ten days before the date of the annual meeting.

The following officers were elected unanimously :

Honorary President—James Loudon, M.A., LL.D.

President—R. A. Reeve, B.A., M.D.

Vice-Presidents—Mr. Otto J. Klotz, L. E. Embree, M.A., J. H. Coyne, B.A.

Secretary—J. C. McLennan, Ph.D.

Treasurer—S. J. Robertson, B.A.

Councillors—Miss G. Lawler, M.A.; Mrs. J. R. L. Starr, B.A.; Alfred Baker, M.A.; C. H. C. Wright, B.A.Sc.; J. Fletcher, M.A., LL.D.; I. H. Cameron, M.B.; F. F. Macpherson, B.A.; T. A. Russell, B.A.; George Wilkie, B.A.; G. H. Watson, B.A., LL.B.; Graham Chambers, B.A., M.B.; W. E. Willmott, D.D.S.; J. A. Cooper, B.A., LL.B.; J. M. Clarke, M.A., LL.B.; Thomas Mulvey, B.A.; Hon. S. C. Biggs B.A.; James Mills, M.A., LL.D.; A. R. Bain, M.A., LL.D.; Mr. E. J. Kylie; F. E. Brown, B.A.

Councillors (*ex-officio*)—W. D. Le Sueur, B.A., LL.D., F. B. Proctor, B.A., representing the Toronto University Club, of Ottawa, Ont.; Rev. Robt. Whittington, M.A., B.Sc., Alfred Hall, M.A., LL.B., B.C.L., representing the University of Toronto Alumni Association of British Columbia.

It will be observed that the Association is organized on the broadest possible basis, and includes in its membership not only graduates and undergraduates of all faculties and departments, but even non-matriculated students who have attended lectures in the University for a whole session. The aim of the organization is to unite the efforts and the influence of this large and varied constituency for the promotion of the interests of the university in its relation to higher education in the Dominion. Its possibilities of usefulness are practically unlimited.

The university has in the past suffered more perhaps from want of information as to its objects, its work and its needs, than from any other cause. This ignorance unfortunately has not been confined to the genera

public, but has extended in large measure to the graduates as well. This state of affairs, though regrettable, is but natural, owing to the fact that graduates are widely scattered, and have had hitherto no regular source of information beyond the chance items of the public press. The most practical mode of communication for a body of such extent is obviously some form of journal or magazine, and the Executive has lost no time in giving effect to the clause in the constitution relating to this matter. At the annual meeting held on the 12th of June, the recommendation that a monthly magazine be published was unanimously adopted. Such journals have had abundant success in the alumni associations of the larger universities of the United States, and the present publication should prove invaluable in the dissemination of information regarding the university and its alumni, not to mention its function as an organ for the promulgation or discussion of university policy.

The organization of local alumni associations in connection with the central association is a feature capable of much useful development. There is not a county of Ontario which is without its quota of university graduates, while in many of the larger towns and cities they may be numbered by scores or even by hundreds. The beneficial effects which would result from the organization of these scattered bands are apparent. Each local society would be a centre of university influence, while no inconsiderable profit would result to the alumni themselves through being brought into social relations with each other.

A large part of the interest in the Association is likely to centre round the proceedings of Convocation week. What better opportunity for reunions of graduates of various years, for the renewal of old friendships, and for taking counsel as to university policy, than is afforded by the social events which may be held in connection with the Convocation exercises? Already a beginning has been made in this direction, and those who have been privileged to take part in the functions described in other pages of this issue will cherish the remembrance of the most interesting Convocation which has been held in the history of the institution.

It is not the object of this article to enlarge upon the scope of the Association or upon its various spheres of usefulness in detail. Much has been omitted which will readily occur to the reader. One point, however, should be emphasized. There is a large amount of preliminary work to be done, demanding patience and self-sacrifice on the part of the Executive. Money too will be needed, particularly for the publication of this journal and for clerical work. The Executive have a right to count on the sympathy and co-operation of the alumni, and on their financial support. The ultimate success of the undertaking will depend on the alumni themselves, and the present writer begs to urge upon his fellow alumni to rally in support of a project which makes for the upbuilding of the institution to which we owe so much and upon the efficiency of which the intellectual progress of this country so largely depends.

W. H. Fraser, '80.

TORONTO UNIVERSITY CLUB OF OTTAWA.

THAT a large number of graduates claiming the same Alma Mater and living in the same place, should remain disunited, seems and is unnatural. Ottawa has, especially in the Civil Service, a goodly number of graduates of the University of Toronto, but at one time these were in a large degree unknown to each other, as their association with the university extended over a wide range of years. It is now some seven years since a score or so of the more ardent alumni in Ottawa met for the purpose of forming a club, the objects of which, as stated in the constitution then adopted—9th February, 1894—are:—

To foster good fellowship among its members ;

To have at heart and assist in every possible way the development of the University of Toronto, and

To maintain and encourage an active interest in the Arts and in Science.

The name chosen by the club is "The Toronto University Club of Ottawa." In passing, it may be stated that the designation "Toronto University Club" was selected after discussion, on account of brevity, in preference to the more accurate, but clumsier one, of "University of Toronto Club." Immediate steps were taken to canvass the city and a list of the graduates and undergraduates was prepared, when it was found that there were over a hundred alumni in Ottawa and half as many undergraduates.

It is but natural that the first step in attaining one of the objects of the club—goodfellowship—was to hold a dinner, and this event has been successfully carried out annually ever since. During the winter season conversaziones, at-homes and smoking concerts have been held, so that now we are a band of about one hundred and fifty, known to one another, taking interest in one another and bound together by the ties of a common Alma Mater.

During recent years we have added to our alumni a number of the fair sex, who take an active interest in the club, and at our last annual meeting two were elected office-bearers. As a further mark of the university spirit pervading our women graduates it may be mentioned that they have formed an Alumnae Club in affiliation with the parent body. Active and tangible interest has also been shown by them in the movement for the founding of a Women's Residence in Toronto.

Two years ago Ottawa instituted the annual presentation of two gold medals—one in mathematics and one in physics—in connection with the annual University of Toronto examinations, and it is to be hoped that others will not only follow the example, but will offer scholarships and travelling fellowships. It is a field that will bear cultivation.

At the annual meeting it is customary for the president to give an address. Three years ago the president, in speaking of the functions of a university in general, reviewed the history of the University of Toronto, dwelling upon its endowment, resources, expenditures and wants; upon the duties and obligations of the alumni toward their Alma Mater; and upon the relation of the university to the state. On this latter subject he

expressed his very decided opinion that it must remain a state institution, but not political, if it is to continue to expand, to be the people's university and to be a potent factor in the progress of our province and country.

To attain this end it was evident that a local club could accomplish but little. A larger organization was necessary, for missionary work had to be done. The public had to be educated to the requirements of the university, not so much for the students attending, but for the general benefit of the whole Dominion, since no graduate leaves the university without adding to the progress of the community and the development of our country. Nevertheless the inauguration of the movement for the formation of a general alumni association lay dormant with us in Ottawa till our last annual meeting, when a resolution was unanimously adopted for taking active steps looking towards its consummation. Communication was opened with Toronto and a hearty support was received. The Ottawa Club then issued a circular urging graduates to attend a meeting of the alumni in the Chemical Building, Toronto, on April 17th last.

The future of the university is in the hands of the alumni, and if they are true to themselves, true to the university and true to the interest and welfare of the public, there can be no question of the high position the university will attain and maintain. We take some pride in the little we have done in Ottawa, and hope that many other centres will follow the example and excel our endeavours in behalf of the University of Toronto.

Otto J. Klotz.

CHANGES AND PROGRESS.

BY PRESIDENT LOUDON.

THE object of this paper is to cast a retrospective glance over the last ten or twelve years and to note such changes and lines of progress as may enable the alumni of 1890, or earlier years, to realize what the university of the year 1900 is like and what it is doing. The Arts Faculty, which is the central and vital portion of the whole organization, will be first passed under review.

Ten years ago the university main building, which, in the minds of most graduates, figures forth the outward form of their Alma Mater, was a crumbling mass of ruins in process of rebuilding and reconstruction. To many of those who remember the comfortless interior of the old building, the fire of 1890 appears as a blessing in disguise, even though it entailed an expenditure of \$250,000. The class rooms are more numerous, the lighting is good, the heating and ventilation are up to modern requirements. True, Convocation Hall has disappeared in the process, and that is to be regretted, although the university had already outgrown it. Besides, the space previously occupied by Library and Museum has been converted into two large and beautiful halls chiefly used for examination purposes. The exterior of the grand old building has remained unchanged.

Not the least of the blessings in disguise which the fire brought with it was the new Library building. It is a beautiful structure of grey stone, at

the east of the lawn, with stack-room space for over 100,000 volumes, and accommodation for 200 readers. Older graduates are filled with admiration when they see the almost perfect arrangements of the new library and contrast them with the antique, though picturesque, book-shelves of the old, and the stuffy reading-rooms, which now, by the way, have been transformed into comfortable quarters for the women students. The main cost of the Library building was contributed by private benefactors, and the university owes to them a debt of gratitude as well as to the graduates and friends who in large part replaced the books lost in the fire.

Progress in science has been most characteristic of the newer university, and with this progress are connected the new Biological and Chemical buildings. The Biological building occupies the site of the ramshackle structure which was known to the students of twenty years ago as Moss Hall. It is built of grey stone, in a simple though substantial style of architecture, was completed in 1890, and cost \$130,000. Its numerous and splendidly equipped laboratories have replaced the temporary quarters which biology formerly occupied in the attic of the School of Practical Science.

The Chemical building, situated near the Observatory, and completed in 1895 at a cost of \$82,000, is the ideal of a modern practical laboratory, built for use and not display. Its walls of plain unadorned brick within and without show that not a dollar has been spent for adornment, while every arrangement is up to the most advanced modern standard of laboratory effectiveness. In it are to be found working places for 200 students, and a lecture-room with accommodation for 500.

In this connection should also be mentioned the gradually expanding Physical Laboratory, and the newer Psychological Laboratory, both situated in the main building.

Athletics is a department of increasing importance in university organization. Here, nothing short of a revolution has taken place. Out-door sports have been provided with a new campus in the rear of the main building, and also an additional field near McMaster University. In-door exercises have been provided for by the erection of a \$30,000 building in red brick, near the main building, and the students of all faculties and colleges are now enjoying the facilities afforded, which form a marked contrast to the rudimentary gymnasium of 20 years ago which occupied a part of Moss Hall. A fine students' union hall, reading-rooms and committee rooms occupy the front part of the Gymnasium building.

As a practical result of Federation and the removal of Victoria University to Toronto should be mentioned also in this enumeration the beautiful building of that institution, constructed of grey stone, and situated to the north-east of Queen's Park. It affords accommodation for the Theological and Arts faculties of Victoria, and was completed in 1892.

In nothing perhaps is the inevitable course of change more noticeable than in the personnel of the teaching staff. During the past session the teaching staff in Arts of the University and University College consisted of 48 members. In 1880 it consisted of but 14 members, and of the staff of 1880 only five members remain in active service, viz.: President Loudon and Professors Wright, Hutton, Baker and VanderSmisssen. Of that

older staff the alumni will note with regret the absence of the names of President Sir Daniel Wilson, and of Professors Croft, Buckland, Chapman, Kingston, Young and Mr. Hirschfelder. Two of these, Professor Chapman and Mr. Hirschfelder, are still living in the enjoyment of good health though retired from active service. The figures show an increase of more than threefold in the teaching force in two decades, and to this should be added the Arts staff of Victoria of 13 members, which teaches the subjects common to that institution and University College.

Another record of expansion is found in the statistics of students in attendance at the university. The numbers for 1880 and 1890 are not readily available, but in the session 1898-99, 1226 students were instructed in the Arts faculty. The contrast between these figures with 347 for 1881 will prove sufficiently striking. If we look at the number of degrees conferred we find that in the last decade the total "output" of the university has practically doubled. The figures are: Arts Graduates, 96 for 1889-90 and 184 for 1898-99; total number of degrees conferred, 207 for 1889-90 and 400 for 1898-99.

Concurrent with these various changes in the buildings, staff, and numbers of students, there has been going on, especially during the last four or five years, a remarkable transformation in the scope and object of the work of the university. The old ideal of a university as merely an institution for the transmission of knowledge, is passing away. This ideal is that of the college as contrasted with the university proper which has the additional function of adding to the sum total of knowledge by original research. The larger colleges of the United States have passed through this stage of evolution, and a like change is inevitable here. Some progress has already been made. In 1897 the Senate established the degree of Ph.D. conditional on original research, and arrangements have been made in several departments for complying with the conditions. Two candidates have already received the degree, while eight students are proceeding to the degree. Besides these, eight graduate students are in attendance, some of whom will ultimately take the Ph.D. course.

As part of the same general movement should be noted the establishment in 1897 of a journal under the title of "University Studies," the object of which is to publish original research papers by members of the staff, and by graduate students. Some 12 papers of this nature have been already issued, nor does this at all represent the total activity of the university along this new line, since, even within the last three years, research papers by members of the faculty have appeared in many of the scientific journals of England, Germany and the United States.

Among minor changes on the Arts side affecting the intellectual life of the university might be noted the local lectures and the Saturday lectures. The local lectures are delivered throughout the Province at the request of literary or scientific societies. A programme of lectures was published at the beginning of last session by the faculty of the University and University College, and lectures were delivered at 35 local centres. A similar work is carried on by the faculty of Victoria. These lectures have done much to bring the university and its work before the thinking people of Ontario. The Saturday lectures are delivered weekly during part of the second

term at the university by gentlemen distinguished in the fields of literature, science and art, who have for some years back given their services for this purpose.

The university, as older alumni knew it, taught arts alone and gave degrees in arts, law, medicine and engineering. The university of to-day has added to these subjects, degrees in agriculture, dentistry, pharmacy, music and pedagogy. It is in affiliation with eight institutions teaching these various subjects, in which the curriculum but not the teaching is controlled by the Senate. In medicine an important departure was introduced under the Federation Act of 1887. The medical teaching faculty, abolished in 1853, was restored in 1887, and has since then become thoroughly established. Its students number at present 313. They enjoy the exceptional advantages afforded by the Arts faculty in the scientific subjects. The reorganization of the Medical faculty has done good service in elevating the standard of medical education. Moreover, as in the case of the Arts faculty, progress has been made in the direction of research work, for the promotion of which two scholarships have already been established. The work of the Medical faculty, it may be added, is not only carried on free of cost to the funds but is actually a considerable source of income.

From these few jottings, which do not make any claim to be exhaustive, and which might be expanded indefinitely in detail, the older alumni may gain a fuller idea of the wonderful expansion which the university has undergone, especially during the last ten or twelve years. They should know at the same time that the total expenditure of the institution (including medicine) during the past financial year was but \$149,266.00, and that such a sum is quite inadequate. How to provide an increased income for this great work is one of the problems in the solution of which the influence of the alumni should prove most valuable. Ways and means will doubtless be found as time goes on, but the very existence of such an association is a cause of strength to the university and an evidence of the latent powers on which our Alma Mater may rely for her future advancement.

THE ALUMNI BANQUET.

WHO of the four hundred graduates present at the first banquet of the Alumni of the University of Toronto will ever forget it! And doubtless the night of June the 12th will long remain as one of the most memorable in the history of Canada's greatest university. The alumni had at last been aroused from their lethargy, and by representatives from almost every class since 1853, they gave proof conclusive that the sons and daughters of the university had come to realize the duty and service they owe to their Alma Mater. This might seem little enough to some, but when one stops to consider the probable consequences of this new awakening, one must admit the exceeding importance of the event.

Some one has remarked, and doubtless with no little reason, that there has been one circumstance more than any other which most impeded the

progress that the university has so persistently been striving to make. This has been the fact that the great mass of the people of the Province of Ontario have not been educated to a proper appreciation of what higher education can do for a growing country and the consequent advantages of a university, at which its sons and daughters might get the best training and most advanced thought obtainable anywhere. Doubtless there is great force in this, especially when one remembers that the university is dependent on the state. It has been remarked that a successful government either follows quickly or presages closely the wishes of the majority of the people on any subject, and hence could the people of the province but be persuaded that the university both needs and merits immediate help doubtless the government in power would be very ready to offer it.

But who are going to carry on the extensive missionary work necessary to obtain a favourable feeling towards the university throughout the country? Why, surely the graduates of the university! And it is not too much to say that the evening of June 12th heralded a new era of prosperity to the provincial university, because of the fact that her graduates had awakened to an appreciation of their Alma Mater that doubtless many of them never before realized. One could plainly see this in the general tone of the gathering, and in the enthusiastic expressions of loyalty that greeted every reference to the university.

There are many directions in which graduates may work, and doubtless will work. They may appeal to the people either directly or reach them indirectly through the press; they can convert the people's representative to Parliament—if he needs it, and who will doubt but that excellent results will follow such a course? A persistent pursuit of such a policy would ultimately cause such a condition of affairs that any government would be very willing to open its coffers and provide adequately for the university.

All this may seem a digression, but the daily papers gave the affair such great prominence that it seems better to treat it didactively rather than descriptively. In one regard, however, the dinner was unique—a fair proportion of women graduates and wives of the professors sat down at the tables allotted to their respective years. Before the banquet many men demurred at the prospect of having a mixed banquet, but it is safe to say that the novelty of Wednesday evening's banquet will become the rule of future alumni banquets—that is as far as the men are concerned. The ladies thoughtfully adjourned to the gallery after the courses had been served and allowed the men to enjoy their after-dinner smoke.

President Loudon presided and was enthusiastically greeted by the large number of graduates present, many of whom had been students of his. He proposed the toast to "The Queen" in a few well-chosen words, and also that of "Alma Mater." The latter toast was accompanied by the new Latin hymn, written by Professor Hutton. This was a great success and was rendered with that earnest enthusiasm which could only come from the hearts of loyal sons of the university.

The Honourable Richard Harcourt, himself an old graduate, proposed the toast of "The Empire and its Defenders," in a well-phrased speech. His references to the Canadian representatives in South Africa and the Varsity men with them, were greeted with storms of applause. This toast

was replied to by Sir Charles Tupper, whose venerable appearance and strong personality at once captured his hearers. In spite of his age, he gave abundant evidence of a remarkably youthful and vigorous character both in voice and manner. His utterances were British in every regard, and were laden with encomiums of the British and Colonial troops. During the course of his speech he drew attention to one thing in particular worthy of notice. He said that after a prolonged period of study he had concluded that the greatness of the British nation was due to the following circumstance more than to any other: That the best men in England, in whatever field of endeavour their energies and abilities might be directed, were always eager to serve their country in the Parliament of the people. He therefore urged university graduates to follow political life and do their best to uplift it by seeing to it that good men were chosen to represent the people in the Canadian House of Commons. Mr. E. H. Smythe, Q. C., of Kingston, also responded to this toast.

When the new Chancellor, Sir William Meredith, arose to respond to the toast "Alma Mater" he was enthusiastically applauded for some minutes, proving clearly the esteem in which he is held by the graduates. As his speech is given in another part of this magazine, it will be unnecessary to refer to it at length here. Suffice it to say that the earnest determination to fight the university's battle which was so characteristic of his whole speech, profoundly impressed his hearers and firmly established him in the hearts of all graduates. He not only did this, but he inspired all, and showed that he was ready and eager to do anything that might advance the interests of his Alma Mater.

Dr. McLellan, of Hamilton Normal College, proposed the toast of the Alumni Association, the healthy child that it is, and showed clearly what a great power it might become in the land. Mr. J. H. Coyne, of St. Thomas, responded to this and credited Professor Baker and Dr. J. C. McLennan for their excellent work in connection with the organization of the Association.

Lieut.-Col. Ponton, of Belleville, and Prof. Mills also spoke. Vice-Chancellor Moss proposed the health of the graduating class in a happy speech. Mr. F. E. Brown, B.A., and Mr. P. L. Scott, M.B., replied. Then came "God save the Queen," and the first banquet of the Alumni Association of the University of Toronto was at an end. A great deal of the success was due to the hard work and thoughtfulness of Prof. Baker and Mr. V. E. Henderson, B.A.

Geo. W. Ross, '99.

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THE CHANCELLOR'S ADDRESS.

THE following is a partial report of the address made by Sir William Meredith, Chancellor of the University of Toronto, at the alumni dinner on Tuesday, the 12th June:—

MR. PRESIDENT, LADIES AND GENTLEMEN,—Permit me to thank you most cordially for the way in which my name has been received to-night, and upon this the first occasion upon which I have had the honour of meeting the graduates of the university assembled together, to thank them for the great honour which they have done me by electing me to the proud position which I occupy as Chancellor of the University of Toronto.

I but repeat what the Honourable the Minister of Education has said for me. I have had some public experience; some things undeserved perhaps have fallen in my way during my lifetime. No distinction which has fallen to my lot have I felt prouder of than that I should be named by the great body of the graduates of the University of Toronto their unanimous choice for Chancellor of this great institution of learning.

It is a singular irony of fate that I, who, unlike my friend upon my right and my right honorable friend upon my left, was not a supporter of woman suffrage, should find myself with a constituency composed largely, or to a considerable extent, of women graduates of the University of Toronto. I do not know that I should, if I were ever to return to public life, change my views upon the question of woman suffrage; however, I mention that circumstance in passing as a singular thing that I should have them as part of my constituency.

I had intended to-night, Mr. President, ladies and gentlemen, to make a brief review of the history of the university during the past ten years, but the lateness of the hour forbids me doing that at the length which otherwise I had intended. You will, therefore, have to take my word for the conclusions which I announce and which I would have supported by figures and statements from the records.

The progress of the university since 1890 has been most marked. In 1890 the number of graduates in Arts was but 96, while in the year 1898-9 the number had increased to 184. The number of graduates in all branches has increased from 207 to 400. The number of students I was unable to obtain for the year 1890, but there has been a most remarkable increase from the year 1881, the figures of which I was able to obtain, from 347 in that year to 1,226 in the present year.

The number of the members of the faculty has increased from 14 twenty years ago to 48 now. So that there has been in this direction a very large increase in the work which the university has been doing.

In 1890 the magnificent building which was the pride of the people of this Province was destroyed by fire. That building was replaced, its beautiful exterior being preserved, while its interior was made more suitable to modern requirements and the efficiency of work within its limits. The magnificent Library building was added by the munificence of the people of this Province.

Since then the university has provided the Biological building, erected at

an expense of \$130,000, and the Chemical building, erected at an expense of \$82,000; and while these great steps for promoting the scientific education of the people of this country have been taken, the authorities have not been unmindful of the needs of physical culture, for they have provided the magnificent campus and, at an expense of \$30,000, the Gymnasium, within whose walls we are assembled to-night.

In conformity with what has been going on in other universities there has been expansion in the direction of research work. For the past five years progress has been made in that direction, and in the year 1897, acting with a view to promoting that species of work, the Senate established the degree of Doctor of Philosophy. The beginnings of such things are necessarily small. Already one gentleman has achieved that degree; another has earned it and will have it conferred upon him to-morrow, and there are yet eight more on the way to obtaining the degree, in addition to eight who are pursuing a post-graduate course in the university.

It will be seen, I think, therefore, that in these respects the university is keeping pace with its duty to the community in the ever-increasing demands upon an institution of that kind for expansion, growth and increase.

In addition to all that, in 1887 there was re-established the Medical faculty. The result of that re-establishment was that some of the most eminent professional men of this city gave their services to the establishment of the faculty, and to-day we have in connection with the university a faculty which is a credit to the university and to the Province.

I would not desire to-night, sir, to enter upon any controversial ground; it would be highly improper to do so at a time when negotiations are taking place between Trinity School and the Senate of the University of Toronto with regard to certain complaints that have been made by Trinity as to the position of the Medical faculty of the University of Toronto. It would, I say, be highly improper of me to-night, when the matter is so to say *sub judice*, to enter upon a discussion of it.

Complaints have been made upon the part of Trinity School of Medicine that they have not been, and are not being, fairly treated by reason of the too favourable position which the Medical faculty now occupies in connection with medical education. Efforts are being made to examine the complaints that have been put forward on the part of Trinity, and while the ultimate solution of them rests with the Legislature and Government of the Province, so far as I am able to speak for the University of Toronto, every well-grounded complaint will be carefully considered. But on this point I think I may say, without departing from the rule which I have laid down for myself, that the university will never of itself, whatever it may be compelled by legislative action to do, surrender a medical faculty in connection with it as a means of education in that branch of scientific learning—(applause)—and speaking for myself, I hope, sir, it will never say to the gentlemen who, under difficulties, and grave difficulties, undertook the work of establishing the faculty, “now that you have brought it to a position of perfection, now that you have made it something of which the university as well as you may be proud, we are going to take from you the work which you have created and give it to others.” (Applause.)

Speaking for myself, that is the stand, I think, which ought to be taken. But every complaint on the part of Trinity which indicates that in any way there is unfair treatment or even the suspicion of unfair treatment in connection with her students, that it seems to me ought to be considered and removed.

I think that the records of the university show that with the means at their command, those charged with the administration of its affairs have done their duty by the Province, and that they have not wrapped their talent in a napkin, but with the means at their command have done great service in the interests of education, and, therefore, in the interests of the people of this Province. But, sir, the university is now confronted with a serious financial difficulty. In the last year there was a deficit upon its operations, notwithstanding a very considerable increase in fees from the students, of some \$14,200, which really should be a sum of \$25,000, if an amount placed to the credit of the Upper Canada College Fund were eliminated, as it ought upon good business principles to be eliminated, and another sum which was saved by dispensing with examinations in Arts. If these matters are provided for, if the necessary increases that according to the statute are to be provided for the salaries of the professors in the near future are to be met, and if the university is to keep pace, as it ought to do with other universities, by reorganizing its department of Mineralogy and Geology, a sum of not less than \$50,000 a year will be required from the people of this Province for the present needs of the university. (Applause.)

There has been some discussion recently as to the true position of the university in its relation to the Province. I am one of those who believe that it is essential that the university of this Province should be a State institution. (Applause.) I do not believe that the people of this country will ever consent,—nor do I believe it would be expedient or in the interests of education—that the Province should release its control of and hand over to private persons this magnificent heritage and the guardianship of the University of Toronto. But what I think the people of this Province have a right to expect—I am making no suggestion of an accusation against anybody—and to demand is, that the hands of partizanship shall be kept off the university—(applause)—that as far as is consistent with the governmental responsibility and control of the institution, its immediate control shall be delegated to those who are best able to administer the internal affairs of the university, and that no party, be it Conservative or be it Reform, shall exploit the university for the purpose of party advantage, or shall make use of it for the purpose of creating political fireworks to carry it through a general election or put out of power a government that is holding the reins of power. (Applause.) The interests of the university, and the interests that are bound up in it, are of so high and so paramount a character that mere partizan politics—and when I was in public life I was not one of those who believed we could get on without party government—dwarf into insignificance and are not to be thought of beside them.

Sir, in 1887 the people of this Province through their Legislature and Government entered into a federation—passed an Act which resulted in

Victoria University surrendering its power to confer Arts degrees, and entering into the university. I hope and I believe that if there be a spirit of conciliation—a spirit of fair play, a spirit of give and take, the relations between Victoria and the University of Toronto will be of the most cordial character, indeed that the lines that separate the students of the one from those of the other will be broken down, and we shall soon cease to remember the differences, and difficulties, and bitternesses, if there have been such in the past. (Applause.)

Seventy years ago the men who came to this country determined to win this then forest to civilization, and those who laid the foundations of this great Province of Ontario were men who had breadth of view, in some respects at all events, and forethought, and it entered into those men's minds so long ago as that, that there was a then pressing need for laying aside for the higher education of the people of this country a portion of the waste lands of the Province, which ultimately resulted in the setting apart of 500,000 acres of land for the purpose of higher education. It may be, in fact it no doubt is true, that they had not the higher and broader view that prevails in these days with regard to the way in which that fund should be used; but still they builded better than they knew, and sometimes I think that we may say in the face of what those men did, of what they saw of the needs of the day, that the people of to-day are not doing their duty as their forefathers did.

Sir, we live in a country where democratic institutions are established. We have the freest and most democratic country under the sun. I say this, taking into consideration the United States upon the south of the line, which nominally may be more democratic, but are really less so than Canada. (Hear, hear, and applause.) There is no country in which the people directly have more the control and management of their own affairs than in this Province and in this Dominion. The day is fast disappearing, indeed, is now gone, when the Government of the day is believed to be a great almoner which is, from some unknown source, handing out its bounty to the people. The people now recognize that the Government is but the trustee of the people, to carry out the will of the people, and that so soon as it ceases to do so it is no longer fitted to act as agent and trustee for the people.

I have pointed out to you what the present needs of the university are. I ask what is the duty of the Government and Legislature of this Province to-day in the face of this condition of things? If they are to be worthy of this great Province, of its present and its future, to my mind there is but one answer, that they are bound to rise to the situation and come forward and give every dollar that is required for the purpose of putting the university upon a proper and safe footing, providing not only for the present but for her future wants. (Loud applause.) I have great confidence in the people of this Province. In times past, so long ago that I have almost ceased to remember them—I did not always agree with them in the choice they made of their rulers, but I have confidence that the people when they know what is right will insist upon right being done. (Applause.)

My friend (if he will permit me to call him so), the honourable gentleman

at the left of the President, has spoken of the influence of the alumni of the university in sending to Parliament men of high reputation and fit to take part in the councils of a great nation such as Canada is. I think he might have gone further and have said, "Send up of your graduates men to govern the people of this country."

Sir, there is at times—I hope I am not transgressing the line which should separate the judge from politics in saying it—a feeling, and there are too many who express it, that politics is a dirty stream into which no decent man ought to enter. I have no sympathy with cries like that. Politics rightly understood is the government of the country, and if it is a dirty stream it is because the men that ought to keep it pure permit it to be so. (Applause.) And I would add my voice to that of the distinguished gentleman who has appealed to you, to use your influence to purify this stream. Insist upon wiping out throughout the length and breadth of this land the filth of bribery and every other crime connected with impurity of elections. Insist upon having a free and unbiassed expression of the will of the people of the country—and this university and its graduates can accomplish great results if they will but assist in bringing about that condition of things. Let every man who is honoured by being a graduate of the university say, "I do not care which party the man belongs to whether he belongs to my party or to the other party, I cannot support him unless he is a clean and a decent man." (Applause.) The heeler and the man that is in politics only for what can be made out of it would then soon be driven out, and there would be no longer the cry that political life is not the place for a decent man. There can be, as has already been indicated, no higher and no more important duty than to sit in the councils of a great nation guiding her course, making laws for the present and laws which may shape her destiny for generations to come. The person who would deter any young man from looking in that direction and seeking by every means in his power to purify political life is, I think, an enemy to his country.

In placing the franchise upon the broad democratic basis upon which it now rests there devolved upon the Government and Legislature the duty of providing for the education of the people, so that the democracy which rules should be an educated democracy. It is, as I have said, an imperative duty to maintain in an efficient condition the Provincial University, because an efficient and up-to-date university is essential to the completeness of a proper system of state education.

I add, Mr. President, ladies and gentlemen, my congratulations to those that have been uttered by the speakers who have preceded me upon the magnificent success of this gathering. It will do good because it brings together the graduates of this university to meet and talk over old times, and that in itself is an extremely good thing.

If I am correctly informed, I am sorry to say that there is not to-day among the undergraduates of the university the same cohesion and the same support of sports and that kind of thing that goes on, as there was in the days gone by. I hope it is not true, or if it is, that it will be discontinued and that the young men will feel a pride in their Alma Mater, and such gatherings as this tend to help on that feeling. But I am looking

upon it from a graver and more important side. It does seem to me that this meeting is a great factor, because if the men who are here to-night and the men who are graduates of the university will but exercise their power, no Government can live in this Province that will not do justice to the university and to the higher education of the people of the Province.

My friend who sits upon my right I know to be an ardent supporter and friend of the university—(applause)—and meetings such as this is and the consequences of meetings such as this strengthen his hands and the hands of those who think like him, and so enable him and those who may constitute the Government of the day to go to the Legislature with a proposition that will meet with the approval of the people of this country. I believe the people of this Province have only to have pointed out to them what the needs of the university are and they will then demand that the university be put upon a proper footing.

I recognize my inability to fill the position of Chancellor as the distinguished Canadian who preceded me filled it. I cannot hope to bring to the discharge of my duties the ability or experience which he brought, but I believe I do bring an honest desire to serve the interests of the university and of higher education and at the same time to do justice to all other bodies who are engaged in the same common work.

I should have hesitated to accept the high honour of Chancellor of the university were it not that I was assured that I should have as the chief executive officer with me the distinguished gentleman who now occupies the position of Vice-Chancellor. I felt when the choice fell upon him that a right choice had been made. (Applause.) He bears a name distinguished in the annals of the university—distinguished for scholastic attainments, and for administrative capacity, and my friend, I knew, would bring, as experience shows he has brought, to the discharge of the duties of his office, high ability and great industry. If there is one thing in which he excels above all others it is his persistent devotion to the duties of any position which he is called upon for the time being to fill. I congratulate the university in having secured his services, and I feel assured that however defective my part of the work, which is to a large extent, I tell my friend, ornamental, to whatever extent it may not be properly discharged it will be more than made up by the able way in which my distinguished friend the Vice-Chancellor discharges the duties of his office.

I bring my observations to a close and thank you for the kindly way in which you have listened to me at this late hour of the night. I feel a deep interest in the questions which I have been discussing. I would like to talk to you at greater length, but the hour forbids, and I close by repeating my congratulations to those into whose heads it entered to organize this meeting of the alumni, and I have a very strong suspicion and without making invidious distinctions it may be proper to lay to some extent the charge of having had to do with it at the door of Professor Baker. (Applause.) I congratulate him and all those connected with this meeting upon the success, which has attended it, and I hope that the graduates of the university will not let this be the last meeting, but let every succeeding meeting, as I believe those in charge of the management desire shall be the case, be greater and more enthusiastic than its predecessor. (Loud applause.)

CONVOCATION DAY.

PERHAPS no Convocation in the history of the University of Toronto has ever aroused so much enthusiasm, or left behind so many pleasant memories as that which has just been held. Under the stimulus of the hope of meeting old classmates, graduates assembled from far and near, one and all glad to return even for a short time to the academic halls, the scene of their early aspirations and achievements.

The time announced for the commencement of Convocation proceedings was half-past two, but long before that hour the Gymnasium building was filled to overflowing with an enthusiastic audience, the large attendance being in a measure due to the presence of many graduates who had come to Toronto to attend the alumni dinner, and had remained over for Convocation. A cricket match and a tennis tournament were in progress on the campus during the afternoon, and many who were unable to gain admittance to the Hall spent a pleasant hour watching the games, conversing with their friends, and admiring the beauty of the surroundings which in the leafy month of June are hard to surpass.

The proceedings were opened in the old-time fashion, by the procession of the authorities and invited guests, headed by the bedel carrying the mace. A noticeable feature was the number of new faces among those occupying the seats of honour on the platform. The new Chancellor, Sir William R. Meredith, presided. To his right sat the new Vice-Chancellor, the Honourable Charles Moss. In addition to the usual attendance of the faculties and prominent citizens were to be noticed several distinguished graduates from a distance, among others, Rev. Dr. Beattie, of Louisville, Kentucky; C. J. Field, Ph.D., Berlin, Germany; Frederick Seymour, M.A., Madoc; J. H. Coyne, B.A., St. Thomas; W. H. Ballard, M.A., Hamilton, and Dr. Glashan, of Ottawa. The women students were presented this year for their degrees by Miss Gertrude Lawler, M.A., and Mrs. J. R. L. Starr, B.A., which innovation constituted a pleasing feature in the proceedings.

The degree of LL.D., (*honoris causa*), was conferred on the Vice-Chancellor the Honourable Charles Moss. He was introduced by President Loudon, who paid a high tribute to his attainments and to his special qualifications for the office to which he had been unanimously elected. The Senate at its last meeting decided also to confer the degree of LL.D. on Mr. Louis Fréchette, C.M.G., the distinguished French-Canadian author, and on Professor Simon Newcomb, of the United States Naval Observatory Service, but, owing to the enforced absence of these gentlemen, the ceremony of conferring the degree was postponed.

The degree of Ph.D. was conferred on Mr. J. C. McLennan, B.A., in the Department of Physics. This degree was established by the University of Toronto in 1897, and up to the present time it has been but twice conferred, the former recipient being Dr. Scott, of the Department of Biology. The following are the numbers of degrees conferred in other departments, the names of the recipients being given in the Convocation List published elsewhere in this number:—

M.A., 17; LL.B., 2; M.B., 45; B.A., 134; C.E., 2; Mg.E., 1; Mech.E, 1; B.A.Sc., 10; D.D.S., 68; Phm.B., 34; Mus. Bac., 3.

The speeches which usually form a prominent feature of the graduating exercises were dispensed with on this occasion, the Chancellor's address having been delivered at the alumni dinner on the previous evening. It was found necessary to curtail the proceedings, which were of considerable length, owing to the number of degrees to be conferred, in order to afford an opportunity to the audience of attending the garden party which was held at the close.

The garden party, itself a new feature, given by the Chancellor, Vice-Chancellor and Senate and the President and Council of the University of Toronto, was a great success. The quadrangle of the university main building, in which the function was held, formed an appropriate and delightful place of meeting. The arrangements as to refreshments, music, etc., were perfect, and the guests, numbering upwards of a thousand, spent a most agreeable hour. It is to be hoped that this pleasing function will be continued from year to year, as it affords from its informal nature an excellent opportunity for social intercourse among the alumni and friends of the university.

In past years the graduating classes in arts and in medicine have usually held an informal at-home or banquet on the evening of Convocation day. This year, however, a departure was made by the Arts students, who decided to hold a moonlight excursion on Lake Ontario. The steamer *Garden City* was chartered, and about one hundred students, accompanied by President and Mrs. Loudon and a number of the members of the faculty, with their wives, spent a very enjoyable evening. The graduating class in medicine, as usual, held their annual dinner in Webb's Parlors. Dr. Paul L. Scott presided, and about forty members of the class were present.

C.

THE YEAR IN ATHLETICS.

THE academic year of 1899 and 1900 was not a year phenomenal in any respect for athletic achievements at the university, yet it was a year in which substantial progress was made in some of the most important branches of athletic work.

Athletic progress is made, not only by particular achievements of athletes, but also by improvement in the facilities for athletic training at the university, and it is this sphere of the work with which this article deals particularly, for it receives less attention through the daily press and so requires to be specially brought to the attention of those interested in university affairs. The work of the Athletic Association and Athletic Board during the past year has been very much extended by the fact that all the university athletic grounds now come the jurisdiction of this Board.

One improvement in the facilities has resulted from the securing of better grounds for the holding of public athletic events. The old Lorne field has been taken over again by the University and carefully sodded, a grand-

stand erected, and a high, close board fence constructed. This field, admirably situated in the heart of the city, furnishes ideal accommodation for the holding of university athletic events on university grounds. The revenue derived from this source is not very great, yet it is sufficient to meet running expenses. It is collected on a percentage of the gate receipts at the various public events of the university clubs.

The gymnasium work has been carried on with rather more than usual success during the past year. The attendance of members at the gymnasium was larger than at any time since the first year after the gymnasium was built. This year's management feels that it has left a better equipment for athletic exercises in the gymnasium because of a receipt of a stand of fifty rifles, kindly granted to the gymnasium by the Minister of Militia and Defence. These rifles are all in first-class state, and should be of great value.

In connection with field sports the year was most important; not for records made or broken, but for the fact that it marks the inauguration of the Inter-College Athletic Meet between the great Canadian universities. The event was held in Montreal, under the auspices of the Athletic Association of McGill University, and the results were gratifying to those who had put the project into operation. This fall the meet will be held in Toronto, under the auspices of the University of Toronto Athletic Association, and will, it is hoped, be a most successful athletic event. The members of the Athletic Directorate look forward to the time when all our Canadian championships will not be carried off by American athletes, but will be ably contested by our college men.

The Annual At-home of the Association was a most pronounced success, and has come to be recognized in the city as one of the most popular dances of the season.

Another feature of the year's work was the successful management of the university rink. Two rinks were provided on the University Athletic Field, and were run throughout the whole season with the greatest success. Ten bands were provided during the season for the benefit of the skaters, and an intercollegiate series in hockey was run off, in which the School of Science finally won the trophy. The rink was a most successful financial undertaking, a clear balance of nearly \$100.00 resulting. It is hoped that skating will now be a permanent part of university athletics.

Another feature of progress during this year was the reorganization of the Athletic Association to provide for somewhat better administration of the affairs of the different athletic clubs. Heretofore, each club has been almost entirely independent of any central control, and, consequently, on different occasions the line of policy which has been followed by some clubs has brought nothing of credit to the university. Under the new constitution the Athletic Association will have control of the finances of every club using the university's name. No debt can be contracted by any club which has not been sanctioned by the Athletic Association, and all accounts will therefore be met by the Association. This improvement should have the best effect in promoting the interests of college athletics.

As a result of the work in connection with the Association during the

past year certain suggestions would appear to be *à propos*. In the first place, although the work in the gymnasium has been fairly satisfactory during the past few years, there does not seem to have been sufficient incentive to the members to undertake steady and persistent work throughout their undergraduate course. In order to improve this condition of affairs, it would seem to be most advisable that some system should be devised by which regular diplomas could be given to members of the gymnasium who, during their undergraduate course, come up to a certain standard in gymnasium work. These diplomas would be of great value to those entering the teaching profession, and would afford certain ends to be attained during the student-life of the members of the gymnasium. This matter is, I believe, engaging the attention of the new management of the Association.

Another feature which deserves consideration is the growing tendency of the different organizations connected with the university, to have their public events held in the University Gymnasium. There is no suitable place for the holding of public events connected with the university, such as commencements, dinners and at-homes, and, consequently, organization after organization has been seeking the use of the gymnasium for purposes far different from those for which it was originally intended. The university authorities are no better than the students in this particular, because under the pretext of holding their convocations and commencements upon university grounds they are continually using the gymnasium for large meetings, for which it was not intended, and for which it is not suited. Not only does this practice interfere most seriously with the work of the gymnasium, but, owing to the removal of the apparatus from time to time, it has caused permanent damage to the equipment. During the past year many accidents have happened to various parts of the apparatus through no other cause than that the taking up and down of the same had so loosened the props as to make them unsteady and unsafe.

The reason given, that university events should be held on university grounds, is not sufficient. The gymnasium is not suited for these events; its acoustic properties are very poor, and if the university students and university authorities would follow the policy of holding their events outside, and thus show how badly the university is in need of a large convocation hall, instead of endeavouring to crowd themselves into a building entirely unsuitable for such purposes, it seems to me they would be doing much to bring about the accomplishment of what they desire, namely, the securing of adequate accommodation in the shape of a large convocation hall. This question is one of the greatest importance, and is one which I cannot but recommend very strongly to the new Association, for during my two years' experience as secretary-treasurer of the Athletic Association, I have seen very permanent damage inflicted on the gymnasium during the holding in it of public events for which it was not intended.

T. A. Russell, '99.

AFTER THE ALUMNI DINNER.

Non Quo, Sed Quomodo.

THE study of human nature is a source of continual amusement and surprise. Education, culture and intelligence go far in forming a finished and well-balanced mind; but the funniest inconsistencies, and want of unbiased judgment shew themselves in even those who possess considerable intellectual capacity.

In connection with our recent pleasant and successful dinner, one was agreeably entertained from time to time, by observing the little starts of alarm and nervous shocks, the little fears and apprehensions exhibited by some of those who felt responsible for its welfare and management. And some of the incidents at the dinner itself gave rise to a feeling of quiet amusement, tinged, perhaps, with sorrow for the weakness of human nature.

Everything would be calm and peaceful if women would only be content to pay taxes and obey ready-made laws, and not ask for representation. And if our *alumnæ* would only pay their fees and be utterly indifferent to university affairs, and never want to go anywhere, or do anything, how much nervous anxiety would be avoided.

Why should they not take an active part in university work? Twenty years ago it was not customary, that is all. It was too bad. Why did they want to go to the dinner?

Well, because as *alumnæ* they ought to support and take part in every business and social function connected with the Association. And the importance of an official dinner is considerable, as it embraces the social and political side of the body holding it. Socially, all members meet together without prejudice of class, profession or sex, thus showing a united feeling for the advancement of one object. The policy and welfare of the body is usually elucidated in the speeches, and hence the latter part is of more consequence than the social intercourse, and both are of more importance than the enjoyment of the fare, though that may be regarded as the lubricant which enables the machine to work smoothly and pleasantly.

Hence it is most desirable that all members of the Association should attend the alumni dinner.

But that aspect was not evident to all. The terror of the unknown, the awful uncertainty of what might happen, and the invasion of a domain that was supposed to be sacred, were the bug-a-boos that rendered calm judgment difficult.

For human minds judge by a precedent, and the alarmed ones would have been quieted had they but known that here, and in proper, conservative Old England, public, that is, official dinners are held where both sexes are present.

And who will say that the speeches were not better appreciated, and the next day less irksome because brains were clear and unexcited, a condition immediately ensured when the presence of ladies became inevitable.

But more amusing than the quakings and alarms at the undefined dangers, were the precautions taken to guard against the results of the

bold and supposedly unprecedented intrusion. Chaperons were appointed, that the classmates who had attended lectures together during four years, had met in all sorts of social functions, talked, danced, read papers, formed committees, transacted business, that these men and women, graduates of five, ten, fifteen years ago, some of them married and sitting side by side as husband and wife, should be carefully guided in the proper course of behaviour, and protected from each other's dangerous wiles and charms. The guest the chaperon of the hostess! Truly, misapplied custom backed against common sense will win the day. But such is human nature.

"Gabble—gobble—git"—is the definition applied to a fashionable method of entertaining, where the weightiest matter to be discussed is the ice cream. But at a university dinner, which should be the most intellectual proceeding of its kind and the highest type of good breeding, it was—"Gabble—gobble—now we're smoking, you'd better git; never mind finishing your coffee, hurry up to the gallery. We will politely stand while you pass out, to remain seated would be an unpardonable breach of good manners. But bear in mind, it is quite proper and well-bred to light our cigarettes and puff them in your face, we cannot deny ourselves our tobacco.—'And a woman is only a woman, but a good cigar is a Smoke.'"

And after that who will deny that human nature is weak and inconsistent beyond words. The child is father of the man, and as the little boy with the bag of candies cannot rest satisfied until he has eaten them, so the little man with his cigarette is restless and unhappy until he smokes it.

It is very tiresome to sit three hours doing nothing. It is done at political meetings, at lectures and theatres. Why not at a dinner? And why should not the *alumnæ* sit at the table during the whole proceedings? Was it much less smoky in the gallery?

One of the cleverest and most accomplished of the *alumnæ* was appointed to respond to a toast, but was whisked off and away in spite of the protests of the most distinguished speakers of the evening. What indignation would have been expressed by an alumni so treated? And all these curious inconsistencies appear to be the result of a wild and thoughtless endeavour to apply the social customs appropriate to one set of conditions, to conditions which, though similar, are on quite a different plane.

Sir Charles Tupper who has probably been present at more public dinners throughout the Empire than any one who was with us that evening, expressed to some of the gentlemen his great pleasure and satisfaction that ladies should have been present. He said that at the Manor House, London, England, at official dinners, ladies are almost always present and remain at the table throughout the evening; and the same custom is observed in many other places at the public dinners. So our little affair was only a local innovation. Abroad it would be a matter of course. Only the atmosphere would have been clearer.

So we observe, reflect, and quietly smile as the little human foibles and peculiarities become evident whenever there is a change in the established customs, rites, or practices. For we know that the dust and commotion that is raised soon settles, and the new order becomes common-place and customary, until conditions require another change, when the same alarms for the welfare of law and order are aroused. And at our next dinner we will drink together—Success to our university through the efforts of the Alumni Association.

Edith M. Curzon, '89.

ANNUAL MEETING OF ALUMNI ASSOCIATION.

AT the organization meeting, held in April, it was decided to hold the annual meeting of the Alumni Association in Convocation week of each year, and in accordance with this decision the first annual meeting was held in the Chemical Building on the afternoon of Tuesday, June 12th.

The President, Dr. R. A. Reeve, in a few remarks at the opening referred to the wide field of usefulness open to the Association, and suggested, among other things, that the question of having a representative in Parliament might very properly come up for discussion.

The report of the Treasurer, Mr. S. J. Robertson, showed \$66 collected in fees, with a balance on hand, after deducting all liabilities, of \$48.32.

The report of the Executive Committee, submitted by the Secretary, Mr. J. C. McLennan, described the matters dealt with by the committee since taking office. It was decided to proceed at once with the publication of a journal in the interests of the Association, under the name of THE UNIVERSITY OF TORONTO MONTHLY.

This step brought with it the necessity of having an accurate list of the graduates in the various faculties, together with their present addresses. To meet this want the compilation of a card catalogue has been undertaken, which will make it possible to select at once the graduates in any particular faculty, those residing in any stated locality, or those following any selected profession.

The question of establishing a University Club in Toronto for the use of the graduates in the city, and for the convenience of outsiders when they come to Toronto, was brought up by Mr. J. H. Coyne, of St. Thomas. On his motion, seconded by Professor Ellis, the President was asked to appoint a committee of seven to consider the expediency of the suggestion, and to report at a special meeting of the Association.

Major F. F. Manley urged the members to unite in an effort to replace the memorial window erected in the university main building in honour of the graduates who fell in 1866. The matter was referred to the Executive Committee.

Mr. Alfred Hall, Secretary of the newly-formed Alumni Association in British Columbia, on being called upon, gave a glowing account of the interest taken in the University of Toronto by the graduates in the far west. Already between two and three hundred graduates are residing in that Province, and these are uniting in an effort to bring before the people generally the high character of the work being done by their Alma Mater, as well as the excellent facilities which she affords for education and research.

The officers elected at the first meeting on April 17th were all re-elected by acclamation for the ensuing year, and the meeting adjourned. Nearly one hundred new members were enrolled during the meeting and the banquet which followed.

A NEW SCHOLARSHIP.

THE generous presentation by Mr. J. W. Flavelle, of Toronto, of a travelling fellowship to the classical and historical departments of the University of Toronto constitutes, we hope, a sign of the times. There was recently introduced before the University Senate a statute for the establishment in University College of three classical scholarships at matriculation. One of these is the McCaul Scholarship in honour of the first President and first Classical Professor of University College. Another is the Dale Scholarship established by Mr. William Dale, the first Professor of Latin in University College. The third is the Goldwin Smith Scholarship, presented by the classical scholar and historian, whose residence among us has made Toronto an academic Mecca, the enchanted ground where lies the last remaining well of English undefiled ; where springs the last remaining stream of that old-world scholarship which mingled classical grace and English eloquence in so nice proportions that no man knows which is the ornament and which the substance, nor whether of the two contributes most to the beauty and to the strength of the united flood from these twin sources. And now in addition to these directly classical scholarships, Mr. Flavelle offers an alternating fellowship to the graduates in turn of the departments of classics and history, the winner to proceed to Oxford for a couple of years and study there in the department of modern history ; the department which at the present time is receiving a larger number of students than any other course in Oxford. It is not easy to overestimate the beneficence of gifts like these. The encouragement of accurate scholarship in an accurate age is one of the many advantages to be derived. Another is the new encouragement of the study of the classics from the historian's standpoint, just when their literary and stylistic study has ceased for the time to charm as once it could, and when some new spell is wanted to take the place of the old, lest the temple of ancient scholarship be bereft of its haunting presences and of its votaries. The encouragement of generosity to the Provincial University, in spite of the fact that it is the Provincial University, and therefore is supposed to have no claim on anyone in particular, because it has a claim on all, this, again, is no small thing. Last, and not least, is the riveting of a new tie, to bind our university to its natural Alma Mater, the universities of the motherland. Practical considerations have demanded, and may continue to demand, that a large number of our students who take post-graduate courses take them in the universities of our cousins ; the deeper, then, the gratitude due to him who enables our students so to remember our cousins as not to forget our nearer and dearer kin ; such a man lends a helping hand in that great work which is the one memorable work of this last year of the nineteenth century.

Maurice Hutton.

THE VALUE OF S.P.S. GRADUATES TO THE MINING INDUSTRY.

WE have heard from time to time both from the public platform, at Convocation and through the press, that those most interested in the welfare of the university deplore the condition of the Department of Mineralogy and Geology. To such an extent do they feel their want that they have almost given the public the impression that our university is practically without such a faculty. These remarks have been misunderstood by many to include the Department of Mining Engineering of the School of Practical Science. It is to correct this impression that I wish to call attention to the fact that these remarks were intended to apply to the Faculty of Arts only, and not that of applied science nor to the School.

From the following list of graduates of the School of Practical Science, it will be seen that the school is doing valuable work in mining throughout Canada:—

Andrews, E., B.Sc., '97, Mining Engineer, Rossland, B.C.
 Ardagh, J. A., '93, Peat Fuel Co., Toronto.
 Bain, J. W., B.A.Sc., '96, Geologist, Bureau of Mines, Toronto.
 Blackwood, A. E., '95, Mining Machinery, New York.
 Bow, J. A., '97, Inspector of Mines, Rat Portage.
 Boyd, W. G., '94, Inspector of Mines, Michipicoten.
 Boyd, W. H., B.A.Sc., '98, Geological Survey, Ottawa.
 Burwash, L. T., '96, Mining Recorder, Stewart River, Yukon.
 Carter, W. E. H., B.A.Sc., '98, Assayer, Yellow Stone Mine, Saluro.
 Charlesworth, L. C., O.L.S., '93, Mining Lands Agent, Rat Portage.
 Chewett, H. J., B.A.Sc., '88, Mining Engineer, Toronto.
 Clothier, G. A., '99, Mining Records Office, Rossland.
 Deacon, T. R., O.L.S., '91, Managing Director Mikado Mine.
 Dobie, J. S., B.A.Sc., '95, Mining Engineer, Port Arthur.
 Elliott, J. C., '99, Mother Lode Mine.
 Fairbairn, J. M., O.L.S., '93, Mining Engineer, Greenwood, B.C.
 Guernsey, F. W., '95, Engineer for Neepawa Gold Mining Co.
 Haight, H. V., '96, Mining Machinery, Sherbrooke, Que.
 Haultain, H. E. T., '89, Manager Yellow Stone Mine.
 Johnston, S. M., B.A.Sc., '94, Mining Engineer, Greenwood, B.C.
 Keele, J., B.A.Sc., Geologist, Geological Survey Department, Ottawa.
 Laidlaw, J. T., B.A.Sc., '93, Consulting Mining Engineer, Fort Steele.
 Laird, R., O.L.S., '86, Reduction Works, Rat Portage.
 Laschinger, E. J., B.A.Sc., '92, Engineer, Consolidated Gold Fields, South Africa.
 McAllister, J. E., B.A.Sc., C.E., '91, Mining Engineer, Rossland.
 McAree, J., B.A.Sc., '92, Mining Engineer, Rat Portage.
 Martin, T., B.A.Sc., '96, Amalgamater, Regina Mines.
 Mickle, G. R., B.A., '88, Mining Engineer, Rossland, B.C.
 Revell, G. E., B.A.Sc., '99, Summer Mining School, Northern Ontario.
 Robinson, A. H. A., B.A.Sc., '97, Geologist, Bureau of Mines.
 Silvester, G. E., O.L.S., '91, Mining Engineer, Sudbury.
 Speller, F. U., B.A.Sc., '93, Geologist, Can. Bank of Commerce, Dawson, Yukon.
 Watt, G. H., '99, Geological Survey Department, Ottawa.
 Coulthard, R. C., B.A.Sc., '99, Geologist, Party No. 1, Ontario Government.
 Neelands, E. V., '00, " " 5, " "
 Smith, A. H., ocl., '00, " " 8, " "
 Davison, J. G., '00, " " 9, " "
 Johnston, J. A., '00, " " 10, " "
 McArthur, R. E., '00, " Columbia, B.C.

UNIVERSITY AND COLLEGE.

A WELL-intended invitation to write something for the first number of the Alumni Monthly, is my only excuse for appearing amongst the distinguished company of its contributors. To have refused the invitation would have shown a lack of interest; to accept it was a duty of affection to

“Those halls
In which of old I wore the gown.”

But the acceptance is a heavy draft upon my ingenuity. This magazine might well indulge in the reminiscences of the pleasant past rather than discuss the present or speculate about the future. To an old student the past is too personal for general interest; and the future, outlined dimly in the light and shade of the present, offers difficulties which can be met better in their own time than now. With the generous permission of the editors I propose to jot down a few ideas upon University and College, suggested by the existing state of university affairs.

No more important aid in understanding a question of this kind can be presented than the distinction between a university and a college, and also the relation uniting them. When allied together in the great work of education they afford a mutual complement and salutary balance to each other. A college is the ballast, a university is the sail. The latter contains the elements of advance, the former is more conservative in its tendencies. To the college the young student goes fresh from home; and finds that order, discipline and obedience which adorned the walls of his father's house, and which were an excellent preparation for the life upon which he now enters. A naked university without a college presents no such protection. It is the broad ocean of the world, upon which the young man who has passed his matriculation examination finds himself thrown, and he must sink or swim according to the weakness or strength of his character. Whether the principles he is receiving are true or false; whether his time and conduct are making for the best, there is no friend hard-by to tell. Besides these moral reasons for establishing colleges, there has been the reason of maintenance and encouragement of poor scholars. This last is the history of many of the colleges, founded, as they were, for the support of students from special districts or even countries. In Bologna there was the greater College of St. Clement for the Spaniards, and the Collegio Sondi for the Hungarians. Such, too, in Oxford are Queen's College, founded in favour of north countrymen, and Jesus College, for the Welsh. This naturally gave colleges a local character, which eventually assumed a national and aristocratic character. When war ceased to be the only profession for men of rank; when nobles did not disdain learning, and when it became customary for gentlemen to send their sons to the universities, then colleges were provided not for the poor, but for the higher classes. Thus the whole country poured its streams of wealth and talent into the university through the colleges. And although the collegiate principle was at first antagonistic to the university, still, when the colleges obtained proper growth they brought to the university a vigour which it would other-

wise never have attained, and a stability which it could otherwise never possess.

Both colleges and universities have passed through various phases with regard to the teaching of the students. Colleges were not originally establishments for instruction. The Fellows had no other duties than those of religion prescribed by the College Statutes, and those of study prescribed by the university. As these were Statutes, so was there a legal *status*. And as there were prescriptions by the university, there was a subordination of one to the other. Community life, or residence, was also one of the essential qualities of a college. In fact, a college without any residence, with no more union than that which the lecture-room or campus affords—a college with only the supervision over its students provided by attendance at class and success at examinations, is hardly a college. Any artificial division between the departments or subjects, ranking professors of some departments as university professors, and professors of other departments as college professors, cannot advantageously constitute the difference between a university and a college. If both members of the division are to prosper the difference should be better marked. An intellectual institution, to be lasting, must be based upon principle as its foundation, and be guided by principle in the building up of its efficiency, progress and honour. Artificial expedients will not serve an institution of this kind; they dwarf its energy and cramp its freedom. This freedom in the work of training and examinations is necessary to its life and efficiency.

A time came in the history of universities and colleges, when an important part of the teaching, and especially of the literary part, was delegated to the colleges. Science had not assumed its present proportions, the study of the classics had advanced, so that on the one hand the university subjects declined whilst the college subjects improved. The next stage gives us a university with no teaching faculty, merely an examining and degree-conferring body, while parallel with it we find a number of colleges with powers to confer degrees. How different was the former from the historical university—the *Studium Generale*, or “School of Universal Learning.” Such universities acknowledged their incompleteness in the establishment of a college so closely connected with them that the college was “the better half” of the university. Had the teaching of the university been left only to the *litera scripta* which we find everywhere, to the sermons looked for in stones, or the books which the philosopher found in the running brooks, it would have put into the hands of its students the wherewith to pass their examinations, but it would have failed in its work. “The *litera scripta* is a record of truth, an authority of appeal, an instrument, but if we wish to become exact and fully furnished in any branch of knowledge we must consult the living man and listen to the living voice.” Art is learned best by association with the great masters; statesmanship and courtly manners are learned not by books, but in the great centres of education, and in the intercourse with the leaders of a nation. Even science with its patient, solitary work of slow research is stimulated by the sympathy and encouragement which it receives in such meetings as those of the British Association. Such schools are universities only in a partial

sense. The fair city in which we live, and from which our Alma Mater takes its name, is virtually a university. Thither come young and old for law, politics, business. But such education is not systematized, nor is it based upon principle. As we are throughout this paper pointing out differences between a university and a college, the city of Toronto presents to us a strange anomaly—the difference between University Street and College Street. The former is an insignificant, one-sided, narrow thoroughfare, almost unknown, leading up to College Street. The latter is one of the great arteries of the city. Aldermen do not name streets on scientific principles. To us old students the university was the college, and the college was everything. Things could not always go on thus. A university is a place to which countless thousands may go; a place where inquiry is pushed forward and error exposed by the collision of mind with mind, and knowledge with knowledge. It was not likely, therefore, that the religious guardians would consent to their young men going up to a university, without scrip of religion and without staff of discipline. The old order changeth. The university takes up a function which belonged to it from the beginning, but which it did not exercise—the function of teaching. Colleges cluster around, bringing strength to it and gathering lustre from it. Welcome and more than welcome! The old students of University know it with but one college—and look at it through the efficiency of that college and the learning of its professors and the influence they exercised in their training.

My paper—a contribution—is that of an alumnus of the university. Neither the sacred character which shapes my life and orders all my thought, nor the relation I hold to the university as Superior of St. Michael's College, has entered directly into my subject. To me under such relations—as priest and educator of priests, I may say in the words of the late eminent Cardinal Newman, whose line of thought I have closely followed: "A university is a seat of wisdom, a light of the world, a minister of faith, an Alma Mater of the rising generation. It is this and a great deal more, and demands a somewhat better head and hand than mine to describe it well." Aught else? "*Quæ desursum est sapientia, primum quidem pudica est, deinde pacifica.*"

J. R. Teefy.

LOCAL LECTURES.

THE system of Local Lectures of the University of Toronto and University College has been for several years in operation. A complete record exists from 1896, when a joint committee of the two councils, with the writer as secretary, was appointed to take charge of the matter, but the beginning of the system is two or three years earlier. The lecturers have all been members of the joint faculties, and the subjects of the lectures offered have been as varied as the departments represented. The tastes of the public have been sufficiently catholic to demand lectures on all subjects. The preference has been, apparently however, for those on literary and historical topics, although the requests for lectures on scientific subjects have been quite numerous. Up to the present academic year

the lectures were offered free, on condition merely of the payment of travelling and other expenses. At the beginning of the year a new departure was made by the imposition of a small fee, to be applied to university purposes, in addition to the expenses incurred by the lecturers.

As disclosed by correspondence with those having charge of the lectures in various localities, they seem to have given general satisfaction, and the lecturers have almost uniformly spoken in the highest praise of the reception accorded to them by their audiences, and by the people who have entertained them. The lectures have been the occasions for making new friends, and for reviving old acquaintanceships, as well as for the dissemination of ideas.

But there are difficulties in the way of carrying on the scheme successfully. The members of the staff are busy with college lectures, and so are generally forced to decline requests for lectures that do not fall on Friday evening. Again, many small places, to which our lecturers would rather go than to large ones, are so situated that a lecturer would have to leave Toronto in the morning in order to arrive in time to lecture in the evening, and so the offers from such places must generally be declined. Another cause of difficulty is the frequency with which well-known members of the staff are invited to lecture. If a man goes out six or eight times in a season he finds it a considerable tax on his time and strength. And several members of the staff have been forced to decline offers because the limits of their strength were exceeded. Localities desiring lectures would often do well to choose amongst the less well-known names of the faculties. Another difficulty is the financial one. Very often there is some counter attraction in the town to which the lecturer has gone, there is a small audience at the lecture, and the deficit has to be made up by some well-disposed person, who is very likely to be a not-too-well-paid teacher or clergyman. But in spite of the difficulties, heartiness and goodwill on the part of the staff and the graduates in the country can make the system successful. The Alumni Association might take the matter up, and give the staff its valuable aid, by making suggestions as to improvements in the system, and by encouraging alumni in the various localities to work up a greater interest in the matter. The proper function of a national university is to encourage the spread of knowledge by all possible means.

John Squair, '83.

A GREEK PLAY.

FOR THE WOMEN'S UNIVERSITY COLLEGE RESIDENCE FUND.

ART is the gift which Greece has left to the world; and it is freshly received by each new person whose sense of the beautiful awakens in response to the beauty revealed. It has been said that when a boy first reads Homer the gates of a new life are swung open before him. What a vista of beautiful suggestion lies in the thought of a dramatic presentation of the Homeric tales! That is what the Women's Residence Association holds in anticipation for next December, when, under its auspices, a Greek

play will be given by the university students in the Grand Opera House.

The play has been arranged from the *Odyssey*, by a graduate of Radcliffe College, under whose management it has been given with great acceptance at Radcliffe College, Brown University, Rochester, Andover, N. H., Colorado Springs, and twice at Chicago where the parts were taken by native Greeks. There are many beautiful tableaux; and the scenes are enlivened by dances, wrestling, boxing and games. Reports from many sources give assurance of the artistic worth and charm of the play, and since graduates and friends of the university have shown so much enthusiasm as to guarantee the necessary expenses of the enterprise, the Residence Committee is encouraged to expect a widespread interest, and a good financial return from the undertaking.

It may be of interest to add here that the proceeds of the university Saturday lectures, which the University and College Councils granted to the



Residence Association, amounted this year to nearly three hundred and fifty dollars. The fund was also augmented by a gift from the Ladies' Glee Club, the profits of their annual concert. It has been estimated that a suitable residence building to accommodate from fifty to sixty students would cost fifty thousand dollars. This year there were more than that number of women students in boarding houses; and as the average amount they are able to pay is very small, the accommodation obtainable is correspondingly poor. Such a condition is very prejudicial to the best development of the college woman, and it is the aim of the Association to establish a residence, where every student will have her growing thought stimulated by pleasant association with others whose aims are like her own, and where a university spirit will be established which takes a deeper root than any that can be fostered by other means.

UNIVERSITY OF TORONTO STUDIES.

A NEW branch of the library administration, instituted three years ago, has been the publication of University of Toronto Studies, which are select papers embodying the results of scientific research by members of the university. The studies are published by the aid of a Government grant, and are used by the library for the purpose of obtaining in exchange similar publications of other universities or the transactions of learned societies. The reputation of the university has been enhanced by these valuable publications, issued with its *imprimatur*, and applications for them are continually being received from scientific institutions in all parts of the world. Separate series have already been begun in History, Economics, Psychology, Biology, Physiology, Anatomy and Geology. A full list of the studies is given herewith :

History, 1st Series : Review of Historical Publications relating to Canada, edited by Professor GEORGE M. WRONG and H. H. LANGTON.

Vol. I. Publication of the year 1896.

Vol. II. Publication of the year 1897.

Vol. III. Publication of the year 1898.

Vol. IV. Publication of the year 1899.

History, 2nd Series, No. 1 : Louisbourg in 1745, the anonymous "Lettre d'un Habitant de Louisbourg," edited and translated by Professor GEORGE M. WRONG.

History, 2nd Series, No. 2 : Preliminary Stages of the Peace of Amiens, by H. M. BOWMAN.

Economic Series, No. 1 : Public Debts in Canada, by J. ROY PERRY.

Psychological Series, No. 1 : Spatial Threshold of Colour and its Dependence on Contrast Phenomena, by W. B. LANE, with Appendices.

Psychological Series, No. 2 : A Contribution to the Psychology of Time, by M. A. SHAW and F. S. WRINCH.

Psychological Series, No. 3 : Experiments on Time Relations of Poetical Metres, by A. S. HURST and JOHN MCKAY.

Biological Series, No. 1 : The Gametophyte of *Botrychium Virginianum*, by E. C. JEFFREY.

Physiological Series, No. 1 : The Structure, Micro-Chemistry and Development of Nerve-Cells, with Special Reference to their Nuclein Compounds, by F. H. SCOTT.

Physiological Series, No. 2 : On the Cytology of Non-nucleated Organisms, by Professor A. B. MACALLUM.

Anatomical Series, No. 1 : The Anatomy of the Orang Outang, by Professor A. PRIMROSE.

Geological Series, No. 1 : The Huronian of the Moose River Basin, by W. A. PARKS.

H. H. Langton.

THE FUTURE OF THE UNIVERSITY.

*Views of Chancellor Burwash, Principal Caven, Prof. Goldwin Smith
and Provost Macklem.*

THE future of the university has been the subject of some recent comment. The following extracts from recent speeches and interviews will be valuable to those interested in the question :

.CHANCELLOR BURWASH.

In a recent newspaper interview Chancellor Burwash is reported as follows: "The colleges founded by the churches were originally established with a view to the promotion of higher education, combined with the best moral, religious and social culture. They were the only colleges of the Province from 1840 to 1850, and during that time repeated efforts were made to bring them into a provincial system. With these efforts Victoria has always co-operated. The same idea was the motive of the Act of 1853, as is fully expressed in its preamble. The Act of 1849 first created a State college, separate from the church colleges, and this was continued under the Act of 1853. The defect of that Act lay in the fact that it afforded no assistance to the church colleges; it simply offered to absorb them, and this they resolutely and successfully resisted. It is evident that the spirit of that day still survives in some minds, though we judge that it will soon take its place with extinct specimens of the unfit, which have perished in the struggle for existence. If it is asked why the churches should burden themselves with the maintenance of colleges when the State is willing to do the work, the answer is that we believe that religion and moral and social culture should enter most thoroughly into our highest education; that learning, or even intellectual power, is but a part, and not the most important part, of the man. Even in the State colleges, where perhaps of necessity in a mixed community this is ignored so far as their legal constitution goes, it forces itself into an imperfect practical recognition in the formation of Christian associations and chapters of various social societies. Young men and women will not, cannot pass four years of their lives without any satisfaction of these elements of their nature, and if they could do so it would be a most fatal mistake. The church college supported on the voluntary principle, perfectly free in its internal polity, can provide for these things most fully, and even a State college, if it has a wise and Christian man at its head, need not be godless. The affiliation with it of theological schools is certainly a help to this end, though at best it must be imperfect from this side. Certainly the presence of church colleges in the same university will stimulate the moral, social and religious forces of the State college, just as the State college will stimulate the intellectual work of the church colleges.

"It is sometimes supposed that the church colleges regard University College, or rather a State college, as unnecessary. This is a decided mistake. A State college is needed to provide for a large part of the popula-

tion who cannot support church colleges, as well as to set a common standard of excellence below which no other college can afford to fall. Even though individual colleges should surpass it in quality of work, it is always a guarantee that the university as a whole will not fall below the standard fixed by the State itself. It becomes, therefore, the duty of the State not only to support the common university, but also to see that the college is fully equipped, not as a rival, but as the model of her sister colleges."

PRINCIPAL CAVEN.

Principal Caven, in a recent interview, said: "One point is clear to me. As long as the University and University College are in connection with the State, the State should exercise control over them. Whether State connection and State control act as a hindrance to their receiving bequests and endowments is a disputed matter. I would hardly care, without more experience, to speak on that point. University College is, however, the child of the State, and as long as the connection between them exists, University College alone of the affiliated institutions should receive State aid. I am opposed to the State extending aid to any denominational college. My opposition is based on two grounds. In the first place, State support and State control must go together. Where denominational control exists, the State should not be responsible for the support of an institution. In the second place, if the State were once to extend aid to denominational colleges, interminable strife would result. All the denominational colleges that enter the confederation must look for support to their own people. I see no possibility unless this is done of preserving good relations between the different churches and of keeping the lines clear between Church and State. Under the present arrangement the advantage which the denominational colleges receive from affiliation with the State institution is that they are able to dispense with a number of Chairs. The University relieves them from a portion of their burden by providing these Chairs, which are open to the confederating colleges. That appears to me to be a proper arrangement, and there should be no deviation from it in the impending readjustment of university relations. If good feelings prevail and if the two principles which I have mentioned above are not violated, there should be no trouble about the proposed readjustment. I do not myself expect that there will be any friction. Victoria College, which has an Arts Faculty, as well as a Theological Faculty, has of course a standpoint of its own; but Dr. Burwash, who represents the views of the college, is eminently fair. Moreover, the two principles I have mentioned are now so generally accepted throughout the province that any open violation of them would not be permitted. I therefore look hopefully forward to a satisfactory settlement of the whole question."

PROFESSOR GOLDWIN SMITH.

In an interview which appeared in the *Toronto World* of May 17th, Professor Goldwin Smith gave his views on Trinity's proposal to federate

with the University of Toronto. He stated that this was first mooted about 1874, and that he had then spoken on the subject. He continued :

"I had been led to take great interest in such questions, having been for a series of years actively engaged in the re-organization of the University of Oxford as Assistant Secretary of a Royal and Secretary of a Parliamentary Commission. I submitted then (1) That the resources of the province were not more than sufficient to maintain one university on the best footing ; (2) that the denominational difficulty would be best met by having religious colleges in a secular university. For the teaching of classics and mathematics a small staff and a moderate income had sufficed. The teaching of science required far ampler means. Those means the resources of Ontario, scattered among a number of denominational universities one or two of which were extremely feeble, could not supply. The need of consolidation was more pressing if Ontario was to hold her own, as the great American University at Cornell was growing up within an easy day's journey of Toronto.

"Trinity College at that time appeared to be favourable to the plan. Not so much money having been laid out in buildings, removal to Queen's Park would have been a comparatively easy operation.

"I continued from time to time to advocate the plan, of the necessity of which I felt convinced, but without effect. One day Sir Casimir Gzowski, with whom I had been sitting in the University Senate, deplored to me the chances which young Canadians were missing for want of training in practical science. I submitted to him that such training was impossible without a larger fund which could be formed apparently only by consolidation. The result was a meeting of some of the heads of the universities in his chambers, at which the proposal of confederation was well received ; but which was followed by no practical step towards its realization. It appeared pretty plainly that though educational interests might point to union, local interests would be likely to stand in the way. Still, I continued to advocate the plan. At length Mr. Gooderham's bequest to the Methodist University of Cobourg, conditional on its migration to Toronto, brought the question to a practical head. A convention of Presidents of Universities was called by the Minister of Education. The plan adopted of uniting the single University of Cobourg with the University of Toronto was not my plan, which contemplated the union of all these institutions, nor is my plan chargeable with any difficulties which may have ensued. By what reasons Trinity and Queen's were led ultimately to reject a policy to which Trinity, at all events, had at one time appeared decidedly favourable, not having been invited to the convention, I am unable to say.

"I cannot pretend now to see my way to any solution. The difficulties of the case are increased by the growth of McGill which has reaped in rich private benefactions the benefit of its independence of the State. Had the resources of British Montreal been united as they well might have been to the combined resources of the British Province, a first-rate university might have been the result. But the policy of dispersion has now so completely prevailed, and has become so rooted in separate foundations and endowments, that consolidation seems to be out of our power.

“The only thing I can suggest for consideration is that the University of Toronto should be separated from the political Government of the Province. Experience seems to show that private munificence generally shuns Government institutions. If the Government decides to keep the University of Toronto in its hands it must extend its support to no rival. By extending its support to universities unconnected with the State, it will be cutting the throat of its own policy and exposing the State University to the disadvantages of both systems.”

PROVOST MACKLEM.

In an interview in the *Toronto Globe* of April 7th, the Rev. T. C. Street Macklem, the newly-appointed Provost of Trinity College, gave his views on the question of federation :

“Personally I am in favor of federation, not, however, under the present act, but under terms which will permit Trinity to enter into federation without compromising her principles. As a patriotic Canadian and devoted Churchman, I should like to see the whole weight of the Church of England in Ontario set on the side of the State for the unification and consolidation of the educational system of this Province and for the strengthening of the State University.

“Trinity would offer her whole-hearted support to the State for the building up of a university which shall be thoroughly comprehensive and truly representative of the whole community. I hope for great things for Trinity as an integral and honoured part of the one State University.

“Federation of the Church colleges in the one State University ought to become an accomplished fact in the near future, for, while from the State point of view it may be well enough that the different religious bodies should be represented by their own colleges, it cannot possibly be considered satisfactory that they should be maintaining rival universities. The time has come when neither the University of Toronto nor Trinity University can afford to stand aloof from one another without sacrificing a great national ideal. The State University needs the support of every important section of the community. Our Church University needs to come into closer touch with the whole educational system of the Province, or else it cannot adequately fulfil the great purpose of its foundation.

“The Provincial Government and the University of Toronto owe it to the greatness of their national aims to offer to Trinity such liberal terms that she can enter into federation without disloyalty to the principles of her royal charter.”

University of Toronto.

ANNUAL CONVOCATION,

Wednesday, June 13th, 1900.

I.—ADMISSION TO DEGREES.

LL.D. (*Honoris Causa*)—Hon. Mr. Justice Moss.

PH.D.—McLennan, J. C.

M.A.—Dawson, Miss A. J. C., Hunt, Miss B. M., Mason, Miss R. E. C., Allison, W. T., Chant, C. A., Clark, G. M., Cohen, M. L., Davidson, R., Dawson, H. J., Ford, H. E., Jackman, W., Johnston, F. J., McAlpine, R. J., McNairn, W. H., Perkins, R. J. M., Robb, E. G., Sinclair, D. A., Sinclair, N. R. D.

LL.B.—McClemont, W. M., Tasker, L. H.

M.B.—Hanington, Miss M. L., MacMurphy, Miss H., Oliver, Miss C. B., Anderson, H. J., Bell, C. C., Blanchard, N. N., Burns, W. T., Cameron, H. C., Campbell, A. C., Campbell, C. A., Carder, E. D., Charlton, S. E., Collins, H. L., Cook, W. R., Coutts, E. N., Dittrick, H., Donald, W. B. L., Downing, H. G., Flath, E., Gilbert, H. S., Hendrick, A. C., Hodgson, D. E., Howland, G. W., Hutchison, H. S., Jordan, J., Kelly, W. A., Macdonald, F. C., Macdougall, A. J. G., MacKay, W. F., MacKenzie, A. J., MacLoghlin, F. E., Morgan, A. E., Morrison, H., Parry, R. Y., Revell, D. G., Robertson, W. E., Scott, P. L., Snider, G. B., Stubbs, E. J., Tatham, C. C., Trout, J. H., Webb, J., White, W. R., Williams, J. P. F.

B.A.—Ballard, Miss A. W., Bollert, Miss M. L., Butterworth, Miss I. S., Chown, Miss M. L., Cockburn, Miss C. C., Cole, Miss A. St. O., Creighton, Miss E., Dickson, Miss A. I., Flagg, Mrs. E. H., Fleming, Miss E. M., Fleming, Miss M. I., Gall, Miss A. M., Graham, Miss E. M., Hall, Miss F. G., Harrison, Miss C. M., Jones, Miss F. M., Lang, Miss M. M., McDonald, Miss G., McKee, Miss K. E., Mason, Miss L. M., Straith, Miss R. I., Weaver, Miss E. C., Wegg, Miss C. S., Williams, Miss M. B., Woolryche, Miss H. G. B., Wright, Miss M. L., Yarwood, Miss M. C. St. G., Yemen, Miss J. F. Allen, W. K., Anderson, W. G., Armstrong, R. A., Beal, N. R., Brown, F. E., Campbell, A. C., Clare, A. N. W., Coleman, N. F., Connor, R. N. E., Cooper, E. H., Cornish, G. A., Cotton, T. H., Cragg, W. J. M., Cunningham, J. D., Davidson, J. G., Dickenson, E. U., Dobson, P. C., Donovan, W. J., Doyle, M., Dymont, C. V., Elmslie, W., Fairchild, A. H. R., Farewell, F. L., Ferguson, G. A., Fisher, J. W., Fitzgerald, C. R., Fitzgerald, W. G., Flint, C. W., Flintoft, E. P., Fox, J. W., Freleigh, A. J., Garvey, C., Gibson, J. J., Gillespie, J. H. R., Glass, W. A., Good, W. C., Graham, H. D., Gray, E. A., Greig, P. A., Harrison, W. G., Hedley, R. W., Hill, A. C., Hume, R. D., Johnston, J. H., Johnston, R. H., Kay, G. F., Keith, A. W., Kilgour, D. E., Laidlaw, R. S., McBean, J. W., MacNeil, J. A., Martin, S. T., Meredith, W. R., Michell, R. B., Miller, S. C., Miller, T. O., Millman, R. M., Misener, A. P., Mitchell, A. N., Mitchell, J. W., Morrison, F., Morrison, W., Nasmith, G. G., Noble, F., Osterhout, J. H., Patterson, J., Patterson, R. B., Potter, W. A., Ritchie, J. W. P., Rivers, G. W. W., Robinson, S. R., Rushbrook, W. F., St. John, A. N., Savery, T. W., Scott, J. R. S., Shaw, R., Simpson, B. A., Simpson, J. J., Sinclair, H. M., Smith, A., Smith, H. H., Smith, W. B., Spark, G., Spence, W. J. Sprott, R. J., Stevens, J. M., Stewart, G. M., Stewart, J. F. M., Telford, R., Thom, D. J., Thompson, W. H., Thomson, A. E. M., Tobey, W. M., Trimble, D. H., Trumppour, H. R., Wainwright, P. H., Walker, E. M., Watson, E. H. A., Whillans, J. A., Whitely, L. R., Wilson, A. S., Wilson, G. H., Wilson, N. L., Wilson, R. J., Wilson, W. G.

MEDALS AND SCHOLARSHIPS.

FACULTY OF ARTS.

Medals.

Governor-General's Gold Medal.....	Coleman, N. F.
Governor-General's Silver Medal.....	Coffin, E. A.

Scholarships.

FIRST YEAR.

The Bankers' Scholarship.....	McMahan, Miss M. M.
The Alexander T. Fulton Scholarship in Mathematics and Physics.....	Hughes, E. F. Gaby, R. E.
The Alexander T. Fulton Scholarship in Natural Science...	
The Alexander T. Fulton Scholarship in Physics and Chemistry.....	File, L. K.
The Alexander T. Fulton Scholarship in Chemistry and Mineralogy.....	Chadsey, S. B.

SECOND YEAR.

The John Macdonald Scholarship in Philosophy.....	Younge, R. J.
The John Mulock Scholarship in Mathematics and Physics..	Stewart, R. M.
The Edward Blake Scholarship in Natural Science.....	Smith, G. E.
The Edward Blake Scholarship in Physics and Chemistry...	Bray, W. C.
The Edward Blake Scholarship in Chemistry and Mineralogy	Mackintosh, J. C.
The Alexander Mackenzie Scholarships in Political Science.	1. Moore, D. R. 2. Soule, J. A.

THIRD YEAR.

The A. A. A. S. Scholarship in Mathematics and Physics...	Burton, E. F.
The Daniel Wilson Scholarship in Natural Science.....	Embree, M. H.
The Daniel Wilson Scholarship in Chemistry and Mineralogy	Wilson, W. J.
The A.A.A.S. Scholarship in Physics and Chemistry.....	
The Alexander Mackenzie Scholarships in Political Science.	1. Aylesworth, A. F. 2. McLaren, W. W.

FOURTH YEAR.

1851 Exhibition Scholarship.....	Patterson, J.
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POST-GRADUATE.

The Ramsay Scholarship in Political Science.....	Russell, T. A.
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FACULTY OF MEDICINE.

Medals.

Faculty Gold Medal.....	Scott, P. L. } Bell, C. C. } æq.
First Faculty Silver Medal.....	Revell, D. G. } Howland, G. W. } æq.
Second Faculty Silver Medal.....	Carder, E. D.
Third Faculty Silver Medal.....	

Scholarships.

First Year.....	Gallie, W. E. } Knister, C. E. } æq. Wilson, G. E. }
Second Year.....	1. Fletcher, G. W. 2. Klotz, O.

POST-GRADUATE SCHOLARSHIP.

THE GEORGE BROWN MEMORIAL SCHOLARSHIP IN MEDICAL SCIENCE.

For this Scholarship, Coutts, E. N., Scott, P. L., Stubbs, E. J., Snyder, G. B., ranked in the order named.

TORONTONENSIA.

UNIVERSITY OF TORONTO
MONTHLY.

ADDRESS ALL COMMUNICATIONS FOR PUBLICATION
TO THE SECRETARY, UNIVERSITY OF TORONTO.

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Every graduate of Toronto is loyal to his Alma Mater. This theory has been sufficient up to the present time. The day for the theory has passed. Every graduate is now given the opportunity of showing his loyalty in a practical way. The joining of the Alumni Association and paying the dollar fee is not the test although it is a necessary preliminary. The securing of several additional members and the sending in of their names so that they may be enrolled as new members and receive a copy of this journal is one method of showing practical sympathy. The sending of notes for this and other departments, the making of suggestions, and the upholding of the hands of those who are endeavouring to strengthen the university by calling to her aid a united alumni - these in rising order are the proofs of active fidelity.

Among the institutions and departments that make up the University of Toronto, there is none in which the alumni of the university may claim a greater share than the library, since it was reestablished after the fire of 1890 to a great extent by the subscriptions of the graduates. As a result of the normal growth of ten years since the fire, added to the extraordinary outlay in restoring the collection of books, the library now contains, 66,000 volumes and more than 7,000 pamphlets.

The use of the library is by no means intended to be limited to professors and undergraduate students. While the claims of the latter must receive first consideration during the eight months of lectures, there are four months of vacation when none of the books need be withheld from circulation among the graduates. Even during term the number of books that must be retained for daily use by the

students in attendance on lectures is comparatively small, and all others are then freely available for graduates as during the vacation.

The primary object of a university library being to assist university teachers and students in their work, the collection of books has been mainly built up on the lines of collegiate studies. Graduates who wish to continue their reading in any department of philology, history, philosophy or science will find ample literature at their disposal. In periodicals devoted to research the library is particularly rich. The number of such periodicals currently received is now more than 300. By special arrangement also the periodicals in the collection of the Canadian Institute, which supplements the University Library at many points, may be consulted by readers in the University Library.

A great disadvantage to members of the university not living in Toronto who wish to make use of the library, has been the absence of a portable catalogue. The great expense that a printed catalogue of so large a library would involve has prevented any attempt at supplementing the reference card catalogue that is kept in the library building, by one that could be distributed to readers.

As a partial remedy it is hoped to publish in the succeeding monthly numbers of this journal a selection of the new books added to the library from time to time. In this way the alumni will learn the value of the collection that is being formed, and many may be led to increase their acquaintance with it.

Last fall the Departmental Societies of the university and of university college, six in all, combined for the first time in the publication of a joint programme of their several meetings. The programmes were printed together in one neat pamphlet. But equally, if not more important, was the arrangement between the executives to form their public meetings into a special series of "Monday Afternoon Lectures" during December and January. The lectures were held at four o'clock and were all particularly well attended. Each society was represented once in the series. The idea is to make these meetings especially prominent for addresses on contemporary problems. The subjects treated were: Russia, by Professor Mavor; the Nerve Cell and the Race, by Professor Macallum; the Ameri-

can and Roman Republics—a Parallel and a Contrast by Mr. W. S. Milner; How to Think, by Professor Hume; Astrology, by Professor Baker; Zola, by Mr. J. Home Cameron.

The Honourable the Commissioner of Crown Lands has completed his scheme for a careful and systematic exploration of Northern Ontario, for which the Legislature at its last session made a grant of \$40,000. He has organized and equipped ten parties, many of which are now in the field. Among those entrusted with important positions are to be found the following graduates and undergraduates of the School of Practical Science: Coulthard, R. C., B.A.Sc., '99, Geologist in Party No. 1; Silvester, G. E., O.L.S., '91, Surveyor in Party No. 3; Parsons, J. R. L., B.A., '01, Geologist in Party No. 5; Tiernan, J. M., o.c.l. class of '87 Surveyor in charge Party No. 6; Robinson, A. H. A., B.A.Sc., '97, Geologist Party No. 6; Smith, A. H., o.c.l. class of '00, Geologist Party No. 8; Davison, I. G., '00, Geologist Party No. 9; McAree, J., B.A. Sc., '92, Surveyor in charge Party No. 10; Johnston, J. A., '00, Geologist Party No. 10.

The graduating year of the School of Practical Science have been very quickly placed in positions of importance.

J. L. Allan is in the City Engineer's office, Sidney, N.S.; M. C. Boswell with the Dominion Bridge Co., Montreal, Que.; J. A. Henry with the General Electric Co., Schenectady, N.Y.; J. C. Johnston in the City Engineer's office, Toronto; R. E. McArthur with a mining company in Idaho; J. G. McMillan on harbour works, Sault Ste. Marie; L. H. Miller with Westinghouse Electric Co., Pittsburg, Pa.; E. H. Phillips with the Cornwall Canal Works, Cornwall, Ont.; J. R. Roaf, assayer, Ophir Gold Mining Co., Bruce Mines, Ont.; C. H. E. Rounthwaite with the United Electric Co., Toronto; S. M. Thorne with the Hamilton Blast Furnace, Hamilton, Ont.; F. W. Thorold with Willis Chipman, C.E., Smith's Falls, Ont., and H. McL. Weir with J. G. Sing, O.L.S., Alexander Bay, Ont.

It is gratifying to note that at the annual meeting of the Royal Society of Canada, held in May last, a leading part was taken in the proceedings by the graduates of the University of Toronto. Mr. Louis Fréchette, C.M.G., recently nominated for the honorary degree of LL.D. by the University of Toronto, was elected

President, and Dr. Loudon Vice-President of the Society for the year 1900-1901. Dr. Loudon was also elected to the presidency of Section III (Mathematical, Physical and Chemical Sciences) for the ensuing year.

Among others who presented papers at this meeting of the Society were the following Toronto graduates: W. Lash Miller, Ph.D.; F. B. Kenrick, Ph.D.; J. H. McDonald, Ph.D.; J. C. McLennan, Ph.D., and Frank T. Shutt, M.A.

Two classical graduates held fellowships in other universities last year. These were, Mr. R. J. Bonner, '90, who was in the university of Chicago and Miss J. Brown, '97, who was in the university of Colorado. Miss Brown was fortunate in having her fellowship in Colorado renewed but preferred to take a Latin fellowship in the university of Pennsylvania. Mr. D. Thompson, '92, who has been taking post-graduate work in Chicago, has been elected to a fellowship in Latin.

Miss Helena K. Burns, '95, having taken a two years' course at Victoria Hospital, Montreal, was, last March, appointed Assistant Superintendent of the General Hospital, Ottawa.

Miss Rachael Chase, '95, has recently returned from Indore, India, where she was teacher of English Literature in a school connected with the Canadian Presbyterian Mission.

Miss Julia S. Cowan, '95, has gone to England for a year. She has been devoting considerable amount of her time to journalism, and will continue her work in London.

Mrs. Margaret Robertson Watt, '89, of British Columbia, came from Collingwood to attend the Alumni dinner and the Annual Commencement.

Miss Emma Fraser, '95, Ph.D., Penn., '98, has, since last fall, held the position of Head of the Romance Department, Elmira College.

W. B. Howell, '95, and F. W. French, '89, will next year be in attendance at Chicago for post-graduate work.

Miss Claribel Platt, '91, is teaching in a school in Smyrna, under the direction of an American Mission Board.

Miss Ethelyn Gillespie, '96, has been appointed Assistant Librarian, Legislative Assembly, Toronto.

Miss Northway, '98, has been granted a fellowship in Physics at Bryn Mawr.

THE UNIVERSITY OF TORONTO MONTHLY

VOL. I.

OCTOBER, 1900.

No. 2.

PRESIDENT LOUDON'S CONVOCATION ADDRESS ON SCHOOL AND UNIVERSITY REFORM.

IN my Convocation address last year I dealt with the question of technical education, and judging from the number of inquiries and references which the address elicited, both at home and abroad, I am led to the conclusion that the discussion was timely, and that it contributed in some measure to the removal of misconceptions. This year again I propose to discuss an academic topic, and one of a severely technical character.

I am sometimes asked why I do not choose more popular subjects for my Convocation addresses. My answer is that, though there are many inviting themes in the broad fields of literature and science, not to mention politics, still I feel that my position as head of the teaching side of the University demands that first and foremost I should contribute my quota to the solution of those difficult academic problems, connected with the University or the general system of education in Ontario, which from time to time are bound to present themselves. I feel, indeed, that academics is my business, and that it should receive my first attention.

I am sure that the title of this address must have excited curiosity in some minds, mingled with a species of incredulity. I am liable to be asked, "Are you not aware that our educational system is the best in the world, that it has received medals and diplomas at the World's Fair, and that it excites the envy and emulation of the nations?" These are things which we are too prone to repeat, and which are believed by too many. They are pleasant but unprofitable doctrines. There is really no system so dead as a perfect system. Some systems are worse than ours, some are better, and even the best existing is capable of improvement.

Apropos of this I am tempted to relate an incident which occurred in the experience of a friend of mine, a distinguished Parisian *savant*. Some thirty years ago my friend was conversing with a gentleman (whom we shall call Mr. B.) regarding the education of boys, and outlined to him, with considerable enthusiasm, what he thought to be an ideal course of training. Mr. B. replied half in jest, "Well, if I ever have boys to educate, I shall follow your advice." Many years passed by, and Mr. B. became a prominent official in the French service in Egypt. One day

my friend received a letter from him saying that he had not forgotten the pedagogical theories heard so many years ago, and asking at the same time for the address of an institution which carried out the principles then laid down. My friend was forced to reply that, although he held to his theories more firmly than ever, yet as a matter of fact no such institution existed anywhere in Europe. Fortunately for the boy, the matter was ended by his being sent to a German gymnasium at Frankfurt. Like my friend, I too have in mind an ideal system which doubtless I shall never see fully realized, but towards the attainment of which I should like to contribute in some measure by my advocacy.

It is not my purpose to propound new theories as to the objects of education in general. It is not my intention to discuss the educational value of this or that branch of learning, either in the abstract or in regard to the future career of the student, and still less am I inclined to discuss pedagogical methods. My remarks will centre round what I consider to be the most important question confronting High School and University teachers here and now, viz., "How shall the youth of our land obtain a liberal education without unnecessary waste of time and effort?" The term "liberal education" requires a word of definition. Under the varying systems of different civilized countries there is a remarkable unanimity as to its meaning. Speaking generally, to be liberally educated implies a knowledge of one's own language and literature and of two or three foreign languages and literatures, a knowledge of mathematics, history, and at least some acquaintance with physical or natural science. Such a scheme may be too broad or too narrow. Some radical persons will maintain that it is nearly all wrong, but at any rate it is the scheme on which the civilized world has settled, and how best to obtain or impart this education is the practical question before us. Under our system the work is done by the High School and the University. The High School imparts the rudiments and the Arts course of the University continues and completes the instruction begun in the High School. The Bachelor's degree represents the sum total.

Now, is this work being done in Ontario with due regard to economy of time and effort? The average age of our Arts graduates is between 23 and 24 years. If we pass in review the acquirements of the average graduate, and consider that it has required in all 17 or 18 years of school and university training to reach what is often a very mediocre degree of attainment, we have at once ground for suspicion. But if we examine what is accomplished in some other countries, notably in Germany, in the same time, we become at once convinced that there is something radically wrong. The Canadian youth of 19 (I am speaking of average age) is barely beginning his college course: the German youth of like age has completed his liberal education. His attainments, even put at the very lowest, are equal to those of our pass graduate, while his knowledge of some subjects would put him into the honour lists under our system. He is a good "all round" scholar. He has passed the *Abiturienten-Examen*, which closes his career at the gymnasium or real-

schule. He is then in fact qualified and permitted to undertake what we should call post graduate study. As far as a liberal education is concerned, he has had the same course of training as the professor with whom he undertakes professional study or research work. In this connection, it is worth remarking, by the way, how different is the force of the term "leaving-examination" (modelled on *Abiturienten-Examen*) as sometimes used here, and as used in Germany. With us it marks the entrance to undergraduate work: in Germany it marks the entrance to research or post-graduate work.

Why is it then that our young men lag years behind the young men of Germany in attainment? Are they not industrious, and are their teachers not painstaking? I have no hesitation in answering both these questions in the affirmative. Both our children and our teachers are burdened to the limits of physical endurance. The German boy probably plays less, and his school hours are slightly longer, but taking school work and home work together, there is little or no difference in the amount of effort expended by the student. After careful comparison of our system with that of Germany and other countries as well, I have come to the conclusion that the loss of time with us results largely, I might say mainly, from a clumsy and unnatural arrangement of the whole course of study. The course of study as a whole is chargeable both with sins of omission and commission; it has left undone those things which it ought to have done, and it has done those things which it ought not to have done, and I might almost add that, so far as facility for the acquisition of a liberal education is concerned, there is no health in it.

Let us examine for a little the course of training of one of our graduates. He enters the Public School at say 6 years of age. He is taught to read, write and cipher, and just here enters a sin of commission. He is overtaxed with work in departments of study for which his immature mind is totally unfitted. I refer especially to grammar and arithmetic. The sum total of effort lost through untimely pushing in these subjects alone is enormous. After the lapse of some years the boy is ready for the High School, and passes into it after a stiff examination. His education is pretty well out of joint. The chances are that he is an indifferent reader, not very sure of his orthography, fair in writing, able to analyse and parse in a mechanical way, but not understandingly, very strong in arithmetic, if he be tested on the type of problem on which he has been drilled, and with a certain amount of useless baggage in history, geography, physiology and temperance, etc., but without having been taught the first word of a foreign language. If he remains in the Public School for two years more before entering the High School, as he may do, he continues his English studies, is pushed further on in mathematics, and adds botany and bookkeeping to his acquirements. He is still, except in very rare cases, without the rudiments of a foreign language.

In the High School he begins a struggle to overtake what has been

omitted from his previous training. In view of his intended course at the University, he must at once begin either two or three foreign languages. Now, language-study is a matter in which time is a very essential element. But the boy's time is limited. He is getting up in years, and must be rapidly crammed for matriculation. Moreover, the best period for acquiring the elements of foreign languages has already passed by, while the boy was striving in the Public School to learn the impossible. If the High School pupil were free to devote his whole time to languages, he would still be at a disadvantage, owing to the shortness of the High School course, but the languages form only a portion of his work. He must prepare his Part I. of the Junior Leaving, and hence, geography, arithmetic, grammar and history, monopolize his attention, to the further detriment of his languages. He arrives at the University at the average age of between 19 and 20 years, with his education relatively as much out of joint as it was on his entrance to the High School. At the University his main effort is spent in striving to remedy the defects of his early language training, and he finally graduates some three or four years later than is the case in Germany, with a much less thorough and permanent knowledge of his foreign languages.

Now let us see how our German friends plan the education of a boy who is intended to be liberally educated. He enters the gymnasium or realschule at about 10 or 11 years of age, and he completes the course at 18 or 19. The work is divided into six forms or classes, numbered inversely as compared with ours, and running from VI. (the lowest) to I. (the highest). In the gymnasium, classics is given prominence, in the realschule, modern languages and mathematics occupy the first place: the other subjects of study are in general as with us. In order to contrast the division of the boy's whole school time with what prevails here, I shall have to give you a few figures. His school week is on the average divided into about 30 periods. In the Leipzig Gymnasium, for example, Latin has in the lowest form 9 periods, and 7 and 8 in the two highest, and in other classes proportionately; Greek has 7 periods in the three highest forms; French runs through four forms out of the six, with 2 hours weekly in each form; English 2 hours weekly in the two highest forms. This is in marked contrast to our system, and we obtain a contrast of another character when we observe the time given to German (the boy's mother tongue) and mathematics. The periods in German in this institution run 4, 3, 3, 2, 2, 3; arithmetic runs through the three lowest forms only, with an average time of 3.3 periods each week; it is then dropped, and mathematics continues through the higher forms, with an average time of about 4 periods weekly, and yet the German mathematician is inferior to none. In the Realgymnasium at Chemnitz the average number of periods per week devoted to Latin throughout the course is 6.3; to French 4.4 in five forms; and to English 3 in three forms. In the Leipzig Realschule the average number of periods per week devoted to French throughout five out of the six classes is 5.4; to English 4 periods in the three upper forms; to German 5.5 throughout. Here also arithmetic drops to 2 periods weekly at the middle of the course.

Under such a grouping of his work, we cannot wonder that the German becomes a thorough scholar in three or four foreign languages at an age when a Canadian youth is still struggling with the elements. Nor does it appear that the German youth is deficient in the branches on which we lay so much stress, for the simple reason that his training in them is judiciously timed and proportioned.

It will thus appear that our system differs from that of Germany (and the same is true of other countries) in two fundamental respects, (1) language study is unduly deferred with us, and (2) various other branches are unduly fostered. How have these conditions arisen? The postponement of language study in our system is evidently due to the fact that the High School course begins where the Public School ends, and liberal education becomes the victim of what looks like a very symmetrical and plausible course upon paper. There is practically no means in our system by which the boy may begin his languages at an advantageous age, and moreover, as the standard of the Public School rises, the evil becomes intensified through still further postponement.

Let me give you an example of the questions which a boy must answer before he is permitted to study languages in a High School. They are selected from the High School entrance examination papers of 1899.

Define and illustrate in sentences the following :—

(a) compound, complex, assertive, interrogative and imperative sentences,

(b) principal and dependent clauses,

(c) adverbial, adjectival and noun-phrases.

Show, by writing *shall* or *will* with the first, second and third persons singular and plural of the verb *go*, how you would indicate :—

(a) simple futurity,

(b) promise or determination.

Draw an outline map of South America, indicating with names the chief islands, rivers, mountain ranges, and the political subdivisions.

The cost of a quantity of silk at \$3.25 per yard, and tweed at \$2.50 per yard was \$409.75, the whole cost of the tweed being 25 cents more than that of the silk. Find the number of yards of each kind of cloth.

A merchant engages a lawyer to collect his accounts, agreeing to pay him $2\frac{1}{4}$ per cent. of the sum collected. If $\frac{2}{3}$ of the accounts prove worthless and the lawyer receives \$75.60 for collecting the balance, find the total amount of the merchant's accounts.

What led to the passing of the Constitutional Act of 1791. State its chief clauses, and point out its defects.

Write explanatory notes on the following :—

(a) Secularization of the Clergy Reserves,

(b) The British North America Act,

(c) The North-West Rebellion, 1885.

State the duties of each of the following, and explain how each is appointed :—County Treasurer, Sheriff, Registrar, Warden of the

County, Mayor, Assessor, Premier of the Dominion, Lieutenant-Governor, Governor-General.

What is a tragedy? Why did Burns not write one? What was the deep tragedy that he enacted?

Why may Burns be regarded as an "intrinsically nobler, gentler, and perhaps greater soul" than Napoleon?

(a) Give the general classes under which you would arrange the bones of the human frame.

(b) Of what substances are bones formed? Which of these substances predominates in the different stages of life?

(a) Trace the food through all the changes wrought upon it in the mouth, the stomach, the duodenum and the small intestines.

(b) Name the juices mixed with it in each stage of these changes and the organs which produce them.

(c) What organs take up the food and send it into the circulation?

I do not offer an explanation as to why we have been saddled with conditions so inflexible, but I characterize them as an evil, and I emphasize the point. So long as it is impossible for the boy to begin his languages until he has reached the standard now required for High School entrance, just so long will he be terribly hampered and delayed in the attainment of a liberal education. So strong was the Senate of the University impressed with this disability that two years ago it considered a project for instituting an elementary examination in languages, a grade lower than matriculation, for the purpose of stimulating language study. The project was eventually abandoned, as it was felt that any further increase of the examination evil would prove to be a remedy worse than the disease.

Let us look at the second of the hindrances, the undue fostering of certain other branches of study. We shall find the causes in the scope and object of the High School course. Ostensibly the High School curriculum is framed to afford a liberal course of secondary education, but the High School, as now constituted, is chiefly an institution for the preparation of Public School teachers in their non-professional work. This is the determining principle. We are sometimes reminded that intending matriculants form but a fraction of the aggregate attendance, and that they consequently have no rights. But is the manufacture of such enormous numbers of Public School teachers wise or right from any point of view; or, if so, is the course of study such as to produce the best quality of Public School teachers? To both of these questions I give a decided negative. The evils attendant on the over-production of teachers have become patent to everybody, and need not be dwelt on. The quality of the teachers in the Province at large leaves much to be desired. I shall refer to this point again under another head, but I should like to say just here that the standard of efficiency might be considerably improved by liberalizing the course of non-professional studies.

I have referred at considerable length to the postponement of languages and the want of proportion in the course of study, because I regard these

as the chief impediments in the way of obtaining a liberal education, and also because these hindrances have not hitherto received the attention which they demand at the hands of those who are interested in seeing our educational system, as a whole, brought up to the level of that of other countries.

I now pass on to discuss briefly a third impediment, which has of late received much attention, and regarding which wiser counsels are beginning to prevail. I refer to the examination incubus. Even with the lightening which has taken place, we may still, I think, challenge the world in respect of examinations. At the Departmental Examinations in 1899, 32,160 candidates were examined, exclusive of those in the Art Schools, etc. The total number of examination papers issued was 706,500. Of these candidates 11,483 took the examinations leading to the teachers' certificate in 1899, and the number was about the same in 1900, while the whole number of Public School teachers in the Province was at the latest estimate 8,465. These figures are astounding, but they refer only to a part of the written examinations which meet the student at every turn from the kindergarten to the university. There are written weekly examinations, monthly examinations, promotion examinations, and what not. I hold that examinations are a necessity to be reduced to a minimum, and that they should not be multiplied and magnified as has been the case under our system. There is no doubt in my mind that teaching done with the examination immediately in view is inferior teaching, and when we add to this the incentives to cram arising from frequent tests which bring the High Schools into competition with one another, we find that we are face to face with a serious hindrance to effective teaching.

Looking more particularly at the examinations affecting the High School course, I am glad to note that the examination for Form I. has been discontinued. This is a step in the right direction, but it is not enough. Hosts of candidates every year pass the non-professional tests for teachers who never become teachers, and who have no intention of entering the teaching profession. This is unnecessary, and it is hurtful on the general grounds already given. But it appears almost absurd when we remember that the examinations are held years before the candidate begins his career as a teacher. One general result of this practice is still further to distort the High School course, notably in the subjects of grammar, arithmetic and history, in which a high standard is exacted at an age much too early for the proper comprehension of these subjects.

The teachers' examinations are in the wrong place. The non-professional and professional tests should go together, and should be applied at the same time. In short it is my belief that the Provincial Normal Schools should not only teach pedagogy, but should also review and examine on a large part at least, if not all, of the subjects which the intending teacher is to teach. I need hardly refer to the County Model Schools, which have demonstrated their uselessness, and cannot disappear too soon from our system. In other words, then, let the teaching

function which the Normal School originally possessed in Ontario, be revived. This would be in line with the practice in Germany. The German system does not send out its certified teacher with mere reminiscences of what he has acquired years ago, as is done here. In the *Lehrer-Seminar* (Normal School) even though the candidate has completed the greater part of his course in the gymnasium or realschule, he is instructed not only in the strictly pedagogical work, and sciences thereto relating, as here, but also in mathematics, the German language and literature, history, geography, physics and chemistry, natural science, drawing and calligraphy, vocal and instrumental music, gymnastics and drill, religion, and sometimes Latin and modern languages.

Such a method, if adopted here, would have more than one advantage. It would raise immensely the standard of the profession as a profession, it would give us an efficient body of Public School teachers, of which the country is sorely in need, and it would reduce the examination evil to a minimum, since the only remaining examination would be that required for matriculation into the universities and professional schools. The promotion examinations from form to form, in the High School, I would propose to leave entirely in the hands of the teachers, and pupils should be admitted to the High School on the recommendation of its teaching staff.

Let us now proceed to consider in detail the direct bearing of what has been said on the universities and professions. Students who are seeking a liberal education may be roughly divided into three classes, (1) those who have no professional career in view; (2) those who are looking forward to one of the so-called learned professions, or to a higher technical career, and (3) those who are intending to engage in research work leading to a higher degree than the B.A.

The effect of the present system upon the first of these classes, though serious enough in itself, is less harmful than upon the other two classes. To the student who has in view solely the attainment of a liberal education, time is a less important element. In his case, the attainment of his object is simply delayed by so many years, and made proportionately expensive, but without other result, except that the process is needlessly tedious, and the standard of scholarship lower than could be reached by the same effort under improved conditions.

With the second class, the matter is quite different. The intending professional man feels that he cannot afford the loss of two or three years cut out of the most vigorous part of his life. He cannot fairly be expected to spend 13 or 14 years in preparation for entrance on an Arts course, 4 years in obtaining his Arts degree, and 3 or 4 years more in the study of his profession, which he finally reaches at the age of 26 or 27, or even 28. True, a certain number of young men make the sacrifice of time entailed by taking the Arts course, and in my opinion they decide wisely. But the vast majority decide otherwise. They begin the study of their profession with the minimum preparation exacted in the various professional schools. The professional schools are hampered by the

slender attainments of their students, and would gladly raise the standard of entrance to that of the B.A. degree, but this is practically impossible, and it will remain impossible just so long as the present conditions prevail. If, on the other hand, the preparatory course were reformed by the removal of the defects which I have indicated, it would be easy enough to insist on the higher standard, and indeed I have little doubt that, could intending professional students shorten their preparatory course by even two years, many of them would of their own accord elect to enter their profession through the gateway of the B.A. degree. The intending technical student requires also a liberal education of a somewhat more limited character, and, under improved conditions, he also would at an early age be enabled to acquire that knowledge of foreign modern languages which is absolutely essential to his success, and which he now must obtain later under great disadvantages. With regard to the importance of French and German to the technical student, Principal Galbraith of the School of Practical Science tells me that, had he to choose between a knowledge of French and German on the one hand and Chemistry and Physics on the other, as a preparation for entering a higher technical course, he would unhesitatingly decide in favour of the languages.

Coming next to the third class, the research student, let us see how the reform would affect him. With this class of student rests the hope of future advancement in knowledge and the eventual raising of our whole standard of learning as a nation. And yet research work is with us in its very infancy. The vast majority of our young men never undertake it; they hardly realize what it means. They never get beyond the stage of mere *learners*, they do not become *students*. Here again a vast improvement might be made under reformed conditions. The average German youth is in a position to begin research work at 19 or 20. If that were possible here, I make no doubt that research would receive an immense impetus, and that through it a new and stronger life would begin for higher learning in our midst.

There is still another question coming under the general head of economy of time. How would High School reforms affect the University Arts course? Could it be shortened? It has sometimes been proposed, even under present conditions, to make it a three years' course. This proposition has been made just because of the needlessly advanced age at which our B.A. degree is obtained. Such a reduction, with its attendant evils (the increased pressure on the student and the lowering of the standard), would be a doubtful experiment unless reform were effected lower down. If the advocates of a three years' course can secure the necessary modifications in what precedes, a proper proportion in the preparatory subjects, and the introduction of language study say two years earlier than at present, I see no reason why the Arts course might not be rearranged and shortened by a year, without impairing the standard.

The remedy of defects is to some extent implied in the mention of

them, but, lest I should be misunderstood as indulging in criticism of a purely destructive character, let me summarize here, at the risk of repeating myself in part, the chief reforms in our system which seem to me urgent and feasible.

1. The courses of study.

Let the work of the Public School be better adapted to the end in view, and to the stage of mental development of the child. This implies a good deal less grammar and arithmetic, especially in the early part of the course, a great deal more attention to reading and spelling, and in general, less prominence to subjects which are of little educational value. Let us by all means ensure that the pupil, on leaving the Public School, shall read with intelligence and ease, spell correctly, write well, and perform simple arithmetical operations with accuracy.

For the High School, I propose, first of all, some arrangement by which the pupil may begin his languages at a reasonably early age. There is no reason why the pupil should not enter the High School as soon as he is well grounded in the essentials I have mentioned above. It seems in some quarters to have become accepted as axiomatic that the only path to the High School lies through the completion of the present Public School course, with all its encumbrance of non-essentials.

This is one of the fundamental mistakes of our system. I do not propose to limit the sphere of the Public School, or to abridge its curriculum, but I maintain that the work of the High School will be in great measure ineffective so long as it of necessity begins where the present Public School curriculum leaves off. Nor will matters be improved by the introduction of language teaching into the Public Schools. At best, the languages would be optional, and the efficient teaching of them could not be secured. Further, I propose for the High Schools a change in the allotment of time and attention to the various subjects so as to provide for a really liberal education. This change could easily be secured, if the non-professional training of teachers were transferred in large part to the Normal School, where it properly belongs.

For the University I propose a remodelling of the present course and the shortening of it by one year, conditional, however, upon the changes which I have outlined above.

2. Examinations.

In general let the examination evil be reduced throughout the whole system. Let us have more teaching and less examining, and this applies perhaps nowhere with more force than to the work being done in the Public Schools. Let the non-professional examinations for teachers be applied when they have completed their whole course of training, thus removing from the High Schools one of the greatest impediments to effective teaching.

3. The training of teachers.

This is a most essential matter. The most obvious reform under this head is the abolition of the County Model School. It has been and is a mere makeshift. Let the Normal Schools be developed along new

lines, or rather let their old teaching function be restored. Make these schools thoroughly efficient by increasing and strengthening their teaching staffs, and if necessary let new Normal Schools be established. Our Public Schools are below the proper standard of efficiency. There is one way and only one way of improving them, and that is by improving the teacher. How to eliminate the transient or "stepping-stone" teacher, and how to secure a body of mature, scholarly and earnest Public School teachers is one of the most serious problems of our educational future. I feel sure that what I propose would be a long step towards the solution of this problem, and would result in an immense improvement in our Public Schools, an improvement which nobody desires more earnestly than myself.

At the risk of unduly prolonging my remarks, I shall refer to one question more of university reform of quite special urgency, viz., financial reform. In my programme of reform under this head there are three items. The first is money, the second is money, and the third is more money. I do not need to refer to ways and means of economizing and administering what we have. Our cramped resources have left us little to learn in this respect: the great problem is how to increase our revenues.

The beginning of our necessities dates approximately from the passing of the Federation Act in 1887. Our total expenditure in 1887 was \$70,149; our expenditure last year was \$135,720.87. This sum includes scholarships, etc. (the proceeds of special gifts to the University), but does not include expenditure on the Medical Faculty. The increase has resulted in part from the additional requirements arising out of federation and in part from general expansion.

The passing of the Federation Act marked an epoch of hope in university finances: subsequent years have been years of disappointment. The financial problem was thought then to have been solved: it still awaits its solution. The increased necessities of the University were not unforeseen at the time of federation. I myself was requested in 1885 to prepare an estimate of the increased annual revenue requisite to properly finance the federation scheme. I reckoned the sum total at \$40,000 annually, to be immediately available. It was the intention of the government then in power to provide liberally for the University, and while absent in Germany in 1887, I was informed on high authority that at least \$30,000 would be forthcoming. This sum was to be the outcome of the transaction respecting the old Upper Canada College block. As you know, these expectations were never realized, and the scheme in question has resulted most disastrously to the University from a financial point of view. Meanwhile, we have been in financial straits, the stringency increasing year by year. Almost our only resource has been the increase of fees, undesirable in itself, and which has now reached its limit. The Government has been applied to more than once, and although a sum of \$7,000 annually has been granted in extinction of outstanding

claims, no other assistance has been afforded. Last year we renewed our application without success.

Meantime a new factor in the case has arisen. A demand is put forward on behalf of Queen's University for Government aid, and even priority of claim is asserted. Now let me say, that should the Government resolve to ignore the claims of its own child, the provincial University, and to provide for an adoptive child, it can be done on one of two grounds. Either the adoption must be complete, and the new member of the family must be subject to full parental control, or else money must be given into the hands of others, without such control, to be expended for its nurture and upbringing. In other words, Queen's University must either be provincialized, so that we shall have two provincial universities instead of one, or else the money of the people must be handed over to an independent corporation to be administered as it sees fit.

I can hardly think that the latter of these contingencies is possible, so repugnant is it to our political institutions, but if possible, and if carried into effect, the Government may well ask itself how it proposes to adjust the corresponding claims from various quarters which will inevitably be made. If on the other hand, it is proposed to provincialize Queen's University and the others whose claims will follow, we shall have two or three or more provincial universities instead of one. It is devoutly to be hoped that the Government and Legislature will not embark upon a policy so extravagant and so surely fatal to higher education. The resources of the province do not warrant it. A first-class university under modern conditions is an expensive affair, and Ontario is barely able to maintain one such institution, with due regard to efficiency, not to speak of several.

I am hopeful as regards the situation. The Government is fully seized of the question, and I think we may confidently look to the friends of the provincial University and to our 10,000 alumni not only to accelerate the day of our financial liberation by their influence and the dissemination of information regarding the great work we are doing, but also, if necessary, to guard the integrity of our provincial non-sectarian system of higher education from aggression from any quarter.

There is a point on which I wish, in conclusion, to make myself perfectly clear. The nature of my topic has led me to show you the dark side of the picture. I have been pointing out defects, and suggesting improvements. It has not been the purpose of my address to call attention to all that is good in our school and university system. And so I should like to say just here that I am not unmindful of the self-denying labours of our teachers in school and university. I do not belittle the results obtained. We have, in spite of the defects pointed out, been enabled to set up a standard of learning that is on the whole gratifying, and, in a country so new as Canada, even surprising. What I have said of university standards applies rather in general to the attainments of the ordinary Bachelor of Arts than to those of our best honour students,

in the case of whom we have obtained results of which any country may be proud. But to be perfectly candid I must say that these good results have been obtained under adverse conditions, and I am hopeful that in process of time, with a better understanding of educational problems, and with improved finances, we may approach much more nearly to the ideal which we have set before us, and towards which we are striving.

RECENT CHANGES IN THE FACULTY.

DURING the past year the following professors have retired from the University:—

William H. Pike, M.A., Ph.D., appointed Professor of Chemistry in 1880; the Honourable William Proudfoot, at one time Justice of the Supreme Court of Judicature for Ontario, appointed Professor of Roman Law in 1888; the Honourable David Mills, LL.B., Q.C., M.P., now Minister of Justice of the Dominion of Canada, appointed Professor of Constitutional and International Law in 1888; and John Caven, B.A., M.D., L.R.C.P., Lon., appointed Lecturer in Pathology in 1887 and Professor of the same subject in 1891.

The following new men have been appointed to positions in the University:—

N. H. Beemer, M.B., Extra-Mural-Professor of Mental Diseases.
 W. P. Caven, M.B., Associate Professor of Clinical Medicine.
 Graham Chambers, B.A., M.B., Demonstrator in Clinical Medicine.
 R. J. Dwyer, M.B., Lecturer in Medicine and Clinical Medicine.
 W. R. Lang, D.Sc., Professor of Chemistry.
 A. H. Lefroy, M.A., Professor of Roman Law, Jurisprudence and History of English Law.
 H. T. Machell, M.D., Associate Professor of Obstetrics and Pediatrics.
 J. J. MacKenzie, B.A., Professor of Pathology and Bacteriology.
 W. MacKeown, B.A., M.B., Demonstrator of Clinical Surgery.
 J. McGregor Young, B.A., Professor of Constitutional and International Law.

The following have changed their position in the University:—

G. R. McDonagh, M.D., formerly Associate Professor, is now Professor of Laryngology and Rhinology.
 A. McPhedran, M.B., formerly Associate Professor, is now Professor of Medicine and Clinical Medicine.
 R. D. Rudolf, M.D., C.M., M.R.C.P., formerly Assistant Demonstrator of Anatomy, is now Lecturer in Medicine and Clinical Medicine.
 B. Spencer, M.D., formerly Associate Professor, is now Professor of Medical Jurisprudence.
 Clarence L. Starr, M.B., formerly Assistant Demonstrator of Anatomy, is now Demonstrator of Clinical Surgery.
 F. N. G. Starr, M.B., formerly Lecturer in Anatomy, is now Associate Professor of Clinical Surgery.

Dr. W. R. Lang, who has been appointed to the chair of Chemistry, is a Glasgow man and a Scotsman, born and bred. He received his education at Kelvinside Academy, where he captained his school "Fifteen" for two years; thence he passed to Glasgow University, where he took his degree in 1890. A vacancy in the official teaching staff of the Chemistry department then occurring, he was appointed to the post, and for some years past has been chief assistant to Professor Ferguson, and also Lecturer

in Organic Chemistry, his labours in these departments being highly appreciated. His sphere of work has not, however, been confined to his native city, for he has prosecuted research in continental laboratories as well as in London, where his investigations on low temperatures and the liquefaction of gases resulted in several interesting lectures, delivered in Glasgow and Dundee last spring. The first liquid air seen in Scotland was produced by Dr. Lang by means of his liquefaction apparatus, installed in Glasgow's ancient university. About two years ago the Senatus Academicus conferred upon him the degree of D.Sc. As a captain in the Lanarkshire Royal Engineers, Dr. Lang has shown untiring devotion to and enthusiasm in the cause of volunteering. In that corps he commands the University Company, mainly composed of undergraduates proceeding to the science degree in the department of Engineering. He also served in the English militia for two seasons, has been twice through the mill on Salisbury Plain, the great manœuvring centre in the south of England, and holds a captain's commission in the Imperial Reserve of Officers. The new professor is a devotee of yachting, his other chief amusements being music and golf.

A. H. F. Lefroy, M.A., Professor of Roman Law, Jurisprudence and History of English Law, is a son of General Sir John Henry Lefroy, K.C.M.G., who, from 1844 to 1853, was in charge of the magnetic observatory in Toronto, and later, Governor of the Bermudas. General Lefroy was one of the founders of the Canadian Institute and was a distinguished geographer. During 1843 and 1844 he made a series of magnetic observations extending as far as Fort Good Hope on the Mackenzie river. Mount Lefroy, one of the loftiest peaks of the Canadian Rockies, was named after him. Professor Lefroy was born in 1852. He was educated at Rugby under Dr. Temple, the present Archbishop of Canterbury, and at New College, Oxford. He graduated B.A. at Oxford, with honours in the Final School of Literæ Humaniores in 1875, and was made M.A. in 1880. He was called to the English bar in 1877 and to the Canadian bar in 1878. Since that time Professor Lefroy has attracted attention by his able discussion of legal and constitutional questions. His book, "The Law of Legislative Power in Canada," is a standard work, and has been favourably criticised in England, the United States, Australia and Canada. He has also contributed articles to the Law Journals of England and Canada.

J. McGregor Young, B.A., Professor of Constitutional and International Law, is a native of Prince Edward county, Ontario, and a graduate of the University of Toronto. He was born in 1864, and graduated in 1884 after an active and brilliant undergraduate career. He was an Honour man in the department of Mental and Moral Science and won the gold medal at graduation. As an undergraduate Professor Young enjoyed the confidence of his fellows, who elected him editor of the *'Varsity* for the year 1883-84. Since graduation he has been in close touch with the University, having been Examiner in Law for four years, and President of the Literary Society in 1897-98. Upon receiving his



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and History of English Law.*



J. J. MACKENZIE, B.A.,
Professor of Pathology and Bacteriology.

degree, Professor Young entered the law office of the Hon. Edward Blake, late Chancellor of the University, and was called to the bar in 1887. He then became a partner in the firm of Messrs. Blake, Lash & Cassels, and remained there till 1895, when he entered the firm of Messrs. Moss, Aylesworth & Armour, and remained there two years. At present he is associated with Mr. H. H. Dewart, Q. C., of the B.A. class of 1883. Professor Young has also had a long experience in teaching the subjects of his department, having been lecturer in the Law School at Osgoode Hall on Constitutional Law, Personal Property, Common Law and Jurisprudence, since 1893.

Dr. J. J. Mackenzie, the new Professor of Pathology in the University Medical Faculty, is a Canadian by birth, and a graduate of this University in Arts and Medicine. He spent some time in the study of Physiology in Leipzig and Berlin, and from 1887 to 1890 was Fellow in Biology in the University. For some years he has been Lecturer in Bacteriology in the Medical Faculty, and since 1890 he has held the position of Bacteriologist to the Provincial Board of Health, which position he relinquished to accept the Chair in Pathology. He is a past President of the Toronto Pathological Society, and has been an active member of that society for a number of years.

THE LATE HON. ARTHUR RUPERT DICKEY, B.A., Q.C.

BY the untimely and accidental death by drowning of the Hon. A. R. Dickey, on July 3rd, at Amherst, N.S., the University of Toronto lost a worthy, faithful son, an ardent admirer and a strong supporter. He was one who had always taken a keen and active interest in the welfare and progress of his Alma Mater, striving ever, as far as his opportunities allowed, to advance the good work she was doing toward the higher education and culture of the youth of the Dominion. His great wish and ambition was that the University of Toronto should become more and more a consolidated national institution, a centre of culture, exercising a wide influence on the thought and aims and work of the present generation. These aspirations he frequently expressed when he was the Honorary President of the Toronto University Club of Ottawa—an office he gladly accepted while resident in the Capital and holding the portfolio of Minister of Justice under the late Conservative Government.

In the autumn of 1895, Mr. Dickey was chosen by the graduates in the eastern part of Ontario as their candidate for the University Senate, and was duly elected. This was an office that he had always aspired to; it was, as he once stated to the writer, the aim and goal of his ambition, and the office which above all others he desired. Unfortunately, however, his ministerial duties at Ottawa were so pressing that he found it absolutely necessary—though with great reluctance—to resign his seat in the Senate. This was a matter of much regret to him, but, as he stated at

the time, he would not continue to nominally occupy a seat on the governing board at such an important and critical period in the University's history when another might be found who had the requisite leisure to give to the work.

If his lot in life had so been cast, Mr. Dickey would have made a typical professor. Scholarly, cultured, modest, a good administrator, winning the respect of all by his gentle disposition and by his ideals of right and justice; a thoroughly academic man, he would undoubtedly have proved a great strength to any university. The early demise of a public man of such an estimable and noble character is a loss to the country at large, but by university men must be greatly regretted, for there are few now-a-days of those who, having the ability, are willing to give of it and add thereto enthusiasm, in the services of their Alma Mater.

Frank T. Shutt, '85.

PERIODICALS IN THE UNIVERSITY LIBRARY.

ONE of the chief features of modern scholarship, whether scientific, historical or philological, is its dependence on periodical literature. The writing of papers is the aim now-a-days of most students engaged in original research, and the immediate publicity that every new discovery thus obtains is of immense value to other workers in the same field. Access to these repositories of the latest information is therefore of the first necessity to advanced students in any department of learning. A library must contain at least the weightier journals in every branch of study to be of real service to the cause of research.

The University Library has been built up on these lines. Out of a total of 65,000 volumes, more than 21,000, or one-third of the whole Library, are the bound volumes of its sets of periodicals. This formidable number is made up of no fewer than 945 different publications. The various national academies of science, whose annual volumes of Transactions or Proceedings were pioneers of the modern army of scientific journals, naturally present the "longest" sets. Thus the Royal Society of London is responsible for an array of 200 ponderous tomes, an incomplete set notwithstanding, as it only goes back unbroken to 1821. The Royal Society, it will be remembered, was founded by Charles II. in 1662, so that 160 years of its activity are unrepresented on the Library's shelves. There are also extensive sets of the publications of the Royal Academies of Berlin (72 vols.), Brussels (229 vols.), Munich (148 vols.), Paris (209 vols.), Stockholm (207 vols.), Turin (83 vols.), Vienna (321 vols.). Some of the longest continuous sets are chemical periodicals, one of them, Gilbert-Poggendorff-Wiedemann's *Annalen*, extending unbroken from 1799 to the present day. The French *Annales de Chimie*, also in the Library, has had even a longer life, from 1789. The largest literary periodical in the Library is the *Revue des Deux Mondes*, which numbers 369 volumes, from its first appearance in 1831 to the present.

Many of the periodicals on the Library's shelves are dead and gone, but an even more abundant generation flourishes in their place. Of these the University Library currently receives 459, of which 286 are subscribed to. The remaining 173 represent in part the generosity of learned societies which put the University of Toronto on their free list after the fire of 1890, and more largely the library exchanges procured by distribution of *University of Toronto Studies*. It may be interesting to see how the several departments of study are represented in this total. Philology and literature are accommodated with 92 periodicals, the historical and economic sciences with 97, philosophy and psychology with 30, while the natural and physical sciences have 197 to their credit.

Whether the above figures seem large or small is entirely a matter of the standard by which they are estimated. That the University Library is not extravagantly or even liberally equipped with periodicals is manifest, when it is compared in this particular with other reference libraries of a similar type. Dr. Billings, chief of the New York Public Library, estimated the other day that 3,500 current periodicals were taken in his library. The John Crerar Library of Chicago, established by private endowment half a dozen years ago as a purely reference library, began with a periodical list of 1,500. Columbia University Library admitted to about 1,200, two years ago. These, however, are recognized leaders in the library world, and their revenue is suitable to their position. The annual sum at the disposal of the University of Toronto Library is not one-tenth the income of any of the three.

H. H. Langton, '83.

ON RECENT ADDITIONS TO THE UNIVERSITY
BIOLOGICAL MUSEUM.

BY PROFESSOR RAMSAY WRIGHT.

I.

DURING the two months which have elapsed since my return from Europe, and which have been devoted to arranging some newly-acquired treasures in the Biological Museum, it has come to my knowledge that many former graduates of the University are not well-informed as to what has been accomplished in the course of the last ten years in the way of replacing the old Natural History Museum of the time "before the fire." Then, the Library and Museum constituted the show-places of the Main Building; now that each is separately established and better equipped than ever, one can only look back with some sentimental regret to the two handsome rooms around which so many pleasant memories centred.

It has been suggested to me that through the pages of the UNIVERSITY MONTHLY I might gratify those Alumni who only remember the

Old Museum by giving a short account of its successor, and at the same time interest a wider circle by describing the recent acquisitions which the generosity of some private individuals at home and of some public institutions abroad has enabled me to add to our collections during the leisure of my year's absence from teaching duties.

These additions have done much to repair the losses occasioned by the fire, which fortunately did not involve the models and preparations most useful for educational purposes, but chiefly concerned the mounted specimens of more interest to the general public. Much, however, still remains to be done in improving the æsthetic aspect of the Museum by replacing those which have deteriorated, and it is to be hoped that the gentlemen whose donations I have to record in the following pages will find many imitators.

The New Museum forms the central portion of the Biological Buildings. Although primarily intended as an educational Museum for the students taking Biology as a part of their University work, it also attracts a large number of visitors, and is likely, with the additions to be described in these pages, to excite still greater interest in the general public than it has hitherto done.

The public entrance is situated in the west façade of the Biological Buildings, while the students gain access to the rooms through the eastern wing, in which the laboratories are located. The interior of the Museum, which occupies two floors, is sub-divided into four rooms, seventy-five by twenty-five feet in size, amply lighted by handsome windows on the north and south sides. Three of these rooms are devoted to Animal Biology, while the fourth, which is to be arranged for the illustration of Vegetable Biology, is temporarily fitted up for the accommodation of the Ferrier collection of minerals.

The public entrance opens into the north ground-floor room, the wall-cases in which contain stuffed specimens of the various orders of Mammals, while the free-standing cases between the windows illustrate the comparative anatomy and development of that class. All the show-cases are constructed of iron and plate-glass, after a model designed by Dr. A. B. Meyer, of Dresden, those destined for the exhibition of smaller specimens standing on wooden storage-cases, built of cherry and cedar, and containing skins and other specimens for private study. The south ground-floor room is devoted to the remaining vertebrate classes, the wall-cases containing stuffed specimens of birds, reptiles, batrachians and fishes, and the smaller cases between the windows containing specimens illustrating the comparative anatomy and development of these classes.

A handsome staircase decorated with busts of distinguished biologists (the gift of our former Vice-Chancellor, the Hon. Mr. Mulock) connects the ground-floor and the first-floor: its walls bear a number of cases in ascending series containing a small collection of fossils from all parts of the world, as a graphic illustration of the relative position of the fossiliferous strata, and of their characteristic remains.

The south first-floor room contains illustrative specimens of all the

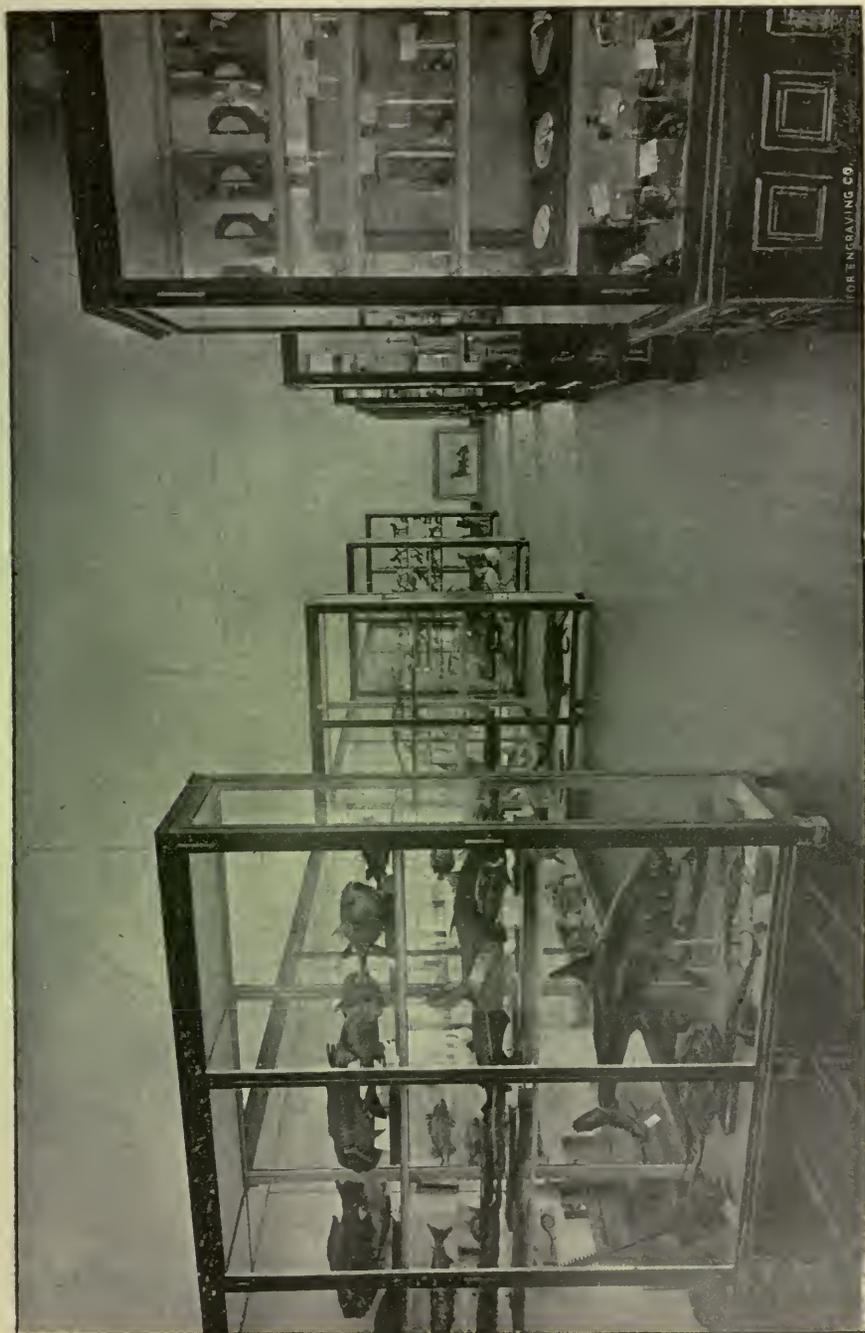
remaining branches of the animal kingdom, the arthropods and molluscs being exhibited in the wall-cases and the table-cases standing in the alcoves of these, while the protozoa, sponges, cœlenterates, echinoderms and worms are accommodated in the cases between the windows.

Some idea of the arrangement of the cases and of their appearance may be gained from the accompanying illustration, which, however, having been made some time ago, does not adequately represent the progress made in arranging the collections. It will be seen that the large sheets of plate-glass offer no obstruction to the observer, while the height of the cases is such that each specimen is within easy reach of the eye. Not the least of the advantages afforded by them is that the contents are effectually protected from dust and the attacks of insects. It is intended that each specimen exhibited shall be furnished with a printed label indicating the more salient points which it is designed to illustrate, and considerable progress has been made in this direction, especially with the large series of models employed to elucidate difficult aspects of the more advanced studies.

Of our new acquisitions, the first to be put in place is a series of Birds of Paradise, purchased out of a donation by Hiram Walker & Sons. This group had hitherto been almost entirely unrepresented in the Museum, for, until comparatively recently, good specimens were rare and almost unattainable. As, however, New Guinea, the home of the family, has been opened up and competent collectors have been able to visit the mountainous interior without incurring too great risks, it has now become possible to secure suitable Museum specimens, although they are still rare and costly.

Almost forty years ago, Alfred Russell Wallace made his celebrated expedition to the Malay Archipelago, in the course of which he made five voyages, each of almost a year's duration, to obtain specimens of these birds. Of the fourteen kinds then known, he only succeeded in getting five. Since then five times as many species have been described, of which the present collection contains seventeen, represented by thirty specimens.

The Paradise-birds have been an article of commerce in the far east for centuries, Macassar, the capital of Celebes, being the chief centre to which they are brought. The skins, having been prepared in the mountainous interior of New Guinea, are bartered to the coast tribes and eventually brought to Celebes, where the more beautiful species are sold at from fifteen to sixty dollars the score. The native skins referred to had and often still have the peculiarity that the wings and legs are not preserved, owing to their inconspicuous colouring, and thus arose the legend that these birds hail from some other sphere, or float in the thin atmosphere of the upper air and only fall to the earth when dead. It is this legend which is commemorated in the name "footless" given by Linnæus to the Great Bird of Paradise—*Paradisea apoda*.



The University Biological Museum, View of South Portion of Ground Floor.

Although related to the Crows by their structure and resembling them in their harsh voice, and in their partly frugivorous and partly insectivorous habits, the Paradise-birds differ from them in the extraordinary richness and variety of the plumage of the males. The females are comparatively humbly clad in sober brown with barred grayish under-parts, those of the various species resembling each other very closely, but nowhere else in the animal kingdom, except perhaps among the Humming-birds, do we see among the males such an extraordinary amount of varied ornament attributable to sexual selection with so little anatomical difference. The differences indeed may be said to be only skin deep.

Most frequently it is a series of flank feathers, below the wings, "subalar plumes," which are beautiful in their form and colour and can be erected at will, but peculiar feathers on the head or breast, or tail, or lively colours of bare parts of the body are also employed by the males to heighten their attractions. These are displayed at the courting time with much assiduity, certain stately dancing movements being carried out in the presence of the females, all of the peculiar feathers being erected and fluffed out to the greatest advantage. The pairing time is in July, and then in the morning and evening four or five males may be seen in the lower branches of the trees dancing and calling to the females, while the rest of the day they spend in the thick tops of the high trees preening their feathers. Their plumage is in the finest condition at this time; with the advent of the dry season in October they begin to moult, and have only acquired their full plumage by the end of March, when the rainy season begins. While the foregoing description applies to the best known species, it is thought that some of the family may share with the Bower-birds of Australia the peculiar habit of building a special structure in which to show themselves off.

So great have been the demands of the millinery market that one would not be surprised to hear of the approaching extinction of these birds; so far, however, the inaccessibility of New Guinea has saved them, and now the German authorities have imposed restrictions in Kaiser Wilhelm's land which may be of some value.

Ornithologists subdivide the family of the Paradise-birds into two groups, those with long, slender and more or less curved bills, and those with shorter and stouter bills. Nos. 1-3 in the accompanying photograph belong to the former, and Nos. 4-16 to the latter.

Although the family is confined chiefly to New Guinea and the adjacent islands, yet certain outlying forms are found in Australia and the Moluccas. The Rifle-birds of the former, called so on account of their dark green plumage, include several species which seem to increase in beauty as they approach the equator. They are represented in the Museum by a few mounted specimens and skins, but do not form part of the present collection.

One of the most beautiful of the new arrivals is the twelve-wired Paradise-bird—No. 1. The general character of the adult male plumage on



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

GROUP OF BIRDS OF PARADISE PRESENTED BY MESSRS. HIRAM WALKER & SONS.

the back, head and breast, reminds one of soft sealskin, but the outermost breast-feathers are upwardly curved and marked near their margins with metallic green crescents. The wings and tail are also brown with an added purple sheen, but the gorgeousness of the species depends on the loose filmy sub-alar plumes of yellowish-white, six of which on each side are webbed only at the base, while the shaft is continued into the stiff "wire" from which the popular name is derived. Not satisfied with this display of beautiful plumage the male has the inside of its mouth and its tongue of a beautiful grass green, while the muscular legs of pale reddish hue, combined with the grey claws, complete the colour effect.

Another large form allied to the above is the genus *Epimachus*—No. 3, which depends partly for its attractiveness on a breastplate of brown feathers, near the margins of which are stripes of metallic blue and coppery pink, but also on the two central tail-feathers, which are upwards of two feet in length, and have a special metallic lustre of their own. The particular species we have is dedicated to Dr. A. B. Meyer of the Zoological Museum at Dresden, one of the most successful explorers of New Guinea. Naturally, his museum is particularly rich in Birds of Paradise, and nowhere are they seen to greater advantage. This is the more true as Dr. Meyer is an expert in the exposition of specimens, and has effected more than any other museum director in the improvement of exhibition cases. The Dresden Museum, therefore, as well as the

neighbouring picture-gallery, is well worthy of a visit. Dr. Meyer's cases are constructed entirely of iron and plate-glass, and served as a model for those in the University Museum here, but have been still further improved by the concealment of hinges and locks, so that there are no projections on the outside to catch dust.

The continuous breastplate of the foregoing species is broken up in D'Albertis' Paradise-bird (No. 2) into two pairs of feather-fans, which have beautiful violet borders, while the much curved beak is also a peculiarity.

Passing to those forms with short stout bills, we shall find that the species dedicated to the Crown-Princess Stephanie (No. 4), owes its beauty partly to a gorget of many hues, but chiefly to its magnificent tail-feathers, which like the rest of the plumage are black with violet reflections.

But much more characteristic as well as better known is the Great Bird of Paradise of the Aru Islands (No. 6). Although the general tone of the back, wings and tail is a sober enough dark chestnut brown, yet the additional purplish lustre which this acquires on the under parts, the yellow and emerald of the head and neck, and the odd wire-like character of the two central tail-feathers would themselves be enough in the way of decoration. In addition to all these, however, the sub-alar plumes here reach a beauty of form and colour nowhere else attained in the group. They are exceedingly long and loose in their texture and of a beautiful yellow, shading at the tips into brownish red, while the shafts are pure white.

A similar smaller species from the mainland, as well as another from the Island of Waigiou (No. 5), which differs from it in having red tints where the Great Paradise-bird is golden, are also much sought after for millinery purposes.

The blue Bird of Paradise (No. 8), named after the ill-fated Crown-Prince Rudolph, who was a keen ornithologist, is certainly one of the most lovely, as it is still one of the rarest and most costly, of the group. The back and head are brown, the wings turquoise blue, but the filmy sub-alar plumes when erected and seen from behind exhibit the most astonishing range of blues from turquoise to violet. A band of Indian red, then only visible, separates the blue plumes from the more sombre under parts.

One of the best known of the birds of this group is the King of the Paradise-birds (No. 13), the prevailing colour of which is a deep nasturtium-red, separated from the snow-white of the under parts by a deep green band, at the sides of which there project two ash-gray feather-fans tipped with a brighter green. Perhaps most noticeable are the two central tail-feathers, which are wire-like for the greater part of their length, but end in a bright green disc formed by the curling up of a one-sided web. That these ornaments are not attained all at once may be seen from the young male, which is much humbler in his colouring and the shape of his tail-feathers.

Another species of small size is the "Magnificent" (No. 17), which almost exhausts the spectrum in its varied hues. A beautiful shield of dark green covers the breast, and is traversed by a vertical band of scale-like feathers of a brighter green. The crown is chestnut, a collarette of yellow springs from the nape, while the rest of the mantle is deep nasturtium-red, and the wings are brown and orange. The two central tail-feathers cross each other, are elegantly curved, and of a metallic blue colour.

A near cousin is Wilson's Magnificent (No. 11), which comes from Waigiou, and chiefly differs from the foregoing in being almost bald. The skin of the head, however, in life is of a beautiful cobalt blue, which disappears at death and must be imitated by the taxidermist.

The Superb Paradise-bird (No. 15) is distinguished by a fine collar of feathers, four or five inches long, the outer surface of which has the texture and colour of sealskin. It can be elevated from the nape, but the lining apparently is not intended to be seen, because the under surface of the feathers presents nothing remarkable. The rest of the dress is quiet, except for some metallic green feathers on the crown, and a fine gorget of metallic green with certain coppery hues and violet streaks.

Also in the six-shafted Paradise-bird (No. 10) the prevailing hues are sombre, but the plumage is so velvety in its texture that it can be fluffed out into a silky ball. Here also there are iridescent feathers on the crown and chest, but the bird is chiefly marked by the three feathers which project back from the ear on each side and consist of a shaft with a terminal racket-shaped web.

Like the six-shafted Paradise-bird, the Pteridophora Alberti (No. 9), dedicated by its discoverer, Dr. Meyer, to King Albert of Saxony, is chiefly remarkable for its peculiar head-gear. In general tone dark brown above and pale orange below the bird would escape attention were it not for its pair of truly remarkable head-feathers. These, if laid together, look like a frond of fern (to which circumstance the genus owes its name) and present little resemblance to ordinary feathers. The shaft is there, but it only bears barbs on one side, and these are modified into flat horny plates, some thirty-seven in number, with a pearly lustre on their exposed faces and brown on the under surface. The ordinary barblets which make the barbs of a feather adhere into the web are hardly represented. Perhaps the nearest analogy to the plates here described are the horny structures like scales of red sealing-wax on the wings of the Bohemian Waxwing.

Outside of the ordinary range of the Birds of Paradise is the Island of Gilolo or Halmahera, one of the Moluccas. Wallace, in the course of his journeyings, found here a bird which he called the Standard-wing (No. 12), on account of two creamy-white feathers springing from the bend of the wing and capable of being erected independently of the rest of the plumage, which is ashy-olive, except for a little purplish lustre on the head, and a metallic green breastplate which projects out on each side in two glittering tufts capable of being stowed away beneath the wings.

Perhaps the least striking members of the family are the so-called Manucodias (No. 14), the plumage of which is in general black but with purple or green metallic iridescence, which would be more noticeable among less gaily-dressed relatives.

On another occasion I shall have to refer to some near relatives of these birds; at present I have only to record two other contributions which are almost ready for exhibition:—a collection of Birds' Eggs, the purchase of which was made possible by A. T. Wood, Esq., M.P., of Hamilton, one of the University Trustees, and the head of a Beisa Antelope, presented by Joseph Kilgour, Esq. The eggs have been arranged from a biological standpoint, and the collection illustrates their absolute and relative size, their form and texture, their colour and markings, the variation of form and colour and the numbers characteristic of a set or clutch in different species. Some explanation is offered of the various phenomena illustrated, and a short series arranged systematically shows how far "Oology" bears out the results arrived at by ornithologists.

The head of the Beisa Antelope is particularly welcome on account of the fact that none of the South African Antelopes are represented in the Museum, while the circumstance that many of these beautiful creatures which once thronged the veldt have become exceedingly rare and indeed are fast being exterminated renders it desirable to secure specimens before it is too late. The Museum is too small to accommodate complete mounted examples of the larger Antelopes, but it is hoped that, while they are still attainable, many heads and horns of the numerous species of this interesting family may be secured to grace its walls.

ALUMNI RESEARCH SCHOLARSHIP OR TRAVELLING FELLOWSHIP.

OUR Alumni Association embraces so large a body of graduates that one may fairly expect various projects to be set agoing for the benefit of our Alma Mater.

The proposed University Club, designed to increase the interest of the graduates in the institution, will, possibly, be matter of concern mainly to residents of Toronto and vicinity. The MONTHLY, launched under such favourable auspices should, however, command the cordial support of the Alumni at large; and so, also, in regard to the claims of a Research or Travelling Scholarship Fund. It would, of course, be bad policy to attempt too much in the early days of the Association, but the writer feels strongly that what is legitimate will be healthful. Moreover, a small sum from each of our graduates would, without entailing any sacrifice, at once provide the requisite amount; and in lieu of what is too often mere sentiment or a memory, there would result enhanced personal and perennial interest in the doings of Alma Mater.

The order of the day is, do something, find out something; and acting on this behest progressive, higher institutions are wisely promoting original research. The undoubted direct and reflex benefit of such work needs no argument. One insensibly thinks of the laboratory in this connection, but, invaluable as it is, there is, fortunately, a much wider field open for exploration than even Biology, Physics, and Chemistry afford. And there is this advantage in the wider domain, that the co-operation and sympathy of the greater number are enlisted. This larger scope for the search after new truth and buried lore is well shown in the case of the University of Pennsylvania, whose exploration staff in the East has recently made a notable discovery of invaluable documents, an enterprise which will bring both *éclat* and substantial benefit to that institution. Every department of a University and its votaries and friends have some stake in this matter. Philology is not exempt; and even the so-called dead languages surely have living roots, careful digging amongst which, now and then, would bring to light some obscure or hidden point worth unearthing.

In a recent hurried visit to the Pacific Coast, the writer, with the kind aid of his classmate, James Fisher, Q.C., of Winnipeg, and Alfred Hall, LL.B., of Vancouver, Secretary of the British Columbia branch of our Alumni Association, interviewed a number of leading graduates; and, on broaching the subject of a Research Fund, was gratified to find so many lend a sympathetic ear. Those whose life-interests are now centred in other Provinces than Ontario, cannot be expected to take the initiative or give largely; especially in view of connections formed in many instances with other institutions by virtue of their leading positions in the community. They naturally look to the men in Ontario to lead the way.

The writer is pleased to report a nucleus already in hand, and he trusts it may play the part of suggestion, and prove an incentive to a speedy general effort.

A brighter chapter would certainly open in the history of the University if an academic code of ethics, binding though unwritten, held sway with something of the force of ordinary filial obligations. Then, not only would winners of scholarships but graduates generally regard themselves as beneficiaries, and feel morally bound to requite their Alma Mater. So mote it be.

R. A. Reeve, '62.



GIFTS: A FLAG; TWO GUNS.

CONVOCATION ceremonies took place on the 2nd inst., and were of an unusual and interesting character. The meeting was held in the open air, on the University grounds. The occasion of this unusual procedure was the presentation to the University of a flag and two pieces of ordnance.

The flag, a fine British ensign, was presented by Mr. H. F. Gooderham,

B.A., on behalf of the Zeta Psi Fraternity, and was accompanied also with the gift of a set of signalling flags. The ceremony of hoisting the flag, on the fine flag-staff which had been erected for the occasion, was gracefully performed by Miss Mowat.

The guns were the gift respectively of the graduating class in Arts, represented by Mr. E. F. Burton, and of the Engineering Society of the School of Practical Science, for which Mr. E. Guy acted as spokesman.

The presentation of both flags and guns was made in felicitous language, which gave proof of the feeling of affection and gratitude on the part of the donors towards their *Alma Mater*. President Loudon, in accepting the gifts for the University, referred in well chosen terms to the increasing evidences of University spirit among graduates and undergraduates, and to the unswerving loyalty which had always characterized the institution, a loyalty which had actuated the alumni on more than one occasion to lay down their lives in defence of the British flag. The proceedings were brought to a close with appropriate addresses, delivered by Chancellor Burwash, Rev. Dr. Teefy, Provost Macklem, Rev. Dr. Armstrong Black, and Chancellor Wallace.

The history of the acquisition of relics of such surpassing interest to Canadians as the cannon presented on this occasion is briefly as follows:—Captain A. Brown, of the wrecking steamer *Fabiola*, from Montreal, while engaged during the summer of 1899 in removing the wreck of a steamship sunk at the mouth of Louisbourg harbour, noticed one day what seemed to be a cannon lying in a few feet of water. An examination by a diver resulted in the discovery of several cannon and the remains of an old ship. On his return to wrecking operations this summer, Captain Brown continued his exploration of the bottom of the harbour. At the place of the first discovery three more cannon were found, the smaller of the two presented being of this number. Crossing over to that portion of the harbour in front of the old fortress, Captain Brown came upon several more guns lying, deeply embedded in the mud. The largest and best preserved of these is the larger of the pair. Hearing of these discoveries, Mr. A. E. Shipley, a graduate of the School of Practical Science engaged in professional work in that neighbourhood, communicated with Dr. J. C. McLennan, Secretary of the University of Toronto Alumni Association, and suggested the purchase of some of the cannon for the University. The suggestion was taken up with enthusiasm by the students of the present Fourth Year in Arts and of the School of Practical Science, who set a pleasing example of *esprit de corps* and loyal devotion to their *Alma Mater* by purchasing two of the cannon and presenting them to the University. The identity of the smaller one may be affirmed with tolerable certainty. When the English fleet approached the Cape Breton coast on the second of June, 1758, there lay at anchor within Louisbourg harbour "five French ships of the line and seven frigates, carrying in all five hundred and forty-four guns and about three thousand men." (Parkman) By the twenty-fifth of July only two ships remained; the

others, with the exception of one that escaped, had been destroyed. The two survivors were the *Prudent* and the *Bienfaisant*. At one o'clock in the morning of the twenty-fifth these ships were seized by six hundred English sailors who had rowed into the harbour under cover of darkness. The *Bienfaisant* was towed to a safe anchorage, while the *Prudent*, being aground at low tide, was set on fire. The smaller of the two guns was found near the spot where the burning *Prudent* went down, and in all likelihood belonged to her armament. Four days previous to this, namely, on the twenty-first, had taken place one of the most memorable and dramatic incidents of the siege. A bomb struck the *Célèbre* and set her on fire. Drifting from her moorings, she spread the flames to her neighbours, the *Entreprenant* and the *Capricieux*, and when night came down the three ships, flaming targets for the English batteries, drifted aground not far from the base of the fort, and at the place where, among others, the larger of our two guns was roused from its sleep of one hundred and forty-two years. We may say with almost equal certainty that it belonged to one of the three burned ships—the *Célèbre*, the *Entreprenant*, or the *Capricieux*. May their presence on our University campus only help future generations of students the better to realize the happy contrast between then and now in the condition of our native land. To Wolfe, one of the English besiegers who watched these guns go down, and Montcalm, his gallant French foe of the following year at Quebec, a common monument has been erected. Let that be the enduring pledge of our national unity and devotion to the arts of peace.

In connection with the transference of the guns to Toronto especial thanks are due to Mr. A. E. Shipley who first suggested their purchase and who made arrangements for their shipment; to Mr. J. S. McLennan, treasurer of the Dominion Coal Co. of Louisbourg, and Mr. A. N. McLennan, superintendent of the Sydney and Louisbourg Railroad, through whose great kindness they were carried to Montreal; and to the Grand Trunk Railway, through whose courtesy they were brought to Toronto at reduced expense.

G. H. Needler, '86.

LOCAL ALUMNI ASSOCIATIONS.

THE aims of the Alumni Association are to be best achieved, it is thought, in two ways; by the support and extended circulation of the MONTHLY, and the organization of branch associations. Both are being actively carried on at present, the one aiding the other, and from all sides most encouraging reports are coming in.

Ottawa, the oldest daughter of the family, is prospering and will undoubtedly prove a great source of strength to the University in Eastern Ontario, where so many influences are at work which run counter to the growth of the great national university, the University of Toronto.

A meeting of the Stratford graduates of the University of Toronto was held in Stratford, Ont., Sept. 13th, to consider the question of forming a local Alumni Association. It was suggested that, if possible, the Association should be a county one, and all Perth graduates are being communicated with in order to find out their views on the subject. The provisional committee appointed was composed of the following graduates: C. J. McGregor, M.A.; Jno. Idington, LL.B.; M. C. Moderwell, B.A.; C. A. Mayberry, B.A., LL.B.

The first regular meeting of the University of Toronto Alumni Association of British Columbia was held in Vancouver, July 31st. The regular officers for the year were elected as follows:—

Honorary President—Sir Henri Joly de Lotbinière, Lieutenant-Governor of British Columbia.

President—Rev. Robert Whittington, M.A., B.Sc., Vancouver, B.C.

1st Vice-President—Mrs. Alfred T. Watt, M.A., Victoria, B.C.

2nd Vice-President—Stuart Livingston, LL.B., Vancouver, B.C.

3rd Vice-President—P. McL. Forin, B.A., Rossland, B.C.

Secretary-Treasurer—Alfred Hall, B.A., LL.B., B.C.L., Vancouver, B.C.

Councillors—J. H. Kerr, B.A., Vancouver, B.C.; Alex. Henderson, B.A., Ex. Attorney-General, New Westminster, B.C.; J. L. Milne, M.D., Victoria, B.C.

For the present year the head office of the Association will be in Vancouver by courtesy extended to the President of the Association. Various matters were discussed and certain resolutions passed by the Association which will be forwarded in due time to the Registrar for presentation to the Senate, particularly those dealing with the question of examinations of the University of Toronto in British Columbia, and lectures when possible.

S. J. Robertson, '93.

PROFESSOR WRIGHT'S JUBILEE YEAR.

PROFESSOR RAMSAY WRIGHT has resumed his duties as head of the Biological Department after a year's leave of absence, which was granted to him in the spring of 1899, on the occasion of the completion of his twenty-fifth year of service in the University. His holiday was spent chiefly in Great Britain and on the continent of Europe. As one might expect from a gentleman of his energy and enthusiasm for his subject, a large portion of his time was spent in observing the methods and appliances of the scientific departments of foreign universities. As a tangible result of his efforts in this direction, he brings back with him many valuable and interesting additions to the University Biological Museum, in part purchased by donations from friends of the University in Toronto, and in part presented by various scientific institutions abroad. An account of some of these acquisitions will be found elsewhere in this issue, and Professor Wright has promised to furnish additional information on the same subject from time to time in the columns of the MONTHLY.

TORONTONENSIA.

UNIVERSITY OF TORONTO
MONTHLY.

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Geo. Black, B.A., '98, has charge of the
Science Department, State Normal School,
Cheney, Washington.

Miss H. S. Woolverton, B.A., '99, has gone
to Baltimore where she will take the medical
course at Johns Hopkins University.

W. H. Dinning, B.A., '99, is Science
Master at Anderson's Academy, Irvington,
Cal., a well-known secondary school in the
central portion of the state.

Rev. J. Wilkie, B.A., '75, has just left
Toronto to return to his missionary duties in
India, where he has been for many years
Principal of the Presbyterian College.

W. H. Alexander, B.A., '99, has been re-
appointed Latin Reader in the University
of California for the year 1900-1901. Mr.
Alexander took his M.A. degree from that
University last spring.

Colin C. Stewart, Ph.D. (Clark), who has
been tutor in Physiology, Columbia Univer-
sity, for the past two years, has been ap-
pointed Demonstrator in Physiology, Univer-
sity of Pennsylvania, Philadelphia.

J. A. M. Aikens, B.A., '75, was in Toronto
recently and attended the autumn convoca-
tion. He expressed very strong regret that
he was not able to attend the University
dinner in June, which was the 25th anniver-
sary of his class.

A. C. Lawson, B.A., '83; M.A., '85, is now
Professor of Geology and Mineralogy in the
University of California. While Professor
Leconte is the nominal head of the depart-
ment, Professor Lawson is its directing
head.

Wm. Lawson, B.A.Sc., '93, formerly fel-
low in chemistry at the University of

Toronto, is now chemist to the Alvarado
Sugar Company of California, one of the
largest companies for the manufacture of
beet-sugar on the Pacific coast.

T. McCrae, B.A., '91; M.B., '95, who has
held more than one travelling fellowship from
Johns Hopkins University visited Toronto
recently. During the absence of Dr. Osler
in Europe this summer, Dr. McCrae was left
in charge of his private practice in Balti-
more.

H. Rushton Fairclough, '83, is Professor of
Greek at the Leland Stanford Jr. University.
Professor Fairclough's name will be familiar
to all University men of the eighties and early
nineties, during which latter he was a most
popular member of the teaching staff of the
University.

J. Ferguson Snell, B.A., '94; Ph. D.
(Cornell) '99, is at present in the chemical
department of the Wesleyan University of
Middletown, Conn., where he is chief assis-
tant to Professor Atwater. In this capacity
he has been of great service to his chief in the
now famous work on the nutritive and fuel
values of foods, and his work there is giving
him a reputation as a careful and pains-
taking observer. During last winter he
went into the large respiration calorimeter,
living there for periods of from four to ten
days—a scientific pleasure which perhaps
very few of his friends envy him; it is
hoped, however, that the experiments then
conducted on him will settle the much dis-
cussed question, whether or not alcohol
serves any useful purpose in the human
body.

G. J. Blewett, of the class of '97, Victoria,
and a graduate student in Philosophy during
the years 1897-99, spent last year in advanced
study at Harvard, where his ability gained for
him the reputation of being the most promising
student in Philosophy that has come to that
University in recent years. In recognition of
the scholarly character of his work, the faculty
conferred on him a travelling scholarship at
the end of only one year's study. He will
spend the coming winter at Oxford. His class-
mates at Victoria, and Varsity men generally,
will be pleased to hear of his success. Other
graduates of Toronto at Harvard last year were
C. D. Allin, '97; E. F. Langley, '94; A. W.
G. Wilson, '93; and W. S. W. McLay, '91;
all of whom except the first mentioned held
scholarships in their respective departments
of Romance Languages, Geology and English.

R. B. Michell, a graduate of 1900, in Modern Languages, intends to devote himself for some years to post-graduate study. He is now at Harvard University, where he intends to take an advanced course in Romance Languages.

Miss E. C. Fleming, B.A., '93, has accepted the position of Modern Language teacher in Niagara Falls High School, made vacant by the resignation of Miss Esther de Beauregard, B.A., '94, who has taken a position in a ladies' school in Philadelphia.

Ernest F. Langley, B.A., '94; M.A. (Harvard), 1900, Instructor of French at Dartmouth College, New Hampshire, since 1896, has recently been appointed Instructor of Italian in that college, and is to have permanent charge of the department of Italian.

J. T. Shotwell, a Modern Language graduate of 1898, has been working in the department of History with very great success. Immediately after graduation he obtained a Scholarship in European History in Columbia University, and was awarded a Fellowship

in the same subject for the following year. At the conclusion of his second year of post-graduate study, he not only received the degree of Ph.D., but was also elected to the position of Lecturer on European History in Columbia.

Miss Julia S. Hillock, B.A., '92, was recently appointed Modern Language teacher in Jameson Avenue Collegiate Institute, Toronto, to succeed Miss L. L. Ryckman. On leaving Lindsay, where she had taught for several years, she received a very flattering address from her colleagues and numerous friends, accompanied by a valuable present of books.

H. E. Ford, B.A., '95; M.A., '00, was Assistant in Modern Languages at Wesleyan University, Connecticut, from 1898 to 1900, when he was promoted to the rank of Instructor. He was appointed during vacation to the professorship of Romance Languages in Washington and Jefferson College, Pennsylvania, French and Spanish forming the main part of his work.

EDITORIAL NOTES.

An article on the University Question, by Chancellor Burwash of Victoria University, will be a feature of the November issue of the UNIVERSITY MONTHLY.

Some pages of interesting personal paragraphs have been held over until next month in order to make room for advertisements.

UNIVERSITY OF TORONTO MONTHLY.

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THE UNIVERSITY OF TORONTO MONTHLY

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EDITORIAL ANNOUNCEMENTS.

UNIVERSITY OF TORONTO MONTHLY has arranged for the publication of a series of articles discussing the relation of a University training to the various occupations and professions. Mr. I. H. Cameron will write on the relationship of University training to the study of medicine, and the Rev. Wm. Clark, LL.D., of Trinity University, will discuss University training as a preparation for the ministry.

A series of articles on the history and origin of the various Greek Letter Societies in the University of Toronto has been arranged for. The first article will be by Mr. A. B. Aylesworth, Q.C., upon "Sigma Psi," which existed in the University prior to 1876.

The authors of the other articles in both series will be announced from time to time.

THE ART ELEMENT IN EDUCATION.

BY M. F. LIBBY, B. A.

IT is impossible to put down a work like Professor Santayana's *Interpretations of Poetry and Religion* (New York, Charles Scribner's Sons, 1900), without reflecting upon the complex problem of the art element in education. Ten years ago Professor Charles Gayley of the

University of California, and Professor Scott of the University of Michigan, published a Guide to the Literature of *Æsthetics*. This very valuable book dealt with the bibliography of æsthetic doctrines, ancient, mediæval and modern, and also with the subject-matter of æsthetic theory, besides giving a tolerably full list of works, both critical and historical, upon architecture, painting, sculpture, ceramics, engraving, music, poetry, and prose. The German writings on art and on the philosophy of art are given pretty fully, and sometimes with descriptive notes. This useful guide has long been out of print, and, so far as I know, no work has superseded it in spite of the more recent activity shown in theoretic æsthetics by Professor Santayana, Mr. Marshall, Mr. Trent, and many other Americans; and in the history of art by the Blashfields and others. Another, and if possible, a fuller and more descriptive catalogue of what has been written on this subject by Plato, Aristotle, and Horace; by Augustin and Thomas; and by men of the calibre of Burke, Hegel, Schopenhauer, Lotze, Matthew Arnold, Taine, and Emerson, in modern days, might do something to cure Philistia of a contempt for æsthetics, and to remind scholars of the central place of this subject in the history of human thought.

One reflection on this complex problem of the art element in education is this, that whether the universities do or do not take prompt means of controlling the art impulse of America, that impulse is lusty and vigorous, and is already announcing its awakening to consciousness. Many reasons may account for the slow recognition which art has received on this continent; but on the other hand there are reasons why its recognition should soon become more widespread than among the European democracies. And now what do we find is the form which the new born love of art is taking in the western world. Are the children and grandchildren of English, Scotch, Irish, German, and French peasants turning to the great masters of art on the one hand, or to the natural beauty of America on the other, for the satisfaction of this new craving? No thinking man would expect it. Such art, and even such natural beauty, leaves them comparatively cold, and they spend the desire for play upon cheap magazines, newspaper humour, frivolous, structureless fiction, trashy music, and poor meaningless plays. Yet it is really remarkable, if one will only observe, how much time and money the people spend in the vain search for satisfactory art pleasure.

It is futile to think of comparing the Canadian or American student with the European student in the matter of art opportunities. The German student has lectures on classical and modern literature, painting, sculpture, and architecture, and on the theory of art and of criticism; he hears at a low price the best music, and the classic plays, whenever he feels inclined, and he visits ruined or restored castles, palaces and cathedrals, as well as really great works of sculpture and painting, in the company of learned and enthusiastic professors who think no pains too great in their splendid endeavours to kindle on all sides their own passion for the nobler kinds of human enjoyment. I do not say for a moment

that the German student is by nature equal to the Anglo-Saxon in his capacity for art education. It is exceedingly difficult to judge foreigners in any respect, and most of all in matters of taste and culture; there is a good deal of bad taste and boorishness, or spurious and affected culture, in most communities of students. But what seems clear is this, that *the Germans do more to cultivate taste* than we do. Everybody knows how it was the fashion in England before thirty years ago to boast that the chosen people of our empire had no need of education in the German sense, and how since 1870 the English governments have seen themselves forced to educate their masters: also how the British workman and business man has still more recently found himself threatened by the disciplined German rival, and again forced very unwillingly to study German methods in technical training. There is much searching of hearts to-day as to whether polo and golf and waltzing are the chief study of an efficient military man. One is almost forced to the generalization that science is getting the upper hand of natural aptitude in every department of life, although it remains true that genius may still in cases transcend our science. And so, though the Anglo-Saxon may have a greater aptitude for poetry, and possibly better taste than the German of his own class, it by no means follows that we do well in scorning a systematic effort to cultivate the art impulse in the best way.

When Professor Freeman objected to the establishment of a chair of literature at Oxford, he said that it was impossible to examine on tastes or sympathies. Some ardent advocates of art have found fault with this argument, but on the whole it is a strong position, and those who hope to oppose it convincingly must undermine it, and not merely rail at it. The feeling with which one puts down even the better books on æsthetics is a feeling akin to despair. The writers who have mastered the main authorities on the subject are few, and more learned than original, as one can observe in such erudite and laborious volumes as Bosanquet's *History of Æsthetic*. Those who write with swing and positiveness often miss most absurdly many points which the Germans have long rightly considered as axiomatic. Some again are both well-equipped by study and yet aggressive and suggestive, but are not endowed by nature with the broad, strong grip necessary to make even the simplest consistent scheme of life from an æsthetic point of view. Clear headed men like Professor Freeman do well to take an unsympathetic and even stolidly conservative stand before handing over to any teacher the boundless influence conferred by a dogmatic control of the tastes and sympathies of students in their most plastic and impressionable years. Many a professor will ask in the next fifty years by what right a teacher of art exerts so profound an influence upon youth without ever once being called upon to prove the truth of his teachings before the bar of scientific thought. Is not this artistic culture a new form of superstition, a last lurking place of dogma, and subjectivism and egotistic authority, in a more subtle and less pompous guise? This I think is what logical men will say, and they will ask whether that which is outside the realm of law and of ascertainable truth is fit matter for university teaching and study.

For there is one thing certain, Art, like religion, goes nearer to the deepest fountains of our being, to the seat of life and conduct, than any amount of cold logic and memorizing of facts. This truth cannot be too often repeated. Here is the secret of the importance of this greatest pedagogic problem, this problem of the art element in education. We have for various reasons put religion out of our educational system, and art is endeavouring to do its work. Art is at present in this country the sole means of communication between teacher and student on those subjects that are deepest and most intimate in their relation to life, and this is even more true here than in Europe, because while art in Europe means painting, music, architecture, sculpture and literature, here it means and must for some time mean chiefly literature alone; and literature, because of the simple fact that it is the art form essentially of ideas, and if I may use the word *moral* in its widest and not in its narrow sense, I will say, *of moral ideas*, that is of the relations of humanity, of character, society, and of nature as man's home in this earthly state, literature is by far the most influential of the arts as a link between teacher and student. Only stupid persons will long fancy that the moral element in art can be practically separated from its more purely æsthetic or structural quality and function. Take any passage of really moving poetry and try to tell where the influence of the form ends and where the influence of the contained idea begins, and then judge whether this moonshiny distinction is likely to lessen the moral influence of the poet, or his interpreter, the teacher of poetry. Imagine a professor of sympathetic insight, and emotional and imaginative power, reading a description of an ideal society to his class of undergraduates.

" A brighter Hellas rears its mountains
From waves serener far ;
A new Peneus rolls his fountains
Against the morning star.
Where fairer Tempes bloom, there sleep
Young Cyclads on a sunnier deep."

Suppose him to have saturated himself with this stanza, its deep feeling, its quiet splendid hope and teleological attraction, its winged joy and freedom, its background of patience, and struggle, and abnegation of the present, and suppose him to have flexibility of voice and a dignified manner of reading, then ask what the effect must be? What is the difference what he says about the passage—he may injure the effect, or deepen it, but in reality this torch of poetical light is handed directly from the poet to the student by the *feeling* of the teacher, and all the Socratic and inductive and other pedagogical methods so vital in Physics and Grammar have absolutely no place here. The feeling is the life of the art work. Put the work on the dissecting table and its spirit flies out of the window for the time. By this I do not mean that a truly æsthetic analysis is not essential to progress in art. The student must have his eyes opened, *he must be taught what to look for, but the feeling is the life of the art work* after all, and feeling is unanalysable, or as Professor Freeman said, we cannot examine on tastes and sympathies.

The merely practical objection about examining has perhaps not proved so very serious. The examiner has after all only endeavoured to ascertain whether or not the student has been in circumstances favourable to the cultivation of taste and sympathy, not whether his own taste and sympathies have been educated in the best direction. But in reality the opposition to this emotional art teaching goes deeper. It is felt that a University should pursue and teach *truth*, and that the truth of art is not truth in the academic sense, but only in some other sense, a sense in which religious faith is also truth, however unproveable, or indeed opposed to scientific probability. The ardent art-student says, "If I teach a boy or a girl to feel as Milton felt, or as Wordsworth felt, or as Dante, or Calderon, or Lionardo felt, I am teaching him to feel truly and nobly; he has a vast lot of feeling which will surely go to evil or to lethargy if I do not make this use of it, why then should I not be allowed to teach art in the University?" But the cold scientist replies, "There are many poets whose feelings are not certainly the truest and best, just as there are false religions, and false theories of science; why should the art teacher be alone privileged to teach what he does not attempt to base upon reason?" And if one argue that there is a truth above "mere logic," and that the universal acceptance of Michelangelo, and Shakespeare, and Homer, and Goethe by the best minds is a warrant for their essential reason and truth, the answer is clearly that the dynamic teachings of Christianity have similar human acceptance, yet are not strictly, as such, deemed the sort of truth for whose teaching universities are maintained.

In a word, this objection to art cannot, as has been said, be met by railing. The Germans have perceived this. The German professor meets an objector like Professor Freeman on his own ground. He says, "Do you believe that there are any phenomena outside the reign of law? If not, how can you deny my right to study the phenomena of the beautiful, the ugly, the sublime, the tragic, to define humour, to classify poems; how can you deny the right to discuss the feelings, and genius, simply because we do not fully comprehend them; where is the study in which you have a solid metaphysical foundation, and no assumptions, or in which you achieve the whole truth before teaching at all?" And this disarms the German scientist; and this will probably be the course of art teaching on this continent. The professor of art *must be in some degree responsible and scientific, an Academic*, not wholly irresponsible and subjective, an impressionist, otherwise he should be like a university theologian who would preach instead of lecturing academically on theology. The science of the authority of criticism is the logical apology for the existence of art courses in a university, and if the day comes when this is understood we shall gradually have an end of the irresponsible dogmatism of art instruction.

We shall never need to fear an excess of academic authority in literary criticism in this country; there will always be only too much crude originality and free expression of opinion, as long as the democracy

remains true to its rights, and, therefore, one may confidently advocate a slight increase of authority in the tone of leaders of criticism, a heartier denunciation of outrageous plays and novels, and miserable music hall songs, and silly modes of dressing and manners, and everything that is not lovely and of good report, from the æsthetic point of view. The substance of this paper is accordingly that our leaders, and especially our leaders in learning, should do something to control the rising art impulse, to recognize its deep vital relation to religious and moral activities, to prevent its indirection or its freezing up, to strengthen the hands of those who teach literature, and to encourage in every way a taste for what seems to the wisest men to be the best and healthiest kind of enjoyment of the play instinct, and within reasonable limits the discouragement (but almost wholly by the encouragement of better things, and not by mere suppression and inhibition) of whatever tends to a poor, low, starved conception of human life.

It will be many a long year before our schools, and streets and manners, are favourable to the great life of a really great commonwealth, and there are unimpeachable reasons why not much should be expended on beauty while even the virtuous and industrious are over burdened with taxes and the struggle for a living. But who can deny that much could be done to make life better worth living, and to soften manners, and glorify citizenship without the waste of a single cent? The money that is spent on poor books, plays, pictures, music, magazines, and ugly clothing and houses, would be a means of health and power if spent in accordance with good taste and artistic judgment. We do not want Blue laws, or the *lex Heinze*, or Comstockism; what we want is a strong, positive and sympathetic leading from our educational system in this matter of amusements, art, manners, feelings, sensibilities, tastes; these matters which in a scientific and democratic age come daily nearer to being the religious impulses and moral forms of the great, restless, half-conscious democracy. When feeling is trained always to accompany our knowledge duly we shall perhaps agree once more with Socrates that knowledge is virtue. I fancy that that great and actively æsthetic mind living in those early days could scarcely conceive of a knowledge divorced from its appropriate feeling; his life shows that his beliefs were vital, and that with him, at any rate, to think was also to feel, and to act accordingly. It is the peculiar office of a true æsthetic education to restore this union and harmony of mind and will, and thus to restore the golden age of instinct and naïveté, but on a higher and freer level. But if a great and emotional art in the coming century is to mediate between the rival interests of feeling and thought, it must be partly by an earnest effort to meet, and not to shirk, the scrutiny of scientific examination, and this can only be done thoroughly by an effort at rational self-knowledge such as Plato, and Kant, and Wundt, have made in their analyses of the art problem. And hence one may conclude, in spite of prejudices to the contrary, that method and study must come to the aid of impressionism in criticism, and that not even the most brilliant subjec-

tive criticism will eventually withstand the scepticism of the logician, nor absolve the art-critic from a conscientious study of what has been done in *Æsthetics* since Kant wrote his *Kritik of Judgment*. A more *active and authoritative control of public taste in all directions*, based upon a *deeper and broader grasp of æsthetic principles* studied in the light of modern psychology and ethics, and a *greater care in avoiding the reproach of frivolity and superficiality* in relation to the vital matters of moral and social life, these are surely some of the prerequisites to an active, influential period in the æsthetic education of man.

THE UNIVERSITY CLUB.

BY JAMES H. COYNE, B.A.

AT the June meeting of the Alumni Association, a non-resident member suggested the expediency of a University Club. The idea was favourably received, and the President was authorized to appoint a Committee to consider the question. Part of the result of the Committee's deliberations appeared in the last number of this magazine. Its complete report will, no doubt, be presented to the Association in the course of a few days. Meanwhile it may be profitable to consider whether a club is necessary to the University's proper development, and if so, what its financial basis should be. The latter question includes those of membership and location.

In the earlier days the need was not felt. When the membership of the University numbered only a few hundreds, it was possible for each to have some sort of acquaintance with all the rest, whether graduates or undergraduates. Every student knew all the men of his year, and had a nodding acquaintance at least with those of the other years. The visible bond of union was the Literary and Scientific Society. The West End Reading Room was capable of holding the entire body of students. All were expected to belong. Graduates attended the meetings, and mingled more or less freely with undergraduates. There was but one Arts building. Library, museum, laboratories, lecture rooms, examination and convocation hall, senate chamber, residence, were under one roof. Here all the professors and dons met the undergraduates nearly every day in lecture hall or corridor, students prepared for examination, arranged their games, matches, and annual celebrations, formed acquaintances and friendships, and discussed University and College politics. The Medical School was close by in the Park. Arts men and medicals met frequently in class room and at football. The social needs of the University were provided for. The University population was homogeneous. It was easy to ascertain the sentiment of the graduates and undergraduates upon matters of academic or corporate interest.

But this is no longer possible. The undergraduates and registered students of the various faculties and affiliated institutions are numbered,

one might say, by thousands, distributed among numerous and in some cases widely separated colleges. Opportunities of general social intercourse have been continuously reduced by various causes that have arisen since the days when Plancus was consul. Then all the forces combined to bring men together. There was more *esprit de corps*. Now the centrifugal forces are more in evidence. The danger is that the general welfare may be overlooked in the anxiety to guard more circumscribed interests.

It is true that attempts have been made to unite the scattered membership. The Students' Union is such an attempt on the part of undergraduates. Greek Letter societies have also been called into existence to meet their social needs, and the Young Men's and Young Women's Christian Associations are excellent and useful institutions. Convocation has a legal existence, but practically manifests itself only at the triennial elections. The Alumni Association is the latest attempt to enable the entire membership of the University and the colleges to act as one body. Its meetings have been successful in enlisting the sympathy of University men, and considerable vigour has been already shown in its operations.

But the Association can meet but rarely. When it does the time is short for discussion or consideration. Decisions will be necessarily hasty, and, on account of the difficulty of holding meetings, mistakes cannot be promptly rectified. It would be a great advantage if matters of University interest could be discussed at leisure and informally, in the freedom of social intercourse, where all phases of sentiment might be presented. If non-resident members were able to report the views of county associations, and act as mediums of interchange of University public opinion between town and country, it would be possible to have every question pretty thoroughly threshed out in private discussion, and the body of University sentiment pretty well defined, before the Association met to consider the action to be taken. Discussion would be at once more intelligent and more intelligible, and the decision would carry more weight from the knowledge that a real public opinion was behind it.

Matters of great moment to the University may come before the public for discussion in the near future. The long delayed federation of Trinity, and a recent proposal to re-open the University question might be mentioned in this connection. The constituency of the University of Toronto should have an opinion on subjects affecting the University, and a means of expressing it. At present, there is no satisfactory way of ascertaining what that opinion is, and there is no practical method of giving effect to it.

The institution of a University Club would perhaps supply the want. Open to all members of the University, trustees and senators, graduates and undergraduates, professors and students, it would promote friendly intercourse and establish a solidarity of opinion. Graduates would keep in touch with the newer life and the modern learning, renewing their acquaintance with the reverend halls wherein of old they wore the gown. They would willingly lose the feeling of strangeness that comes over the man

of the 60's or 70's who revisits the once familiar corridors and lecture rooms. The old associations and friendships would be revived. New ones would be formed. Old and young would find themselves in a distinctively literary atmosphere. New books would be discussed with literary experts. New systems, theories, and platforms would form interesting subjects of conversation, as well as the fluctuation of shares and the latest sporting news. The usual arguments in favour of the existence of clubs need not be repeated here at length. The distinctive features of the University Club would be, of course, the literary atmosphere, the academic spirit, and all that is included in the word "culture."

So much for the Club's *raison d'être*. The practical question now comes in. Is it possible? What shall it include? How shall it be governed? Where shall it be? What shall be the financial basis? On what scale shall it be begun?

It is a fair subject for consideration, whether the Club should be for University of Toronto men only, or whether all University graduates should not be welcomed. The argument in favour of the latter course is a pretty strong one. The benefit would be mutual. The membership might consist of the following:—

(1) Trustees, members of the Senate, Professors, Lecturers, Officers and Graduates of the University of Toronto, and of Federated and Affiliated Institutions.

(2) Graduates of any other Canadian, British, or Colonial University.

There should be special provision for enrolment of charter members. Afterward, members could be admitted by election. The Club should be permitted in special cases to enrol as members persons not coming under the above designations.

As a financial basis, the Committee proposes an annual fee of \$10.00 for resident and \$5.00 for non-resident members. For the first year or two a guarantee fund might be necessary. If undergraduates are admitted a reduction might be made in their case. The feeling of the Committee appears to be in favour of making it a Graduates' Club. If they are correct in this, the Students' Union and Greek Letter societies will perhaps have freer scope for development.

There will doubtless be a difference of opinion as to the best location. For non-resident members spending but a few hours in town at a time, a down-town club would probably be preferable. This would also be more convenient, as far as meals are concerned, for resident members, whose daily avocations are in the southern part of the city. It is possible that the Club's financial condition would be less precarious with a down-town location. On the other hand, the teaching staff and up-town residents would be inclined to favour a site nearer the University, if not in the precincts of the Park itself. This would also tend to promote a greater interest in the local associations connected with the splendid group of academic buildings of which our city and Province are so proud, and which elicit the admiration of visitors from other countries. The academic atmosphere is here rather than down town. For these reasons

and on grounds of sentiment it might be better to have the Club in or near the Park ; business reasons rather lean toward a southern location.

There is one financial consideration that favours the up-town site. It is the question of rent. The success of the University common dining-room seems already assured. In the words of the Committee, referring to the use of Residence for club purposes, "a steward will not be required here, because the steward of the adjoining University Dining Hall can act as caterer." Temporarily at least the former Residence can furnish a home for the Club. Chambers could easily be fitted up for out of town members and perhaps also for city members, who would like to live in Residence. As is frequently the case, there is a great deal to be said on both sides of the question. It should be carefully considered by members before the Association decides. The financial success of the scheme is largely bound up with this question.

A middle course has been suggested. Some have proposed a location somewhere near the Avenue, between the University buildings and Queen street. Whether the Association will be wise in adopting the middle course, or whether on the contrary, the end might not be that neither side would be pleased, it is not the province of this paper to argue. The writer's object is rather to present both sides of the question than to express his own view. Perhaps it would be better for members not to take too pronounced a stand upon it, until they have discussed it privately, and then considered it from every side at the next meeting of the Association. Whatever the decision, we should all loyally acquiesce in it, and endeavour to make the Club a success in every sense. A successful Club would be undoubtedly a useful adjunct to the Association and to the University, whose interests it is our duty to guard.

THE NEEDS OF THE UNIVERSITY.

BY CHANCELLOR BURWASH.

AT the organization meeting of the Alumni Association, Chancellor Burwash said that the present crisis in university affairs was not due to any recent or local circumstances, nor even the federation which took place ten years ago. That crisis was upon us then quite as sensibly as it is now, and the federation movement, which began in 1884, was itself the outcome of the crisis. This crisis we were feeling in common with many other universities all over the continent, and it arose from a continental, we might almost say, a world-wide advance in higher education. Twenty-five years ago we were still in the age of colleges. A university, in the modern sense, did not exist in Canada, and perhaps scarcely on this continent. We had many large colleges, with a number of professional schools clustered around them ; but a true university, in which all the important branches of modern learning were taught, and provision made not merely for the elementary work required for the B.A. degree,

but also for the most advanced post-graduate study and research did not exist. To-day nearly every important State in the American Union is striving after this ideal, and several of the older and some richly endowed younger institutions are making fair progress towards its realization. Surely if Canada is to hold her place in the forefront of the Greater Britain, and to be the worthy eldest daughter of an Imperial household, she must have at least one such university.

It was the conviction of this national need which led Victoria ten years ago to join hands with Toronto in struggling for such a desirable consummation. What should such a university be? Not merely a huge college—an overgrown college is neither a good college nor a university. Before the beginning of the modern university movement it was quite clearly recognized that many smaller colleges were doing more effective work for the all-round course than required for the B.A., than the large institutions whose age, wealth and reputation had gathered around them a thousand or more undergraduate students; and Dr. McCosh is quoted as saying that no college president could effectively handle more than five hundred students. Nor is the true university such a huge college divided into departments, with provision for extreme specialization for the B.A. degree. Dr. Whewell, an eminent mathematician and scientist, and the greatest master of England's largest college, Trinity College, Cambridge, has said that the man who knows only mathematics is not an educated man. The true university must turn out educated men at the same time that she furnishes the most perfect and varied learning. For this purpose she requires facilities for the most perfect college training, and, side by side with these, facilities thoroughly organized and equipped for the pursuit of each important branch of learning to its utmost limit. Some of the new universities of the United States are devoting their energies almost entirely to this latter work, leaving to the smaller and existing colleges the work of furnishing educated graduate students fitted to enter upon such special work. Even the oldest and wealthiest are seeking not so much to develop or extend their old-time college work—already too large for the best results—as to extend post-graduate fields of study. The provision for the country of all-needed higher learning is thus the new sphere which the modern university is called to fill. This learning must include the wide, liberal culture and intelligence required of all men who aspire to the highest work in human life, the old work of the college; but it must add to this the expert scientific knowledge needed in our varied industries, the mastery of history and political science required in political life and journalism, and the varied branches of advanced knowledge required in the several learned professions. These are all imperative needs of modern life in all civilized countries. Without them we shall fail to make the most of our resources, or to hold our place in the ranks of the nations.

Toward the supply of this want for Canada we have been feeling our way, perhaps not in the most intelligent manner, perhaps quite as much in the spirit of emulation as in that of high patriotic endeavour, but still with

sufficient effort to make us thoroughly conscious that our present resources are entirely inadequate for the work. In the United States a common estimate of the minimum expenditure for a modern university is a quarter of a million dollars per annum, with at least a million dollars in buildings and equipment. We have scarcely passed one-half that amount. Our first want in our forward university movement is adequate financial provision. Can this be left to private enterprise and benefaction? We think not consistently with the best interests of the country. This higher learning must always be costly, and yet it is necessary and cannot be bought with money. It is possible only to those to whom God has given the highest gifts, and most frequently these are not the rich. If the country would be adequately supplied with this learning and with educated men, if she would make the most of her talented children, she must see to it that the road to the university is open to the poorest lad in the country. The university supported by the State is pre-eminently the poor man's friend, and the bulwark of political equality and liberty.

But to accomplish this desirable end, there is no little work to be done by the men who appreciate the need of this higher education. In so far as it is to be accomplished by private beneficence its claims must be placed before our men of wealth. If the appeal is to be to our parliaments, then the entire electorate must be educated; and our legislators and government must be enabled to feel that they have behind them in this work the consensus of the great body of the people. This demands missionary work on the part of every university graduate, and the organization of this is our first duty. But this is by no means our only duty. The very success of this effort depends upon the fact that we are able to place the university before the country as the university of the great body of the people. It is so in principle and in name; its doors are open on equal terms to all. But practically, at least one-third of the students of the province are educated elsewhere, and not a few of these here in Toronto. In such a movement as this a divided constituency will fail.

With this fact before them the government have very wisely said to your representatives, "Bring us a comprehensive scheme, for a university that will gather in the great body of the students of the province, get the people practically with you in this movement and we are ready to do our part." This is the language not of party politics but of both sides of the house. A comprehensive measure of university reconstruction becomes thus a necessary part of the work before us. Such a measure as will place the university in touch with all the colleges which have been created by the living convictions of the people, and make it the common helper and friend of the whole province not merely without distinction of class or creed, but rather upon the more practical and effective platform of including every class and creed. If this is to be accomplished we must address ourselves to it in the spirit of patriotic self-denial. We must forget many of our old narrower ideas. Some of us must lay aside our old ideas of superiority whether in rights or in advantages. We

must look at each other no longer from the standpoint of the jealousies and rivalries of days gone by. If there have been wrongs, the wrongs must be forgotten. All our resources, all our influence is now demanded for this common interest and this united effort. Surely men of the higher learning can rise above our little ideas of "my college" and "my Alma Mater" to the higher vision of "my country" and "my people." Our colleges will not be lost, but rise to a higher renown, and a wider sphere of influence, and to grander and more perfect work, as forgetting themselves they unite their history, their wealth, their power, in building for Ontario a university worthy of the banner province of this Canadian Dominion.

EXPERIMENTAL PSYCHOLOGY AND THE LABORATORY IN TORONTO.

ALBERT H. ABBOTT, B.A.

Instructor in Philosophy and Assistant in the Psychological Laboratory.

THE justification of the existence of any Science is complete when it has been shown that it investigates facts which are not investigated by any other Science. There may still be a difference of opinion with regard to the name which should be applied to the Science in question, but there can be no doubt that it has a field of inquiry essentially its own, and, this having been ascertained, the name is of very secondary importance.

I am led to make these preliminary remarks by two phases of criticism which are at times offered when one speaks of Experimental Psychology: the first phase is completely destructive of the so-called Science, because it contends that Experimental Psychology has no subject-matter for investigation, since it is impossible to experimentally examine mental states; the second phase arises only when one has been assured that Experimental Psychology investigates something, and the criticism is, briefly stated, "You shouldn't call it '*Psychology*.'"

I am not sure whether or not I should regard my task as covering the justification for the name of the Science as well as for the existence of it. If it does include it, I am disposed to waive the right of discussing this question at present (for, after all, it is a broader question than the one I am called upon to discuss), and to confine my attention rather to an attempt to show that what is at present called Experimental Psychology has a legitimate subject-matter which it endeavours to investigate—that it may at some future day be called by another name need not trouble us in the least. (It may be worth while noticing that Thomas Hobbes wrote his Psychology under the title of Physics, but that neither detracts nor adds to its value.) All that I ask is that my readers accept the name which is given to this investigation to-day, even if it be a misnomer, and leave the future to pass the verdict on the question of nomenclature.

In a short article such as the present one must be, it is impossible to discuss every phase of the subject which suggests itself as appropriate and significant. I am, therefore, led to select for more exhaustive discussion some particular points and to merely refer to others. One of this latter class I shall touch upon at this point in the discussion as introductory to my special subject, and I hope my statements regarding it will not be taken as dogmatic and unsound merely because I do not discuss them. I premise as a fact which ought not to need discussion, that we know but *one* Nature, and that every Science which investigates natural phenomena deals with the same objects which all other Sciences investigate. Manifestly I do not mean that in any one object there must be found a field for every Science, but I do mean that any object *may* be investigated by all the Sciences, each from its own standpoint. From this I believe that the following statement ought to be evident:—*It is the peculiar standpoint of each which distinguishes the Sciences and not the specific objects they investigate.* I deem this fact of much importance, because a consideration of it ought to make clear to any one that it is utterly illogical to demand of a Psychologist that he produce a world of reality which is not touched at all by other Sciences. On that same ground, probably no Physical Science but Physics could justify its existence; at all events, if that be the test applied to Psychology, it may very well deny its ability to produce another Nature in which it may find some work to do. But it does not need to accept such a task as a justifiable one. It may very well claim that it has equal right with the Physical Sciences to exist, provided it can show that it investigates Nature from a standpoint peculiar to itself, and to the justification of the Science on this ground I now turn my attention.

Before, however, I take up the immediate discussion of this problem, I may refer briefly to Feeling and Volition, which, probably, would not be considered as falling under the term "Nature" which I have used. Personally, I should not exclude them from Nature, but any justification of that standpoint might take us too far afield, and, therefore, I shall merely mention, in passing, that the investigation of Feeling and Volition by means of experimental methods is a very necessary task before the Psychologist, and, further, it is one from which he does not shrink. As one problem in Volition which has received a good deal of attention in Experimental Psychology, I may mention the investigation of the so-called Reaction Time, a problem ceded to Psychology by the astronomers, under the head of "The Personal Equation." Then, under the head of Feeling, I may call attention to the problems of Aesthetics, which have been left until the present almost wholly without experimental research, but which are gradually being investigated by Experimental Psychology with, I think I may say, gratifying results. The need for such work as this justifies the existence of any Science which will undertake it, and hence, if we go no farther we have shown the need of, and hence justification for, the Science which is called to-day "Experimental Psychology."

The question to which I devote myself in the greater part of this

essay is the following: *In the investigation of Nature is there room and work for such a Science as Experimental Psychology?*

The reader will not fail to notice, after reading the preceding paragraph, that in thus stating the question, I recognize that I am unnecessarily restricting myself, but I do this because it is evident that if Experimental Psychology can be justified on this ground it will need no word of justification on any other; and, because, I may frankly state, I am desirous of showing that Psychology has a right to be regarded not only as a Science, and as a "Mental" Science, but also, in the strictest sense, as a "Natural" Science.

All the facts which Physical Science investigates in Nature are expressed, or can be expressed, in terms of motion; light, heat, sound, electricity, chemical action, the processes in living organisms, etc., are all alike phenomena of motion as they are considered and studied by a Physical Scientist. He has his facts, he takes a certain point of view from which to regard them and in the light of which he investigates them, and as a result we have the magnificent achievements of Physical Science ever since the days of Galileo. Let us not fail to observe that this advance began with the adoption of motion as the pass-word through which entrance was to be had to the Physical Scientists' world. Indeed, some would say that this latter statement should not be limited at all, for they contend that all facts whatsoever are to be regarded as nothing but motion. This contention, however, cannot be allowed, as we shall see later.

In order to limit the subject somewhat, I shall refer now to certain particular phenomena in Nature in which there seems room, and, indeed, need, for an investigation other than those undertaken by the Physical Sciences, and which, as a matter of fact, is being carried on to-day by the Science which is called "Experimental Psychology."

It cannot be denied that if there had never been Sensations of Sight and of Sound, there would never have been the Sciences of Optics and Acoustics. The movements of ether and of air might have been as active as possible, and, yet, unless colour had been seen, and sound heard, no one could have thought of them except as heat, or as more or less gentle pressures. And yet, let us not forget that the Scientist who investigates these motions of ether and of air could write a complete text-book on Optics or Acoustics and never use the name of a colour or of a tone; all he needs for colour is a certain designation of the position in the spectrum and the frequency of the vibration of the ether particles, and for tone similarly, the frequency of the vibration of the air particles. That all comes to this—a physicist investigates the motions which occur where we experience, for example, a colour, but he does not investigate the seeing of colour, or the colour sensations which we experience, and which, after all, contain the fundamental possibility of this Science: (Optics).

But I am reminded that this is the task of the Physiologist; he it is who investigates the seeing of colour and the colour sensations. Let us

glance for a moment, then, at the work of the Physiologist to see if this be true. A Physiologist deals with those processes which take place in the human body, but he finds there nothing but chemical processes, physical processes of pressure, of heat, etc. With the possible exception of nervous transmission he finds no process not common to bodies in general; and even nervous transmission he conceives as a movement of the particles of a nerve, and as akin to the transmission of electrical force. He, too, could express all the facts of his Science in terms of motion and position, and, so far as the seeing of colour is concerned, he can only tell us what processes take place in the retina, the optic nerve, and the visual centre in the brain, *when* we see such and such a colour, but he makes no attempt to discuss the sensations of light and colour as they are actually experienced, as red, orange, yellow, green, etc. Let us, then, at this point attempt a brief summary of the relations of Physics and Physiology to the facts of Light and Colour: Physics attempts to tell us what vibrations of ether take place *where* we see a certain colour; Physiology attempts to tell us what processes take place in retina, nerve and brain *when* we see a certain colour, but neither of these sciences investigates the colour as seen, which is of a certain quality or tone (red, orange, yellow, etc.), and is not in any sense motion, no matter how much it may depend upon motion. Now, this colour certainly belongs to Nature, and therefore in the facts of light and colour in Nature there is room for an investigation not carried on by any Physical Science. This investigation may include several definite questions:

(1) What are the facts of light and colour as they are seen or experienced?

(2) Upon what do these facts depend?

(3) Under what conditions do they combine with one another?

In connection with the second question it must be noticed that it is purely gratuitous to assume, even when we have discovered that definite sensations of light and colour depend upon so and so many vibrations of ether, and such and such a chemical process in the retina, etc., that they depend upon these alone, for it can easily be shown that we have these sensations when that definite vibration of ether, and that specific process in the retina, are not present.

There is room, then, in the investigation of the facts of colour, for a science which will carry on research on the lines of the questions above suggested, and, as a matter of fact, that Science is called to-day "Experimental Psychology;" as I have said before, it is entirely irrelevant for my purpose whether or not the name be appropriate; it at least has a standpoint peculiar to itself from which it investigates Nature, and as such its right to a place among the sciences cannot be seriously questioned.

What I have here said regarding light and colour is equally applicable to other sensations also, such as sound, heat, cold, pressure, taste, smell, etc. No Physical Science investigates these, as we actually experience them, for the very basis of all such sciences to-day is motion, and this standpoint does not include colour, or any sense quality, as experienced.

It is manifest that red, yellow, violet, hot, cold, hard, soft, sweet, bitter, etc., etc., are not motion, and it is absolutely meaningless to say that, e.g., the sensation red is 330,000,000,000 vibrations per second or any such—the sensation red is *red*, and not movement.

What I have already said ought to convince, at least, the careful reader that there is work for Experimental Psychology to do in the investigation of the sense qualities and their relations. There are, however, even wider fields of work for the Psychologist to attempt by the aid of experimental methods.

The Science of Geology, as we know it to-day, has much to do with time; in fact, were it not for our sense of time, Geology could not exist in its present state. It uses time with perfect assurance, and yet it does not in any way investigate man's sense of time, as some call it. The same is equally true of all the Physical Sciences. All Nature is studied as motion or change, and yet the basal fact which alone renders such a conception as change possible, in fact which is, in one sense, simply another word for change, is not studied at all. Were time not a necessary form of human experience there could not be the Physical Science which we know to-day. Any research, then, which adds to our knowledge of time as a form of experience is valuable, since it thereby adds directly to our knowledge of Nature. Experimental Psychology carries on this investigation, and, indeed, the Psychological Laboratory of the University of Toronto has contributed somewhat largely to this problem in recent years.

Then there are the various investigations with regard to localization in space which are not touched by any Science but Psychology. As all Nature is in space, any information we may gain with regard to our localization in space is directly applicable to our knowledge of Nature, and is an addition to it.

It would seem to me that these considerations amply justify the existence of the Science which investigates these facts, and, as it is evident that these investigations cannot be carried on except by the application of experimental methods, I presume I need not say a single word by way of justification for the use of experiment in such research. One might still be in doubt as to whether such a Science ought to be called Psychology, but, as I have already intimated, I do not intend to discuss that question further than I have done, that is, further than showing that it cannot be called Physics or Physiology, as we understand these Sciences to-day.

[The second part of this article dealing with the Psychological Laboratory in the University of Toronto (illustrated), is held over till next issue.]

THE REPRESENTATION OF SCENES FROM THE ODYSSEY.

BY PROFESSOR HUTTON.

A GREEK play is in the lives of most Universities *οὐκ ἀγώνισμα ἐς τὸ παρόν ἀλλὰ κτήμα ἐς αἰεὶ* in every sense of the word: it is an effort made once and once only in a generation, and once made is regarded as a possession, if not for ever, at least for that generation and needing no repetition. It is the peculiarity of our ambitious University that it is not content to measure such efforts by generations, or else that it counts its generations by the four years of the Arts course, and not the three and thirty of the course of life.

Only one such generation has elapsed since the last *Antigone* and already its successor is in sight: so that the closing twenty years of the century will have contained three representations either from the Greek dramatists or from their spiritual father, Homer.

It is too soon to attempt to compare these representations: it is the hour for curiosity not criticism. This much is clear that the scenes from the *Odyssey* constitute a somewhat less elaborate and difficult task than the *Antigone*: and it is well that it should be so. In the portentous growth around the University of latter years of Dinners and Dances, of Societies, Functions and Receptions of every sort and kind, no time is left for so serious a task as the Greek of Sophocles combined with the music of Mendelssohn: and any Greek play to have any chance of getting a share of the student's time and attention, must limit its demands strictly; it may venture, perhaps, to compete with the insignificant claims of the time-table of lectures, but it will do well not to overlap the exacting demands of Class Societies, Athletics or Departmental Associations. It is a consolation therefore to know that the stage manager of the *Odyssey* does not want the earth—only in fact the East Hall. Another feature of the approaching representation is not less consolatory. As the time at the disposal of the stage manager is limited, so by compensation is the stage manager's experience unlimited: there will be no part of the few precious weeks lost in learning how to manage a Greek play: for the first time we have in Miss Barrows a manager who has studied Greek and Greek life, Greek music and Greek dances, in Greece itself: who has made Greek plays the business of her life, and the management of them a fine art: the dancing, the acting, the music, all has been equally thought out and Hellenised from the beginning, and there will be nothing to unlearn unless it be—on the part of the actors—their Greek pronunciation. If they can contrive to speak with the accent of modern Greece they will certainly be nearer to Homer, whatever difficulties of scansion remain unsolved, than our Greeks have been hitherto; and they will have the satisfaction of knowing that if a live Greek enters the theatre to see the simulacra of his ancestors, he will be cheered to find that these phantasms of the dead are still, though canonised, *δewοὶ θεοὶ αὐδήεντες*, angels with intelligible speech; and speech not only intelligible

but very musical also. And there is yet a third feature on the programme admitting of confident prophesy. In the first and the second Antigone alike, to the general public probably the most impressive effect of the representation was the spectacular effect, and of the spectacular effect the most impressive item was the Bacchic dance: it was only a walk in reality in the first Antigone: it was a dance in the second. But in the Odyssey the dancing is likely to be more Greek and the spectacular effect of the whole should be so far, for the general public at least, more impressive: already, it is safe to say, to see the dancers practising is to see—perhaps for the first time—a chapter out of the Old Testament: King David dancing before the Ark. Peradventure there will be Michals among us come to scoff with the cynic's scoffing at the naturalism of early humanity, and the incarnate poetry of motion. They will remain to dance.

An element absent in the former plays and present in this is the representation of Greek Athletics, copied from the Diskobolos and other statues of classical athletes: these are introduced as well as the dancing in connection with the scene in Alcinous' palace, when Laodamas and Euryalus challenge Odyssey to compete in the games. "There is no greater glory for a man in all his life than what he wins with his own feet and hands": the most up-to-date of all Homeric couplets.

Another element absent in a Greek form from the former plays and to be present in this in a form nearer, undoubtedly, to the ancient Greek, is the music: the music of Mendelssohn's Antigone, signally beautiful though it is, is not classical. The music on the present occasion is to include the Hymn of Apollo (discovered at Delphi in 1893) by way of Introduction, and is to be based on the principles—so far as they are ascertained—of Greek classical music.

RECENT ADDITIONS TO THE UNIVERSITY BIOLOGICAL MUSEUM.

BY PROFESSOR RAMSAY WRIGHT.

II.

IN my former article under this heading I referred to the Bower-birds as near relations of the Birds of Paradise. It has been possible through the generosity of a graduate and gold-medallist in the Department of Natural Science—Mr. Charles Millar, '78—to add several of these to the collection as well as a number of other desiderata among the higher Orders of Birds. These have now been grouped in a case adjacent to that occupied by the Birds of Paradise, and will remain on exhibition for some time as the "Millar Collection" until they are eventually distributed into their proper systematic positions.

Several examples of the Bower-birds had already been contributed to

the Museum with some other Australian birds by Professor Richardson and by Mr. J. D. Riddell, of Earlston, Scotland, through Mr. J. Stalker of this city. Among these were the beautiful Satin Bower-bird and the brilliant black and orange Regent-bird, but the new accessions are New Guinea relatives, whose habits are not yet so well-known. They include the gorgeous Golden-bird from Dutch New Guinea, and the humbler Gardener-bird from British territory, as well as a new species from the mountains dedicated to the British Administrator, Sir W. Macgregor.

All of these birds seem to have the habit of constructing a more or less complicated edifice, in which the males display themselves at breeding time. Just as the Paradise-birds endeavour to attract the females by their beautiful plumage, the Bower-birds offer the inducement of an elegantly decorated summer cottage. One of these belonging to the Pink-necked Bower-bird (of which, unfortunately, we have no specimen) came to us some years ago with the collection of Dr. Garnier, of Lucknow, Ont. It has now been placed in a suitable case, and serves to illustrate the common style of architecture adopted. The bower is formed of twigs arranged in a thick platform some three feet in length, from which there arch upward two curved walls of similar construction nearly meeting above, and thus forming an arcade about eight inches in width, which occupies the greater part of the length of the platform.

In our specimen the "run" is decorated with shells of various kinds, but in other species gay parrot feathers are employed, and pipes and trinkets are stolen from the natives' camps, so that we are reminded of the thievish propensities which crop out in the Magpies and Jackdaws, members of a nearly-related family.

The æsthetic sense thereby gratified is remarkably developed in the Gardener-birds, which not only build a thatched hut, but arrange in front of it a mossy lawn which they bedeck with brilliant blossoms, replacing these carefully as their freshness is lost. They have also the gift of song, and are said to be masterly mimics, so that the name of "Master-bird" has been conferred on them by the natives.

The other Passerine birds which have been added to the collection through the Millar Donation have been selected, as a rule, for their "fine feathers," although the Jackdaw and the Alpine Chough are exceptions. There is the Widow-bird from West Africa, whose weeds are in reality a wedding garment, in which comfort is sacrificed to fashion, for the male bird, in full plumage, can barely rise from the ground on account of the weight of his clothes. Again, there are the Indian Paradise fly-catcher and racket-tailed Drongos, whose beauty is chiefly concentrated in their central tail-feathers, and some of which had been previously represented in a collection of Indian bird-skins presented to the Museum by William Boulton, Esq., C.E., to which further reference will be made in these pages. Finally, there are two Chatterers from Guiana, the Umbrella-bird, with the feathery parasol over his head, whose radiating spokes are represented by the feather-shafts, and the snow-white Bell-bird, with the

singular inflatable tube over his nose, which might well be believed to be a resonance-chamber for the characteristic tolling-sounds, to which he owes his name, but is regarded as purely ornamental.

Another order which has been enriched is that of the Parrots. While we already had a number of interesting representatives from various sources, like the Owl-faced Parrot of New Zealand, and its compatriot, the flesh-eating Kea, we have now, in addition, chiefly from the Australian region, ten species new to our collection, among which the giant and the dwarf of the group, the Great Black Cockatoo from New Guinea, with a bill which can negotiate the stone-hard Canary-nuts on which it feeds, and the tiny *Nasiterna*, hardly bigger than a wren, are likely to arrest attention. So also should the Red-sided *Eclectus*, a species so dimorphic in colour that the males and females were long regarded as different species.

The Australian region is one rich in surprises in its bird-life. Kingfishers which never saw the water, but feed on insects and land-snails; Fruit-pigeons, which exhibit all the hues of the rainbow, and vary in size from that of a turkey down to that of a robin, are to be found in the Millar Collection. Perhaps the most beautiful of the new pigeons are the Crowned Pigeon from New Guinea (I saw last year some Parisian hats adorned with the heads, *absit omen* of impending extirpation), and the Nicobar Pigeon, with its iridescent mane. Along with these I have taken the opportunity to add a specimen of the European Rock-Pigeon, the parent stock of all the numerous races of the domestic Pigeon, and, as an illustration of what artificial selection will do in the hands of the breeder, six examples of well-known varieties of these.

After all it is nothing to what natural selection effects in the hands of Nature, as one will become convinced by a glance at the extravagant helmet and crest of the new West African Hornbills, at the bristly head-gear of the Crowned Crane, at the grotesque bill of the Hill-Toucan, at the crimson wings of the Cape Plantain-eater, and the splendid sheen of the Emerald Cuckoo, all of which are welcome novelties in the Museum.

The position of Trustee to the University is not a sinecure: he is expected to expend a considerable amount of his time and his brains in the interest of the Institution, and to be satisfied in the way of remuneration with requests for subscriptions.

In my former article I was pleased to notice how kindly Mr. A. T. Wood had responded to one of these, and now I have to record a similar act of generosity on the part of Dr. John Hoskin, Q.C.

Dr. Hoskin has for many years taken great interest in the rearing of various kinds of pheasants: it was natural, therefore, that I should ask him to take the family of the Phasianidæ under his wing in my projected improvement of the æsthetic aspect of the Museum. And this is no sinecure, for the family, excluding the subdivisions of the Old World and New World Partridges, is distributed over all S.-W. Asia (the Guinea-fowl and

Turkeys being African and American outliers respectively), and includes some twenty-seven genera and a hundred species. These rival each other in the beauty of their plumage, but perhaps none reaches the marvellous display of decoration attained by the Argus Pheasant, a fine example of which, with specimens of two other kinds of Pheasants, constitutes the first instalment of Dr. Hoskin's gift to the Museum. This bird, which is an inhabitant of Siam, the Malay Peninsula and Sumatra, is distinguished by the length of its middle tail-feathers—the bird may measure six feet—and the beautiful markings on its flight-feathers; especially the secondaries have those wonderful eyes which suggested to Linnæus the specific name. Such magnificence necessitates space for its adequate display, and accordingly we learn without surprise that the male is a solitary bird, having a special clearing in the forest in which to show off his attractions; this measures some six or eight yards square and is scrupulously freed from all vegetation, dead or alive, nothing being left but the bare earth. He roosts on a tree near by, leaves it to search the forest for the fallen fruit, on which he lives, and having breakfasted and visited a neighbouring water-source, retires to his reception-room to be on exhibition for the rest of the day. The birds are exceedingly shy, and are only secured by placing traps on the margins of the clearing, or some poisonous material on its floor.

A more familiar picture is that of Lady Amherst's Pheasant, a species from Western China, not infrequently seen in confinement. It is a near relative of the Golden Pheasant, but has a cape of white feathers barred with blue, instead of the orange cape of the commoner and less handsome species. Fortunately, there are some modestly dressed pheasants to serve as foils to their more brilliant congeners, and the Copper Pheasant from Japan—the third of Dr. Hoskin's series—helps to play this role, but it will be hard to find room for the plainer species, when we acquire the Peacock-pheasant, Bulwer's Wattled, the Eared-pheasants, and others, which are still necessary to show the range of decoration in the family.

It is, of course, only possible to exhibit in cases a comparatively small proportion of the very numerous species of birds, and, indeed, it is only possible for a small Museum, which aspires to illustrate the various groups symmetrically, to possess a representative collection of the Class, a considerable portion of which will be in the form of skins—a form better adapted for study than that which is suitable for exhibition.

In a subsequent article, I shall have occasion to refer to our collection of bird-skins; the foregoing paragraph suggests that I should acknowledge here certain Japanese pheasant skins, presented by the Rev. Heber Hamilton, '85, one of the few of our missionary-graduates who have remembered the Museum in the course of their travels.

In the next number of the MONTHLY I propose to deal with recent accessions to the Mammals.

PROGRESS OF THE ONTARIO SCHOOL OF PRACTICAL SCIENCE.

BY J. GALBRAITH,

Principal Ontario School of Practical Science.

THE following statement with regard to the progress and present position of the Ontario School of Practical Science, Toronto, was prepared in reply to Dr. Parkin, of Upper Canada College, who is reported to have spoken as follows at the annual distribution of prizes recently :—"While our arts students go almost exclusively to Toronto University, an increasing number of pupils now leave us to matriculate in the science department of McGill. No influence of teachers here encourages this movement, which is a perfectly natural one. In many cases students come to us from eastern Canada, and then follow on to an eastern university. But in addition to this the large sums of money spent in developing the science side of McGill have evidently struck the popular imagination far and near, and students naturally gravitate towards the points where energy is being centralized. There is only one way to change this tendency, and I wish to bespeak for our own university the same vigorous backing up from the people of Ontario and the citizens of Toronto which McGill has received from the public-spirited citizens of Montreal. Without such support it cannot reasonably be expected to hold its own on special lines of work."

While agreeing with Dr. Parkin on the necessity for immediate action being taken to strengthen the science side of the university, yet I think that the main reason for his warning, viz., the increasing tendency of students to go to McGill rather than to Toronto, has little or no justification in fact, and would, if accepted by the public, tend to produce the very evil which he deplors. His argument seems to be as follows: An increasing number of his pupils are yearly entering the faculty of applied science at McGill in preference to the School of Practical Science, (your report states that six pupils entered at McGill this year, and two at the School of Science); ergo the tendency of students from all parts of the Dominion, and (what more particularly concerns the University of Toronto) from Ontario, to flock to McGill in preference to Toronto, is increasing. Feeling apparently the insufficiency of his facts for this sweeping conclusion, he supports them by the assumption, (a perfectly natural one) that the enormous sums received within the last few years by McGill must necessarily have the effect referred to. This method of reasoning is not without its faults, and in the present case has led the Principal to conclusions utterly at variance with the records in the calendars of McGill and the School of Practical Science.

I have examined the calendars of both institutions for the years 1896, 1897, 1898, 1899 and 1900, with the following results:—In these years the numbers enrolled in the faculty of applied science at McGill were

202, 220, 228, 231, 231 respectively, while the corresponding numbers in the School of Practical Science were 100, 135, 146, 160, 193. Do these figures, I would ask, indicate an increasing tendency on the part of students to go to McGill rather than Toronto? Take another look at the calendars. The numbers enrolled in the first year in each institution ought to give a very good indication of the direction in which the tendency to increase is running. The numbers in the first year at McGill in the above five years were 80, 72, 71, 75, 72 respectively. At the School of Practical Science the corresponding numbers were 39, 60, 72, 73, 91. Again, I may ask which institution gives evidence of a growing time? It may be possible, however, that students resident in Ontario are deserting Toronto for Montreal. Let us see what the calendars say. The numbers from Ontario enrolled in the first year at McGill during the five years in question were 21, 17, 25, 17, 12, while for the School of Science the corresponding numbers were 39, 58, 71, 69, 87. It seems hardly worth while to continue this examination of the calendars. The above comparisons are, however, in a very important sense, not fair to the School of Practical Science. The school prepares its students to enter the active work of their professions by general courses extending over three years, at the end of which period the diploma of the school is conferred, while at McGill the corresponding courses extend over four years and lead to the degree of Bachelor of Science. The fourth year in the School of Science is spent in special work, and each student is confined to two subjects of study. This work bears to the general work leading to the diploma the relation of post-graduate to undergraduate work, and yet the degree conferred upon the candidates who complete the fourth year (*viz.*, Bachelor of Applied Science) is practically of the same standing as the degree conferred by McGill. The result is that only the more ambitious students return for the fourth year; the larger number are content to enter active life with the diploma of the school. With these explanations let us compare the totals in attendance at each institution in the first three years of the courses. At McGill the numbers were 165, 165, 170, 166, 166; that is to say, they have been practically stationary for the last five years. At the School of Science the corresponding numbers were 75, 104, 128, 144, 174. It is difficult to imagine any process of reasoning whereby the above facts may be made to sustain the contention that in Canada there has been during the past five years an increasing tendency of students to flock to McGill in preference to Toronto. What they do show is that the tendency of students to go to Toronto is increasing, while the tendency to go to McGill can at best be described as stationary.

The advertising effect, as such, of the great benefactions made to McGill has largely died out within the last few years, and McGill, like Toronto, will have to depend henceforth on its merits alone. The graduates of the School of Practical Science work side by side with those of McGill, Cornell, the Massachusetts Institute of Technology, and other great schools of engineering and applied science, and have intimate

opportunities of judging the work of these institutions. From a correspondence with our graduates extending over twenty years and from their almost uniform success in their chosen professions, the only inference which I can draw is that the training given in the School of Science fits young men for their life work as well as that given in any other institution whatever.

But *revenons à nos moutons*: the Principal of Upper Canada College is quite right in warning Toronto and Ontario that the time has come when they must bestir themselves in the interest of their own institutions; not, however, on account of the rush of students to Montreal, but for a very much better reason, viz., the rush of students to Toronto. At present the accommodation in the School of Science is taken up from basement to attic; the energies of the staff are taxed to the utmost limit; experimental and research work formerly done are being abandoned on account of the increasing burden of teaching due to want of space in the laboratories. In some laboratories the work of instruction is repeated three or four times owing to the large size of the classes.

It is evident that this state of affairs cannot be allowed to continue if the school is to maintain its reputation. In our endeavours to make suitable provision for expansion we shall need all the help and influence which the friends of our Provincial institution, including the Principal of Upper Canada College, may be able to afford.



MODEL PRESIDENTS.

BY PROFESSOR GOLDWIN SMITH.

WE have all been reading with interest Mr. S. Blake's eloquent description of the model head of a University.

"We want a strong personality; one full of life and vigour, a man of deep sympathy, one who knows and recognizes the difficulties of student life and can give advice and help; one who does not believe in drifting or letting drift, but one who sees ahead and warns—not one who simply patronizes the clever student, but one who yearns to teach the stupidest dunce in the precincts, and by his character and informing power to show him what even he can do if he makes the most of what he has. We want a man of reserve power, one who gains the confidence of the student, and can give him fatherly and kindly advice on the subject of his studies and his future; a man of tact, conciliatory and gracious, and able to tempt talent to our University from all quarters and retain it when found."

An academical archangel might be competent to fill the part, but it is to be feared that in the present state of University finances his terms would be too high for us. We should be out-bid by Harvard or Yale.

The archangel is no doubt desirable if you can get him, but in academical institutions, indeed in institutions generally, it is to the system and not to the man that we most chiefly trust. Such a head of a college

or school as Thomas Arnold comes once in half a century. Nor even when he does come is the blessing wholly unalloyed. If Arnold's personality was deeply impressed upon his pupils, it was not entirely to the advantage of them all.

In the University of Oxford the offices of the Vice-Chancellor, who is the temporary head, the Chancellor being a non-resident grandee, and of the two Proctors who administer discipline, go round the Colleges in a cycle, and are sometimes held by inferior men. The inferiority, of course, is felt, but the system works on and no great disaster ensues.

The only head of a College at Oxford within my recollection who in any measure corresponded to Mr. Blake's ideal was Jowett, whose academical importance has, however, been somewhat over-rated, owing to the interest attaching to his character and opinions. It was not by him, but by his predecessors, that Balliol College was originally raised to its eminence, though he, no doubt, improved upon their work. The foundation was laid by Jenkyns, a man of the most ordinary ability and totally devoid of personal influence, whose service to the College consisted in resolving that the Fellows and Scholars should be elected by merit.

Eton in my time, it must be owned, was more a school of manners than a place of education. But perhaps it was not on that account the easier to manage. The Head Master when I was there was an accomplished man of the world, who played his regular part with ordinary tact. He would no more have thought of exercising the sort of personal influence desired by Mr. Blake on his pupils than he would of undertaking a mission to the Hindoos. Nevertheless, the system being strong and everybody being loyal to it, we got on well enough after our fashion, and our numbers were always on the increase.

Hardly, even when you have the means of paying for the highest article in the market, can you expect as a regular thing personal electricity of Presidents or inspiration of Professors. You must be satisfied if the President carries on the government smoothly and the teaching of the Professor is sound: In some departments the place of the Professor is now largely taken by the book. In all departments the diligence of the student and his active interest in his work are essential to his progress. He is not a mere vessel into which knowledge is to be poured.

It is a mistake, I trust, to suppose that in the incident of the other day there was anything like a regurgitation of the bitterness of the past. Few greater blunders have been committed than the appointment of a judicial Commission to deal with a question of academical discipline, to wash all the dirty linen in public, and expose the officers of the University to rough cross-examination, touching even religious belief, before a scandal-loving world. Cabal must be utterly fatal to any institution. Let us hope that we shall hear of it no more.

LOCAL LECTURES.

THE accompanying lists of local lectures offered by the Faculties of the University of Toronto and University College and Victoria University will be of interest to the Alumni. The range of subject-matter covered by these lectures is extremely wide and ought to be interesting to a very large body of the people. It is hoped that the graduates residing in localities not too distant from Toronto will lend their aid in bringing to the attention of the public this important means of culture so generously offered by the Faculties of both Universities.

UNIVERSITY OF TORONTO AND UNIVERSITY COLLEGE.

PROGRAMME OF LECTURES, 1900-1901.

Mr. A. H. Abbott, B.A.—

- (1) The Psychological Aspect of Light and Colour;* (2) The Place of Experimental Psychology in Scientific Research;* (3) The Problem of Suggestion.

Professor W. J. Alexander—

- (1) Aims in Life and Education; (2) The Function of Poetry; (3) The Poetry of Robert Browning; (4) Tennyson's "In Memoriam"; (5) The Novel, its Origin and Use; (6) The Novels of Jane Austen.

Mr. G. R. Anderson, M.A.—

The Development of Photography.*

Professor Alfred Baker—

- (1) "The Hard-grained Muses of the Cube and Square"; (2) Genius in Science—Sir William Rowan Hamilton; (3) Astrology; (4) Hero of Alexandria—A Study in Greek Mechanical Science; (5) The Science of the Ancient Greeks, and the Debt we Owe Them; (6) The Nebular Hypothesis; (7) The Beginnings of Astronomy.

Mr. St. Elme de Champ—

- (1) Le Paysan dans le Roman Français; (2) Le Midi de la France et ses Romanciers. (Both in French.)

Professor A. P. Coleman—

- (1) The Ice Age; (2) Mountain Building; (3) The Rockies of Canada; (4) Canadian River Systems.

Mr. A. T. DeLury, B.A.—

The Sun in Its Relation to Terrestrial Life and Energy.

Professor W. H. Fraser—

- (1) Dante and the Divina Commedia; (2) Machiavelli; (3) Manzoni, Hugo and the Romantics; (4) Mediæval Italy and Florence of the Renaissance; (5) A Glimpse of Italy;* (6) Michael Angelo.*

Professor J. G. Hume—

- (1) The Preparation for Christianity; (2) Faith and Doubt in Modern Controversy; (3) Problems of Social Reform; (4) How to Think; (5) Philosophical Views of the late George Paxton Young.

Professor Hume is also prepared to deliver series of Lectures on the History of Philosophy and Theory of Ethics.

Professor Maurice Hutton—

- (1) The Statesmen of Athens; (2) Greek Virtues and Theories of Life; (3) The Women of Greece; (4) Some Oxford Types (1st series); (5) Some Oxford Types (2nd series); (6) The Mind of Herodotus; (7) Some Aspects of Classical Education; (8) The Roman, the Greek, the Englishman, and the Frenchman (one or two lectures as desired); (9) Plato on University Education; (10) The Antigone of Sophocles; (11) Athenian Literature (1st period); (12) Athenian Literature (2nd period); (13) Roman Life, Literature and Later Analogies (two lectures); (14) Plutarch; (15) The Tyrants of Greece.

* With lantern illustrations.

Professor Hutton is also prepared to deliver series of Lectures on the Antigone of Sophocles, on the History of the Gracchi, and on the History of the Tyrants of Greece.

Mr. E. C. Jeffrey, B.A., Ph.D.—

- (1) Some Trees of a Former World;* (2) The Life and Character of Plants;* (3) Truffles and Truffle-hunting.* (After Christmas only.)

Mr. D. R. Keys, M.A.—

- (1) The American Humorists; (2) The Life and Times of Shakespeare; (3) Macaulay; (4) Thackeray; (5) Scott; (6) Gladstone as a Writer; (7) Matthew Arnold, the Apostle of Culture; (8) Oliver Wendell Holmes; (9) The Italy of the Ring and the Book.

Professor W. R. Lang—

- The Gases of the Atmosphere.* (In Chemical Lecture, Theatre only, after Christmas.)

Professor James Mavor—

- (1) Russia;* (2) The Paris Exposition.* (No. 2 after January.)

Professor J. F. McCurdy—

- (1) The Bible and Altruism; (2) The Message of Israel; (3) Our Debt to the East; (4) Bible Lands and Peoples; (5) The Beginning of the World; (6) Our Eastern Words and their Story; (7) The Bible in the Schools: Needs and Obligations; (8) The Bible in the Schools: Difficulties and Methods; (9) The Poetry of the Bible; (10) Jeanne d'Arc; (11) Greece, Rome and Israel; (12) The Prophets of Israel; (13) The Ruling Races of the World.

Mr. W. S. Milner, M.A.—

- (1) The Expansion of the Roman and American Republics; (2) Greek and Roman Education (three lectures); (3) The Fall of Paganism; (4) Cicero and the Roman Financial World; (5) Tolstoi.

Mr. Milner is also prepared to deliver a course of lectures on the Causes of the Fall of the Roman Republic.

Mr. R. G. Murison, M.A., B.D.—

- (1) A Buried Civilization; (2) Recent Discoveries in Egypt; (3) Animal Worship.

Mr. G. H. Needler, B.A., Ph.D.—

- (1) The German Empire and Its People; (2) Heinrich Heine and Young Germany; (3) Martin Luther from the Literary Standpoint; (4) The Nibelungenlied—the Iliad of Germany.

Professor J. Squair—

- (1) Church Architecture in Northern France;* (2) Rousseau the Sentimentalist

Professor W. H. vanderSmissen—

- Goethe's Life in His Lyrics.*

Mr. S. M. Wickett, B.A., Ph.D.—

- (1) The Study of Political Economy; (2) Money; (3) City Government in Canada.

**With lantern illustrations.*

Professor R. Ramsay Wright is prepared to offer a lecture on a biological subject after Christmas.

Literary or scientific organizations desiring the services of lecturers will communicate with the Secretary. The terms will be \$5 for each lecture (to be devoted to University purposes), and the payment of the personal expenses of the lecturer.

J. SQUAIR,

Secretary of Committee.

VICTORIA UNIVERSITY.

PROGRAMME OF LECTURES, 1900-1901.

Professor E. J. Badgley.—

- (1) John Stuart Mill; (2) Herbert Spencer; (3) The Ring of Gyges; (4) Woman; (5) The Religious Views of Immanuel Kant; (6) The Resurrection of Christ; (7) Morality and Religion; (8) The Theistic Concept.

Professor A. R. Bain.—

- The Problem of the Planets.

Professor A. J. Bell.—

- (1) Lucretius; (2) Student Life in Germany.

Chancellor Burwash.—

- (1) Three English Peoples; (2) Books: Their Use and Abuse; (3) Protection as a National Policy; (4) The Recovery of a Lost Language; (5) From the Myth to the Microbe—a Comparative Study of Ancient and Modern Science; (6) Old and New in Theology.

Professor J. Burwash.—

- (1) Water; (2) Light, and the Cause of Colour; (3) Wonders of Science; (4) The Worlds of Genesis.

Professor A. P. Coleman.—

- (1) Canadian Gold Fields; (2) The Lakes of Canada; (3) The Rocky Mountains.

Professor Pelham Edgar.—

- (1) Shelley, the Man and the Poet; (2) Nature Poetry of Shelley and his Contemporaries.

Mr. W. Sanford Evans, M.A.—

- (1) Patriotism; (2) Brave Men and Women; (3) Sport.

Professor L. E. Horning.—

- (1) The Evolution of an Author—a Study of Young Goethe; (2) Faust; (3) Martin Luther; (4) Life in England in the Days of Alfred; (5) Browning: His Life and Works; (6) Canadian Literature; (7) Social Life and Ideals in the Middle Ages.

Mr. C. C. James, M.A.—

- (1) The Romance of Agriculture; (2) The Making of Ontario.

Mr. A. E. Lang, B.A.—

- (1) Modern German Realism; (2) Two Recent German Dramas.

Professor A. L. Langford.—

- (1) A Greek Play; (2) Some Greek Sculptors and Their Work.

Professor E. Masson—

- (1) L'Étude des Langues Modernes, Considérée comme un Facteur de la Civilisation; (2) Alexandre Dumas, Père; (3) Alexandre Dumas, Fils.

Mr. B. E. McKenzie, M.D.—

- (1) The Human Foot: Its Architecture and Clothing (two lectures); (2) Education of the Central Nervous System (three lectures).

Professor J. F. McLaughlin.—

- (1) The Story of the Hebrew Bible; (2) The Story of the English Bible; (3) Mohammed and the Koran; (4) The Prophets of Israel.

Professor A. H. Reynar.—

- (1) Alfred the Great; (2) Chaucer; (3) Browning; (4) Mrs. Browning; (5) Humour; (6) Classics, Ancient and Modern, in our Schools; (7) Literature: Its Nature and Uses; (8) Alliance of Learning and Religion; *(9) Course of Lectures on Tennyson's "In Memoriam"; *(10) Course on "The Idylls of the King"; *(11) Course on Poems of Robert Browning.

Professor J. C. Robertson.—

- (1) Glimpses of Greek Life; (2) The Social Ideals of Plato and William Morris; (3) Saint Socrates; (4) The Story of our Mother Tongue.

Professor F. H. Wallace.—

- (1) How to Study the Bible; (2) The Influence of Uncanonical Jewish Literature in the New Testament.

* These lectures are especially intended for Reading Clubs. They cannot be given except at places within easy reach of Toronto.

† In addition to the expenses of the lecturers a fee of five dollars will be charged for each lecture (the proceeds to be devoted to University purposes).

A. H. REYNAR,
Secretary.

LOCAL ALUMNI ASSOCIATIONS.

BY R. L. M'KINNON, B.A., LL.B.

A MEETING of the Alumni of the University of Toronto for the county of Wellington and surrounding district was held in the city of Guelph, on October the 11th, and it was determined to form a local organization. For this purpose a committee was appointed to draft a constitution and to report at a subsequent meeting. On the evening of November the 15th the adjourned meeting of the Alumni was held and a constitution for the most part similar to that of the central organization was adopted. The association will be known as "The Guelph Alumni Association of the University of Toronto," and all graduates, and undergraduates of one year's standing, residing in the county of Wellington and surrounding district will be eligible for membership. The following were elected as officers for the current year:—

Honorary President—H. W. Peterson, M.A., Q.C.

President—Wm. Tytler, B.A.

Vice-President—J. B. Reynolds, B.A.

Secretary-Treasurer—R. L. McKinnon, B.A., LL.B.

Councillors—Miss K. Skinner, B.A.; Miss Jessie Hill, Mus.B.; H. E. Wilson, B.A.; A. Mackinnon, M.D.; and R. W. Ross, M.A.

A committee was also appointed for the purpose of arranging for holding a dinner before Christmas. It is expected that a membership of sixty or seventy-five can be obtained in the vicinity of Guelph. At present the indications point towards the existence of a very vigorous organization. All the members present at the meeting expressed themselves strongly upon the necessity of the Provincial Government giving the University more liberal support. Notice was given that at the next meeting of the Association a motion would be made that a memorial setting forth the needs of the University, and urging the duty of the Government to place the finances of the University upon a basis becoming to this Province be engrossed, and that the members for this county in the local House be asked to present the memorial at the next session of the Legislative Assembly.

On motion the Secretary was directed to forward a report of the organization to the UNIVERSITY OF TORONTO MONTHLY.

TORONTONENSIA.

UNIVERSITY OF TORONTO
MONTHLY.

ADDRESS ALL COMMUNICATIONS FOR PUBLICATION TO
THE SECRETARY, UNIVERSITY OF TORONTO.

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Miss M. E. C. Cameron, B.A., '97, spent last summer in Madrid, where she was engaged in working on a manuscript in the Biblioteca Nacional in connection with her Ph.D. thesis. She has at present a position as Reader in Romance Languages in the University of Chicago, where she is proceeding to her degree.

Geo. W. Orton, B.A., '93, who has achieved such distinction in athletics, has lately taken a position as editor of the sporting department of the *Philadelphia Inquirer*. He still lectures on Italian and Spanish in the Eastbourne Academy, Philadelphia, Pa., where he has for some years had charge of the Romance Language department.

The late A. R. Dickey, B.A., Q.C., whose relations with his Alma Mater and the world at large, were feelingly referred to by Frank T. Shutt in our October issue, was born at Amherst, N.S., in 1854, and was educated at the College School, Windsor, N.S., and at the University of Toronto, where he graduated in 1875 with the degree of B.A. He was called to the Nova Scotia bar in 1878, and practised law at Amherst in partnership with the present Judge Townsend. On the resignation of Sir Charles Tupper for the riding of Cumberland, in July, 1888, Mr. Dickey contested the seat and was returned to the House of Commons. He held three successive portfolios in the late Conservative Government, being appointed Secretary of State in 1894, Minister of Militia in 1895, and Minister of Justice in January of 1896, a position which he retained until the general elections of that year, when he was defeated by a small majority. He was created a Q.C. in 1890, and was called to the Ontario bar in the same year as he retired from office. He was at one time a member of the Senate of the University of Toronto.

W. D. Love, B.A., '98, whose delicate health caused his friends much anxiety in his final year, has lived since in the more kindly climate of Mexico. During a visit to Toronto this autumn his splendid work in the tennis tournament showed that he was himself again, and though he has returned to Mexico, where he is now chief accountant for a large smelting works at Aguas Calientes, he has not done so for his health alone.

Thos. R. Deacon, a graduate of the School of Practical Science of the class of 1891 in Mining Engineering has been very successful since leaving the School and is now Managing Director of the Mikado Gold Mining Company, Rat Portage, Ont., which is one of the largest and most successful gold mining companies in Ontario.

W. T. F. Tambllyn, B.A., '95, Ph. D. (Columbia, '98), has secured an appointment on the staff of Colorado University, where he is the colleague in the Latin Department of Professor Hellems, who graduated from the University of Toronto in 1893. Dr. Tambllyn undertakes his new work with special qualifications. After graduation he spent a year in Italy and Greece studying Latin and Grecian archæology, and afterwards going to Columbia University for two years, where he graduated in 1898. After studying in the Ontario Normal College for a year he was appointed as Classical Master in the Whitby Collegiate Institute, from which he has gone to his present position.

F. J. A. Davidson, honour graduate in Modern Languages of the class of '90, who took his M.A. degree in '93, and was for three years Fellow and Instructor in Italian and Spanish in the University of Toronto, and who for the past five years has been Assistant Professor of Romance Languages at Stanford University, was appointed last August Professor of Romance Languages at the University of Cincinnati. This institution, whose beginning dates from 1819, has just been re-organized under the presidency of Dr. Howard Ayers, the well known biologist, and promises to become one of the leading universities of the United States. Professor Davidson spent the past summer in France and Germany, where he received the degree of Ph.D. from the University of Leipzig, thus completing work begun three years ago, when his dissertation, *Ueber den Ursprung und die Geschichte der Französischen Ballade*, was accepted by the Leipzig faculty.

Miss Norah Cleary, B.A., '99, has been appointed a teacher in the High School at Windsor, Ont.

Thomas Stephen Cullen, M.B., '90, is now Associate Professor of Gynæcology in Johns Hopkins University.

A. S. Hurst, B.A., '99, is now engaged as Instructor in English in the Peekskill Military Academy, Peekskill, N.Y.

Miss Louise L. Ryckman, B.A., '90, was married on August 22nd, at Brockville, Ont., to F. H. Sykes, M.A., Ph.D., Philadelphia, Penn.

R. W. Angus, Lecturer in the School of Practical Science, Toronto, was married to Miss Louise Menhennick, B.A., '98, in August last.

D. J. Armour, B.A., M.B., M.R.C.P., Lond., F.R.C.S., Eng., has been appointed Instructor in Anatomy in Rush Medical College, Chicago.

John McCrae, B.A., M.B., who holds the Fellowship in Pathology in McGill University, Montreal, is at present serving with the troops in South Africa.

Lewellys F. Barker, M.B., '90, formerly Associate Professor of Anatomy in Johns Hopkins University, is now Professor of Anatomy in University of Chicago.

W. D. Ferris, M.B., '98, who is practising medicine at Shallow Lake, Ont., is forwarding the organization of a local branch of the Alumni Association for the county of Grey.

Gilbert B. Wilson, Ph.D., a recent graduate of Knox College, has received a call from Augustine Church, Winnipeg, to succeed Rev. R. G. MacBeth, M.A., who is now in Vancouver.

R. J. Bonner, B.A., '90, Ph.D., who held a Fellowship in Latin in Chicago University last year, has been appointed Professor of Latin in the John B. Stetson University, Acland, Florida.

Miss F. H. M. Neelands, B.A., '96, has returned from a year of study in Germany. She spent most of the time in Berlin engaged in special courses of study in German language and literature.

A. W. Wilder, B.A., '88, Ph.D., who held a Fellowship in Latin in Johns Hopkins University last year, has accepted the Professorship of Latin and Greek in Emory and Henry College, Emory, Virginia.

The Rev. Edward Wicher, B.A., '95, B.D. (Knox, '00), has accepted a call to the congregations of Claude and Mayfield in the county of Peel, Ontario. He has just returned from a year of theological study in Germany.

Ross G. Murison, B.A., '93; M.A., '94, Lecturer on Oriental Languages in University College, delivered a valuable series of historical lectures on Assyria, Babylonia and Egypt to the students of Manitoba College during the summer session of the present year.

W. C. White, M.B., '98, who has spent nearly the whole time since graduation at Johns Hopkins University, was in Toronto recently after completing five months' study in Germany. He was on his way to Indianapolis, where he now has charge of the Pathological Department in the State Asylums. The laboratory has been very well fitted up, and Dr. White anticipates good results from his work.

Wm. P. McKenzie, B.A., '84, is now living near Harvard College. He is First Reader of the Christian Scientist Church in Cambridge, Mass., and also a Trustee of The Christian Science Publishing Society in Boston, Mass. Last June he completed a year's term as President of the Mother Church of this denomination, known as The First Church of Christ, Scientist, in Boston, Mass. This Church has a membership of 19,000, with 440 organized branch churches, and a number of societies, making a total of nearly 600 congregations.

The University public and the many friends of J. A. McLean, B.A., '92, will be glad to learn of his appointment to the presidency of the University of Idaho. His course was a brilliant one. He obtained the highest honours in the departments of Political Science and Classics, and in his second and third years was awarded the Governor-General's silver medal and gold medal. On graduation, on the recommendation of Professor Ashley, he was appointed to a fellowship in the University of Columbia, where he studied Political Science, History, Constitutional Law, and Roman Law, under Professors Burgess, Seligman, Munroe, Smith, Osgood and Giddings. After proceeding to the degrees of Master of Arts and Doctor of Philosophy at Columbia College, he was appointed to the chair of Economics and History in the State University of Colorado.

MARRIAGES.

Miss Jessie Darling, B.A., '95, M.A., '96, was married on Sept. 27th, at Schenectady, N.Y., to A. W. Henshaw.

Miss F. M. Lye, B.A., '94, was married on Oct. 22nd, in Toronto, to A. Blackmore, London, Eng.

A. W. Mackenzie, '02, was married to Miss M. J. Kirkland, in Toronto, Nov. 14th.

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EDITORIAL ANNOUNCEMENTS.

The article by Professor Clark of Trinity University on University Training as a Preparation for the Ministry, will appear in January.

An article upon the introduction of Greek Letter societies into the University of Toronto, by Mr. A. B. Aylesworth, Q.C., is held over till January.

A great deal of interest attaches to the biographical sketch of Mr. William Wedd, B.A., '45, M.A., '48, by Professor Young of Trinity University, which appears in this issue, not only because Mr. Wedd is the senior M.A. of the University and almost the only surviving member of his class, but also because of his connection with Upper Canada College for forty-two years and the kindly influence he has brought to bear upon so many of those who passed through his classes and now occupy leading positions in Canada and the Empire.

EXPERIMENTAL PSYCHOLOGY AND THE LABORATORY
IN TORONTO.*(Concluded.)*

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EVEN at the risk of making this discussion somewhat tedious I shall mention what seems to me the fundamental justification of the Science of Experimental Psychology, as it was the first investigation which was actually carried on by it. I refer to the problem of Quantity, as it is considered in Physics, or of Intensity, as it is considered in Psychology.

It is a well-known fact that increments can be added to any quantity without any change being noticed. That is, a stimulus may be increased by certain definitely known quantities and yet no change occur in our experience or consciousness of that quantity. For example, in a room lighted by 100 gas flames, the addition or subtraction of one or two flames would not be noticed from any change in the amount of light; or, the full electric illuminating power in a city may be turned on at noon-day, and yet the streets be not noticeably one bit better lighted; and so on, examples might easily be multiplied, but each one may do that for himself. Now, if I ask the question: "Just how much would I have to add in any particular case in order that I may just notice a difference?" I have clearly a problem which demands experimental research for its solution, and yet I have a question which cannot be answered by either Physics or Physiology, the two Sciences most immediately concerned with it. When the question is investigated, a remarkable fact is discovered, viz., it is found that that amount which must be added before a difference can be noticed bears a constant relation to the stimulus to which it is added; that is, the same quantity is not always noticed as a change, as it ought to be if the question were solely one of the sensitiveness of the sense organs, for, physically, if the sense organs can just discriminate the difference between 10 and 11, surely they ought to do likewise between 20 and 21, but they cannot—it must in that case be between 20 and 22—that is, *it will be the same relation as formerly, which must be added or taken away, but not the same quantity.*

There is another phase of the problem of Intensity, which is, I think I may say, startlingly instructive. We not only estimate quantities to be greater, equal or less than others, but we also estimate the difference between two quantities to be greater, equal or less than the difference between two other quantities; that is, if we are shown three lights of somewhat widely different intensities we can judge when one is midway in brightness between the other two, or, differently stated, we can tell when the difference between the lights "a" and "b" is equal to the difference between "b" and "c." Now, when this is carefully done an astonishing result is found, viz., when we make the judgment $b - a = c - b$,

it is found that according to physical measurement the lights stand in the following relation:—

$$\frac{a}{b} = \frac{b}{c}$$

$$\text{or } b^2 = ac$$

$$\text{i.e. } b = \sqrt{ac}$$

Supposing now that “*a*” and “*c*” be respectively 10 and 1,000, “*b*” will be 100 when we estimate the lights as being separated by equal differences. Throwing the conclusion in one sentence we may say: *We estimate differences as equal when physically the ratios are the same.* The relation of this to the foregoing statement is evident.

This principle has had such ample verification that a “Law” has been formulated which embodies and expresses it. The so-called “Law of Weber” is the fundamental fact which was at once the origin and the inspiration in Psychology of the Science of Psycho-Physics, which is a strong sub-department of Experimental Psychology. This Law of Weber holds practically true (so far as the matter has been investigated) in the case of all the ordinary Senses, and for the extensive range of medium intensities, and its expression brings out the characteristic of experience which it represents, viz., the relativity of our estimation of quantity or intensity. (All physical quantities are experienced as intensities.) There are several statements of this Psycho-Physical Law, but the following will answer our purpose here:—“In order to increase sensations by just noticeable quantities, the quantity of the stimulus must be increased by relatively the same quantity”; or, “In order to estimate differences as equal, the relation of the stimuli must be the same”; or, again,—Fechner’s concise expression of the Law—“The intensity of sensation is proportionate to the logarithm of the quantity of the stimulus.” Now, it is through that research known as Experimental Psychology that this principle has been discovered, and since there can never be a quality which has not some quantity, we are compelled to admit that Psychology, in this case, has discovered a problem which bears on all our experience of Nature, and, therefore, which ought to be known by all who investigate Nature. Here, again, Experimental Psychology justifies its existence as a Natural Science, or as a Science of Nature.

I consider that I have already said quite enough by way of showing the nature of the problems which an Experimental Psychologist has to investigate, and I now proceed, therefore, to the second part of my essay, which is more closely occupied with the Laboratory in Toronto. Before, however, I say a few words with regard to the Psychological Laboratory in the University of Toronto and the work being carried on there, I wish to make one or two pointed statements with regard to the attitude of the Department of Psychology, under the direction of Professor Kirschmann, to some much discussed topics.

The first of these topics is the relation of Psychology to Hypnotism,

Telepathy, and such phenomena. In one word, we do not devote much attention to these phenomena, because they do not yet seem ripe for experimental investigation, at least, as yet, no *exact* experimental methods have been found generally practicable for such a research. (We leave out of account here the fundamental question: Is it justifiable for any man to hypnotise another, especially for amusement or experiment?)

The second of these topics is the relation of Psychology to Physiology. In the first place we do not regard it as justifiable to attempt to do what a Physiologist can do far better; *i.e.*, investigate the processes taking place in the human body, and especially in sense organ, nerve and brain. That work belongs distinctly to Physiology, and we are quite content to keep it out of our Laboratory and to accept the Physiologist's results as we do the verified conclusions of any other Scientist. (It must ever be the aim of Experimental Psychology to work hand in hand with all other sciences, and especially with its nearest sister sciences, Physics and Physiology, in solving the problems of Nature. There are problems which they, in accordance with the character of their subject, cannot solve, and we should like to aid in the solution of these, and thus return, so far as possible, the help which Psychology has always received from them.) In the second place, if the reader has caught the spirit of my justification for Experimental Psychology, he will not have failed to observe that I do not regard it as more necessary for a Psychologist to be an expert Physiologist than it is for a Physicist or Chemist to be such. This is the unhesitating stand of our Department on the subject, and this alone ought to be sufficient to clear from people's minds the still too often heard, but nevertheless nonsensical opinion, that an Experimental Psychologist must be a Materialist in Philosophy. On the contrary, we hold that psychical facts cannot be "explained" by bodily processes. Physiological Psychology is really two distinct Sciences, *viz.*, Physiology and Psychology, and all that is done in it is to correlate bodily processes with conscious facts; that is, to attempt to discover what bodily processes are occurring when we experience or are conscious of certain facts. Even this work, important as it may be, has not the prominence in Toronto which it has in many laboratories. *Experimental* Psychology and *Physiological* Psychology are by no means synonymous terms, even if we are indebted to books bearing the title "Physiological Psychology" for some of the most important work in the literature of the subject.

Several other interesting points which might be discussed are omitted as unessential, and because the limits set for this article have already been exceeded.

My concluding subject is an interesting one to all lovers of the University of Toronto, and I trust it will not be found uninteresting even to those who do not call her "Alma Mater"—it is "The Psychological Laboratory of the University of Toronto."

The Psychological Laboratory in Toronto was established, through the liberality of the Ontario Government, by Professor J. Mark Baldwin, in

1891,* and three rooms and a private room, were at that time set apart and fitted up for the work. These rooms, 1, 2, 3, 4, in the following plan, were used at first chiefly for demonstrations. Actual research work by students, however, really began with the installation of Dr. A. Kirschmann as head of the Department of Psychology in 1894. Dr. Kirschmann had been trained in Germany and had been Professor Wundt's assistant in Leipzig for some time; he, therefore, came to Toronto with a thorough knowledge of what the then best Psychological Laboratory in the world was. From the very first year actual research work has been done by the men in the Senior year in the Department of Honour Philosophy, and by numerous graduates, and the comparatively large number of published reports of our work bear witness to the fact that this research has always been along lines calculated to advance our knowledge of the facts of consciousness. If the people of Toronto or of Canada do not know of our work it is to be regretted, but whether the reports of the work done are read here or not, we have the satisfaction of knowing that they are well known, and, in practically every case, very favourably reviewed in Germany, France, Switzerland, England and elsewhere.

The first publication from the Laboratory was made in 1895, and it appeared, as did also several subsequent articles, in *The American Journal of Psychology*.

With the expansion of the University, and the growing spirit of research on the part of Faculty and Senior students, it was felt that we ought to have a publication for such work in connection with the University, and, as a result of this feeling, *The University of Toronto Studies*, was begun. The first publications were along historical lines, but soon a "Psychological Series," among others, was started, and in the present month there will appear the last number of Volume I. of this series. This volume is composed of three numbers: the first, which appeared in the spring of 1898, reports research carried on regarding the Space-Threshold of Colours and its dependence upon contrast,—a very interesting case of colour-blindness is also reported in this number; the second number reports work done on certain Time relations of experience, and on the Time relations of English poetical metres; and number three, contains reports of an admirable piece of research work on Colour-Æsthetics, and of an investigation of the colour-sense of school children. Perhaps I cannot bring the idea of the Department, in the publication of this Psychological Series, before the reader, better than by quoting a few words from Professor Kirschmann's introduction to Volume I, the last number of which is, as I have already intimated, at present in process of publication. He says:—"With the present volume we do not so

* It may not be generally known that the late Professor George Paxton Young had desired to have a Psychological Laboratory opened in Toronto, and that he had, some time before Professor Baldwin was appointed, urged one of his students, J. G. Hume (now Professor Hume), to study under some of the prominent Psychologists in preparation for such work. Professor Young's death and Professor Baldwin's appointment simply hastened matters, therefore; they did not fundamentally change the plans of the Department in this regard.

much desire to augment the number of psychological periodicals as to inaugurate an exponent of psychological research in Canada, which has hitherto been without a representative publication. The Psychological Series of *The University of Toronto Studies* will appear at irregular intervals, and will represent, for the most part, the results of research in the Psychological Laboratory of the University of Toronto, although contributions from elsewhere may be accepted."

In referring to the publications from the Laboratory, I have not referred to the articles, etc., of Professor Kirschmann, because I wished to emphasize especially the fact that our students, undergraduate as well as post-graduate, are carrying on the research work to which I have referred. That the undergraduates in their advanced work participate in actual research is only the carrying out of the Director's opinion that no experimental work of advanced students should be done for the mere sake of practice, but that it should contribute to the solution of some problem. Of Professor Kirschmann's own writings since he has been at the head of the Toronto Laboratory, I need only say that they are somewhat numerous, and that they have commanded the most respectful attention.

It will thus be seen that during recent years our Laboratory has been doing work of worth, and I am not speaking whereof I do not know, when I say that the Psychological Laboratory of the University of Toronto is recognized abroad as, at least in point of research work, of no second-rate importance.

At present there are approximately one hundred students taking lectures and doing work in Honour Psychology. If we deduct from this number probably forty, who are taking the Honour work of the Second year but who are not registered in the department of Honour Philosophy, we have still sixty students regularly engaged in the study of Scientific Psychology. When this is taken into account it will not be surprising that, recognizing the needs of the department, more space has been provided for its use. In this connection we are deeply indebted, as is every department in the University, to the foresight and interest of President Loudon, who has done so much during the years of his Presidency to foster and advance the highest academic work possible. Some years ago the use of the Ethnological Museum and adjoining rooms was secured, and these have been constantly used since 1896-97. Last year it was decided to utilize the First House of the Old University Residence for scientific purposes, and it was accordingly divided between the Departments of Physics (Electricity) and Psychology. All the rooms at our disposal are being used this session, and they are being fitted up as rapidly as possible for the research which is to be carried on in them. Most of these rooms are, indeed, fully occupied at present.

The accompanying ground-plan shows the rooms which are at the disposal of the Laboratory, and the following Index will tell to what purpose they are at present being put:—



Plan of the Psychological Laboratory of the University of Toronto.

Scale 1 : 300.

- No. 1. Old Lecture Room, at present used for Research in Psychological Optics.
- No. 2. Old Laboratory Room, at present used for Class Demonstrations and for Research in Time and Space Relations of Mental Phenomena.
- No. 3. Director's Private Room.
- No. 4. Dark Room, used for Photographical purposes, etc.
- No. 5. New Lecture Room.
- No. 6. Store Room for Demonstration Apparatus.
- No. 7. Library and Reading Room.
- No. 8. Assistant's Private Room.
- No. 9. Research Room, at present used for the investigation of Colour-Saturation.
- No. 10-11. Research Rooms, at present used for experiments on Photometry, etc.
- No. 12. Temporarily loaned as a Private Room for a Lecturer in another Department.
- No. 13. Research Room, at present used for the investigation of the Influence of the Sense of Sight on the estimation of Lifted Weights.
- No. 14. Ethnological Museum, used at present for Research in Colour Æsthetics.
- No. 15. Acoustical Research Room.
- No. 16. Used for Research in Psychological Optics (with annexes).

It should not be inferred from the comparatively large number of rooms in use that the Laboratory has great space at its disposal, for six of these rooms (Nos. 8 to 13) are but small attics, and Nos. 15 and 16 are very small and out of the way. Our equipment is still very modest, and leaves much to be desired.

[It may not be quite superfluous to refer very briefly to the relation of the work in Experimental Psychology to the Honour course (for B.A.) in Philosophy.

The Honour Course in Philosophy includes Psychology, Logic, Theory of Knowledge, Ethics, History of Philosophy and Metaphysics. This work is arranged to cover three years of the Undergraduate course. Psychology, Experimental and General, covers about one-third of the work in Philosophy; and in Psychology the Experimental part of the work is about one-third in the first year (Sophomore students), and two-thirds in the second year, while in the final year all the Psychology takes the form of research work.]

OF GAMES.

BY ARNOLD HAULTAIN.

IT is, I suppose, matter of common-place remark that one of the distinctive features in the changes in educational methods and systems wrought during the last two decades of the present century is the prominence given to games. A few of us are perhaps old enough to remember the time when the VIth Form of this or that particular year was renowned for producing so many Wranglers or Double Firsts. To-day, probably, such VIth Form would be better remembered by its number of breakers of records. Under-masters, too, once (how strange it sounds!) were chosen largely by qualifications of learning and character. To-day the under-master who to learning and character cannot add efficiency in football or cricket would run poor chance of appointment. Nor has the change been confined to the school. A story is told—a true one—of a stolid but enthusiastic German who travelled to Oxford to meet a famous Professor of Science. He did meet the Professor, but the expression on the Teuton's spectacled face was said to have been indescribable when, being led to the tennis-court, he found himself being introduced to a hot and perspiring young gentleman in flannels.

The change is notable. Is it beneficial? Surely it is.

We are beginning to recognize the important part played in evolution by games. It would be interesting indeed, to discuss the primeval origin of out-door games and to determine whether the first distinct differentiation of the man from the ape did not consist in the ability to throw a stone or to wield a bough, to attack with a sphere and defend with a stick—the pithecanthropoid prototypes of bowling and batting. The first ape that tried to possess himself of a fruit he could not reach, or to repel a foe with whom he could not grapple, by throwing a stone or using a bough was in all probability the true progenitor of the human race. It may, indeed, be that man's erect position was gradually evolved by this attempt to fling and wield (which could not be done on all fours),

and the simian became the *ἄνθρωπος*, the true face-up-turning animal (*ἀνά-τρέπω-ῶψ*) when he succeeded in hurling and hitting.

For all human games seem to be in their origin utilitarian. Certainly all manly sports seem to be contests, amicable reproductions of the struggle for life or food or a mate. Whether it be a sedate rubber of whist, or the keen tactics for a jack pot, or a desperate maul in goal, "play" among men seems to be a sort of imitative warfare, of that warfare which was the vocation of primitive man.

And feminine games support the theory. When girls play, they represent the vocations of primitive women: they play at "dolls' house," at "cat's cradle," at keeping house, at keeping school; they play at mistress and maid; they pay visits to one another; they dress up in their elders' clothes; they make mud pies; they erect diminutive domiciles; they nurse unheeding dolls. Of these the derivation is obvious.

When boys and girls play together, we have still stronger corroboration of the theory; for surely dancing, singing, "kissing in the ring," forfeits, and what-not, are excellent practice for that game of games—courtship.

Whether, therefore, there is any such thing as "play," mere play, *qua* play, with all due deference to Mr. Herbert Spencer (who was, unknown to himself—Mr. Bernard Bosanquet and others tell us—anticipated by Schiller) with his "play instinct," is open to doubt. Play, *qua* play, is as non-existent in human nature as is beauty, *qua* beauty, non-existent in external nature. There is nothing in external nature put there for ornament only: the gayest colours of bird or flower have a very serious significance and use; are wholly utilitarian. So there is nothing in human nature put there for amusement only: the amusement is an accompaniment, not the *raison d'être*, of human actions in themselves entirely useful. Art and sport thus are near akin. Therein said Spencer truly. If we like to call the pleasurable representation of useful vocation "play," well and good; to *Pithecanthropus Erectus* play was pleasant but serious practice for the obtaining of his next meal or for the felling of his next foe. And what was highly useful to Javan *Quadrumanus* cannot be wholly useless to European and American *Bimana*. Accordingly, games, we may conclude, not only were, but are, utilitarian. By all means, therefore, let us applaud the breakers of records and the dons who grow hot over tennis.

P.S.—I must plead guilty to the fact that before penning this jocoserious little *jeu d'esprit* I had not read Karl Groos' "Die Spiele der Thiere," nor the same author's "Die Spiele der Menschen" (the former has been translated by Mrs. J. Mark Baldwin, a name well known to members of our University). Herr Groos, also, I see, combats Herbert Spencer's theory of play, and recognizes in games a highly utilitarian exercise of hereditary instinct. "The play of young animals," he says, "has its origin in the fact that certain very important instincts appear at a time when the animal does not seriously need them. * * * The utility of play is incalculable. This utility consists in the practice and exercise it affords for some of the more important duties of life. * * * Selection will favour those animals which play. * * * The very existence of youth is largely for the sake of play." The whole subject is now admitted to have a most important bearing upon the doctrine of evolution, and I can strongly recommend Groos' works to the biological and to the psychological specialist. The anthropological specialist will find the subject touched upon, though under a very different aspect, in chapters VIII. to XV. of Mr. A. C. Haddon's "The Study of Man."

WILLIAM WEDD, M.A.

BY A. H. YOUNG, M.A.,

Professor of Modern Languages, Trinity University.

THOUGH to all intents and purposes a Canadian, Mr. Wedd was born in England, at East Farleigh near Maidstone in Kent. At the age of seven years he came to Upper Canada with his parents, who settled in the township of Dumfries. He already had two uncles in this country, the one Lieutenant Winder, who took an active part in the war of 1812, and the other Mr. John Wedd, who is mentioned in early University documents as superintendent of grounds and who in that capacity laid out the two avenues leading respectively from Queen street and Yonge street to the Queen's Park, in which the University was intended to stand.

In 1842 the corner stone of the only wing of King's College which was ever built was laid on the site of the present legislative buildings. Pending the completion of the structure, academic work was begun in the old parliament buildings in Front street, they not being needed for their proper purpose at the time because the seat of government was moved about from town to town, as every one knows, between 1840 and 1867.

Bishop Strachan was president of the University and Dr. McCaul, having resigned the principalship of Upper Canada College, was vice-president and professor of classics. Terms had to be kept on the English principle of dining in hall and attending chapels as well as lectures, the legislative council's chamber, which later generations knew as the library of parliament, being used as the chapel.

In a copy of the order of proceedings for convocation day, 1844, which is contained in the Trinity University library, I find under an item of business No. III.—The Recitation of Prize Compositions.—“3. Translation into Greek Prose, after the model of Thucydides, by Wm. Wedd, Sen. Soph. Subject—Galgaci Oratio Tacit. Agricol. XXX. et seq.” The class list accompanying this programme shows that “*In Literis Humanioribus*” Wedd (Guls.) stood alone under the heading “Classis Prima.” In the Bishop's handwriting a marginal note explains that *Literæ Humaniores* “comprehended classics, logic, Hebrew, metaphysics, Biblical literature, and evidences.” In the prize list Wedd (W.) appears as prize man in classics; and this was only the first of many prizes which he was to win down to the time of taking his Master's degree, in 1848, for prizes in composition were open to Bachelors of Arts, an inducement thus being held out to them to continue their studies.

Mr. Wedd had come up from Upper Canada College which he had entered in November, 1837, just before the outbreak of the rebellion, which, among other effects, had that of causing the school to be closed for a time. In the six years following he went through all the forms, from the preparatory to the seventh, in the latter of which it had been customary to do work which has since their establishment been left to

the universities. Coming out as "Head Boy," he was well prepared for his undergraduate course and, notwithstanding the fact that he had as competitors "Head Boys" of former years who were now glad to avail themselves of the chance of attending university classes, he gained the distinguished standing already described.

After graduating, he devoted himself at first to the study of law, but the Third Classical Mastership in his old school being offered to him in 1849, he accepted it. Becoming successively Second and First Classical Master, he remained here for forty-two years—a period of service which has not been surpassed, I think, by any other schoolmaster in this province. Not only so, but in 1891, when he retired, he was able to say that, as boy and man, he had been under every principal of Upper Canada College from the first to the last.

Among the men more or less closely identified with the University at present, or in fairly recent days who were pupils of Mr. Wedd, are the late Chief Justice Moss, Vice-Chancellor from 1875 to 1881, the Ex-Chancellor and his brother, the Honourable S. H. Blake, Sir John Boyd, the President, Professors Fletcher and VanderSmitten, Messrs. Keys, W. J. Loudon, Milner, Cameron, and Langton, not forgetting Professor Cameron (also his nephew) of the Medical Faculty, Professor Dale, of the Senate, Professor Wallace, of Victoria University, Mr. Paterson, the University's solicitor, and Mr. Nicol Kingsmill, the donor of the McCaul Medal in classics. Like most other Upper Canada College "Old Boys," they all, I am sure, remember with gratitude what was done for them by the bright, cheery little gentleman who has often been called the best classical scholar in Canada. His goodness was as noteworthy as his scholarship and had its due effect upon the various generations of boys with whom he had to do.

Devoted, as he was, to study and to the discharge of his duties, both public and private, Mr. Wedd did not seek honours or advancement outside of his chosen path, but it is on record, as any one may see for himself, that for three years in succession the graduates and undergraduates elected him to the presidency of the University College Literary and Scientific Society. The habits of years are asserting their authority and Mr. Wedd is retiring more and more from the noise of the world and is enjoying the quiet which he likes so well and deserves so much. One may express the wish that the government had made his pension larger after so many years of faithful service, but Mr. Wedd, being one of the contented men untinged with censoriousness, never complains on that score. Happy beyond most men in his family relations, the hope of his old pupils will be that he and Mrs. Wedd may both live to celebrate their golden wedding which is only a few years away, for as child, maid, and wife, Mrs. Wedd was as much a part of Upper Canada College as her husband was, seeing that, till five or six years ago, she had had no other home but one or other of the old red brick houses in Russell square, which has now passed out of the hands of Upper Canada College into those of the University of Toronto, the successor of King's College, which gave Mr. Wedd his B. A. in 1845.

6
RECENT ADDITIONS TO THE UNIVERSITY
BIOLOGICAL MUSEUM.

BY PROFESSOR RAMSAY WRIGHT.

III.

LEST the readers of the MONTHLY should think that I have been specializing too exclusively in the direction of ornithology, I propose in this number to give some account of recent additions to the mammals. These we owe to the generosity of Messrs. J. W. Flavelle, George Gooderham, and T. G. Blackstock, B.A.; they have already been placed in their proper cases and furnished with labels indicating the donors' names with which they are to be associated. In this number I shall refer to the specimens which I have set aside as representing a gift by Mr. J. W. Flavelle, who has in other ways proved himself such a good friend to the University.

At first sight the problem of the Geographical Distribution of Animals does not appear to be an attractive one. To those who have read Wallace's books on the subject, however, it will be apparent how it is related to others of the greatest interest—the shape and connections of ancient land surfaces, and the genealogy of the fauna of the present day. Among the lower mammals, with which I shall begin my account of our accessions, there are some which recall the hypothesis of Dr. Forbes and others of the existence of a former Antarctic continent stretching up arms to Australia, Africa and South America, and furnishing an explanation of certain similarities to be observed in the faunas of these countries. No doubt Australia has been longest isolated, otherwise the Marsupial types which have prospered there would undoubtedly have become extinct in competition with the higher types which have conquered in the rest of the world. The Neotropical region—South America—is the only other one in which Marsupials have survived, and these only in the little varied group of the Opossums. One of the latter—the Woolly Opossum—has been added to the collection. It belongs to that group in which the young, instead of being sheltered in the mother's pouch—which is merely a vestige—curl their prehensile tails round their mother's and thus secure an anchorage for resting on her back.

I should not have said that the Opossums are the only Neotropical Marsupials, because there are the exceedingly interesting and rare Selvas, recently described, from Ecuador and Colombia, which come much closer to the Australian Dasyures. Taken in connection with the fact that some fossil (Eocene) Dasyures have been found in South Patagonia, the existence of these Selvas is suggestive. They are likely to be exceedingly rare in museums, because they are difficult to capture, and may be on our list of "desiderata" for some time.

The only Australian Marsupial added is the Common Wombat—in the form of an admirable mounted specimen and an equally good skeleton. The epithet Common is not to be construed as indicating that the Wombat is very easy to obtain. For some time the family to which it belongs has, with one exception, been the only family of Australian Marsupials unrepresented in the Museum. The Wombat is one of the larger of the Marsupials—although a degenerate descendant of its Pliocene ancestor, which attained the size of an ox—and may be described as a clumsy, bear-like creature, with the habits of a Woodchuck. The exception referred to above is that of the Marsupial Mole, a very peculiar burrowing creature from the interior Australian desert, which is described as swimming in the sand in which it lives, and which is still exceedingly rare and expensive to buy, but not unobtainable. I hope at some future time to be able to record its acquisition.

Another order which has been supposed to furnish evidence of former connection between South America and the Old World is that of the Edentata. It is predominantly Neotropical, including the Sloths and Hairy Ant-Eaters and Armadillos of South America, but the Old World Ant-Eaters, although not so numerous, have a wide range in Africa and Asia.

One of the most valuable of our recent additions is the Aard-Vaark of South Africa (we have all learned a little Dutch this last year) which is represented by a beautifully-mounted specimen of the Cape species, and an accompanying skeleton. The rapidity with which a creature as large as a pig is capable of concealing itself by burrowing is said to be little short of miraculous, but an inspection of its hands and feet disclose that its organization is well adapted for undermining the termite-houses where it gets its food, and that the Arab name of the Soudan species, "Father of Claws," is amply justified. A glance at the Tamandua Ant-Eater from Brazil shows at once that although the claws and teeth point to similar food-habits, the brilliant colouration of its pelage, a welcome relief among the monotonous of the Edentate case, is not intended to be concealed in sandy burrows, while the prehensile tail testifies to the arboreal habits of a forest inhabitant.

There are many reasons, however, for the belief that the similarities to be detected between the Old and the New World Ant-Eaters are not due to common descent, but to similar environment and habits, and are, therefore, illustrative of the phenomenon of convergence or parallelism rather than of divergence from a common geographical centre. The order, in fact, is considered by many to be diphyletic instead of monophyletic.

I must not omit to mention that we are also indebted to one of our graduates—Mr. Gordon Waldron, '88—for some interesting material belonging to this order. Returning from a visit to Nicaragua devoted to other objects, he has brought with him some specimens, new to the Museum, of the indigenous Armadillo—*Tatusia novem-cinctus*, which

are at present in the hands of Mr. Pride, but will soon furnish a good mounted specimen and an excellent skeleton of the species. In his future visits to Central America, Mr. Waldron promises to secure for us some other examples of its interesting Fauna.

I have adverted in a previous article to the restrictions imposed by the limited space of a small educational Museum. This is felt nowhere more than in an effort to represent satisfactorily those mammalian orders which contain the giants of the present day, the Marine Mammalia and the Ungulates. Fortunately pigmy representatives, or young specimens or models or figures may sometimes be employed to do duty instead.

With the Cetacea, *e.g.*, one can hardly hope to accommodate much more than a porpoise or a dolphin, and some preparations illustrative of the peculiarities of Cetacean Anatomy. Within recent years the British Museum has made adequate provision for exhibiting the Cetacean skeletons in its possession and the external form of the various species has been happily illustrated by partially encasing these in papier-maché shel modelled after life. But the whale-room at South Kensington would swallow our Museum as easily as the whale did Jonah, and consequently we must turn to other devices better adapted to our space. Perhaps we may look forward eventually to models of the chief genera accurately made on the scale of an inch to a foot. In the meantime I have been able to place adjacent to a stuffed porpoise, acquired two or three years ago, an excellent skeleton of the same species, which was much required as an illustration in miniature of Cetacean osteology.

The considerations referred to above made me glad of the opportunity to secure the foal of a Burchell's zebra, just as some years ago I was glad to be able to place a baby tapir in the collection instead of an adult. The characters of the species are equally well illustrated by the foal, and although it of course lacks the graceful outlines of the mature animal, yet the taxidermist has succeeded in fixing something of the timorous alertness which is so pleasing a characteristic of the group.

The little zebra is the more welcome because I see an ominous *extinctus*! opposite its name in Trouessart's catalogue which shows that like the quagga and common or mountain zebra it is believed to be sharing the fate of many of those beautiful antelopes of the South African plains. This, however, is, I believe premature, for although there is little doubt but that the quagga is quite extinct and that the mountain zebra is only artificially preserved, yet the wide range of Burchell's zebra, which is found in some seven or more well marked geographical varieties throughout the plains and table lands of E. and S. Africa, no doubt includes some inaccessible districts which will afford protection till legal methods are adopted to prevent extermination.

Two other hoofed animals have been incorporated to fill gaps in the series—the South American collared peccary differing from the Old World swine in its hairy coat, in the loss of one of the hind toes and in the

greater specialization of the teeth and feet, and the Syrian Hyrax. It is of the latter that we read, "There be four little things upon the earth that are exceeding wise. * * The conies are but a feeble folk, yet make they their houses in the rocks." Although we have had for some time an example of an East African species of Hyrax (Bruce's), yet the real coney of Scripture is now added for the first time to the Museum. It is not confined to Palestine but extends from Syria to the Peninsula of Sinai and northern Arabia. Beneath a somewhat uninteresting exterior which, taking the habits and the gnawing teeth into account, justifies the application of the old English word for rabbit to them, the Hyraces conceal many of the features of the primitive hoofed animals and are thus, although specialized in certain directions, an exceedingly instructive group. Strange that the elephants should be their nearest living relatives.

Although any resemblance to the Rodents is to be regarded as indicative of convergence rather than of blood relationship, I may avail myself of it to pass to some interesting members of that order which has hitherto been but poorly represented in our cases. Of the new additions we have the gaily coloured Prevost's Squirrel to act as a pendant to our more sombre grey and black squirrels; the Alpine Marmot, whose stamp and whistle one hears in the high Swiss mountains, to place beside our Woodchuck; the Old World Porcupine—a magnificent specimen—to eclipse our Canadian species; and lastly, some South American forms, viz., the Viscacha, the Patagonian Cavy and the Coypu, to show to what respectable dimensions the Neotropical rodents may attain. Much might be said about these creatures, but the curious are referred to Mr. Hudson's "Naturalist in La Plata" for an exceedingly interesting account of these and other Neotropical animals.

AN INTERESTING RELIC.

BY PROFESSOR FRASER.

IN the October number of the MONTHLY an account was given of the presentation to the University on Convocation Day of two fine specimens of heavy ordnance which were employed in the naval operations at Louisbourg in 1758. These pieces have been mounted and stationed flanking the flag-staff on the lawn. A short time ago, President Loudon received from Mr. Alexander F. Sabine, of Philadelphia, Secretary of the Guarantee Company of North America, the following letter relating to the gift of the cannon:—

"I saw in the paper a day or two ago that two cannon had been recovered from the sea near Louisbourg and sent to you. Now, some few years ago, I was travelling in Canada, and stopped for a day at the house of Mrs. King, who is the widow of an officer in the 42nd High-

landers—The Black Watch. Learning that I had been a captain in the Canadian Militia during 1837-8, she gave me a cannon-ball, which had been fired from Louisbourg, and was picked up outside the town. Perhaps it may interest you to receive this ball, and if so, and you will let me know, I shall be pleased to send it to you."

The offer was of course thankfully accepted, and the interesting relic is now in the possession of the President. It is to be placed in the



The Cannon—Looking East towards the Queen's Park.

(From a photograph by J. S. Plaskett, B.A.)

Museum of the University, with an inscription acknowledging the generosity of the donor. It is especially pleasant to record this incident, as an evidence of public spirit on the part of a gentleman who has no direct interest in the institution. Many persons in our midst are doubtless in a position to enrich the Museum by the gift of objects of curiosity, which, though of little intrinsic value, may be of considerable historic or scientific interest. The example of Mr. Sabine is worthy of extensive imitation.

UNDERGRADUATE SOCIETIES.

AT no period in the history of the University has there been evident a greater amount of activity in the intellectual life of both Faculty and students than at present. One of the most interesting manifestations of this is the activity of the various societies of students, organized in connection with the departments of study in the University. There are at present seven of these in the University of Toronto and University College; the Modern Language Club, the Oriental Association, the Classical Association, the Natural Science Association, the Political Science Club, the Mathematical and Physical Society, and the Philosophical Society. Each of these has its weekly programme of papers and discussions, contributed chiefly by the students, but with the help, occasionally, of members of the Faculty and of gentlemen outside the University. The papers cover a wide range, as might naturally be expected. Glancing hurriedly at the programmes published for this year's work are found such interesting topics as "Animal Worship among the Semites"; "A Glance at the Pre-Raphaelites"; "Nemesis in Herodotus and the Tragic Poets"; "The Life and Works of Lavoisier"; "The Ice Age in Canada"; "The Problem of Railway Rates in Canada"; "Mathematical Symbolism from the Earliest Times"; "Some Functions of the Retina," etc. Such distinguished gentlemen outside the Faculty as the Hon. S. H. Blake, Q.C., Mr. A. B. Aylesworth, Q.C., and Mr. E. B. Osler, M.P., will give addresses to some of the societies. It is easily seen from the programmes that a judicious mingling of papers from students and older people has been secured. The students are required to do the most of the work, but they are not left altogether to their own resources; they have a healthful amount of help and encouragement from more experienced persons.

In addition to the programmes of the seven individual societies a programme of joint lectures has been prepared by a committee representing all the societies. This is a most excellent thing, and cannot fail to prove attractive and profitable to all. These lectures are delivered in the Chemical Amphitheatre, on seven Monday afternoons, at 4.10 o'clock, and a hearty invitation is extended to all friends of the University to attend them. The following is the list of lectures:—

AUTUMN TERM.

- December 3rd—
The Geological History of Toronto: Professor A. P. Coleman, M.A., Ph.D.
December 10th—
The Cradle of the Race: Professor J. F. McCurdy, Ph.D., LL.D.
December 17th—
The Psychological Aspect of Light and Colour (with experiments): Mr. A. H. Abbott, B.A.

EASTER TERM.

- January 14th—
What the Historian should and should not attempt: Professor G. M. Wrong, M.A.
January 21st—
Newton: Mr. A. T. DeLury, B.A.
January 28th—
Greek Sculpture (Illustrated with lantern projections): Mr. A. Carruthers, M.A.
February 4th—
Young Germany: Mr. G. H. Needler, B.A., Ph.D.

UNIVERSITY OF TORONTO ALUMNI ASSOCIATION :
LOCAL ORGANIZATIONS.

SPECIAL MEETING OF THE GENERAL ALUMNI ASSOCIATION.

In accordance with a resolution passed at the annual meeting in June last a special meeting of the General Alumni Association was held in the Chemical Laboratory of the University on Friday, December 14th, at five o'clock.

The President, Dr. Reeve, in a few remarks at the opening of the meeting, spoke of the very pleasant trip he had recently made to the Pacific Coast, and referred with pride to the large number of influential graduates of the University of Toronto he found occupying the leading positions in the various professions, the judiciary and the legislatures of the western provinces.

During his visit he had been the recipient of many kindnesses at the hands of the graduates, and had been afforded many opportunities of discussing with them the plans and aims of the Alumni Association.

Among other matters discussed was the founding of Alumni Research Scholarships; and he was pleased to be able to report that, while the graduates in the West could not, owing to local ties and associations, be expected to take the same interest in the matter as graduates residing in Ontario, still he was assured of their hearty co-operation should the Alumni Association decide to go on with the movement.

The President referred with satisfaction to the kindly manner in which the Alumni generally were assisting the Editorial Committee in the publication of the UNIVERSITY OF TORONTO MONTHLY, and also spoke of the excellent work done by the Committee appointed to consider the expediency of establishing a University of Toronto Club in the city of Toronto.

This committee reported that it had been organized, and had discussed the subject referred to it. The decision had been reached that a down-town club would be too costly to be undertaken at present. Enquiries regarding up-town properties revealed the fact that the most suitable place at a price within the means of a University Club would be the Dean's House in the University Residence.

This house could be had from the University at an annual rental of about \$500. Service would cost about \$500 per annum, and the fitting up of the house and the furniture needed would cost about \$1,000.

A club could accordingly be organized and conducted at the initial cost of about \$1,000, and at a subsequent annual cost of about \$1,000. Having arrived at this result, the committee issued circulars in order to discover how many persons would be willing to join a club situated in the Dean's House at the following scale of fees: Life membership, \$50; five years' membership, \$25; annual fee for resident members, \$10; annual fee for non-resident members, \$5. Replies

were received from fourteen willing to become life members, from sixteen willing to pay \$25 for membership for five years, from forty-two resident graduates, who would become members at the annual fee of \$10, and from four non-resident graduates, who would become members at the annual fee of \$5.

After considerable discussion, it seemed to be the opinion of the Alumni present that the club, if instituted, should be situated down in the city, in closer proximity to the Union Station, and on motion of Professor Baker, seconded by Dr. Smale, the report was referred back to the committee; power was granted to it to add to its numbers, and it was instructed to investigate the cost of conducting a University Club nearer the business part of the city, and report at the next meeting of the General Association.

Colonel Delamere on behalf of the Memorial Window Committee reported that the committee considered the most suitable place for the location of the window to be in the Main Building at the eastern end of the East Examination Hall. A number of the city firms were at present preparing designs for the window and estimates of the probable cost, and when these were received the committee would be in a position to report more definitely on the scheme to the Association.

The President, Dr. Reeve, then spoke of the need of a large hall on University grounds, which could be used for meetings of Convocation, mass meetings of students and graduates, Alumni and Faculty banquets, and Glee Club and other concerts.

The cost of a structure simple in design but suitable for such purposes would be not less than \$25,000.

The President thought that such a hall, if erected, would be a splendid memorial to the Canadians who fell in 1866 at Ridgeway, and also to those who suffered fighting in the recent campaign in South Africa, and very generously offered to be one of one hundred persons, who would agree to construct such a building.

The meeting was asked to consider the proposition. After many kindly references to the generosity of the President, the meeting, on motion of Hon. S. C. Biggs, seconded by Mr. J. H. Coyne, B.A., expressed its hearty approval of the scheme, and asked the President to appoint a committee to carry the project into effect.

The question of founding an Alumni Research Scholarship fund then came up for consideration, and on motion of Dr. Burwash, seconded by Professor Dale, the Association expressed its approval of the project, and the following gentlemen, together with the mover and seconder of the resolution, were named a committee to work out the details of the scheme:—Dr. Loudon, Dr. Reeve, Principal Galbraith, Dr. Glashan, W. Fitzgerald, Esq., Professor I. Martin, W. Tytler, Esq., J. H. Coyne, Esq., Professor Ramsay Wright, Professor Baker, Professor Ellis, Professor A. B. Macallum, Professor I. H. Cameron, Professor Kirschmann, W. R. Riddell, B.Sc., Q.C., C. C. James, Esq., G. H. Watson, Esq., Professor Laird, Professor Bryce, Rev. R. Whittington, D.Sc., Dr. McCurdy, and Dr. Smale.

The question of having the Copyright Law amended so as to require publishers to present the libraries of the Provincial Universities with a copy of each work copyrighted in Canada was brought before the meeting, and after some discussion the matter, on motion of Hon. S. C. Biggs, seconded by Professor Squair, was passed on to be dealt with by the Executive Committee.

J. C. McLENNAN, *Secretary*.

ELGIN COUNTY.

A meeting of the Alumni of the University of Toronto for the county of Elgin and city of St. Thomas was held in St. Thomas on December 8th, when thirty of the Alumni gathered at the city hall. As a result, the Elgin Alumni Association of the University of Toronto was organized and officers elected. Its members will include in addition to those mentioned in clause 3 of the parent association, all undergraduates of affiliated institutions who are proceeding to a diploma.

The officers elected for the current year are :

President—D. McLarty, M.D.

Vice-Presidents—T. W. Crothers, B.A., J. H. Coyne, B.A., Rev. Canon Hill, M.A., W. W. Rutherford, B.A., Nellie Langford, B.A.

Secretary—S. Silcox, B.A., B.Paed.

Treasurer—J. M. Glenn, LL.B.

Councillors—E. W. Gustin, M.D., R. I. Warner, B.A., N. Quance, B.A., J. D. Shaw, B.A., Rev. J. J. Baker, M.A., Dr. Kingston, A. B. Riddell, M.D., J. Teskey, D.D.S., J. P. Cunningham, D.D.S., W. B. Doherty, LL.B., W. L. Wickett, B.A., LL.B., J. H. Kennedy, C.E., J. H. Wilson, M.D., Miss N. Rowell, B.A., Miss C. S. Wegg, B.A., G. L. Fisher.

Dr. R. A. Reeve telegraphed his regrets at not being able to attend, but was represented by Dr. J. C. McLennan, Secretary of the Alumni Association, who was present as the representative of the Alumni Association. Dr. McLennan set before the meeting the origin and aims of the Association and its branches. He showed that there is urgent need of financial support to the University in order to give the young men and women of this country advantages equal to those of other countries. Although the University is handicapped financially, her graduates hold their own wherever they go. If they are given greater opportunities he thought they would take as prominent a place in the world in letters and science as they have recently done in war.

On motion of Dr. Teskey and T. W. Crothers the meeting expressed hearty appreciation of Dr. McLennan's inspiring address and his devotion to the University in coming to St. Thomas in the interests of the Alumni Association.

A motion was carried to the effect that the Legislature be memorialized to take such steps as may be needed from time to time for the due development of the University.

The Executive Committee was instructed to arrange for a banquet in the near future to which the Chancellor and other University officials should be invited.

The meeting adjourned to assemble at the call of the President.

S. SILCOX, *Secretary*.

UNIVERSITY OF TORONTO CLUB, OTTAWA.

The first meeting of the University of Toronto Club, Ottawa, of this season was held on the evening of November 20th, in the Convocation Hall of the Normal School. A general invitation had been extended, and despite the unfavourable weather the Hall was well filled with members of the Club and their friends. The endeavour of the committee in preparing the programme had been to accentuate the literary side of the Club's activity. With this object in view the evening was for the most part devoted to a series of essays written for the occasion by some of the younger graduates. Addresses on University matters by the Hon. Mr. Mulock and the Rev. W. T. Herridge had been promised, but the former, much to the regret of the meeting, was unable to be present. The Club was indebted to the exertions of Mr. C. F. Whitley and to the kindness of those members of the musical profession who so generously lent their assistance for the vocal numbers which gave variety and additional interest to the programme.

The President of the Club, Mr. W. D. LeSueur, B.A., LL.D., opened the meeting shortly after eight o'clock. The first paper was read by Mr. W. W. Edgar, B.A., on "Social Life in Greece and Rome." The social and family life of the people of Athens during the period of Pericles' ascendancy was discussed and compared with that of the Romans under the early Cæsars. Miss G. Kenny, B.A., contributed a paper, "An Ideal English Hero." Her subject was the old Saxon hero Beowulf.

The Rev. Mr. Herridge spoke on certain phases of educational matters generally, and University affairs in particular. He believed the Public School system was not incapable of improvement, and thought a more complete mastering of a few subjects was to be preferred to a superficial glossing over many. The University was the cope-stone of the educational system. Its work did not receive that recognition from the Province which it merited. There should be no question about supplying it with an income commensurate with the work in which it is engaged, and generous enough to permit its proper development. All legitimate efforts should be employed in effecting improvement in this direction. The speaker saw no reason, however, why state aid should dry up the channels of private munificence. There was no worthier cause to which wealthy men might devote a part of their wealth, and, as it were, secure immortality by proxy.

The paper of Mr. H. A. Harper, B.A., "Man and Nature," concluded the essays.

Mr. Otto J. Klotz presented the objects of the recently formed Alumni Association, and gave a short history of what had been accomplished up to the present. The speaker dwelt at some length on the MONTHLY as a means of attaining the aims of the Association, and especially urged every graduate to send in his fee to the Central Association at once to aid in maintaining the MONTHLY which is from its size and the large

number of copies (5,000) issued each month a very expensive publication. Mr. Klotz made an eloquent appeal for the united support of the graduates on behalf of the University, and contrasted its limited endowment with the generous and constantly increasing incomes of the many State Universities in the United States. One suggestion which Mr. Klotz then made is of such importance and interest that we quote his closing remarks on this subject:—"In some of the Universities where similar associations have been formed, it has been found expedient to create a permanent fund, besides the money received from the annual subscriptions. This is done by contributions in larger sums, as life membership—say of \$50.00. This scheme has already found some advocates here, and it is to be hoped that such of the alumni who are in a position to do so will carry out the good suggestion. There is no reason why 100 or even 200 graduates could not be found to assure an endowment fund of \$5,000 or \$10,000. The future of the University is in the hands of the alumni; it is in their power to shape her course, and secure for her adequate support from the State."

FRANK B. PROCTOR, *Secretary.*

The annual meeting of the University of Toronto Club, Ottawa, was held December 15th, and the following members were elected:—

Honorary President—Hon. Clifford Sifton.

President—E. A. Cameron, B.A., '80.

Vice-President—Dr. Courtney, M.B., '85.

Secretary-Treasurer—H. A. Harper, B.A., '95, M.A., '96.

Librarian—Dr. Greene, D.D.S.

Executive Committee—Dr. Coulter, M.B., '82, M.D., '82, Otto J. Klotz, M. Lesueur, B.A., '63, F. B. Proctor, B.A., '96, and A. M. McDougall, B.A., '82.

PERTH COUNTY.

In response to the circular sent out by Stratford University men to the Toronto graduates and undergraduates, resident in Perth County, between twenty and thirty local Alumni met in the city hall at Stratford on the evening of November 24th. The object of the gathering was to organize a branch Alumni Association. All parts of the county were represented, and a number of letters were read from graduates regretting their inability to attend, but expressing their sympathy, and pledging their support to the movement. Mr. C. J. Macgregor, M.A., a distinguished graduate, and one of the oldest University men in the county, occupied the chair. Prof. Dale, of St. Mary's, and Dr. J. C. McLennan, of the University of Toronto, were present. A spirit of intense loyalty to the interests of their Alma Mater animated all. It was decided to form a local association in affiliation with the central organization at Toronto, to be known as "The Perth County Alumni Association of the University of Toronto." The following officers were elected:

Honorary President—Prof. Dale, M.A., St. Mary's.

President—C. J. Macgregor, M.A., Stratford.

Vice-Presidents—Rev. A. Grant, M.A., St. Mary's; Wm. Elliot, B.A., Mitchell; Wm. Climie, B.A., Listowel.

Secretary-Treasurer—C. A. Mayberry, B.A., LL.B., Stratford.

Councillors—Dr. D. B. Fraser, John Idington, LL.B., Stratford; Miss J. Geant, B.A., S. Martin, B.A., St. Mary's; Miss A. Hurlburt, B.A., Dr. Armstrong, Mitchell; C. J. Hamilton, B.A., Dr. A. H. Nichol, Listowel.

The desire was unanimous that the Perth County Alumni Association should meet at least once a year to renew old acquaintances, to keep green the memory of past associations, and to band themselves together in the interests of the University. With this idea in view, the Stratford members of the Executive were directed to make arrangements for a dinner, to be held in February next. Some of the most eminent graduates in the province will be invited.

The financial needs of the University were discussed at length. Prof. Dale, J. A. Davidson, Dr. D. B. Fraser and the Secretary, were appointed a committee to draft a memorial to the Provincial Government, setting forth the urgent needs of the University, and the duty of the Government in putting its finances on a more substantial basis. The same committee is also to request the local members of the Legislature to present the memorial at the next meeting of the House.

The Secretary was instructed to prepare a report of the organization meeting, and to send it to the graduates and undergraduates of the county with the view of securing the active co-operation and sympathy of as many of the alumni as possible.

C. A. MAYBERRY, *Secretary*.

THE MEMORIAL HALL.

BY R. A. REEVE, B.A., M.D.,

President of the University of Toronto Alumni Association.

THE Memorial Window, which graced the old Convocation Hall and was destroyed by the fire, is to be replaced. This may be held to be a sort of sacred duty. A window is a beautiful and appropriate memento: There are reasons which impel us to urge that a Memorial Hall would now more fully commemorate the heroism of the men who fought and fell at Ridgeway; and, in addition, be a most timely memorial to the patriotism of those who have suffered in South Africa, fighting in defence of the Empire.

Such a hall, which the Alumni Association now aims at securing, and which is greatly needed for various purposes, would happily illustrate fine sentiment and a wise utility. The building itself, apart from the inscription over its portals and the tablets, etc., within, would ever be a splendid object-lesson, pointing a moral of high order to the flower of the youth of our country, who flock to its greatest seat of learning. Every great University should have a great Hall, to hold the many hundreds of her students,—a place where they can rally and mix, and see and hear one another. Not to have this, is to neglect an important

means of promoting that *esprit de corps* which should prevail in every great institution, and which is at once a fine feature of the best college life and a distinct factor in the higher education of youth.

Those at the helm have long realized this need, and have doubtless felt keenly a certain loss of dignity, if not prestige, in having to seek quite unacademic quarters for Convocation. There is a natural feeling that it enhances, in a sense, the honour, if not the value, attached to a degree, if it be given in the presence of great numbers; and there can be no doubt that one who is hooded where, for example, as in Trinity College, Dublin, a Burke and a Grattan and other worthies have their eyes upon him, will get the stronger motive power to attempt great things in life.

The old Convocation Hall was a splendid room, but it was not nearly large enough in later years. Ten years after its destruction, the University is without an Assembly Hall which will hold more than 500. It should have one to seat at least 1,500; and this, if but for one reason: Patrons and friends, whom no institution can afford to ignore, stay away on public occasions because it is useless to try to gain admittance.

But what bearing has this upon the project of a Memorial Hall? This, that while for strictly academic ends a small hall might suffice, the University owes it to the public to try, as far as possible, to meet their wishes.

Now, there are no funds at their disposal for such a purpose. Several departments of the University need equipment and endowment, and a large hall would doubtless be the last requirement to be met, even should the Government and Legislature respond to the urgent request of the University authorities for legitimate financial aid.

The public, therefore, on their part should feel it their duty to help in this event, especially as the present disability is not the fault of the University authorities. Hence, the proposed scheme is peculiarly one to be carried into effect by the voluntary efforts of the friends of the institution. Of course, it would seem right that the burden should fall largely but not wholly upon Toronto. Its public-spirited citizens naturally take great pride in the University, and they will, it is hoped, respond liberally. The University is a Provincial one, and, therefore, the public elsewhere should feel the force of the appeal.

Fortunately the Alumni of our institution, which is nearly fifty years old, now form an important part of the body politic, and hence they have a double duty, to give on their own part and to urge others to give.

In this regard alone is shewn at once the value to the University of the Branch Alumni Associations now being formed in Ontario and other Provinces.

It is not a visionary scheme to expect that a hall in memory of men of whom the country is proud, and which will itself in due time be the pride of the country, will be opened ere the celebration of the semi-centenary of the University. Indeed, this feature might well form good ground for a special plea and the more strenuous effort.

A preliminary meeting of the Memorial Hall Committee, appointed by the President in virtue of a resolution passed at the special meeting of the Alumni Association on December 14th, was held in the library of the Canadian Institute on Thursday afternoon the 20th inst. President Reeve was called to the chair, and on motion of Dr. Oldright, seconded by Dr. Needler, Dr. Smale was appointed permanent Secretary to the committee.

After several of the gentlemen present had expressed themselves enthusiastically in support of the proposal, the following resolution moved by Colonel Mason and seconded by Colonel Delamere, was carried:—

“Resolved that the Memorial Hall Committee called on the authority of the University of Toronto Alumni Association here assembled approves of the project of erecting on the grounds of the University of Toronto a Memorial Hall in memory of those Canadians who fell at Ridgeway, and of those who suffered fighting in the recent campaign in South Africa.”

On motion of H. B. Spotton, M.A., seconded by C. Gzowski, Esq., the following persons were appointed a committee with power to add to their numbers from the general committee, to act in conjunction with the authorities of the University of Toronto in selecting a site and in preparing plans for the proposed Memorial Hall:—

Hon. George A. Cox, J. W. Flavelle, Esq., E. O’Keefe, Esq., Walter Barwick, M.A., Q.C., W. E. H. Massey, Esq., Z. Lash, Q.C., J. S. Willison, Esq., Lieut.-Col. J. I. Davidson, Lieut.-Col. Mason, Elias Rogers, Esq., L. E. Embree, M.A., J. K. Macdonald, Esq., O. A. Howland, M.A., Hon. S. C. Biggs.

For the purpose of inviting subscriptions for the erection of the proposed Memorial Hall, the following were appointed a sub-committee, with power to add to their numbers from the general committee, on motion of the Hon. S. C. Biggs, seconded by Mr. O. A. Howland:—

A. E. Kemp, M.P., A. E. Ames, Esq., Thomas Long, Esq., Edward Gurney, Esq., W. D. Matthews, Esq., Lieut.-Col. Mason, J. Kerr Osborne, Esq., E. B. Osler, M.P., Miss Lawler, M.A., A. W. Fleck, Esq., T. G. Blackstock, Q.C., J. M. Clark, M.A., LL.B., Q.C., S. C. Wood, Esq., E. Bristol, Q.C., A. T. Wood, Esq., John Carroll, M.D.

In seconding the motion, Mr. O. A. Howland expressed an earnest hope that the building when erected would be possessed of such architectural beauty as would make it an attractive and instructive monument as long as it should last.

The Chancellor, Sir William Meredith, though unable to be present, sent a hearty message of encouragement and support, and the Vice-Chancellor, the Hon. Charles Moss, in conveying this, took occasion to express his own sympathy with and good will towards the project.

Chancellor Burwash, of Victoria University, in a strong speech pointed out the absolute need of such a building as the proposed hall, and dwelt on the difficulty of developing a fellow-feeling among the students and staffs of the various Faculties and Colleges when there was no common roof on University grounds under which they could be gathered.

The committee then adjourned to reassemble at the call of the Chair.

J. C. McLENNAN, *Secretary pro tem.*

MEDICAL FACULTY, CLASS OF '95.

BY T. W. G. M'KAY, *Secretary-Treasurer.*

THE class of '95 of the Faculty of Medicine in the University of Toronto owed its formation into a society to the good feeling engendered in a gathering held on June 5th, 1895, the evening after graduation and the conferring of degrees. It was then decided to hold a meeting once every five years, and a committee was appointed to arrange for the next meeting, which was eventually called for December 6th, 1900, to take place in connection with the annual dinner of the Medical Faculty.

In concordance with the Secretary's call, class '95 met December 6th, 1900, at three p. m., in the Dean's House, University College, fifteen members being present and Morley Currie, the President, in the chair.

The roll call being read, Drs. Addison, Chapin, Currie, Fleming, Gibson, Hunter, McKay, McPhail, McPherson, Sheahan, Small, Sloane, Simpson, Webb, White, answered to their names, Chapman, Lancaster and Pratt, turning up later in the day.

Letters and telegrams of regret at inability to be present were read from several other members of the class.

This being the first regular meeting of the class the By-laws, as printed, were read and approved. The Secretary-Treasurer's report was received and adopted. The members then paid their class dues in full up to date. Dr. John Sheahan was elected to respond to the toast to the class '95. In future the retiring President is to respond to this toast.

Nominations and elections of officers were then proceeded with.

Dr. Morley Currie of Picton, was re-elected President.

Dr. Max Klotz of Ottawa, was re-elected Vice-President.

Dr. T. W. G. McKay of Oshawa, re-elected Secretary-Treasurer; and for the committee of three:

Dr. E. T. Kellam of Niagara Falls, re-elected.

Dr. W. J. Chapman of Rat Portage, re-elected.

Dr. Arthur Small of Toronto, elected to fill the place of Dr. McArthur, who is at present in England, as it was found necessary to have one of the officers resident in Toronto.

Two subjects of importance were then taken into consideration.

1. How best to secure regular inter-correspondence between the members of the class.

2. The possibility of carrying out the hope of a class memorial scholarship.

1st. It was determined to start a circular letter in operation, the member receiving such a letter assuming the responsibility of preserving it and adding to it while in his possession and then forwarding it to another member of the class. The letter is to contain all items of personal, local or professional interest to the class and from time to time is to be returned to the class Secretary to enable him to extract from it for his historical book all items of general interest. These shall be collected

together in printed form from time to time and distributed to the members of the class.

2nd. It was determined to carry out the idea of a class memorial scholarship by putting by for an endowment fund all surplus from class fees over the cost of transacting class business together with whatever donations may be sent in from time to time by the members of the class.

The President then called on each member individually for a few remarks, and after a much enjoyed afternoon the class separated to meet at 7.30 p.m. in the University Gymnasium building, to share in the annual banquet. On arriving at the Gymnasium we found the Dinner Committee had very kindly given us a table along with the Hospital House Staffs, where we could be all together and enjoy ourselves as in olden times. Care had also been taken to see a toast had been reserved for us, and mention given us on the menu card. During the evening the committee took especial pains to see after our welfare and make us feel at home, and we all thoroughly enjoyed ourselves. We were pleased to notice the attendance at the dinner had not diminished, but had in fact increased. We were, moreover, especially struck with the temperance character of the beverages indulged in, and the most remarkable order and thorough gentlemanliness with which the whole affair was conducted. Ninety-five congratulates the Medical Faculty on her 1900 record dinner, and wishes she may continue so to have them for her own honour and her students' credit; and our sole desire is to be spared to celebrate future dinners with her for our own felicitation.

It was a common remark among our class after we met together again, before separating for another five years, that the pleasure of seeing old faces among our classmates and the members of the faculty, and the intellectual enjoyment of listening to the "pure wells of English undefiled," which overflowed for our mental good, was alone worth all the trouble and inconvenience we had been to in coming to Toronto, and several silent prayers were uttered that the teaching faculty might never look upon the annual dinner as anything else than a necessity, which it was their duty to propagate, whatever be the cost, to indicate that faculty and students were man and man, friend and friend, to the glory of Alma Mater. The members of the class were very much pleased on meeting Dr. Lang to find the new Professor of Chemistry so manly and full of enthusiasm.

A class memorial scholarship is to be founded, and already a nucleus has been set aside for the purpose, which will soon grow, it is hoped, into a substantial sum.

TORONTONENSIA.

UNIVERSITY OF TORONTO
MONTHLY.

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NEWS FROM THE CLASSES.

The personal news is compiled from information furnished by the Secretary of the University of Toronto Alumni Association, and by the Secretaries of local organizations, and from other reliable sources. The value of this department might be greatly enhanced if University of Toronto men everywhere would contribute to it. The correction of any errors will be gratefully received by the Secretary of the Alumni Association.

The class of 1845 will be taken up in the January issue of the MONTHLY, for which Mr. William Wedd, B.A., '45, M.A., '48, is preparing a class history. We present in this issue a few facts about some members of the classes representing the decades since '45, the names being taken in all cases in

the order of their occurrence in the University of Toronto Catalogue in the office of the Secretary of the Alumni Association. The remaining names in each year and the remaining years of the Arts and other Faculties of the University will be taken up as the information is compiled and occasion offers.

1855.

C. J. MacGregor is Custom House Officer at Stratford, Ont.—J. E. Sanderson is a Methodist clergyman in Toronto.

1865.

J. E. Bowers is a Physician at the Lunatic Asylum in Duluth, Minn., U. S. A.—John Campbell is a Professor at the Presbyterian College in Montreal, Quebec.—W. G. P. Cassels is practising law in Toronto.—R. D. Douglass is in the firm of R. G. Dun & Co., New York.—Jeffrey Hill is an Anglican clergyman at Dundalk, Ont.—R. G. Scott is a School Inspector in Renfrew County, Ont.—W. W. Tamblin is a teacher in Bowmanville High School.—James Thom is a Methodist clergyman at Bloomfield, Ont.—Algernon Woolverton is practising medicine at Hamilton, Ont.

1875.

J. A. M. Aikins is practising law in Winnipeg, Manitoba.—T. C. L. Armstrong is practising law in Toronto.—F. R. Beattie is a Professor at the Louisville Theological Seminary, Louisville, Kentucky, U. S. A.—H. T. Beck is a barrister in Toronto.—B. E. Bull is practising law in Toronto.—Thomas Carscadden is Principal of Galt Collegiate Institute.—L. E. Embree is Principal of the Jameson Avenue Collegiate Institute, Toronto.—David Forsyth is a teacher in Berlin, Ont.—Leonard Harston is a barrister at St. Mary's, Ont.—J. F. Jeffers is in insurance business at Belleville, Ont.—W. F. King is in the Department of the Interior at Ottawa, Ont.—Alexander Leslie is a Presbyterian clergyman at Goble's Corners, Ont.—Joseph McCoy is a Presbyterian clergyman at Vernon, B. C.—A. P. McDiarmid is a Baptist clergyman in Toronto.—R. P. McKay is head of the Foreign Mission Committee of the Presbyterian Church in Canada.—James McMurchie is teaching in Hariston.—D. Y. Moss is a Presbyterian clergyman in St. George, Ont.—G. E. Shaw is a teacher in the Jarvis Street Collegiate Institute, Toronto.—T. H.

Smyth is a teacher in the Harbord Street Collegiate Institute, Toronto.—John Wilkie is a Presbyterian missionary in Indore, India.—J. A. Wright is a barrister in Toronto.

1885.

A. A. Adams is practising law in Toronto.—A. Bain is practising law in Toronto.—A. R. Barron is a Presbyterian clergyman in Toronto.—J. J. Bell is teaching in Petrolea, Ont.—J. H. Cameron is Lecturer in French in University College.—W. C. Chisholm is the assistant solicitor of the city of Toronto.—A. Collins is a barrister in Walkerton.—J. A. Collins is a barrister in Duluth, Minn., U. S. A.—J. A. Creasor is practising medicine in Toronto.—J. J. Elliott is a Presbyterian clergyman in Midland, Ont.—A. J. Forward is a barrister in Ottawa.—H. R. Fraser is a Presbyterian clergyman at Cornwall-on-the-Hudson, N. Y.—J. L. Gilmour is a Baptist clergyman at Hamilton, Ont.—H. J. Hamilton is a missionary in Japan.—H. J. Haviland is a clergyman in Kemptville, Ont.—S. A. Henderson is a barrister in Ashcroft, B. C.—G. H. Hogarth is teaching in Whitby.—Gordon Hunter is practising law at Victoria, B. C.—W. H. Irving is a barrister in Toronto.—H. E. Irwin is a barrister in Toronto.—E. H. Johnston is a barrister in London, Ont.—J. B. Kennedy is a Baptist clergyman in Toronto.—E. B. Kenrick is a Lecturer in Natural Science at St. John's College, Winnipeg.—J. Kyles is a barrister in Toronto.—D. C. Little is teaching in Toronto.—W. M. Logan is teaching in Toronto.—R. O. McCulloch is in the firm of Goldie & McCulloch, Galt, Ont.—Stephen Martin is teaching in Toronto.—M. S. Mercer is a barrister in Toronto.—George Mickle is a Lecturer in Mining, School of Practical Science, Toronto.—M. F. Muir is a barrister in Brantford, Ont.—D. McColl is a Presbyterian clergyman at St. Sylvester, Quebec.—

1895.

J. McNiece is teaching in Welland, Ont.—J. L. Paterson is a Presbyterian clergyman at Arthur, Ont.—Alexander Pearson is teaching at Mount Forest, Ont.—W. H. Piersol is practising medicine in Toronto.—W. G. Richardson is a Presbyterian clergyman at Wyoming, Ont.—S. H. B. Robinson is practising law at Orillia, Ont.—T. R. Rutherford is a Presbyterian clergyman at St. David's, Ont.—W. J. Rusk is a Lecturer in Mathematics at the University of Bishop's College, Lennoxville, Que.—F. A. Saunders is a

Lecturer in Haverford College, Haverford, Pa., U. S. A.—W. A. Scott is practising medicine at Courtwright, Ont.—H. R. Scovell is teaching at Norwood, Ont.—S. S. Sharpe is a barrister at Uxbridge, Ont.

ADDRESSES UNKNOWN.

Part of the work which the Alumni Association has undertaken is the compilation of a catalogue of the graduates of the University of Toronto and its maintenance in as correct a form as possible. It was found that a very great number of our graduates had dropped out of sight—no response came from their addresses as found in the Registrar's books, and, as far as their Alma Mater was concerned, they were unknown. A very large number of these addresses have been already corrected by correspondence through the kindness of graduates who have sent us information. Many names are still lacking addresses, however, and we request our readers to aid in completing the catalogue by sending in at once addresses for any of the following names:—

Class of '45, Arts—H. J. Boulton, S. Lightburne, S. S. Macdonell, W. Ramsay, J. Stanton.

Class of '48, Arts—R. G. Westropp.

Class of '49, Arts—G. F. Loring, W. Winer.

Class of '50, Arts—J. L. Gage, A. J. Grant, H. Hurlburt, R. N. Light.

Class of '51, Arts—T. T. Robarts.

Class of '92, Arts—D. C. Brown, J. S. Brown, J. C. Clark, R. K. Duncan, J. W. Garvin, G. Gerrie, E. Hamilton, G. R. N. Head, H. A. Howell, R. M. Huston, T. E. Reid, W. J. Shaw, H. I. Wales.

Class of '95, Arts—C. Chaisgreen, J. W. Hewson, E. E. Law, W. A. Merkley, W. C. Simmons, J. J. Smith, L. F. Stephens, W. E. Stephenson.

PERSONALS.

At the recent examinations John McKay, B.A., '99, stood head of the class, winning a scholarship, in Free Church College, Glasgow.

G. M. Murray, B.A., '98, has entered the employ of the Sault Ste. Marie Paper and Pulp Co. at Michipicoten Harbor, Ont.

M. W. Wallace, B.A., '96, Ph.D., '99 (Chicago), has been appointed Root Professor of English in Beloit College, Wisconsin.

Win. McQueen, B.A., '92, is City Clerk and Treasurer and also Justice of the Peace in Rossland, B.C. He writes congratulating the Association on the MONTHLY.

B. S. Cohoe, B.A., '98, has been appointed Demonstrator in Biology in the University of Toronto, and W. H. McNairn, B.A., '99, has been appointed assistant in Mineralogy and Geology.

E. Andrewes, B.A.Sc., '97, who was two years Assistant Assayer at the War Eagle gold mines in Rossland, B.C., is now Demonstrator in Metallurgy in McGill University, Montreal.

Miss M. A. Mackenzie, B.A., '92, has returned to the Massachusetts Training School for Nurses, Boston, after spending a few weeks with her friends at 110 Yorkville avenue, Toronto.

G. V. McLean, B.A., '93, M.A., '96, Mathematical Master in the High School at Markham, Ont., has been offered an increase in salary of \$200 a year to remain there instead of going to Paris, Ont., to fill a similar position.

J. A. MacVannel, B.A., '93, M.A., '94, is at present delivering a free course of lectures on pedagogical subjects in New York. Dr. MacVannel formerly held a fellowship in Cornell University, then in Columbia University, and at present is assistant in Philosophy in Columbia.

A. H. Young, B.A., '87, M.A. (Trin.), has been appointed Professor of Modern Languages in Trinity University. This is the first time that a professorship in Trinity has been given to one not in clerical orders in the Anglican Church. Mr. Young is a Presbyterian.

The following graduates of the University of Toronto at present hold fellowships in the University of Chicago:—S. B. Leacock, '91, in Political Science; R. S. Lillie, '96, in Zoology; G. Clark Sellery, '97, in History; S. Bower Sinclair (M.A., '93), in Pedagogy; D. Thomson, '92, in Latin.

Dr. Richard Thorburn, whose death is announced this month, had practised medicine for the past fifteen years at Colborne, Ont. He was the youngest son of the late David Thorburn, formerly M.P. for Lincoln, in the old Provincial Assembly, and was born in Queenston, Ont., about 1848, and educated, first at Queenston, afterwards at the University of Toronto and at Oxford. Entering the medical profession, he practised for several years in Queenston, and fifteen years ago removed to Colborne, where he has since lived.

D. G. Revell, B.A., '94, M.B., '00, has been appointed Fellow in Anatomy in the University of Chicago, under Prof. L. F. Barker, M.B., '90. Dr. Revell, after receiving his Arts degree, devoted several years to teaching, and then took up the study of medicine in the Medical Faculty of the University of Toronto. After a distinguished course, he took his degree in Medicine in 1900, graduating with honours and securing

the Silver Medal. In this contest the competition was very keen, there being a difference of but six marks in the total number secured, between the three medalists.

A. T. Thompson, B.A., '90, LL.B., '91, M.P. for Haldimand and Monck, who defeated Dr. Montague in the recent general elections, was born in the Township of Seneca, in the County of Haldimand, in the year 1870, and was educated in the public and high schools of the county, and at Upper Canada College. He took the Political Science course at the University of Toronto, where he was awarded two scholarships graduating at the head of the class, equal with W. E. Woodruff, St. David's, Ont. While at the University, Mr. Thompson took a prominent part in the Glee Club, of which he was president in his final year, and was an enthusiastic member of "K" Company, Q.O.R., from '88 until '92, when he received a captaincy in the Haldimand Rifles, of which battalion he now holds the majority. Major Thompson actively took part in every phase of college life. He was called to the bar in 1893, and has since practised law at his old home in Cayuga with marked success, and has also carried on a very considerable timber business. Politics come naturally to Major Thompson, as his father represented Haldimand from 1863 till his death in 1886, and his grandfather from 1841 till 1851.

MARRIAGES.

Miss Beatrice Cross, B.A., '94, was married a short time ago in Madoc, Ont., to Mr. John Hutchison, of Toronto.

Miss Ida M. Kerr, B.A., '98, was married on June 20th last in Toronto to W. R. P. Parker, B.A., '93, barrister, Toronto.

W. Ivan Senkler, M.B., '91, was married December 19th in Toronto to Miss Leila Mackay.

T. Murray, B.A., '92, was married December 19th to Miss E. L. Redfern, B.A., '98.

DEATHS.

Rev. A. J. McLeod, B.A., '85, B.D., '88 (Knox), who has been for some time Principal of the Indian School at Regina, N.W.T., died very suddenly November 20th. The interment took place at Kincardine, Ont.

Evelyn Durand, B.A., '96, died at Boulder, Cal., where she had gone in the hope of restoring her failing strength.

The death of J. G. Inkster, B.A., '99, is reported from Aberdeen, Scotland, early this month.

R. Thorburn, M.B., Colborne, Ont., died in Toronto, December 14th.

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THE UNIVERSITY AND STATE AID.

BY PRESIDENT LOUDON.

IS it true that the University of Toronto, the only academic child of the state, is being subjected to starvation? Is it true that she has been growing, and that her growth will be checked, if substantial aid is not forthcoming? Can such things be, in a state institution under government control and in the shadow of the legislative buildings? Such are the questions which reach me almost daily from alumni throughout the length and breadth of the Province.

The object of this paper is to answer these queries, to explain the financial situation, and very briefly to set forth the urgent needs of the University. As to the questions themselves, they may all be answered by one affirmative word. An institution, which for the last four years has had annual deficits, and which has no better prospect for the present year, is already undergoing the starving process. Such is the financial situation of the University of Toronto at the present time. As to the growth and increased efficiency of the institution, within its limitations, so many proofs have been given of late, that it is unnecessary to enlarge on this topic here. But growth and starvation are incompatible. The

terms are self-contradictory, and if the present situation continues, inaction with its inevitable result is bound to follow.

Deficits in a university arise, just as they do in any business concern, from stationary or falling income combined with rising expenditure. Such a combination the University has been obliged to face. An alumnus of twenty-five years ago, or even later, may be at a loss to understand why the income, which was ample in his day, no longer suffices. This matter cannot be set forth in full here. I might say, however, that the University of a quarter of a century ago, with its ideals and methods, would to-day be an anachronism. Changed ideals, newer and more rational methods, the progress of science, the obligations of federation, the maintenance of a higher standard of learning, if our country is to hold even a decent place as a nation—all these things have made the expansion of the University a necessity. It has been in an attempt to keep pace with the age, to fulfil obligations deliberately undertaken by the Government, to make the University something like what it ought to be, that deficits have arisen. We have been trying to make one dollar do the work of two, and the experiment has reached its natural conclusion.

Let me now give a few figures. I do not propose to enter into complex and technical questions of finance, but simply to cull a few items from the reports to show the financial situation of the last few years. What have we been attempting? We have been attempting to maintain a large university, with its literary and scientific departments, its library, laboratories and museums, its teaching staff of fifty members, its twelve or thirteen hundred students, for the sum of \$121,500* a year. Such is the average income for all these purposes, from all sources, for the last four years, if we except a windfall of \$8,200 in 1898. Diminish this gross income by \$43,500, the average from fees, and \$78,000 is left. But this includes a rising sum, amounting now to \$7,700 a year, which can no longer be charged against the old Upper Canada College block; so that the actual income from state endowment is \$70,300, and this without taking account of certain items (the interest on scholarship and other trust funds) which would really reduce it to \$63,300. This income, such as it is, is stationary, and may, with falling interest, become even less.

So then the University has been taking in, on the average, \$121,500 annually for these four years. What has it been expending?

For 1896-7	\$129,200
“ 1897-8	123,200
“ 1898-9	128,700
“ 1899-00	136,500

The largest item, and the one showing largest increase, is that of salaries, rising from \$90,800 in 1896-7 to \$99,000 in 1899-00. This difference represents almost wholly the increases according to a scale adopted by the Government some ten years ago. It is practically an uncontrollable

* In these statistics amounts are given to the nearest hundred.

expenditure. Maintenance of the buildings and grounds has been reduced by rigid economy by about \$2,000 annually in this period. The running expenses of departments, including laboratories, were, in 1896-7, \$7,100; next year, \$4,600; the next, \$4,800; and last year, \$8,700. Here the starving process was tried for two years, but could not be maintained in all its rigour. For three years back, about \$3,000 has been saved annually by the staff, including that of Victoria, acting *gratis* as University examiners. Such, then, is the condition of affairs as regards present needs and resources. The total deficit for the four years is \$31,600. I have not yet referred to the larger question of necessary expansion. We have advanced up to a creditable point of efficiency; are we to beat a retreat at this juncture?

The first thing to be done is to wipe out the deficit; but this is only a small part of what is needed to make the University thoroughly efficient according to modern standards, and adequate to the real requirements of the Province. The more expensive side of a modern university consists of its scientific departments, and for these most money will be needed. Under this head, the most pressing necessity is for Mineralogy and Geology, the claims of which have been almost entirely ignored. This department requires, and must have, a new building, new equipment and a reorganized staff. The work of the Physical Laboratory is carried on now in an entirely unsuitable and inadequate set of rooms, which were originally designed for quite a different purpose. This department must have a new building in the near future. The Biological Building has no longer sufficient accommodation for Physiology, and new quarters must be found elsewhere for this department. Besides, all six of the scientific departments require a much more liberal annual allowance for maintenance.

Nor is this all. For want of money, the University is being checked half way in its post-graduate courses. The research degree is granted now in the Sciences and in Oriental Languages. It is not granted in Classics and in the Modern Languages. This discrepancy in organization should disappear, and provision should be made in all departments for the prosecution of such work. For all research work the Library is an essential factor. Its annual allowance must be largely increased, if it is to continue to meet the wants of a growing University.

To provide for all these urgent needs at least \$50,000 additional annual income will be required in the near future, and this without taking account of new burdens which new federations may lay upon the institution. It must be remembered in this connection that free instruction is given by the University to students of federating universities in many of the subjects of the course, including the most expensive ones.

To those who have not followed closely the University question, this demand may seem extravagant. Twenty-five years ago the University was comfortably off for what it then attempted and was required to do. It would be extraordinary, indeed, if an income, which since that time has increased only as regards the amount extracted from the student, should

to-day be adequate. A glance at the rapidly rising expenditure of our elementary and secondary schools confirms this view. But let us see what sum is considered elsewhere as an adequate income for a university which provides for the wants of a territory and population equal, or similar, to that of Ontario. I shall leave out of account the universities made enormously wealthy by private benefaction, like Harvard or Cornell, and shall mention only two, which afford a fair basis of comparison. The University of Michigan, supported by the State, spends upwards of \$500,000 annually, more than four times our income. The State University of California has an annual income of \$330,000. Now, our neighbours of the United States are not given to the spending of money except for value received. They do not consider a university, as many here do, a luxury for the rich, but a necessity of national life, and they tax themselves accordingly to support it in efficiency. And while speaking of the universities of the United States, I feel that I ought not to pass over a fact which, to me at least, causes a feeling of humiliation and regret. For want of facilities at home, our young men are going year by year in increasing numbers to obtain in these universities an education which their native country denies them. Last year 23 Canadians studied at Cornell, 20 in Michigan University, 19 at Harvard, not to speak of Chicago, Johns Hopkins and others, which I doubt not would bring the total to upwards of 100.

To what source must the University look for this large increase of income, so urgently needed? Undoubtedly to the Province. Private benefaction is acceptable, and the University has received, and will receive, considerable sums from the generosity of individuals. But such a source is uncertain, and this is especially the case when a state institution is concerned. And let me put it plainly: the University as part of the state system of public instruction has the same right to look to the Province for support as the public and high schools. But, it may be asked, "What has been done to bring the claims of the University before the Government, and with what result?" Now, I may say that even as far back as 1885, application was made for increased aid. Then again in 1894, when the deficits were imminent, a strong representation was made. The answer on that occasion was not encouraging. The deputation was told: "You are asking for a grant of public money, and we may as well say at once that you would never get the Legislature to assent to such a grant. It would be useless to ask for it, and we would not take the responsibility of doing so." Now I do not think that these words represented the feeling of the Legislature then or since. At the time of the fire of 1890 the Legislature was most generous, and in 1898 a grant of six townships and of \$7,000 annually, in extinction of old claims, was passed with practical unanimity. Since 1894, three applications, including that of 1898, have been made to the Government by the Senate and Trustees, and although nothing was given, the attitude of the Government was more encouraging. Recent utterances of the Premier and the Minister of Education practically invite an agitation of

the graduates and friends of the University, in order to strengthen the hands of the Government in carrying out the good intentions to which the gentlemen named stand personally committed.

We cannot, of course, admit that the whole burden of responsibility in this matter rests on the alumni and friends of the University. If a deficit had occurred in connection with other educational institutions controlled and administered by the Government, say the Agricultural College or the School of Practical Science, it would hardly be fair to say that the deficit could only be wiped out if the Government were forced to take action by a popular agitation organized by the friends of technical education. And yet, having regard not only to the present deficits, but also to future expansion, there is no doubt that the influence of the alumni will count for much. I have implied already that I do not believe that hostility towards the University exists among the people and in the Legislature. I grant freely that a considerable amount of ignorance and apathy does prevail as to the real bearing of university education on the well-being of the community. The clear duty of the alumni at this juncture is to help in putting the case before the people, and in bringing influence to bear individually and collectively on public opinion, so that a positive and practical movement in favour of their *Alma Mater* may be developed. There are abundant evidences that the alumni will soon be a mighty factor in this question. A strong and active central organization exists, branch associations have been formed in many localities in the past few months, and I hope before the year is out to see a vigorous association of graduates in every county of Ontario.

In conclusion, let me urge graduates in such localities as have no association to organize at once, and let me urge existing organizations to bring this matter before the people and before the members of the Legislature. If this is done, I for one have no fear of the ultimate result. With organization and effort the alumni constitute a force, the just demands of which cannot, and will not, be ignored.

CANADIAN COPYRIGHT.

BY PROFESSOR JAMES MAVOR.

I HAVE much pleasure in responding to the wish of the Editors of the UNIVERSITY OF TORONTO MONTHLY, that I should give a short account of the recent history of the Law of Copyright in Canada. The complexity of the subject, however, renders it very hard to make a brief statement which would in any sense be also a clear and adequate one.* The British Copyright Act of 1842, following the example of the Act

* In these notes, I have drawn largely upon a private memorandum of Lord Thring, who drafted the recent English Copyright Bills; and upon a letter of my own to Sir John Bourinot, which is published in the "Transactions of the Royal Society of Canada," Vol. VI., Appendix A., page II.

of Ann of 1709 (8 Ann, ch. 21) extended copyright to the whole of Her Majesty's dominions, but did not grant to the colonies the right to give copyright throughout the Empire for books first published in the colonies. The International Copyright Act of 1886 (49 and 50 Vict. ch. 33) extended copyright in the United Kingdom to books first published in the colonies exactly as if they had been published in the United Kingdom. A book published anywhere in the Empire, thus enjoyed copyright throughout the Empire. During the period in which the Copyright Act of 1842 was alone the law on the subject, that is, from 1842 until 1847, the conditions of the book trade in the United Kingdom rendered the publication of comparatively expensive editions the rule. Circulating libraries were the principal customers, and it was to the interest of these to keep the prices of books high. Meanwhile the demand for English books in the United States led to the reprinting of books there in a cheap form, without, as a rule, any compensation being paid to the authors or owners of the copyrights in Great Britain. The facility with which these cheap reprints could be introduced into Canada, in infringement of copyright, led to demands on the part of the British North American Provinces that some arrangement should be made for the reprinting in Canada of books in regard to which copyright subsisted in Great Britain. As understood at the time, the law of copyright did not permit the owner of a copyright to assign any part of his right without assigning the whole of it; and thus, even if Canadian publishers had been willing to buy the right to reprint in Canada, no effective transfer of this right could have been made.*

In order, at least partially, to remedy this grievance, the Colonial Copyright Act (10 and 11 Vict., ch. 96) was passed in 1847. This Act was devised specially to meet the case of Canada, and under it the Queen was authorized to allow by Order-in-Council the introduction of foreign reprints into any colony which undertook to provide for the payment of a certain royalty to the author. Nineteen British colonies availed themselves of the Act which came to be known as the Foreign Reprints Act. During the ten years which followed the passing of the Act, Canada paid about \$5,000 under its provisions, while the remaining colonies paid only \$350, seven of them paying nothing at all.

In 1865, there was passed the Colonial Laws Validity Act (28 and 29 Vict., ch. 63), which declared to be void any Act of a colonial Legislature which was repugnant to any Act of the Imperial Parliament.

In 1867, the B.N.A. Act, in section 91, specifies copyright among the subjects which are to be within the exclusive legislative authority of the Parliament of Canada. This provision has been the occasion of prolonged controversy between the Dominion Parliament and the Colonial Office. The law officers of the Crown in Canada have held that by this provision it was intended that Canada should have complete autonomy

* See opinion of Lord St. Leonards, "Jeffreys v. Boosey" IV., H. of L. Repts., p. 815. This opinion has, however, since been overruled.

in copyright legislation; while the law officers of the Crown in England have held that the provision referred only to the authority of the Dominion Parliament as distinguished from the authority of the Provincial Legislatures, and that autonomy in relation to Imperial Acts upon the copyright was not implied.*

Meanwhile the working of the Foreign Reprints Act of 1847 had resulted in widespread dissatisfaction in England and in Canada alike.†

In consequence of this dissatisfaction it was proposed, in 1869, that the Governor-General-in-Council should grant licenses to Canadian publishers to publish English books on payment of a royalty or excise duty of 12½ per cent. to the author, the publication being made with or without his consent. Objections were made to this proposal, and it was dropped.

In 1873 and 1874, a correspondence took place between the Colonial Office and Mr. Mackenzie, then Premier of Canada, and the result was an Act which was passed in 1875, giving power to any person domiciled in any part of the Empire to obtain copyright in Canada for twenty-eight years, with a second term of fourteen years, the condition being that the book should be printed and published or reprinted and republished in Canada. Under section 15‡ “Nothing in the Act shall be held to prohibit the importation from the United Kingdom of copies of such works legally printed there.”

“The practical effect of the Canadian Act of 1875, was to exclude, during the term of Canadian copyright, foreign reprints of such books if they obtained the benefit of the special Canadian copyright by being published and printed in Canada.”§

Doubts having arisen regarding the validity of this Act owing to its alleged repugnance to the Order-in-Council passed in accordance with the Foreign Reprints Act, an enabling Act was passed by Imperial Parliament (The Canada Copyright Act, 1875, 38 and 39 Vict., ch. 53). A clause was, moreover, inserted into this Act at the instance of the British publishing interests prohibiting the introduction into Great Britain of Canadian reprints. The Canadian Act of 1875, thus rendered valid, appears now with immaterial formal alterations as 49 Vict. ch. 62, and R. S. C. ch. 62, and this Act, with the Statute passed in 1900, constitutes the Canadian law on the subject.

The discussions upon colonial copyright continued in England; and in 1876 a commission was appointed which sat for three years and

* For the correspondence on this subject, see Correspondence * * * upon * * * of Dominion and Provincial Legislation, 1867-1895; Ottawa, 1896, p. 1281 *et seq.*

† The causes of this dissatisfaction are set forth in detail in the report of the Copyright Commission, 1897. In 1895, Sir John Thompson gave notice that he intended to cease collecting the royalty. This notice was carried into effect practically without protest.

‡ The original Act is to be found in Statutes of Canada, 39 Vict., Vol. I., p. xxi., out of its proper order in the Statutes, as it was a Reserved Act. It is properly described as 38 Vict., ch. 88.

§ Report of Departmental Representatives, Correspondence, etc., Ottawa, 1896, p. 1285.

reported finally in 1879. The commission recommended that should the owner of a copyright in England refrain from availing himself of the provisions of the colonial copyright law, that the colonial authorities might be permitted to grant a license to republish the work in the colony upon payment of a royalty to the author. This proposal did not, however, meet with favour in England and it was not adopted.

A Bill, consolidating the law of copyright, was introduced into Imperial Parliament in 1881, but it did not become law, and since then there has been no government measure on the subject.

In 1885 the Berne Convention was held, and an international understanding arrived at regarding copyright. This understanding was homologated by the International Copyright Act of 1886 (49 and 50 Vict., ch. 33), which, with the relative Order-in-Council of 22nd November, 1887, constitutes the present law on the subject. Canada assented to the agreement arrived at by the Berne Convention, but Sir John Thompson explained in his report on Copyright to the Governor-General-in-Council of 7th February, 1894, that the reasons why the Canadian Government gave its assent were, 1st, that Canada could withdraw from the convention on giving a year's notice, and 2nd, that confidence was felt that some amelioration of the situation was likely to be obtained.

In 1889, the Parliament of Canada passed an Act substantially following the recommendation of the English Copyright Commission of 1876-79 as regards compulsory licensing. This Act bore that it should come into force by proclamation of the Governor-General-in-Council. It came to be well understood that the royal assent would be withheld and thus the Act, though never formally disallowed, did not become operative.

In 1891, and again in 1894, the Canadian Government gave formal notice to the Imperial Government that Canada desired to withdraw from the Berne Convention. This action was discountenanced by the Imperial Government and Canada did not persist in the demand for withdrawal. In 1891, the United States passed a new copyright law which in effect was the result of an agreement between Great Britain and the United States. The view then came to be held in England that to grant freedom of copyright legislation to Canada would prejudice the new understanding with the United States and would also be likely to result in the withdrawal of Canada from the Berne Convention. This view undoubtedly contributed to the *impasse* into which the subject fell in 1891 and in which it continued until the recent Canadian legislation.

The view of the English authorities was briefly that to grant Canada what she asked would involve the abandonment of international and imperial copyright to which Canada had been understood to give her assent only a few years before. This position was fortified by the opinion of the Law Officers of the Crown in England of two successive and opposed administrations to the effect that without an enabling Act of Imperial Parliament, Canada had no power to legislate upon copy-

right, excepting as regards books first published in Canada. Matters were in this position when Sir John Thompson died. Had he lived, it is highly probable that he would have found in 1894 some way out of the difficulty. His death, and the almost equally sudden death of Lord Herschell, who had introduced a new Copyright Bill into the House of Lords in 1898, postponed any settlement.

Meanwhile, in 1895, the Authors' Society of Great Britain represented by Mr. Hall Caine, the Copyright Association of Great Britain represented by Mr. F. R. Daldy, and the Canadian Copyright Association represented by Mr. J. Ross Robertson and Mr. D. Rose, made a joint attempt to settle the question by means of a measure known as the Hall Caine Bill, which was drawn on the lines of the Bill of 1889. The principal point of the Bill was a system of licensing and payment of royalty to the owners of a copyright involving the republication in Canada with or without the consent of the authors or owners of the copyright under certain conditions of works first published in Great Britain.

The complicated character of this measure prevented its immediate acceptance or rejection; and the change of Government in Canada again led to the postponement of a settlement.

While these events were occurring, the situation in the book trade was undergoing extensive alteration. The policy of publishing small editions of books at high prices instead of larger editions at comparatively low prices came to be doubted by some of the leading publishers. Several attempts to carry out the opposite policy resulted so successfully that by about 1896, the three volume novel published at thirty-one shillings and sixpence, had been wholly replaced by the one volume novel at six shillings. The enlargement of the editions rendered the use of stereotype plates at once economical and convenient. And the use of stereotype plates which might be readily reproduced, rendered printing at different centres, economical and convenient also. English books came to be printed in Holland, in the United States and elsewhere from plates manufactured in England.

In Canada, the practice grew up with regard to books first printed in the United States from plates manufactured there. The benefits of Canadian copyright extending to the printing of books in Canada from plates as well as from types led to editions being printed in Canada which could not otherwise have been printed there. The advantage to the Canadian printing, binding and paper trades, soon became very obvious.

The practice of printing from plates was, however, only rarely resorted to in the case of books first published in Great Britain, for the reason that, owing to the operation of the Canadian Copyright Act, there was no power on the part of a Canadian publisher to buy the right to the exclusive control of the Canadian market as regards any book copyrighted in Great Britain which he might wish to print in Canada. Without this exclusive control of the Canadian market, it was not worth

his while, in many cases, to print at all; in cases where he did print a Canadian edition, he incurred the risk of the English edition being sent in to compete against it, even although as effectually as he could do so he had contracted with the English publisher for the Canadian market.

It was, of course, not to the interest of the British publisher to compete directly with his own customers in this way; but a large part of the colonial book trade is in the hands of firms known as "jobbers," who purchase large quantities of books from the publishers, and ship these to the colonial markets. They are entitled to do this, irrespective of any conditional contract between the British and the Canadian publisher.

It appeared, then, that what was wanted was power on the part of the British publisher to grant a license to print in Canada, which license should carry with it the right to exclude copies of the book to which it applied, other than those printed under its provisions, from being imported into Canada without the consent of the licensee. If such a provision were made, the licensee could then securely print his Canadian edition, and put it upon the market by means of advertisement and otherwise at such prices as competition with other books might determine, without the risk of his being deprived of this market by the wholesale importation of copies of the English edition. It came to be thought by some that if legislation could be obtained to give effect to this idea, that the ghost of copyright would be laid, at all events, for a time.

In 1899, owing to the considerable growth in numbers of persons in Canada who were actively engaged in the profession of literature it was proposed to form an Authors' Society for the purpose of promoting the interests of authors, and of concerting action to safeguard these interests. In February, 1899, such a society was formed—Mr. Goldwin Smith being elected Honorary President, and the Hon. G. W. Ross, President. One of the first topics which engaged the attention of the society was the question of copyright. Several members devoted themselves to a study of its complexities, and arrived at the conclusion that the state of the law as it then stood was decidedly inimical to the interests of British and of Canadian authors alike. So long as no separate market existed in Canada it was clear that Canada as a book market had no independent value, and that therefore not only the publishing business in Canada must be conducted insecurely, but authors everywhere must suffer disadvantage from this insecurity. For Canadian authors to receive adequate recognition in their own country, it became obvious that the publishing business should be given a reasonable opportunity. The condition of authorship in the United States prior to the propaganda carried on there in favour of copyright legislation by the authors as contrasted with the condition of authorship now, encouraged the belief that vigorous efforts in obtaining reform of the copyright law in Canada would result beneficially for authors, publishers and public alike.

An excellent memorandum upon the subject was prepared and read by the Hon. G. W. Ross, to whose influence and energy the successful

issue of the legislation is very largely due. The attitude of the Authors' Society towards the question is clearly laid down in this memorandum and in other statements made by various members. The society sought to leave the constitutional question undisturbed, and to endeavour to find at a *modus vivendi* by means of which specific remedies might be found for specific evils. The various interests in Canada were consulted and conciliated, and it remained to negotiate with the British publishers, authors and legislative authorities.

As I happened to be going to England early in the summer of 1899, the society asked me to undertake these negotiations. After discussions with the authorities at the colonial office, with some members of the Authors' Society in London, and with the leading publishers, I was invited to attend the International Congress of Publishers which met in London in June. I found a perfectly unanimous opinion among the members that the Berne Convention should be maintained, and that any withdrawal from it would be greatly to be deplored. A resolution moved by Mr. Longman of Messrs. Longmans, Green & Co., endorsing the proposal of the Canadian Authors' Society was unanimously adopted.

A few days afterwards I was invited by the House of Lords' Committee on Copyright, to give evidence before it. The result of these various negotiations was the insertion of a clause in Lord Monkswell's Bill explicitly giving powers to Canada to pass a measure upon the principle suggested.

In October, 1899, Mr. G. H. Thring and Mr. Gilbert Parker, representing the Authors' Society of Great Britain, came out to Canada and had some interviews with the ministers on the subject. They are understood to have endorsed the suggested legislation.

Towards the close of the Parliamentary session of 1900, the Bill, as suggested by the Canadian Authors' Society, was brought in by Mr. Fisher and was found to be generally acceptable, several public bodies sending resolutions in its favour.

While successful efforts had been made as described to secure approval of the measure in England and thus to avoid any possibility of disallowance, the *amour propre* of Canada was not injured on account of the circumstance that the constitutional aspects of the case did not require to be discussed.

There can be no doubt that the passing of the Canadian measure has put an end to the deadlock which has existed for twenty years, and it is to be hoped that the effect of its provisions upon literature and upon publishing in Canada will justify the efforts which were made to pass it.

UNIVERSITY STARVATION.

BY H. R. FAIRCLOUGH, M.A.,

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IN the November number of the MONTHLY, Chancellor Burwash has given us an excellent summary of the needs of the University. With his article on that subject I am in complete accord, and perhaps the best way in which I can respond to the editor's invitation to send a short contribution to these pages will be to follow the Chancellor's lead and say a few words upon a subject which should be of paramount importance to Toronto alumni.

Unless the people and Legislature of Ontario speedily realize how urgent are the needs of their provincial University, they must be content to see this apex of their fine educational system take rank with institutions of a comparatively low grade. There is a story current that when a certain millionaire American conceived the idea of establishing a university he visited wealthy Harvard, and after examining the buildings and the equipment in the various departments bluntly asked President Eliot, "What has this plant cost?" The question, far from being irrelevant, was perfectly *à propos*. A university *plant* does cost money, and without an ample endowment no university has a right to exist.

The University of Toronto is lamentably weak in financial resources. Compared with the majority of State universities in this country, her income is a mere bagatelle. For instance, the University of California's revenue for the past year amounted to nearly \$330,000, nearly three times that of Toronto; and yet this sum is found to be inadequate, and application for an increase (sure to be granted) will be made at the next session of the California Legislature.

Why is the University of the wealthy Province of Ontario thus starved and pinched? The fundamental reason lies, I believe, in the public attitude toward higher education in general. My fellow-countrymen in Canada have not yet fully learned the truth that higher education is for all people, not merely for the rich or well-born. In this country the people firmly believe in their colleges and universities. These they regard not merely as professional schools, where embryo doctors, lawyers and clergymen are trained, but as institutions for developing manhood and womanhood; and they would have the doors of such institutions thrown open to all who are eager for mental enlightenment. Hence we find the graduates of California and Stanford Universities returning in large numbers to their fathers' ranches, stores and offices, and carrying with them the leaven of culture and broadmindedness, which in time will leaven the whole lump, and possibly make this fair land of California the intellectual, as it already is the natural, Greece of America.

I have frequently heard fellow-alumni and other warm friends of Toronto University seriously advocate high fees for tuition. This, again, I believe, is due to a wrong conception of the functions of a university.

Such fees, while permitted in the case of professional schools, have no place in a provincial university. It should be as free to all as public libraries or museums or galleries. The only use provided for the well-being of the people in general is that which with high fees can ever appeal to the public for popular support. It is not a class institution. The young man or woman of limited means who is brave enough to devote four of the most precious years of life to intellectual cultivation has enough difficulties to encounter without being harassed by the tax-gatherer. The best feature of a democratic country is a democratic system of education, which aims at uplifting the common man by putting into his hands the means of uplifting himself. Chancellor Burwash well says: "The university supported by the State is pre-eminently the poor man's friend, and the bulwark of political equality and liberty."

"But," we are told, "now-a-days there is too much education. This is what unfits men and women for their duties in life." Such an erroneous idea as this should find no encouragement in the free air of Canada, where a generous education ought to be the birthright of everybody. It all depends upon the meaning of the term education. To my mind, to be too highly educated is a contradiction in terms, an impossibility. The more highly educated a man is, the more closely is he brought into harmony with his environment, and the more able, therefore, is he to play his part in life. The great trouble is that there is too little education abroad. People are prejudiced, bigoted, selfish, contemptuous of this or that kind of honest work, of this or that kind of people, incapable of adaptation to circumstances—in a word, narrow-minded—because they are not educated. And, so far from unfitting men and women for life, it is the object of a true University "to qualify students for personal success and direct usefulness in life," as well as "to promote the public welfare by exercising an influence in behalf of humanity and civilization."

Let the Ontario Government do its duty to the children of Ontario. Let it endow the Provincial University with ample means and then throw open its doors, free of charge, to all who honestly desire a liberal education. One class only should be excluded, and that is, not the poor, but the idle, vicious, and incapable. All earnest and industrious students should be welcomed; the indolent and incompetent should be rejected. So long as there are fees, the University must accept all who will pay the price of admission, and thus it suffers in two ways, first, from the presence of an undesirable class who simply waste time and injure others, and secondly, from the absence of many who are talented but poor, and who, if the road to learning were cleared of unnecessary obstacles, would win credit for themselves, their *Alma Mater* and their country.

BANQUET

GALBRAITH.

The following is the text of the speech in response to the toast of "Technical Education" given at the dinner to Principal Galbraith:

THE ORIGIN OF TECHNICAL EDUCATION IN ONTARIO.

Mr. Chairman and Gentlemen:

SINCE you have done me the honour to couple my name with the toast of "Technical Education," it will, I think, be appropriate to this festive occasion if I indulge in one or two reminiscences of the institution, the attainment of whose majority we are in a certain sense celebrating this evening. The story of the School of Practical Science, I should say at the outset, includes in itself almost all the as yet unwritten history of technical education in Ontario. I was a witness of its beginnings and early struggles. I had also a certain part therein, and it will perhaps be interesting to you to hear from me a brief account of what happened away back in the seventies.

The School of Practical Science, like many other great institutions, was of humble and unpretentious origin. It drew its first breath in the building at the corner of Church and Adelaide streets, now occupied by the Public Library, a building which had previously been utilized for the purposes of a mechanics' institute. This was a little more than twenty-eight years ago, and the institution, as then organized, was neither in scope nor equipment a school of practical science, as we now understand the term. It was, in fact, a night school for artisans, although enjoying the high-sounding but inappropriate title of "The College of Technology." The instruction given was similar to that of the present Technical night school, and the staff consisted of Dr. Ellis, Mr. William Armstrong, the veteran artist, and myself.

In the very next year (1873) the institution was re-christened and re-modelled, in theory at least, though the work was carried on along the original lines for some years. The change of name and of status was effected by the Crooks Act, which constitutes, in fact, the charter of the present School, and which changed the name, "College of Technology," into "School of Practical Science." The choosing of this name is a curious instance of the influence of chance and circumstance. Just at the time when Mr. Crooks was considering his bill, I happened to receive from Professor R. S. Ball, now Sir Robert Ball, the syllabus of a so-called school of practical science in Dublin. This pamphlet I transmitted to Mr. Crooks for his information, and the name was forthwith incorporated into the Act. The new name was not only inappropriate in itself, but peculiarly unfortunate at that particular time, since the question of practical or laboratory instruction for University Arts students was then under consideration, and the two things soon became hopelessly confused in the prolonged discussions which ensued in University circles and in the press. Much ignorance then prevailed regarding

the distinction between Pure Science and Applied Science, and amid the contending views the Government felt that in the School they had a white elephant on their hands, and its fate hung in the balance for some years.

In 1875, on my retirement from the staff of the School, owing to my appointment to a professorship in University College, I was asked by Mr. Crooks if I could not help him to settle the question of the young white elephant. My answer, which was given in a report drawn up and presented in December, 1875, proved in every way satisfactory to him. The report besides, as he afterwards informed me, had received unqualified commendation from a gentleman, an eminent engineer of that time, whose grandson, I am pleased to know, is present here this evening as an undergraduate of the School. I allude to the late Sir Casimir Gzowski, whose approval, I may add, was endorsed by the late Chief Justice Moss, then Vice-Chancellor of the University. I find on referring to this report, which I had not seen for twenty-five years, until I consulted it a day or two ago, that I proposed in it the solution of the two problems then pressing, viz., (1) the teaching of Applied Science, and (2) the practical teaching of Pure Science. For the former I proposed the appointment of a professor of Engineering, an assistant professor of Chemistry, and the utilization of the services of the University College professors of Chemistry, Mineralogy and Geology, Mathematics and Physics, and, as an essential to the latter, the establishment of the Physical and other laboratories. I may be allowed to state with pardonable pride, in view of the subsequent success of the School along these lines, that my plan was adopted. I took occasion in the report also to remark, (1) that technical night schools were not a necessary adjunct of a school of engineering, that, indeed, the two schools should be separate; and, (2) that, where the demand is sufficiently large for trained engineers, the school of engineering should be independent of the control of an Arts faculty.

In pursuance of the recommendations of this report, steps were taken to sell the old building down town and to transfer the School to the University grounds. In 1877, the late Professor Croft and myself selected the present site, Mr. Crooks requesting that the new building should be located convenient to College street, in view of his intention to continue evening classes for artisans. These classes, I may say by the way, were continued for some time, but were subsequently abandoned, when their incongruity with the purpose of a school of engineering in the proper sense of the term had become obvious to everybody.

One more reminiscence, not hitherto recorded, a reminiscence of a fact unknown even to the gentleman whom we have met together especially to honour, and I have done. You must bear in mind that in the meantime the new building, which forms part of the present structure, had been completed, and the School was about to enter on a new and very definite stage of its existence under the plan I have already referred to. It was, I have always thought, a most vital moment in the history of the

institution. Well, just at this juncture, on my return from Europe in 1878, whither I had gone to purchase apparatus for the Physical Laboratory, I was asked by Mr. Crooks to report on the applications for the chair of Engineering. I am at liberty to say now, I presume; after the lapse of so many years, that my report was in favour of Professor Galbraith, and that he was forthwith appointed.

You will agree with me, I know, in thinking that this was the best piece of work I ever did, either for technical education or the University. Professor Galbraith from the first won on his merits. He is an accomplished engineer, a good mathematician, and an all round scholar. He is something more important still, in view of the position he occupies as head of the School. He is not an archangel, of course; he is, however, all that is implied in that noble English word, a gentleman, worthy to be ranked with the Shanlys and the Keefers, with Gzowski and Fleming, and many others who, like them, have adorned and advanced the engineering profession in Canada. It is to the high standard of professional honour set up by these pioneers in a noble profession that the students of the School of Practical Science must aspire, and no one can they take as a better exemplar than the honoured guest of this evening.

The following is the text of Principal Galbraith's address at the banquet given in his honour December 21st, by the students and graduates of the School of Practical Science:—

THE FUNCTION OF THE SCHOOL OF APPLIED SCIENCE IN THE
EDUCATION OF THE ENGINEER.

Mr. Chairman and Gentlemen—

NO words of mine can do justice to the magnificent reception tendered me this evening by the graduates and students of the School of Practical Science. It falls to the lot of few to receive such an ovation and I know that you will forgive me if I fail to express in measured phrase, the feelings which overpower me.

In casting about for a theme on which to address you this evening it seemed to me that it would be appropriate to the occasion to give you my views on the subject of engineering education formed as they have been largely on my experience of the last twenty-one years in the School of Practical Science, and on my knowledge of the success of our graduates.

The fact that our course is in a measure unique, differing as it does in some important respects from the usual four years' course in the great universities of the continent, may add some interest to the subject.

When the school was remodelled and removed to its present site in 1878, by the late Hon. Adam Crooks, Minister of Education, the faculty consisted of the late Professor Croft Chairman, Professors Chapman, Loudon, Ramsay Wright, Dr. Ellis and myself. On Professor

Croft's resignation he was succeeded in the Chair of Chemistry by Dr. Pike, and the late Sir Daniel Wilson President of University College, became the Chairman of the Board. Professor Baker was shortly afterwards added to the staff. In its early days the school could be considered only in the light of an experiment. It became evident that it ought to serve the necessities of the Province rather than those of the municipality like its predecessor the College of Technology. Each member of the board of 1878 gave the question of the function of the new school close study and earnest thought, and I hope that I am not making an invidious distinction in mentioning more particularly in this connection the services of President Loudon, who from the early seventies to the present time, has been a thoughtful and clear-sighted student of the various developments of technical education. About the year 1888, the present Premier, the Hon. G. W. Ross, then Minister of Education, recognized that the time had come for putting the School on a broader basis and for introducing the practical or laboratory method of teaching into all departments. To provide against the possibility of serious mistakes he decided to make a personal inspection of the more important institutions in the Eastern States engaged in the same class of work as the School of Practical Science, and arranged that I should accompany him. We visited Cornell, Lehigh, Columbia, the Stevens Institute and the Massachusetts Institute of Technology. As a result of that visit the present building was erected and equipped. The Department of Engineering was divided into Civil Engineering and Mechanical and Electrical Engineering and a Department of Architecture was added. Later on the Department of Mining Engineering was established and the Department of Analytical and Applied Chemistry remodelled. With the progress of time many additions and alterations have been made both in the equipment and in the methods and subject matter of the teaching.

When one considers the wonderful variety of work covered by the engineering and allied professions, it seems almost incredible that any useful field should be found for an institution professing to prepare candidates for them all. The construction of railways, canals and harbours, water and sewerage works; exploring, surveying and mapping, heating, plumbing and ventilation, architecture, the manufacture of engines and boilers, machine tools, dynamos, transformers, the erection of machine shops, factories and power houses, the transmission of power in all its forms, the sinking and operation of mines, the reduction and preparation of ores for the market, the manufacture of iron and steel, of colours, acids and alkalis, of sugar, paper and leather, etc.—such are the industries which absorb the graduates of the technical schools. It is plainly impossible within the short space of three or four years, and under academic conditions, to turn out an engineer, architect or chemist, fit for the full responsibilities of his profession.

On the other hand, experience shows that a school can furnish its students with such advantages in the race for success that it well becomes worth their while to spend time and money in acquiring them. The

sciences underlying the professional work outlined above are few in number, and may be roughly classified under the heads of mathematics, physics, chemistry, geology and biology. Each of these sciences at the present day covers such an immense field that no one man can become familiar with all its parts. Their main principles, however, fortunately for the student, are few in number, and faithful study for three or four years will give him a sufficient grasp of them and of their applications to enable him to make practical use of them in his profession.

It may be said that the chief object of a school of applied science is to train its graduates in such a way that they are able to read. Man acquires his knowledge from two sources: his own experience and the experience of others. If he cannot absorb knowledge from books he is cut off in great measure from the experience of others, and is like a one-armed workman. At the present day a large amount of engineering literature consists of examples of the applications of science to practice, and as the years go on this kind of literature is ever augmenting in volume. It is only by the generalizing of experience into the principles of science that it is reduced to manageable compass; otherwise man would struggle helplessly with the ever-increasing mass of accumulated facts, and an end come to human advancement.

While obtaining his knowledge of science in the school the student acquires skill of hand, eye and ear by work in the laboratory, drafting-room and field, and it is upon this skill that his chances of employment immediately after graduation largely depend. As he advances in his profession the mental training received in the school tells more and more upon his work, and the necessity for skill of hand gradually disappears.

The practical knowledge and training of the engineer can be acquired only when engaged on professional work, as they are dependent far more largely on his own experience than on the experience of others. Until this practical knowledge has been in some measure obtained the young engineer should be placed in subordinate positions, not entailing more responsibility than he is fit to bear.

By the practical knowledge of the engineer I do not mean the practical knowledge of the mechanic and tradesman, and yet they overlap to some extent. The civil engineer requires some knowledge of the trades of the excavator, the carpenter, the blacksmith, the mason, the concrete mixer, the stonecutter, the pipe-layer; the architect, of some of these, and also of the trades of the painter, the plumber, the glazier, the plasterer, the roofer, etc.; the mechanical engineer, of the trades of the pattern-maker, the moulder, the machinist, the boiler-maker, the pipe-fitter, the blacksmith, the tinsmith, etc., and so might be recited the trades under the eye of the electrical engineer, the mining engineer, the chemical engineer and the metallurgist.

The commonest weakness of the young engineer is insufficient knowledge of the trades, and this ignorance brings upon him, and properly so, the distrust and scorn of the practical man. No one—not even the practical man—will find fault with the engineer because he may not have

the manual skill of the tradesman, but if he is deficient in the practical knowledge of the engineer, if he does not know when work is good and when it is bad, if he does not understand how it should be conducted, if he does not recognize the material he has specified when he sees it, if he is ignorant of the properties which affect its usefulness, the chances are that he will soon meet with disaster. This knowledge comes only from personal experience. Practical knowledge of the trades can be gained only on the works.

If the young graduate neglects to keep his eyes and ears open, and to make plentiful use of his note-book, if he does not absorb practical knowledge as a dry sponge absorbs water, he ought to go into some other profession; he will never become an engineer, even though he be a graduate of the School of Practical Science. The old saying is true:—

“Books, gowns, degrees will leave a fool, a fool,
But wit is best when wit has been to school.”

The case is to some extent different when we consider practical knowledge of materials as distinguished from that of work. It seems to me that a very large amount of useful knowledge, and what is of even more importance, of useful training, can be given to the student during his course in the school in the experimental determination of the properties of materials. This is done, of course, to some extent already in the testing laboratories. The usefulness of these laboratories might be greatly increased by adding to them part of the equipment of the ordinary school shop, viz., vise-benches and forges, an emery wheel and a small crucible furnace, for the purpose of training the students in making easy tests of the various grades of iron, steel and alloys. The difference between such work and shop work is that the attention of the student is fixed upon the properties of the metal he is testing and not upon methods of using tools. He would thus gain in a short time the knowledge indispensable to the engineer of a great variety of metals, whereas in shop work, with the other object in view, his experience must be confined to but few.

I have little faith in the value of so-called commercial work in a school of applied science. It lacks the main element which, in real commercial work, burns lessons into the brain, viz., the feeling of responsibility. The practical work of the school should for the most part be of a kind for which there is little or no opportunity in ordinary professional life. It should consist in experimenting with machines and materials, and in discovering the application to them of the principles of science rather than in using them for their ordinary industrial purposes. The capitalist who employs the engineer does not care to see his money spent in this way. The life work of the engineer is construction and production. His practical work in the school should be analysis and experiment. The child breaks open his toy to see the wheels go round, long before he carves out a boat or constructs a windmill. The time of the school should not be unduly taken up in teaching the tyro what he is bound to learn in any case if he sticks to the profession. Although these prin-

ciples seem sound, there are many prominent men who would in great measure disagree with them. Only a few days ago a letter by a well-known engineer appeared, who seemed to think that a graduate of an engineering school should be worth at the start a salary of \$100 to \$125 per month. I should consider the school which succeeded in such an undertaking to be little less than a failure. I once saw another letter in an engineering journal complaining of the technical schools because their graduates could not immediately make the quick and accurate analyses necessary in commercial metallurgical work. I prefer to see the student taught chemistry rather than spend his most receptive years in some narrow lines of analysis. There is time enough for that after he gets into the steel works. Readiness will come with practice. So with all specializing in the schools. It may be true that one cannot make a success in life unless he specializes. It by no means follows that the specializing must be done in the school. On the contrary, the best basis for successful specializing is a sound general training.

I do not care to see the graduate specialize immediately after leaving the school. Let him first get a little experience and a knowledge of the world and its ways. In many cases the graduate finds employment in a different branch of engineering from that in which he graduated. The lesson to the school is that the training in each department should be sufficiently general to enable the graduate to train himself without difficulty for his new work. His time for school is past.

One of the great advantages of a course of study in a school of science is that the mind of the student is almost unconsciously trained in the classification of facts. He cannot attend the various classes for three or four years without knowing to what departments or sub-departments of science the facts of observation are to be referred; and even if he has forgotten how to apply the sciences, he knows at least where and how to get the information he requires without loss of time. His course in the school has supplied him with a great catalogue of knowledge. This is true in a measure even in the case of students who fail to complete their course.

Another function of the engineering school besides the training of students for the professions is the training of men for research work connected with engineering. There cannot, from the nature of the case, be employment in the country for many such men. In general they, like the majority of scientific workers, must earn their living as teachers.

There seems to be more doubt and difference of opinion with regard to the proper training of the mechanical and the electrical engineer than in the case of the civil engineer and the architect. To spend time working as a tradesman is not the custom of the latter professions, and in the former we find men with all degrees of workmen's experience from zero to the maximum amount.

The architect and the civil engineer are the lineal descendants of the craftsmen of the ancient civilizations of Egypt, Greece and Rome, while their mechanical brother is the product of this modern age of steam.

It may be that the differentiation between the tradesman and the engineer has not occurred to the same extent in the latter case as in the former, simply on account of insufficient lapse of time. It may, however, proceed at a far quicker pace. Division of function or division of labour, as it is commonly termed, is the first necessity of this age of combinations of capital and labour. Roughly speaking, mechanical engineering, like all Gaul, is divided into three parts, of which one is occupied by the designing and consulting engineer, who in his functions most resembles the civil engineer and the architect, and who generally enters the profession by the drafting room door. Another part is occupied by the works manager in manufacturing establishments who corresponds in a measure to the contractor of the civil engineer and the architect, and who enters by the shop door. To the third part belongs the engineer in charge of engines and boilers, pumps and dynamos. He enters by the engine room door. Manual experience, as it may be called, is a necessity in the case of the last two classes, while it is not in the case of the first. On the other hand, the practical knowledge which can be gained only by familiarity with manufacturing operations and with the operation of power plants, is an absolute necessity for the three classes. This practical knowledge cannot be obtained in the engineering school.

In most engineering schools shops are established for the purpose of familiarizing the students with the use of tools and with practical processes. The expediency of taking up the time of the student with this work has always appeared to me to be questionable. The time spent in the shops is not long enough to make the student a finished workman, and consequently a judge of good work. As far as materials are concerned, a useful knowledge of them may be obtained as I have already indicated by methods much more economical of time. All that the engineer can get from the school shop that will be of use to him he is bound to get from his practical work, whether he enters his profession through the drafting room or through the shop door. For these reasons I advised the Government in 1888 not to establish shop instruction in the School of Practical Science, and have as yet seen no reason to change my mind, although I have since that time examined the working of many school shops.

Our regulation that the students in mechanical and electrical engineering must put in their shop work outside has at least the advantage of saving the time of the session for what we consider more appropriate work. It also gives them a valuable opportunity for using their eyes and their note-books, and studying the methods of actual life.

The practical training of the mechanic, the foreman and the engineer in charge of small power plants must, it seems to me, continue to be obtained in the ordinary shops. For scientific instruction they must depend largely on the evening technical schools and on the correspondence schools. Young men who have the ambition to become managers of works and large power plants ought to make up their minds to attend

the higher technical schools and also to go through the hard manual work necessary to enable them to become fairly competent mechanics. They will be fortunate if they have been brought up in the shops from boyhood and have at the same time acquired habits of study.

In this description of the aims and methods of a school of applied science for engineers I have had in view the practicable rather than the ideal. If it were possible within the limited time at the disposal of the student to give him a competent knowledge of the engineering trades, of engineering law, of engineering business methods and of engineering economics in addition to that of science no doubt it should be done, as then he would be so much further on when he begins his life work. It must not be forgotten, however, that the capacity of the student is limited as well as his time. The difference between one engineering school and another consists not in the total quantity of information carried away by the graduate, but rather in the distribution of his knowledge over the various subjects, theoretical and practical, and above all in the methods used for stimulating and strengthening the imagination and the powers of reasoning and observation.

Turning once more to our own institution I feel that its success is largely due to the harmony which has always existed between the members of the staff, and their loyalty to its ideals. The same spirit prevails among the students and graduates and it would be hard to find, the world over, a body of men more united and faithful to their *Alma Mater*. Above all, the School has been fortunate in commending itself to the public and to the Government. I do not know that there has ever been serious opposition in Parliament to its modest estimates for maintenance. The Premier, to whose foresight as Minister of Education the enlargement and improvement of the School is due, has no reason to be ashamed of his work. There is now a similar task to that which he undertook in 1888, awaiting his successor, the present Minister of Education. New building accommodation, equipment, and additions to the staff are required, as the School has reached and passed the bounds laid down for it twelve years ago.

It must not be forgotten that the success of our technical schools depends almost altogether upon the prosperity of the country and that the prosperity of the country depends only partially on the success of the technical schools. There is too great a tendency at the present time to consider technical education a panacea for the troubles in the world of production. This is not only unfair to the schools but is a dangerous doctrine for the country.

I shall now close by making an announcement which will be a source of congratulation to all friends of the School and of the University of Toronto. A week ago the Senate of the University passed a statute which provides that the School of Practical Science, its teaching staff, examiners and students, together with the examiners for the degrees in Applied Science and Engineering, shall *ex officio* constitute the Faculty of Applied Science of the University of Toronto. By this statute the

powers of the Senate with reference to the degrees and those of the School with reference to the curriculum and work of instruction as also the statute respecting affiliation, remain unaltered.

The result is that the University gains without expense a fully equipped Faculty of Applied Science and in this respect puts itself on an equality with the other great universities of the continent: while on the other hand the School gains public recognition of the fact that its work is of equal rank and dignity with that of the ancient faculties of Arts, Medicine and Law.

This action of the Senate forms a fitting close to the history of the School in the nineteenth century. And now, gentlemen, let me in taking my seat thank you one and all for the great honour you have done me, and more especially the members of the committee who have this evening brought their arduous labours to such a successful close.

Professor Chapman was a better prophet than he knew when in designing the crest of the School he selected as its motto—

“Scite et Strenue.”

THE BOND PHI SIGMA.

BY A. B. AYLESWORTH, Q.C.

IN the later years of the American Civil War the Confederate States probably presented very impaired facilities for higher education. At all events, during those troubled times many men of the Southern States sent their sons to Toronto to complete their education at our national University. To the presence of these young men among the undergraduates of their day is due the introduction or transplanting into University life in Toronto of the earliest of its Greek Letter Secret Societies, the Bond Phi Sigma.

The exact origin of this Society is, of course, shrouded in mystery: secrecy was of its essence; and even were I the traditional charter member himself, it would never be permitted to me by word or sign to disclose whence it came, by whom, when or where it was founded, what were its objects and aims, or to what extent they were attained. Suffice it to say that during the decade of the seventies at all events this secret society was a most powerful factor in University undergraduate life.

I owe to this Society and its members all my affection, all my loyalty and all my gratitude for the friendships that have been the warmest and most lasting of my life, for the memories that are the most valued of my college days, and during now nearly thirty years for very present help in every time of need.

In the days when the Bond Phi Sigma flourished it was the only Greek Letter Society among the undergraduates, and its very existence was, so far as possible, kept a profound secret, known only to its mem-

bers. Rightly or wrongly, it was supposed that the College authorities of that time would have been hostile to its influence, or would possibly have endeavoured to suppress it had they been aware of the hold it had obtained upon the students of that time. But unfortunately it contained within itself, in the exactions of its own constitution, the elements of decay.

No one could become a member by any application or effort of his own. Any such attempt would almost certainly have defeated its own object. A single dissentient voice—a single word of opposition—nay, even doubtful hesitation on the part of any member when the name of a possible candidate was being discussed, prevented that man from being then admitted, or admitted at all, unless further observation, or the subsequent testimony of those who favoured the name under consideration, removed even the semblance of uncertainty from the mind of every member in the Bond. And the necessity for affirmative wish to receive into the circle the proposed candidate was in no way confined to active present members. Every living member had to be consulted, no matter how far distant, no matter how venerable a graduate or how long departed from University College.

The closeness of the tie that bound members to each other made this essential, for, apart from the solemnity in that respect of the vows taken upon initiation, every tenet of the Order inculcated a friendship and a union closer than that of brotherhood or kin—a support that should be absolute and unswerving and upon which every member could upon all occasions unquestioningly rely. But this difficulty of admission, while an element of greatest strength in securing absolute unity within the Bond itself, in the end necessarily proved its undoing. As years passed it became impracticable to secure the necessary answers from absent members. In course of time one or two new members in a year became all it was possible to add, for but one name at a time could be considered, lest the new man if admitted might have possible objection to the next suggested.

And so after now many years it has come to pass that I must write of this most valued and best beloved feature in my university life as something no longer a living, active force among undergraduates, but now only a lasting bond of union among those who once assembled gladly whenever its mysterious summons met the eye upon the notice board of 'Varsity.

I need scarcely say that, in common I am sure with every member of our Order, I very greatly regret that we do not see annually added to our roll many names from among the undergraduates of to-day. It is the fault of us who have allowed our ancient chapter to drift into premature decay. It was in truth a violation of our duty to have done it, for our ritual told us that "devotion and loyalty to our University and to our College has always been and will ever be a distinguishing characteristic of our Bond and of every brother in it." And I hold it true that no better or more certain way has ever been discovered to foster and encourage

real *esprit de corps* among undergraduates, or firm and lasting affection for one's *Alma Mater*, than the Greek Letter Secret Society of the present day.

But I am glad to think that the work begun by Phi Sigma so many years ago is being well carried on by the different societies of the present day. Among these, we elders look with especial pride upon the Zeta Psi Fraternity or the Chapter of that Order established here. It seems to us almost our own child: it is at all events our lineal successor, for its earliest members were first members of our Bond. Recognizing the impossibility of ourselves continuing much longer in active work, some of our juniors, with the fullest approval of us all, joined in applying for the charter under which the Toronto Chapter of that Fraternity was organized, now over twenty years ago.

Twenty-five or thirty years ago it would have been a grievous offence in me to have made public even what I have here written of the existence and the benefits of the Bond Phi Sigma. Much more would it at that time have been highly improper in me ever to have given to any of the outside world so much as a hint whereby to know a member. But time works many changes, and I pray the forgiveness of fathers and brethren now if I say that among our most cherished in the long ago were men the University and the country since have known. I mention only the late Hon. Arthur R. Dickey, sometime Minister of Justice for the Dominion, the Hon. Hugh John Macdonald, the Hon. Fred. W. Haultain, and W. B. Northrup, M.P., but there was many another prince of good fellowship in his time, now alas! very many gone to join the great majority.

How often, how very often, in the Bond, have we had to form the mystic circle about an open grave and chant the solemn dirge, "*Vale atque ave, frater. Requiescat.*"

UNIVERSITY OF TORONTO ALUMNI ASSOCIATION: LOCAL ORGANIZATIONS.

WENTWORTH COUNTY.

The Wentworth Association of University of Toronto graduates held its annual meeting January 15th, when the following officers were elected:—James Chisholm, B.A., President; H. Carpenter, B.A., Vice-President, and J. T. Crawford, B.A., Secretary-Treasurer. Executive Committee, R. A. Thompson, B.A., Dr. F. Rosebrugh, J. L. Counsell, B.A. It was agreed that the annual dinner should be held in February, but the date was not fixed. It was decided to nominate two candidates for the University of Toronto Senate this year, Inspector W. H. Ballard, the present representative, and another.

VICTORIA COUNTY.

A meeting of the Alumni of the University of Toronto for the County of Victoria was held in Lindsay, Ont., January 18th. Dr. J. C. McLennan, Secretary of the General Alumni Association was present, and addressed the meeting on the needs of the University and the aims of the Alumni Association. A local branch was organized for Victoria County, and the following officers elected:—Hon. President, Judge Dean, B.A., '54, M.A., '83, LL.D., '92; President, J. C. Harstone, B.A., '77; Vice-Presidents, J. A. White, M.B., '94, Rev. J. M. Duncan, B.A., '86, L. V. O'Connor, B.A., '93; Secretary-Treasurer, Miss E. G. Flavelle, B.A., '98. Councillors—V. C. Cornwall, M.D., '67, J. Grant, M.D., '88, Miss M. Addison, B.A., '89, E. Gregory, J. A. DeCew, Rev. L. S. Hughson, B.A., '87, J. Neelands, D.D.S.

TORONTONENSIA.

UNIVERSITY OF TORONTO
MONTHLY.

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NEWS FROM THE CLASSES.

The personal news is compiled from information furnished by the Secretary of the University of Toronto Alumni Association, and by the Secretaries of local organizations, and from other reliable sources. The value of this department might be greatly enhanced if University of Toronto men everywhere would contribute to it. The correction of any errors will be gratefully received by the Secretary of the Alumni Association.

The class history of '45 has been held over till next issue. We present in this issue a few facts about some members of the classes representing the decades since '46, the names being taken in all cases in the order of their occurrence in the University of Toronto Catalogue in the office of the Secretary of the Alumni Association. The remaining names in each year and the remaining years of the Arts and other Faculties of the University will be taken up as the information is compiled and occasion offers.

1856.

W. H. Bowlby, B.A., LL.B., Q.C., is a barrister in Berlin, Ont.—Thos. Hodgins, M.A., LL.B., Q.C., is Master-in-Ordinary of the Supreme Court of Ontario.—Robert Hume, M.A., is a clergyman at Spanish River, Ont.—Nicol Kingsmill, M.A., Q.C., is a barrister in Toronto.—Robert Matheson, B.A., is editor of the *Canadian American*, Chicago.—T. G. Matheson, B.A., is a barrister in Milton, Ont.—Alex. McNabb, M.A., is in Ozona, Crockett County, Texas.—Sir Thomas W. Taylor, B.A., late Chief Justice of Manitoba, resides in Toronto.—Richard Unsworth, B.A., is at Fergus, Ont.

1866.

R. R. Baldwin, B.A., is in Toronto.—E. P. Crawford, M.A., is a clergyman in Halifax, N.S.—W. Davidson, B.A., is a barrister in Toronto.—T. D. Delamere, M.A., is a barrister in Toronto.—W. S. Dorsey, B.A., is in Charlton, Iowa, U.S.A.—W. G. Falconbridge, M.A., is Chief Justice of Ontario.—W. Fitzgerald M.A., is Superintendent of the Insurance Department at Ottawa.—Andrew Greenlees, B.A., is a barrister in London, Ont.—C. B. Jakes, M.A., LL.B., is a barrister in Toronto.—J. H. Johnston, M.A., is in Streetsville, Ont.—M. C. Moderwell, B.A., is Deputy Sheriff at Stratford, Ont.—J. C. Morgan, B.A., is School Inspector at Barrie, Ont.—J. A. Paterson, M.A., is a barrister practising in Toronto, and is solicitor to the University.—A. J. Robertson, B.A., is a

manufacturers' agent in Toronto.—W. Watt, B.A., LL.B., is Sheriff at Brantford, Ont.—A. H. Wright, B.A., M.D., is a physician in Toronto.—A. Williams, B.A., is in Vancouver, B.C.

1876.

R. H. Abraham, M.A., is a Presbyterian clergyman in Burlington, Ont.—A. K. Blakadar, M.A., is Assistant Superintendent of Insurance at Ottawa.—P. H. Bryce, M.A., M.D., Secretary of the Provincial Board of Health for Ontario, lives in Bracondale, Ont.—M. S. Clark, M.A., is professor in Modern Languages at McMaster University, Toronto.—Charles Clarkson, B.A., is a teacher in Seaforth, Ont.—W. G. Eakins, M.A., is librarian at Osgoode Hall, Toronto.—E. N. English, M.A., is an Anglican clergyman in London, Ont.—D. Findlay, B.A., is a Presbyterian clergyman at Merrickville, Ont.—H. Montgomery, M.A., is professor of Natural Science at Trinity University, Toronto.—H. E. Morphy, B.A., is a barrister at Oshawa, Ont.—D. S. Paterson, B.A., is a teacher in Chatham, Ont.—John Ross, B.A., is a Presbyterian clergyman at Brussels, Ont.—W. Scott, B.A., is principal of the Normal School, Toronto.—Alex. Steele, B.A., is a teacher at Orangeville, Ont.

1886.

J. M. Baldwin, B.A., is an Anglican clergyman in Toronto.—R. Baldwin, B.A., is a barrister in Toronto.—W. W. Baldwin, B.A., M.B., is a physician in Gregory, Ont.—Miss E. M. Balmer, B.A., is a teacher in the Harbord Street Collegiate Institute, Toronto.—S. G. T. Barton, B.A., M.D., is a physician in Toronto.—Gordon Bell, B.A., is a physician in Winnipeg.—L. H. Bowerman, B.A., is a barrister in Toronto.—S. H. Bradford, B.A., is a barrister in Toronto.—C. Brent, M.A., is a mining engineer at Rat Portage, Ont.—C. E. Burkholder, B.A., is a barrister in Hamilton, Ont.—A. F. Chamberlain, M.A., is a Professor at Clark University, Worcester, Mass.—Graham Chambers, B.A., M.B., is a physician in Toronto.—C. P. Clark, B.A., M.B., is a physician in Buffalo, N.Y.—D. H. Coates, B.A., is a teacher in Brantford, Ont.—H. B. Cronyn, B.A., is a barrister in London, Ont.—A. D. Crooks, B.A., is a barrister in Toronto.—W. Dewar, B.A., is a Presbyterian clergyman at Bracadabane, Man.—J. M. Duncan, B.A., B.D., is a Presbyterian clergyman at Woodville, Ont.—Andrew Elliot, B.A., is a barrister in Toronto.—C. Elliott, B.A., LL.B., is a barrister in Toronto.—J. A. Fife, B.A., is a teacher in

Peterborough, Ont.—R. Garside, B.A., is a Baptist clergyman at St. Catharines, Ont.—Richard Gourlay, B.A., is a teacher at Toronto Junction, Ont.—A. Hamilton, B.A., is a Methodist clergyman at Freleton, Ont.—H. Harvey, B.A., LL.B., is a barrister in Calgary, N. W. T.—W. Hird, B.A., M.B., is a physician in Uxbridge, Ont.—G. W. Johnston, B.A., is Lecturer in Latin at University College, Toronto.—Thomas Marshall, B.A., is a merchant at Dunnville, Ont.—I. E. Martin, B.A., is professor of Mathematics at the Royal Military College, Kingston, Ont.—R. G. Macdonald, B.A., is a barrister at Brandon, Man.—O. McCullough, B.A., M.D., is a physician at Mohawk, Ont.—A. M. Macdonell, B.A., is a barrister in Toronto.—R. R. McKay, B.A., is a Baptist clergyman in Woodstock, Ont.—J. J. MacKenzie, B.A., is Professor of Pathology in the University of Toronto.—D. R. McLean, B.A., is a barrister in Toronto.—J. McMaster, B.A., M.D., is a physician in Toronto.—F. F. MacPherson, B.A., is a teacher in Hamilton, Ont.—G. H. Needler, B.A., Ph.D., is Lecturer in German at University College, Toronto.—C. C. Owen, B.A., is a clergyman in London, Ont.—G. Paterson, B.A., LL.B., is a barrister in Deloraine, Man.—R. A. Paterson, B.A., is a teacher in Strathroy, Ont.—F. J. Roche, M.A., is a barrister in Toronto.—J. A. Ross, B.A., is a Presbyterian clergyman in Churchill, Ont.—T. A. Rowan, M.A., is a barrister in Toronto.—Neil Shaw, B.A., is a Presbyterian clergyman at Egmondville, Ont.—T. R. Shearer, B.A., is a Presbyterian clergyman at Rounthwaite, Man.—Richard Shiell, B.A., M.B., is a physician in Toronto.—Nelson Simpson, B.A., is a barrister at Sault Ste. Marie, Ont.—Wm. Stephen, B.A., M.B., is a physician in New Zealand.—J. H. G. Youell, B.A., M.B., is a physician at Aylmer, Ont.

ADDRESSES UNKNOWN.

Part of the work which the Alumni Association has undertaken is the compilation of a catalogue of the graduates of the University of Toronto and its maintenance in as correct a form as possible. It was found that a very great number of our graduates had dropped out of sight—no response came from their addresses as found in the Registrar's books, and, as far as their Alma Mater was concerned, they were unknown. A very large number of these addresses have been already corrected by correspondence through the kindness of graduates who have sent us information. Many names are still lacking addresses, however, and we request our

readers to aid in completing the catalogue by sending in at once addresses for any of the following names:—

Class of '53, Arts—Wm. Bettridge, B.A.

Class of '54, Arts—C. E. English, M.A., L.L.B., G. Adams, B.A.

Class of '56, Arts—B. P. Lister, B.A.

Class of '57, Arts—John Turpin, M.A., J. F. Smith, B.A., Wm. Oliver, B.A.

Class of '58, Arts—W. A. Watts, M.A., E. D. Montgomery, B.A., W. Milroy, B.A.

Class of '59, Arts—David Waters, M.A., L.L.B., H. Tassie, B.A., N. Monsarrat, B.A., J. L. Litton, M.A., J. W. Holcombe, M.A., L.L.B.

Class of '61, Arts—R. McGee, B.A., A. S. Gillespie, B.A.

Class of '63, Arts—T. W. Wright, M.A., T. H. Scott, M.A., A. Hector, B.A., E. Frisby, M.A.

Class of '64, Arts—W. Sharpe, B.A., J. Harley, B.A., J. Ferguson, B.A.

Class of '65, Arts—G. H. Squire, B.A., W. Malloy, B.A., J. M. Hagar, M.A., J. M. Goodwillie, M.A.

PERSONAL.

W. H. Bunting, B.A., '92, is editor of *The Mail and Empire*, Toronto.

T. E. A. Stanley, B.A., '92, is principal of the Iroquois, Ont., High School.

R. K. Duncan, B.A., '92, is a teacher in the High School at Pottstown, Pa.

A. A. Smith, L.D.S., '84, is a member of the council of the town of Cornwall.

Wm. Smeaton, B.A., '99, is science master in the Iroquois, Ont., High School.

F. J. Smale, B.A., '92, Ph.D., is chemist to the Wm. Davies Co., Limited, Toronto.

J. W. Forbes, B.A., '95, has been appointed head master of the Weston, Ont., High School.

J. Frith Jeffries, B.A., '75, is principal and proprietor of the Belleville, Ont., Business College.

J. A. Fleming, L.D.S., '95, D.D.S. (Tor.), '95, has been elected to the town council of Prescott.

J. W. Garvin, B.A., '92, who entered with the class of '87, is in the insurance business in Peterborough, Ont.

The Rev. A. Carrick, B.A., '89, has been Presbyterian minister at Holdrege, Neb., U.S.A., for the past nine years.

T. A. Russell, B.A., '99, is secretary to the Canadian Manufacturers' Association, Board of Trade Building, Toronto.

W. W. Jones, B.A., '92, M.B., '95, is now studying in the Birmingham and Midland Eye Hospital, Birmingham, England.

S. B. Leacock, B.A., '91, is at present delivering a course of lectures on Political Economy in McGill University, Montreal.

S. Moyer, L.D.S., '90, D.D.S., '90, (Tor.), has been elected to the council of the town of Galt, receiving the greatest number of votes.

J. D. Hamill, L.D.S., '82, is entering on his fifth consecutive term as mayor of the town of Meaford, Ont., being elected by acclamation.

F. J. Alway, B.A., '94, has been professor of Chemistry in the Wesleyan University, University Place, Neb., U.S.A., for the past three years.

Norman Duncan, B.A., '95, has recently had published by the McClures' a book, "The Soul of the Street," which is meeting with success.

J. H. Lamont, B.A., '92, L.L.B., '93, is practising law in Prince Albert, Sask., in partnership with W. Hannon—the firm being Hannon & Lamont.

The report of the death of J. Inkster, B.A., '99, referred to in our December issue, has been contradicted. Mr. Inkster's friends are glad to hear of his welfare.

E. C. Abbott, L.D.S., '99, D.D.S. (Tor.), '99, and G. G. Hume, L.D.S., '97, D.D.S. (Tor.), '97, have been appointed to the staff of the Royal College of Dental Surgeons as Demonstrators of Practical Dentistry.

Theo. Coleman, B.A., M.B., '93, who has been practising medicine in Toronto, has accepted the appointment of surgeon to the Canadian Copper Co., and will move from Toronto to Copper Cliff, near Sudbury, Ont.

C. C. Riordon, B.A., '96, is assistant manager of the Riordon Paper Mills, Merriton and Hawkesbury, Ont. These mills are among the largest producers of wood pulp in Canada.

W. K. Stewart, B.A., '97, M.A. (Harvard), is instructor in German in Dartmouth College, N.H. He has completed a large part of the course for the degree of Ph.D., in Harvard University.

R. K. Barker, B.A., '92, whose courage and high spirits made him such a successful officer in the recent campaign in South Africa, has been appointed inspector for the Imperial Life Assurance Co., Toronto.

The first year draughting room in the School of Practical Science contains 118 drawing tables. To provide this large increase in floor space, the examination hall has been turned into a draughting room.

J. R. L. Starr, B.A., '87, was elected an alderman in Toronto; A. R. Goldie, '93 (S.P.S.), a town councillor in Galt, Ont., and H. B. Conyn, B.A., '86, and A. Greenlees, B.A., '66, aldermen in London, Ont., on Jan. 8th.

Capt. H. Z. C. Cockburn, B.A., '91, who went to South Africa with the Royal Canadian Dragoons, has, it is stated in the press dispatches, been recommended for the Victoria Cross. He has also been given a commission in the Imperial Service.

We find that an error was made in the item in last issue about recent professorial appointments at Trinity University. The earliest appointment of one not in clerical orders in the Anglican Church was in 1852, when H. Youle Hind, M.A., was appointed to the Chair of Chemistry.

A. H. Hipple, L.D.S., '89, D.D.S. (Tor.), '89, now resident in Omaha, Neb., has established there a fine practice, and has entered as enthusiastically into American politics as he formerly did into those of Ontario. He has been honoured with a position on the professorial staff of Creighton Medical College of that city.

H. Montgomery, B.A., '76, M.A., B.Sc., who is now Professor of Natural Science at Trinity University, was at one time Science master at the Jarvis Street Collegiate Institute and a lecturer in the old Toronto School of Medicine, going later to the Universities of North Dakota and Utah, from which he moved to Trinity.

At the recent municipal elections a number of graduates of the University of Toronto were chosen to the highest offices in the gift of their fellow townsmen. G. A. Raden-hurst, B.A., '66, was elected mayor of Barrie, Ont.; J. A. C. Grant, B.A., '69, mayor of Gravenhurst, Ont.; and V. A. B. Sinclair, B.A., '92, mayor of Tilsonburg, Ont.

Geo. Black, B.A., '98, who is in charge of the Science Department, State Normal School, Cheney, Washington, U.S.A., writes that he is there associated with graduates of Chicago and Wisconsin Universities and Oberlin College. He has joined the B. C. Alumni Association, and congratulates the central association heartily upon the success of the MONTHLY.

Dr. C. N. Johnston, L.D.S., '81, now resident in Chicago, and professor of Operative Dentistry in the Chicago College of Dental Surgery, a short time ago, received from the University of Lake Forest the honorary degree of A.M. in recognition of his literary work. He has recently published a work on Operative Dentistry which has been very favourably received by the Dental Profession in the United States, Canada and Great Britain.

The town council of Rat Portage, Ont., has laid a memorial before the Lieutenant-Governor in Council, asking that suitable grants of money or lands be made to the University of Toronto to assist in equipping in a proper manner a Department of Mineralogy and Geology, to co-operate with the work now being carried on in the School of Practical Science in these branches. In the opinion of the council the knowledge of Geology and Mineralogy should be widely diffused in order to lead to the development of our mineral wealth.

At the recent Annual Meeting of the Federation of Graduate Clubs, which was held in Philadelphia, Miss Elizabeth Laird, B.A., '96, was the delegate representing Bryn Mawr College, and read a paper entitled, "When Should Graduate Work Begin?" which was suggestive and comprehensive, viewing the question from the standpoint of Canadian, United States and European Colleges. The Federation was invited to hold a session at Bryn Mawr College, and there the delegates were given a reception, at which Miss Laird and a few members of the Faculty received.

MARRIAGES.

Rev. W. A. Hunter, B.A., '77, late pastor of Erskine Presbyterian Church, Toronto, and now of First Presbyterian Church, Denver, Colorado, was married on the 3rd of January to Miss S. B. Holden, daughter of J. C. Holden, Esq., of Montreal, in the First Avenue Church, Denver.

W. B. Taylor, B.A., '89, was married on January 12th, to Miss Winnie May Croft, daughter of the late William Croft, in St. Simon's Church, Howard street, Toronto.

J. R. Bone, B.A., '99, was married on January 10th to Miss Evans of Spadina road, Toronto.

DEATHS.

John Edward Rose, B.A. '64, LL.D. '85, Justice of the Common Pleas Division of the High Court of Justice of Ontario, died at his home in Toronto, January 19th, after a brief illness.

THE UNIVERSITY OF TORONTO MONTHLY

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THE NEEDS OF THE UNIVERSITY.

BY S. F. MACLENNAN, B.A.

Professor of Psychology and Pedagogy in Oberlin College, Oberlin, Ohio.

IT is certain that everyone interested in University of Toronto will thank President Loudon for his frank statement in the January issue of the MONTHLY. For several years I have wondered why Toronto has lagged behind so woefully in the race of modern educational development. In what way she has done this I shall show later. Since reading the statement referred to, I have continued to wonder, but for a different reason. At present I do not ask myself why Toronto has no organized Graduate Department. The marvel is that the institution has succeeded in maintaining itself in its present efficiency. Canadian institutions are not so well known on this side of the line as they should be. This much is true, however: Toronto graduates have left an excellent impression wherever they have worked. Now, on what financial basis has this been accomplished?

Suppose, for the time being, that we gratify our fancies with the thought that Toronto is a full-grown University. Let us next compare her income with that of other Universities. I select a few, with which a variety of comparisons may be made.

Toronto, \$121,500; Michigan, \$500,000; Columbia, \$750,000; Chicago, \$723,000; Harvard, \$1,264,000.* The figures may well startle us. If you please, you may consider Harvard, with its income more than ten times that of Toronto, as the ideal of an independent University. Its income is far beyond anything that our Alma Mater can hope for in many generations. Yet, we have still to hear that Harvard is satisfied with her resources. Columbia and Chicago we may consider as more closely allied to our aspirations. They require, however, six times Toronto's revenue to do the work of Universities. More than this, both institutions have large annual deficits and are continually calling for more funds. But although we may admit all this, some may maintain that we should not aim quite so high. If we are prepared to admit that Toronto's future is to be spent among the minor institutions, instead of among the major, perhaps we can agree that the University of Michigan, a State institution, furnishes the basis of a fair comparison. Michigan may stand as the type of a thorough State University well on its way to growth and expansion. Now, I doubt whether any good son of Toronto would care to lower his colours to Michigan. But how do the resources of the two institutions compare? Michigan can avail herself of *four* dollars to every *one* set apart for Toronto. One of two things follows: *Either Toronto ranks below Michigan or an impossible task has been set her.* In either case Toronto is in a difficult position. A stranger, comparing the two Universities, would probably maintain that Toronto must rank below Michigan, if for no other reason than that its equipment must be inadequate. In this scientific age equipment counts, and equipment demands money. Shall we then rank Toronto below the larger State Universities and with the so-called Colleges? Our pride rebels. And, as a matter of fact, the average Toronto graduate can more than hold his own with the average A.B. graduate of any American institution. That I am not speaking at random may be seen from an investigation of the positions held by Toronto men. Her graduates are welcomed wherever they go. They are scattered across the continent from ocean to ocean. The large Universities know them well. The number of fellowships held by Toronto men is unusual. In the University of Chicago a few years ago *one-seventh* of the total number of fellowships was held by graduates of 'Varsity. And, in this connection, it may be well to note that our College is fairly well represented in the faculties of American institutions of learning to-day. Dr. Barker is now at the head of the Anatomy Department of Rush Medical School in the University of Chicago; J. A. MacLean is President of Idaho; Shipley, Hellems, Beattie, Hull, MacVannel, Wallace, Orton, Bonner, Tamblyn, Shotwell, Armour, Davidson, Wightman and many others hold important positions throughout the United States. A

*I give the figures in round numbers. In the cases of Columbia, Chicago and Harvard, the amounts stated do not include gifts and other irregular sources of income. The total receipts of these institutions are therefore even greater than I have set down.

proof of Toronto's real worth is found in her graduates. But if this be true, what follows? Surely, that the Province has compelled the University to do not twice but four times the amount of work required of other institutions belonging to her class. When one faces the situation fairly, the utter absurdity of Toronto's financial position becomes apparent. All honour to those who have done so well with so little. No Toronto graduate need feel ashamed of his institution or of the men who taught him. But herculean efforts cannot continue to overcome the tremendous handicap unfairly imposed.

Another point which we must bear in mind is, that the needs of a modern University are constantly increasing. No person, who has had anything to do with the inner life of a present-day school, will deny the statement that, despite rigid economy, needs will increase and must be adequately met if the health and vital power of the institution are to be maintained. Evolution should have taught us that the provision which sufficed twenty years ago will not suffice to-day. Professor Huxley has drawn a good picture of the great transformation which society has undergone in the past half-century. This change in social conditions has necessitated corresponding changes in our educational system. Education and society are organically related and vary concomitantly. The tools and methods of one decade must be cast aside for the newer and better ones of the succeeding. This point is being recognized in almost every College and University in the United States. An unprecedented interest in equipment and endowment is apparent everywhere. And it is to be placed to the credit of the American people that, as organizations and as individuals, they have responded nobly to the call for aid.

Some thirty years ago the people of the United States discovered that the graduates of their Colleges and Universities were forced to go to Europe to complete their training. - The stream of intellectual emigrants to Germany is decreasing, because as good as German training may now be obtained in the United States. The same thing cannot be said of Ontario. Every year sees increasing numbers of Toronto graduates who are forced to cross the lines. You will find them in the great University centres, whither the desire for knowledge has driven them. Nor are these men inferior students. The majority of them were leaders; I could easily name a score of such. These men have been lost to Ontario because she had nothing with which to satisfy their needs. She trained them well as far as she went. In short, as matters now stand, the unwelcome truth forces itself upon us, that *in the full sense of the term Toronto is not a University.*

This statement may be warmly disputed by many, and I do not deny that Toronto is a University in embryo. But whether we enjoy the truth or not, the University idea, in its completeness, is far from being realized in Toronto. I say this not as a caviller, but as one intensely interested in the welfare of my Alma Mater. Toronto possesses a very high-grade college, good professional schools, a technical school of high order, affiliated schools of varying grade. If you choose you may call these

a University, because diverse studies are carried on under one head. *But where is the high specialization and the organized graduate school, which are now considered essential elements in a University?* Part of the Honour work may, with right, be regarded as equivalent to graduate work. More or less graduate work has always been carried on. At the present time the graduate degree is granted in certain departments. Valuable contributions to knowledge have been made. I grant this, and I am proud of the work accomplished. But there is no organized graduate school, and for this reason Toronto must fall back into the class of minor institutions. And thus the Province of Ontario is defeating its own aims. Canadians are justly proud of the Ontario Educational System. Faults many and grievous could be enumerated. The same, however, could be said of every known system. Taken as a whole, the Ontario system fulfils the claim of Premier Ross. It is a national system. Public and High Schools, College and Professional Schools, *do work of the highest order so far as they go: but they do not go far enough.* For this reason Ontario is weakened by her own neglect.

In the past a good excuse for neglect could be given. The country was new, and large sums of money had to be expended for general public improvements. But this excuse can be made no longer. The Province is on a good footing; its outlook was never better, and surely it is time that the University had its turn. I am inclined to think that one reason why the University has been neglected is that its claims have not been insisted upon sufficiently. It is now time that a systematic crusade should be begun. To those who watch the movements of modern education, the position of Toronto is more than critical. It is not fitting that the highest educational institution of such a Province as Ontario, peopled by those among whom education is a pride, should be forced to lag so far behind in the race of educational development. And that is just what Toronto has been forced to do. There are *men* in Toronto, men whom it has been a pride to know, men worthy of high places in any University in America or beyond the seas. They have made the bearers of the Toronto B.A. degree to be honoured wherever they have gone. They have given proof, where they have had any chance, that the best things are in them. But, I say again, a fair fighting chance should be given them. If conditions do not change for the better, I cannot see how, with the rapid improvements being made on every hand, Toronto can long maintain her present rank. As to graduate instruction, our Alma Mater is inferior to Michigan. The statement seems hard, but I think that it is true—too true.

Out of loyalty to those to whom I owe much, and to the educational system under which I was trained, I have written the foregoing. I have tried to obtain and to state the facts. If I have done so, then it is the duty of every Toronto graduate, and of every friend of education, to use all legitimate means to impress the needs of the University upon the people of the Province and the Legislature. If the people demand that the State institution shall be given adequate support, the Legislature will not

refuse. The daily press, the magazine, the lecture hall, the floor of the Legislature, and every other legitimate means, should be used until the people have had their eyes opened fully and their steady common sense affected so that they will be ready to bring the University into her own. The South African War has shown that when the Canadian people have been convinced of a need, they can find the means to satisfy it. Convince them, therefore, working in season and out of season. She for whom you should do this is worthy.

The Premier Province should awaken to the fact that the dominating centre of Canadian University life may be in Toronto. Should not its citizens arouse from their slumbers, and realize that, if they will, they may place their University among the great institutions of the world? This should be accomplished, and speedily. Opportunities must be seized if advancement is to be made. Money, and much money, is required. On the Province falls the burden of the duty. A definite policy of continuous support should be inaugurated without delay. Spasmodic aid is useless. One wonders, too, that private individuals have not done more for the University. In the face of the princely gifts to education made by scores of private individuals in the United States, the lack of support to Toronto is certainly surprising. Perhaps Ontario does not boast many well-to-do men; perhaps there is less real interest in higher education than is sometimes professed. Whatever the case may be, the condition remains, and I hope that every graduate of Toronto will answer to the call "To arms," and will fight until the cause of the University and of higher education is victorious.

A CENTURY OF CHEMICAL PROGRESS.

BY PROFESSOR W. R. LANG.

THERE are few branches of science which have progressed so rapidly in the last hundred years as the one I have the honour to profess in this University. Looking back over this period one sees in existence a very different state of affairs, socially, commercially and otherwise, than that which now prevails, and it is no exaggeration to say that much of the present comfort enjoyed by all classes is due to the advance of physical and chemical science. Biology, even, and electricity certainly were in their infancy in 1800. Chemistry, as we know it now, almost equally so. The old alchemical idea of "phlogiston" had received a decent burial, though its memory was kept green by Priestley till his death in 1804, and till the medical chemists, whose search for the "elixir vitæ" had occupied their attention since the middle ages, had given up the quest for more profitable inquiry. The search for the "philosopher's stone," which was to convert all baser metals into gold, had been the main object of the experiments of a certain class of chemists, but such men as Black, Cavendish, Scheele, Priestley and Lavoisier—who fell a victim to politics

during the French Revolution—were studying the composition of matter for the sake of knowledge itself. That science was on the verge of entering on a new era is evidenced by the fact that in 1800 the Royal Society (founded 1663) commenced its "Catalogue of Scientific Papers." Chemical knowledge at that period was limited to a few isolated facts. Oxygen and hydrogen had been prepared, and the composition of air and water and of a few minerals was known, and a right understanding of the general characters of acids, bases and salts had been but recently arrived at.

At the present day, when the electric current is used so extensively in many chemical operations and manufactures, it is of interest to note that the first experiments towards the decomposition of water into its constituent elements, oxygen and hydrogen, by this means were made in 1800 by Nicholson and Carlisle. Following on this Humphrey Davy, who in 1801 was appointed Professor of Chemistry at the now famous Royal Institution of London, applied the current from his galvanic battery to the decomposition of damp caustic potash and soda. In this way he obtained at the negative pole metallic globules, which by subsequent experiments he found could be reconverted into the alkali from which they had originally been prepared. By similar means he isolated the elements barium, strontium and calcium from the common "earths," and found that these in combination with the gas chlorine—discovered by Scheele—gave soluble saline bodies, of which common salt may be taken as the type.

Davy was at that time instrumental in proving that oxygen, which had been considered the acid-forming element, was not necessarily a constituent of all acids. Chlorine was supposed to be an oxide of hydrochloric acid, but all experiments which he performed to find oxygen in chlorine proved decisively that it was an elementary body. About this time also Curtois, a Parisian soap-boiler, when preparing soap with alkali obtained from sea-weed, found indications of a substance hitherto unnoticed. This he sent to Davy, who discovered its elementary character and its resemblance to chlorine, and thus iodine came to be added to the rapidly growing list of simple substances. In 1826 Balard added one more to the number by his discovery of bromine in the mother liquor or "bittern" left after the removal of sea-salt from sea-water by evaporation.

Contemporaneously with Davy's earlier researches, John Dalton, a Manchester schoolmaster, enunciated his famous theory, which has remained the fundamental hypothesis of chemistry to this day. According to this doctrine, matter is composed of minute particles or "atoms," each with a definite relative weight, and compounds are formed by these atoms of different elements becoming closely united to form a homogeneous whole. Other chemists had noticed that the same compounds always contained the same elements in the same proportions by weight, and that when more than one compound could be got containing the same elements, but in different proportions, the proportion in which the

one element combined with the other in the second case was a multiple by a whole number of the proportion in which it combined in the first case. All this Dalton's hypothesis accounted for. Thomas Thomson, the professor of chemistry in the University of Glasgow, was the first to teach Dalton's views, and he incorporated these ideas into his "System of Chemistry," published in 1805. In his "Chemical Philosophy," published a few years afterwards, Dalton expresses his ideas thus: "Chemical analysis and synthesis go no farther than to the separation of particles one from another, and to their reunion. No new creation or destruction of matter is within the reach of chemical agency. We might as well attempt to introduce a new planet into the solar system, or to annihilate one already in existence as to create or destroy a particle of hydrogen. All the changes we can produce consist in separating particles that are in a state of cohesion or combination, and joining those that were previously at a distance." Thomson, Berzelius, Prout, Stas and Dumas all proceeded to determine what these constant weights were in which the elements combined together, and a series of numbers was obtained and termed atomic weights, or more properly, equivalent weights.

Hitherto little notice had been taken of the volume relation in which elements combined. Gay-Lussac and Avogadro noticed the definite proportions in which gases combined together, which later became extended to elements in the gaseous state that were at ordinary temperature liquids or solids. To enter into further particulars, however, regarding the facts relating to atomic weights, made evident by careful study of those volume relations, would be beyond the scope of this lecture. Equally so would be any detailed explanation of the facts established by the researches of Dulong and Petit regarding the relation between the atomic weights of the elements and their capacity for heat. Suffice it to say that this relation has proved instrumental in ascertaining those relative numbers, a true knowledge of which is indispensable alike to the physicist and the chemist. The theory enunciated by Avogadro, previously referred to, that equal volumes of gases contained an equal number of particles or molecules, received confirmation from the researches of Thomas Graham, of University College, London, into the subject of gaseous diffusion. Experiment showed that the rate of the diffusion of different gases through some porous material varied inversely as the square roots of their respective densities. Graham also contributed greatly to our knowledge of liquid diffusion, and his researches and views on the constitution of the phosphoric acids are now classic.

At the beginning of the century Germany had produced few chemists; at any rate none of the first rank. Liebig may, perhaps, be considered its first great man, and he in his youth received his instruction in the laboratory of a French chemist, Gay-Lussac. In 1837, when her late Majesty Queen Victoria of sacred memory ascended the throne, he was in the height of his fame. To him we owe much of the impetus which was given to the study of scientific chemistry in England, and to him the physiologist, the manufacturer and the agriculturist are indebted for

a great portion of their present knowledge of the practical application of it to their varied needs. He it was who devised the method still in use for the determination of the composition of "organic" compounds. Wöhler showed at this time by his synthesis of urea—a substance hitherto considered as purely the result of vital action—that "organic" chemistry must be regarded as the chemistry of compound radicles. Liebig and Dumas were at one with Wöhler in this, and formally announced their adhesion to his doctrines at a séance of the Académie des Sciences de Paris in 1837. The enormous strides made in the development of this branch of chemistry cannot but strike the most callous observer as one of the marvels of the century. From the synthesis of urea in 1828 by Wöhler, and of acetic acid by Kolbe in 1845, down to the present day, when dyes of every shade and tint, explosives of all kinds, drugs, sugar, and even indigo can be built up in the laboratory by artificial processes, the development of this department has been phenomenal. And how has this come about? The conception of radicles led to an incalculable amount of research into the constitution of organic compounds, and the ways in which radicles were linked together and to elementary atoms. Compounds were broken down and again reconstructed, and the methods of causing these combinations to take place gradually became perfected. It may safely be said that the manufacturers of to-day owe much, if not all, of their success to the investigation following on these theoretical conceptions of the distinguished chemists I have named.

The old system of formulæ, based on Dalton's atomic hypothesis, came in for reconstruction about the middle of the century. Gerhardt (1843) was the first to seriously discuss the question, closely followed by Williamson (1850). It was some time, however, before the system deduced from their views was generally accepted. Hofmann was the first to adopt it in his lectures, and in 1864 Dr. Odling, the President of the Chemical Section of the British Association, congratulated the section on the agreement that had been arrived at amongst chemists as to the combining proportion of the elements and the molecular weights of their compounds. Observation of the natural families into which the elements grouped themselves led to the enunciation of what is now known as the "Periodic Arrangement of the Elements." In 1864, Newlands, of London, showed that when the elements were arranged in the order of the numerical value of their atomic weights, their properties, physical and chemical, varied in a recurrent or periodic manner. Thus it was seen that the element eighth in succession from another usually resembles it closely. Newlands termed this arrangement the "Law of Octaves." In 1869, Mendeléeff, of St. Petersburg, contributed further facts concerning this periodic arrangement of the elements, and their study at this day is based on that now fully recognized system of classification. Both Newlands and Mendeléeff predicted the existence and physical and chemical properties of many undiscovered elements which would go to fill the blanks in the table. When gallium, scandium and germanium were

isolated they were found to correspond to the elements predicted by Mendeléeff, and to which he had assigned the names, "eka-boron," "eka-aluminum" and "eka-silicon."

The phenomena exhibited by many substances in their action on polarized light have led to ideas regarding the arrangement of atoms in space. To Pasteur, and more notably Le Bel and van't Hoff, is due the credit of bringing before chemists a hypothesis which has had an enormous influence in the progress of organic chemistry.

The study of substances in solution has provided a means of determining molecular weights. Pfeffer, the botanist, in 1878, performed an important series of experiments with membranes deposited by chemical means in the pores of unglazed earthenware, and found that if weak solutions of salts were placed outside such a vessel, water would diffuse through while the dissolved substance would not. This was due to the "semi-permeability" of the membrane employed. Van't Hoff, in 1887, in studying the theory of dilute solutions, found that the semi-permeable membranes served to measure the pressure due to the dissolved substance. From an accurate study of substances in dilute solution and of their behaviour with regard to their passage through extremely thin porous membranes it is now evident that there exists the closest possible analogy between the state of substances in solution and the same in the gaseous condition. As the result of experiments on the conductivity of substances in solution for electricity, Arrhenius (1888) has shown that when an electrolyte, such as common salt, is dissolved in water it dissociates partly into the separate *ions*, a name devised by Faradáy, and signifying the "things that go," namely sodium and chlorine. These views have been strongly upheld by Ostwald and others, and are supported by the facts rendered apparent by the behaviour of substances in solution as regards diffusion, the lowering of the vapour-pressure and the depression of the freezing point of the solvent.

(To be continued.)

THE COPYRIGHT QUESTION.

BY GOLDWIN SMITH, D.C.L.

THE copyright question, on which Professor Mavor, who has mastered it, has given you an article, is, of course, greatly, almost fatally, complicated by the prevalence of an illiberal protectionism in the United States. Mr. Funk, the eminent New York publisher, some time ago, in a letter to *The Times* on "The United States and Copyright," adverted to the refusal of the United States to allow the British applicant for their copyright to print in his own country, while Great Britain allows the American applicant for her copyright to print in his. He ascribed this to the influence exercised by the American Printers' Union and its allied trades over the Government of the United States. He was, no doubt, right as to the fact. It is true that the universal interests of literature, science and art are sacrificed to those of a local handicraft. But it would surely be paying a poor compliment to the American Government to

plead on its behalf, as an excuse for its failure to do justice, its subjection to a sinister interest.

The American printer, under the existing arrangement, not only secures his own share of the printing, but robs the English printer of that which properly belongs to him.

It is a pity, as it seems to me, that matters should ever have been allowed to rest on such a footing. This is not free trade; it is connivance on the part of Great Britain at the most manifestly unjust protection. Great Britain should surely have said to the Americans that she was going into the Berne Convention, and they could go into it or not as they thought best, but that they could not expect to share its benefits without fulfilling its conditions. Had this been done, there would have been an effort on the part of the literary interest in the United States to bring about a better arrangement, such as Mr. Funk's house, to its honour, desires. At present there is none.

That an Imperial Copyright law as well as an Imperial Marriage law and an Imperial Patent law are the natural accessories of a united Empire, seems to me a position which is very difficult to assail.

ZETA PSI AT TORONTO.

BY C. A. MOSS, B.A.*

ZETA PSI fraternity was first mooted in 1845 or 1846 at New York University. Its formal establishment dates from the 1st June, 1847. While, in the main, its objects are those of other college societies, the great end at which it aims is the development of the man. In its eyes the man is far more important than the athlete, the musician or the scholar. Thus the fraternity is distinctly social in theory and in practice, seeking to cultivate each member by intimate acquaintanceship with a few congenial friends. Literary attainments, class successes, athletic feats and undergraduate prominence are but means to the end. The original founders of the Society were Masons, and some of the ritual of that body was adapted to the ceremonies of Zeta Psi.

The energy of the members, added to the principles outlined above, resulted in the rapid spread of the Society throughout the north-eastern States during the ten years succeeding its birth, and chapters were also established in colleges in the southern States. The clouds which heralded the civil war seemed to portend evil to the body, and a secession of the southern chapters was threatened. At this crisis, in 1858, when the feeling throughout the United States was most bitter, and neighbour was preparing to rise against neighbour, and brother against

* The credit for the materials and scope of this article belongs to a committee of the society, composed of O. M. Biggar, B.A., Eric N. Armour, B.A., and M. C. Cameron, B.A. The imperfections of presentation are those of the writer.

brother, the governing body of the Society passed a resolution, the terms of which indicate the extent to which the ties of such a fraternity may overcome passion and hatred. This resolution was in the following words:—

“That while we may differ in political sentiment from some of our brethren who are courageously battling for principles which they deem right, no disaster shall separate them from our communion.”

The spirit which breathed in the foregoing words held the northern and southern chapters together, but the far-reaching effects of the war in the south resulted disastrously to some of the chapters there. The members of the Society took prominent parts in the conflict, the chapter at Brown University being temporarily dissolved by the enlistment of its entire membership in the Rhode Island Light Artillery.

After the war the fraternity spread to the west, establishing itself in Cornell, Ann Arbor, Chicago and California. In 1879, on the 27th March, the Toronto chapter was established by members from Ann Arbor University, several of whom attended Toronto to initiate the Society here. Our first members were E. N. Clements, F. T. Congdon, Henry Brock, J. A. Patullo, A. B. Shaw, Douglas Armour, H. K. Woodruff, H. H. Hull and W. K. McDougald.

Claiming to be more secret than the majority of undergraduate fraternities, the policy of Zeta Psi with regard to new chapters has for many years been conservative, and its object has been to build solidly upon the foundations already laid rather than to spread widely. In accordance with this principle but two new chapters have been established in the past eleven years, the number of chapters now in active life being twenty-two.

In 1879 the fraternity idea as a recognized force in college life was new to Canada. The movement had been called into being in the States as a phase of the great activity, expansion and organization of the years 1830-1850. No such incentive existed at Toronto. The members of the new chapter were timid in declaring themselves. The first meetings were held in the rooms in Residence of the various brothers, and the existence of the organization was unknown to those outside of its circle. In the fall of the year, however, rooms were secured in the old opera house on King Street, but fire destroyed the chapter's first home in November, and again meetings were held secretly in Residence.

The college paper at this time was called “The Blue and White.” Early in 1880, hoping to better it, the Zetes determined to acquire its control. By the end of April the paper, henceforth to be known as “The Varsity,” was owned by chapter members.

In March rooms were again rented down-town. The fraternity had now become known. Its objects were misunderstood, its motives attacked. In such an organization there undoubtedly existed elements of possible danger, both to the University and to the members themselves. Undergraduates saw this danger clearly, and their whole body declared war against Zeta Psi. If the then members of the chapter were

unknown now, we should nevertheless decline to refuse them the credit of love for their Alma Mater. We do know them as men who have proved their integrity and worth. They were convinced that the feeling of the undergraduates was wrong, and they resolved to maintain the chapter, and to make it an instrument for good to their college and themselves. But, unable to cope in the open with the storm, they abandoned their rooms, and again met in unknown places.

In 1881 the chapter ventured forth to look for sunshine. Rooms were secured on the north side of King Street, and, their corporate life being for the moment secure, the members were able to look for new material. In 1881 and 1882 many invaluable men joined the fraternity's ranks. The merits of "Varsity" were recognized, its editors were influential, its policy was respected and often adopted.

This period saw a woman first attempt to attain undergraduate rights at Toronto. The Zeta Psi chapter as a body supported her efforts, endangering its existence at Toronto for what it thought to be in the interests of the University and of womanhood.

In 1882 the chapter seemed to leap forward. Individual Zetes conceived the idea of a union of students. Its formation was accomplished, the purpose being the promoting and conserving of the students' rights. At the College, several members of the chapter were recognized by being elected to the most important and onerous positions in the undergraduate bodies. In the conception and execution of the presentment of "Antigone" the brothers took a generous part.

The fraternity at large also profited by the chapter's activity and strength. To Henry Brock was entrusted the management and editorship of the "Z ψ Monthly." McGill was looked upon as a fit field for exploitation, and a chapter, since most successful, was founded there as a result of the efforts of Toronto brothers in January, 1883.

In the spring of this year the chapter was weakened by the graduation of many of the enthusiastic and successful leaders and fighters of the past two years. These men had instituted the chapter, overcome the first attacks upon it; by their generalship, by their policy and by their unceasing care they had maintained it with honour; when they left the University they left the fraternity strongly entrenched and creditably known. But the interest of these graduates in the chapter, whose future they had thus made possible, did not wane. A post-graduate association was formed, to retain old friendships and to advise the undergraduate members. In different shapes this organization has lived ever since; it meets now, on the most elaborate scale it has yet achieved, once a month, and listens to and discusses papers on topics of the hour from the different associates.

The few undergraduates left in 1883 had to struggle against inevitable reaction. They could not fill at once the places of those who had gone. Financially and numerically they were weak. The internal policy of the next two years was recuperation, the making surer yet the bulwarks. It was well this had been done, for in 1887 once again undergraduate

protests demanded the abolition of secret societies. A circular was published purporting to give the names of the members. The fraternity's aims were characterized as selfish, disloyal and dishonourable. Its secrecy was condemned as a sign of would-be exclusiveness and self-supposed superiority, and as in furtherance of a design to obtain the control of undergraduate affairs. This last effort to kill the Society spent itself and died away.

From 1879 to 1890 the expansion of the University had been slow. The number of students increased, indeed, but the genius of their organization remained the same. Those who would might make the acquaintance of the whole undergraduate body. As a matter of course each one knew all of his year. Residence was a potent factor in college affairs, and its inmates and their intimates were of sufficient number to wield a large influence. From its situation it was the natural centre; those living there were easily gathered for meetings or elections. It was always organized. Zeta Psi from the first was identified closely with the Residence. As during these ten years Residence for the most part led the College, so the fraternity led Residence. The records of the Rugby football club bear the most eloquent testimony to this fact. Zetes were captains of the team during many of these years, and many Zetes played upon the team. The annals of the Association football, cricket and baseball clubs contain further evidence. The names of some captains of that period, Hume Blake, McLean, the Senkler brothers, Duggan, Thompson, Brock, Lindsey and A. G. Smith, will recall to their associates the work done by the chapter in each branch of sport, and to these names could be added others of equal merit. The 'Varsity Company in the Queen's Own Rifles was always to a great extent officered and manned by brothers of the Zeta Psi. In 1885 the chapter numbered thirty-three, of whom thirteen went through the rebellion in the North-West with this company. The Literary Society records are too replete with names of Zetes for choice to be made. For years there the contest was between Residence and Town, Inside and Outside,—and in those struggles by reason of its situation Zeta Psi had to bear, and did bear, a prominent part. The Glee Club also owes much of its successes to this chapter, W. H. Blake, Langton, Burton, and, somewhat later, R. K. Barker, all taking prominent parts in its history. In the fall of 1890 Cross aided in establishing and captained the lacrosse club, whose annual tours in the eastern States have spread favourably the name of the University of Toronto. In every phase of undergraduate life the Zetes were prominent, encouraging, suggesting, aiding, leading.

One cannot fix the end of an old order of things with an exact date. The extraordinary expansion of undergraduate members at Toronto must have begun before 1890. About that time the student institutions adapted to days of smaller things began to be plainly inadequate. Residence became a small factor, Zeta Psi a smaller factor, in affairs. The expanded student body rightly demanded that it should control the undergraduate paper, which the Zetes could no longer handle in the best

interests of the College. To fulfil its purpose it must now be controlled and financed by the whole student body. In the hands of Zeta Psi it had long and well represented the undergraduates—it had upheld abroad the honour of the University. In these hands it could do so no longer, and so, before 1890, the fraternity had handed it over. The years were organizing into class societies; course societies followed; a call for an Alma Mater undergraduate society, the need of an athletic association—each voiced the effort to find some new and fitting method for the expression of the undergraduate wish. Realizing the power the chapter had held under the old order, and fearing it might seek to retain that power, a large portion of the students looked upon its members with suspicion. Nevertheless, in the various schemes of reorganization the Zetes took a large part. The year 1891 was with them most successful, and many offices of trust and distinction were awarded them. The benefits of secret societies for those who desired them were widely acknowledged. The ground had now been prepared for others. Kappa Alpha and Alpha Delta Phi established prosperous chapters, and events have proved that there is room for these, and for others which have followed them. Since 1890 Zetes have been prominent again and again in every branch of student activity, called to the work by their undergraduate fellows. But with the changed conditions the chapter cannot have, nor does it ask, its former sphere of influence. It devotes itself the more gladly to its primary object, the development of the social life. In a large university this must be to a great extent the aim of the fraternities. An undergraduate is apt to meet and consort with those of his own course and class only. Bringing him into contact with men of other years, of other aims, and of different views, the societies do the undergraduate lasting, incalculable benefit.

In 1893 the changed opinion concerning fraternities and the changed conditions were shown by the fact that Zeta Psi leased the old Reform Club House on Wellington Street. Hitherto the location of the rooms had always been secret. In the beginning of 1895 the annual convention of the various chapters of Zeta Psi was held, for the second time in Toronto, at this house. None of the members lived there, however, nor were strangers allowed to enter. An agitation soon arose for a house owned by the chapter, where brothers who might wish it could reside. The authorities of the University have now recognized the fraternities, and have offered to lease upon most favourable terms a portion of the University property, upon which chapter houses may be built.

In 1899 the fraternity leased a large house, this time up-town, and there they are at present comfortably lodged. Many members reside there; for those who do not it is a place where they gladly spend their spare moments. Strangers are permitted to visit, and graduate members also find it a convenient spot in which to spend many a cosy evening.

A detailed account of the history of the chapter for the past few years would here, it is feared, be out of place. Let us mention only that five members, A. J. Boyd, R. K. Barker, J. McCrae, F. W. G. Thomas and

W. C. Laidlaw have served with various Canadian contingents in the Transvaal. Ten years from now some one writing of the decade just past will find among its annals names as mighty in undergraduate history as those mentioned above. But it is hard at this time to estimate, in a paper such as this is, written primarily for those outside fraternities, the place of Zeta Psi in the history of the University within these past few years. It draws its members from every affiliated school and college. There for social ends the arts man, the medico, the science man, the theolog— all meet. The noble objects of the founders of the fraternity are ever before its members. They choose by fraternal intercourse to assist in their own development, and believe they are the better therefor, and because of their honoured chapter they are the more loyal to their beloved Alma Mater.

AVERAGE AGES OF MATRICULANTS.

The Editor of University of Toronto Monthly :

DEAR SIR,—In a recent letter to the *Globe* Professor Dale quotes and seems, though his language is not so sweeping, to endorse the following statement in relation to the students at a Prussian University: "He comes to the University with a knowledge of classics, mathematics and modern languages equal to that of the average arts graduate of an American or English University." Is this correct? Or approximately correct? If so, at what age do the German students matriculate? Making allowances for the phrase, "average arts graduate" and for the embellishments of a polemical discussion, there must either be, say, two years' difference in the average age of the respective matriculants, or an equivalent in something else, if the facts be as stated.

Any difference in the average natural ability is likely slight. Is it in the previous (say, primary or secondary education), or what? If the school methods or ambition for omniscience nowadays, so general in five-year-old tots, is blameworthy let us know it.

Yours truly,

JOHN IDINGTON.

The answers to the questions asked by Mr. Idington will be found in President Loudon's Convocation address of last October. It is there explained that the German youth of nineteen closes his career at the gymnasium or *real-schule* with attainments equal at least to those of our pass graduate, and enters the University for the purpose of undertaking professional study or research work. The reason why the German student is so far in advance of the Canadian student of the same age is to be found, according to President Loudon, in the superiority of the German system of secondary education over the Ontario system. The remedies for the defects in our system are stated in the same address.—THE EDITOR.

THE LATE REVEREND A. J. McLEOD, B.A.

BY A. H. YOUNG, '87.

THE first time I remember Angus McLeod clearly was in connection with a caucus of the old inside party which was held in Residence dining-room. He was one of those who insisted strongly, and successfully, upon bars being abolished as a party institution, and no one thought the less of him for the outspoken way in which he expressed his views. At the end of the contest, which, though very hot, was conducted on much straighter lines than had, perhaps, been customary, he found himself Second Vice-President of the Literary Society.

A Knox man, I remember, had pledged his vote to his class-mate, a candidate for the insiders in this same contest, but he requested (and was granted) the privilege of changing his mind, because it was the custom for Knox to vote the outside ticket. McLeod did not live in Knox till later on, if I remember aright, but, after taking up his residence there, he accomplished a task which would have been impossible for most men—he gained large numbers of recruits for his party in that stronghold of the outsiders, which had been held so long by the Mackays and their friends.

I will not say that his opponents loved him the more for this feat which he had performed, but they certainly respected the man who, by his place in the class lists, his knowledge of football, his powers of speaking, his ability to manage men, and, above all, by his manliness and gentlemanliness, was able to draw men to him. We have had good men in great numbers at University College, but none, so far as I know, has surpassed McLeod, and none has left so enduring a mark behind as he has left. His was that goodness which attracts men but does not repel them. In a word he was sincere.

He was one of those men who on Thursdays frequented the Y. M. C. A. meetings in the dull, dark room upstairs in Moss Hall, where all undergraduate societies used to meet in other days, when there was neither Union nor Y. M. C. A. Hall. The Association had grown since 1873 in spite of the drawbacks incidental to the place of meeting, but to McLeod, with his earnestness and his social instincts, there came visions of something far better for it. Gradually the idea of a building for the Association itself grew in his mind—not that it should be separate from the life of the undergraduate body, but that it might become a centre of student life.

The time was opportune, for the cry of “a godless college” was heard in the land; hence good subscriptions were given by prominent officials, as well as by graduates and other friends of University College, when the subscription list was opened in the spring of 1885. Of the six thousand dollars or more subscribed, not more than a hundred dollars was left unpaid—a thing almost unheard of in the matter of

subscription lists and a tribute, among other things, to the wise management of McLeod.

He spent the whole summer in town, supplying, if I mistake not, at the West Presbyterian Church, and was thus able to see that the building operations were properly carried on. A proud man he was when the building was opened on March 6th, 1886, practically free from debt.

With the building came new requirements, and the winter of 1886-7 saw McLeod in the new position of General Secretary, directing the work of the Association. His foundation principle was that, taken for granted his being what he professed to be, a man, to be prominent in the Y.M.C.A., ought first to be of some account elsewhere, in one or other of the Football Clubs, in the Literary Society, the Glee Club, or something of the sort. With other-worldliness he had no sympathy at all. He and his immediate successors took care, on the other hand, to guide the Association through the period when the "Y.M.C.A. party" was talked of in undergraduate politics.

It was during his tenure of the secretaryship that Messrs. Forman and Wilder visited the College and interested the men in the Student Volunteer Movement, about which so much is still heard. Out of this grew, besides a new interest in missions on the part of most of the men in College, the plan, proposed by McLeod, for sending a Y.M.C.A. missionary to Korea. The Reverend James Gale, '88, the distinguished author of "Korean Sketches," etc., went out in due time, as all the world knows, and the mission, by degrees, grew into the scheme which is now being worked out. It was an individualistic experiment in missionary effort, which, though it broke down in its original form, has been, so far as can be judged, of very great benefit to most of those concerned.

I have done with the outstanding points of McLeod's connection with the Y. M. C. A. and with University College, though I could say much more about him if space allowed, but I must set it down that out of this Student Volunteer Movement grew, in part at least, his own resolve to devote himself to that work with which he was occupied at the time of his death on November 20th. After a short pastorate at Medicine Hat he became principal of the Regina Industrial School for Indians, which is supported by the Dominion Government and managed by the Presbyterian Church. What his earlier work had been this was also, solid, thorough, and genuine, done in the spirit of the Master whom he served. It seems a pity that a memorial called by his name should not stand among us, and, in default of something better, it seems to me that the place he planned and watched over might well be called McLeod Hall, seeing that other names which have been given to it from time to time have failed to maintain their hold.

GEOGRAPHICAL DISTRIBUTION.

THE geographical distribution of the graduates of the University of Toronto in the faculties of Arts and Medicine is shown in the following table by counties in Ontario and by Provinces in Canada. To these figures will be added later the graduates now on the list of "Addresses Unknown," which is being rapidly reduced through the kindness of readers of the MONTHLY who have sent in information.

ONTARIO : NAME OF COUNTY.	No. of Graduates in Arts.	No. of Graduates in Medicine.	ONTARIO : NAME OF COUNTY.	No. of Graduates in Arts.	No. of Graduates in Medicine.
Algoma	14	6	Peterborough	18	15
Brant	37	22	Prescott and Russell.	4	2
Bruce	30	28	Prince Edward	11	9
Carleton	75	6	Rainy River District.	3	3
Dufferin	13	7	Renfrew	10	4
Elgin	36	22	Simcoe	44	57
Essex	33	26	Stormont, Dundas and Glengarry....	14	5
Frontenac	12	8	Thunder Bay	6	2
Grey	39	43	Victoria	18	25
Haldimand	12	16	Waterloo	32	29
Halton	23	13	Welland	18	20
Hastings	30	13	Wellington	54	41
Huron	36	33	Wentworth	72	56
Keeweenaw	29	28	York	50	57
Lambton	29	19	Toronto	550	207
Lanark	16	3	Quebec	32	4
Leeds and Grenville..	21	6	New Brunswick	6	2
Lennox and Addington	19	9	Nova Scotia	9	1
Lincoln	32	23	Prince Edward Island	1	2
Middlesex	82	43	Newfoundland.....	1	1
Manitoulin	1	1	Manitoba	58	23
Muskoka	9	13	North-West Terri- tories	27	26
Nipissing	7	3	British Columbia ..	41	23
Norfolk	14	17	United States	176	74
Northumberland and Durham	32	29	West Indies	1	1
Ontario	40	30	Europe	21	8
Oxford	35	35	Asia	19	7
Parry Sound	1	6	Africa	1	2
Peel	21	14	Australia	3	8
Perth	37	24			

UNIVERSITY OF TORONTO ALUMNI ASSOCIATION:
LOCAL ORGANIZATIONS.

GREY AND BRUCE.

The graduates and undergraduates of the University of Toronto resident in the districts of North Grey and North Bruce met in the council chamber in Owen Sound on January 25th. The addresses delivered by Drs. J. C. McLennan and F. N. G. Starr, of Toronto, upon not only University questions in general, but the progress and immediately specific

needs of the University of Toronto, were heartily endorsed. The "Owen Sound branch of the Alumni Association of the University of Toronto" was organized with the following officers elected for the current year :

Honorary President—Rev. J. Somerville, M.A., '70, D.D.

President—A. G. McKay, B.A., '83, County Crown Attorney.

Vice-Presidents—W. H. Jenkins, B.A., '90; T. H. Middlebro', M.B., '92, F.R.C.S.; H. J. F. Bannerman, D.D.S.

Secretary—W. D. Ferris, M.B., '98, Shallow Lake.

Treasurer—H. E. Sampson, B.A., '93, Ph.D.

Councillors—John Armstrong, B.A., '76; C. J. Mickle, B.A., '81; A. W. Baines, J. G. M. Sloane, M.B., '95; Malcolm N. Clark, B.A., '97; J. B. Fraser, M.D., '69.

A committee was appointed, composed of the Honorary President, first Vice-President and Secretary, to draft and engross a memorial to the Local Legislature asking for assistance to the State University of the Province of Ontario befitting the resources of the Province, and also to prepare a request to the local members for North Grey and North Bruce to assist in carrying out the terms of the memorial; and that all members of this local branch of the Alumni Association be asked to sign their names to the request to the local members.

There is a strong and general opinion amongst the Alumni of this district that the graduates of the state University should be represented upon the Senate of that institution by graduates from various parts of the state, *i.e.*, resident outside the city of Toronto; also, that members of the Senate should not be expected to bear their own expenses, travelling and otherwise, when attending meetings of the Senate.

The parent Alumni Association may expect hearty support from this local branch, which will number above fifty members.

W. D. FERRIS, *Secretary*.

HURON.

A number of graduates of the University of Toronto residing in the County of Huron met at Clinton, February 16th, 1901, to organize a local branch of the Alumni Association of the University of Toronto. Among others present were: Mr. H. I. Strang, Principal of the Goderich Collegiate Institute; Dr. Taylor, Goderich; Rev. Mr. Hamilton; Mr. Cooper and Mr. Field, of the Goderich Collegiate Institute; Messrs. Trelevan, Houston and Dr. J. C. McLennan, Toronto. Mr. Strang took the chair and stated briefly the object of the meeting. Dr. McLennan, the General Secretary of the Alumni Association, then addressed the meeting, pointing out what was being done for the promotion of the interests of the University generally, and what it was hoped could be accomplished by the formation of a local Alumni Association such as it was proposed to organize in this county. Dr. McLennan was of the greatest assistance to the meeting, as the local graduates and undergraduates, although perfectly willing and anxious to do all that lies in their power to aid the University, are somewhat at a loss to know exactly how to proceed, or what is being done by the central association. A constitution was adopted corresponding very closely to the constitution of the Alumni Association of the University of Toronto, the only changes being made were those necessitated by the fact that this Association is only a branch. The following officers were elected:

Honorary President—H. I. Strang, B.A., '62.

President—Wm. Gunn, M.D., '81, Clinton.

Vice-Presidents—A. Mowat, B.A., '91, Seaforth; A. Taylor, M.B., '71, M.D., '88, Goderich; Rev. A. Stewart, B.A., '73, Clinton; Rev. Colin Fletcher, B.A., '73, Exeter; Thos. Agnew, M.B., '94, Wingham.

Secretary-Treasurer—Charles Garrow, B.A., '96, Goderich.

Councillors—Rev. Mr. Hamilton, B.A., '82, London; J. M. Field, B.A., '95, Goderich; Isaac R. Carling, B.A., '91, Exeter; Principal Houston, B.A., '77, M.A., '78; W. Brydone, B.A., '90, LL.B., '93, Clinton; Miss Kirkwood, B.A., '98, Seaforth; Geo. Buchanan, M.B., '71, Zurich; J. C. Lindsay, M.B., '98, Blyth, and Dr. Holliday, Wingham.

A motion was made and carried that a committee be appointed to prepare a resolution memorializing the Government for financial assistance for the University, and also to prepare a memorial to be signed by all the Alumni in the county, to be sent to the various members of the Legislature.

Huron is a large county, with a great number of graduates and undergraduates of the University within its boundaries, and it is fully expected that the local organization will be very successful in its work of assisting the general association in obtaining aid for the University.

CHARLES GARROW, *Sec.-Treas.*

VICTORIA COUNTY.

A meeting of the Alumni of the University of Toronto for the County of Victoria was held in Lindsay, January 18th. It was determined to form a local organization to be known as "The County of Victoria Alumni Association of the University of Toronto," and all graduates and undergraduates in all the faculties of the University of Toronto, and all graduates of affiliated institutions resident in the district, will be eligible for membership. The following were elected as officers for the current year:

Honorary President—His Honour Judge W. W. Dean, M.A., LL.D.

President—J. C. Harstone, B.A.

Vice-Presidents—J. A. White, M.B.; The Rev. J. McD. Duncan, B.A., B.D.; L. V. O'Connor, B.A.

Secretary-Treasurer—Miss E. G. Flavelle, B.A.

Councillors—V. C. Cornwall, M.D.; Rev. L. S. Hughson, B.A., B.D.; Jas. Grant, M.D.; J. Neelands, D.D.S.; J. A. DeCew, E. Gregory, Miss M. Addison, B.A.

Dr. R. A. Reeve telegraphed his regrets at not being able to attend, but was ably represented by Dr. J. C. McLennan, Secretary of the Alumni Association. Dr. McLennan set before the meeting the aims and plans of the central organization, and after discussing the financial stringency of the University and the great need of new equipment, especially in the scientific departments, he showed what the graduate body could do if united in the common aim of awakening public interest and advancing in every way possible their *Alma Mater*. The President and Secretary were appointed a committee to draft a memorial to the Provincial Government setting forth the urgent needs of the University and the duty of the Government in putting its finances on a more substantial basis.

On motion of Mr. E. A. Hardy and Dr. Clarke, the meeting expressed hearty appreciation of Dr. McLennan's address and his kindness in coming to Lindsay in the interests of the Alumni Association.

(MISS) E. G. FLAVELLE, *Secretary*.

WATERLOO.

A meeting of graduates of the University of Toronto was held in Berlin, Ont., February 22nd, for the purpose of organizing a local branch of the University of Toronto Alumni Association for the County of Waterloo. Leading graduates from all parts of the county were present. His Honour Judge Chisholm presided, and addresses were delivered by President Loudon, Dr. J. C. McLennan, Secretary of the General Association; Rev. W. A. Bradley, Rev. J. R. Gilchrist, Messrs. T. Carscadden, Bitzer, Scellen and Connor.

President Loudon was the principal speaker, and dealt at some length with the present and past financial situation of the University. He referred to the expansion of the institution within the last twenty-five years, and explained how the deficits had arisen, owing to natural development and the obligations entered upon at the time of Federation. In the course of his remarks the President referred to the many occasions on which the wants of the University had been brought to the attention of the Government, and to the small measure of success which had, as yet, resulted from the efforts made. In conclusion he alluded briefly to the difference between the treatment accorded to the Provincial University and that of Queen's in the matter of financial aid. A lively discussion followed, and much information as to the actual situation was elicited.

The meeting then organized itself into a Local Branch of the Alumni Association for the County of Waterloo. The following officers were elected:

President—His Honour Judge D. Chisholm, LL.B.

Vice-Presidents—Dr. J. E. Lundy, Preston; T. Carscadden, M.A., Galt; Dr. Robert McIntyre, Hespeler; Rev. J. R. Gilchrist, B.A., Waterloo; Dr. H. G. Lackner, ex-M.P.P., Berlin.

Secretary-Treasurer—Rev. W. A. Bradley, B.A.

Councillors—D. Forsyth, B.A.; Dr. Noecker, Waterloo; C. Bitzer, B.A., Berlin; S. Moyer, D.D.S., Galt; L. J. Clark, Phm.B., Berlin; Mr. A. R. Goldie, Galt.

A memorial was drawn up for presentation to the Provincial Government, and the President and Secretary were requested to have the same transmitted through the local members of the Legislature. It was also decided to unite the graduates in the county in one effort to bring influence to bear on the local members to have them defend and promote the interests of the Provincial University on every occasion.

W. A. BRADLEY, *Sec.-Treas.*

WENTWORTH COUNTY GRADUATES ASSOCIATION.

The following sketch of the local Alumni Association at Hamilton will no doubt be of interest, and show that it and not Ottawa, as stated in the October number, is the oldest daughter of the family.

Away back in 1883 Convocation of Toronto University endeavoured by the formation of County Associations to arouse the interest of graduates in University affairs and to strengthen the ties that bound them to their *Alma Mater*.

On 26th November, 1883, a meeting of the graduates of Toronto University resident in the county of Wentworth was held at Hamilton, and an Association known as "The Wentworth Association of Toronto University Convocation" was formed, with the late Edward Furlong as chairman and Jas. Chisholm as secretary-treasurer. Resolutions in support of an attempt then being made to procure additional endowment for the University from the Province of Ontario were unanimously passed. These resolutions are as pertinent to-day as they were seventeen years ago, and it may not be out of place to reproduce them here. They were as follows: "That we desire to put on record in the strongest possible way our conviction that the existence and prosperity of the Provincial University are absolutely essential to the educational system of this country, and that any condition of things which would interfere with its usefulness would be nothing short of a national calamity;" and "That the income of the University of Toronto and University College is insufficient for their proper maintenance. That so long as they remain Government Institutions the Government is responsible for their efficient maintenance, and this Association pledges itself to the support of any scheme urging upon the Government the necessity of further endowment."

In 1886 the following notice of motion gives an idea of the lack of success which attended the attempt to secure a larger endowment from the Government, and indicates the feeling which even then prevailed in favour of independence from Government control: "Whereas there seems to be no probability that the University will ever obtain from the Government any financial assistance, and the means at present at the disposal of the University are totally inadequate to its needs; And Whereas it is believed that if the University were not under Government control its friends would contribute liberally to a fund to place it in a good financial position; Resolved, that this Association recommends the Executive Committee to take steps toward freeing the University from Government control and to bring the question before a meeting of Convocation at an early day."

In 1889 a committee was appointed to solicit subscriptions for the George Paxton Young Memorial Fund, and a very creditable amount was subscribed.

In 1890, when the ever-memorable fire occurred, the Association promptly met and passed resolutions expressing regret for the loss sustained, appreciation of the prompt action of the Government of Ontario in restoring the buildings, and assuring the President and Senate of the University of its co-operation in raising funds to replace the destroyed library. Over \$700 was raised by the committee appointed to solicit subscriptions for this purpose.

In 1892, through the efforts of the Association, Hon. A. T. Wood, of Hamilton, was nominated by the Lieutenant-Governor-in-Council to the University Senate as an appointed member.

In 1894 a resolution was passed favouring payment of mileage or travelling expenses to representatives of graduates on the University Senate residing outside of Toronto.

In addition to taking an active interest in many other subjects of interest to graduates, the Association has always taken a firm stand with regard to securing a reasonable representation of outside graduates on the University Senate, and the Association has always been represented by one or more of its members on that body.

Not the least pleasant, though last mentioned, of the acts of the Association were the dinners or reunions of the graduates, of which seven have been held during the existence of the Association, and the eighth will take place next month. The last was held in February, 1899, when Prof. Alfred Baker was the guest of honour and a number of graduates from outside counties were present. The pleasant memories of these reunions, when College traditions and songs hold sway, and the interval, be it long or short since graduation, is effaced by the inrush of reminiscences of the old College life, will ever abide with those who were present.

The officers of the Association consist of a President, Vice-President and Secretary-Treasurer and Executive Committee. The late W. F. Walker, Q.C., succeeded Mr. Furlong as President in 1890, and Dr. A. Woolverton Mr. Walker in 1894, retiring in 1898, when the present President was elected. Messrs. R. A. Thompson, Harry Carpenter and J. T. Crawford have successively filled the Secretary's chair. Officers were elected on January 15, 1901, as follows:

President—James Chisholm, B.A.

Vice-President—Harry Carpenter, B.A.

Secretary-Treasurer—J. T. Crawford, B.A.

Executive Committee—Officers and R. A. Thompson, B.A., Dr. F. Rosebrugh and J. L. Counsell, B.A.

The present membership is over seventy-five. While it cannot be claimed that the Association has fulfilled even a small part of the work it was expected to perform, or aid in performing, still it cannot be said in view of the above that its existence has been in vain. It has always responded to the call of *Alma Mater* in times of difficulty and peril, and has done something to strengthen her hands, as loyal graduates should. It has preserved in the County of Wentworth to some extent that *esprit de corps* and pride in our *Alma Mater* which have unfortunately been too generally allowed to languish and burn low. It has afforded to not a few of its members many pleasant hours, the memory of which will not soon fade away. Now that renewed interest is being taken in University affairs by graduates all over the Province it may reasonably be hoped that a career of even greater usefulness is opening for our Association.

J. T. CRAWFORD, *Sec.-Treas.*

TORONTONENSIA.

UNIVERSITY OF TORONTO
MONTHLY.

ADDRESS ALL COMMUNICATIONS FOR PUBLICATION TO
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NEWS FROM THE CLASSES.

The personal news is compiled from information furnished by the Secretary of the University of Toronto Alumni Association, and by the Secretaries of local organizations, and from other reliable sources. The value of this department might be greatly enhanced if University of Toronto men everywhere would contribute to it. The correction of any errors will be gratefully received by the Secretary of the Alumni Association.

1896.

Miss E. M. Ackerman, B.A., is a teacher at Picton, Ont.—A. P. C. Addison, B.A., is a Methodist clergyman in Colingwood.—R. W. Allin, B.A., is a teacher at Rothesay, N.B.—G. H. Armstrong, M.A., is a teacher in Borden Street School, Toronto.—George Arnold, B.A., is a Presbyterian clergyman at Waubausheene, Ont.—A. F. Barr, B.A., is a theological student at Wycliffe College, Toronto.—C. C. Bell, M.A., M.B., is a physician at Vienna, Ont.—B. A. Bensley, B.A., is at Columbia University, New York.—Miss Sara Bonis, B.A., is at St. Mary's, Ont.—C. G. Bryan, B.A., is secretary to Mr. Gilbert Parker.—R. Boyd, B.A., is in Kingston, Ont.—T. G. Bragg, B.A., is a teacher at Bowmanville, Ont.—E. D. Carder, B.A., M.B., is a physician at Toronto General Hospital.—W. R. Carr, B.A., is taking a post-graduate course at the University of Toronto.—H. R. Carveth, B.A., Ph.D., is instructor in Chemistry at Cornell University, Ithaca, U.S.A.—Mrs. G. H. Smith (Miss M. M. Cawthorpe), B.A., is in St. Catharines, Ont.—A. R. Chapman, B.A., is a Methodist clergyman at Bond Head, Ont.—J. A. Clark, B.A., is a Presbyterian clergyman in Toronto.—William Clark, B.A., is a teacher at Hatherton, Ont.—A. R. Clute, B.A., is a barrister in Toronto.—R. H. Coates, B.A., is on the staff of the *Globe*, Toronto.—Miss J. A. Combe, B.A., is in Clinton, Ont.—A. Cosens, B.A., is a teacher at Brampton, Ont.—Isaac Couch, B.A., is a Methodist clergyman in Mono Mills, Ont.—Miss G. I. Cowan, B.A., is doing journalistic work in Toronto.—W. P. Dandy, B.A., is a teacher in Forest, Ont.—A. M. Dewar, B.A., is on the staff of the *Herald*, Montreal.—A. C. Dobell, B.A., is a law student at McGill University, Montreal.—Miss J. E. Douglas, B.A., is in Chatham, Ont.—Miss M. G. Duncan, B.A., is in Seaforth, Ont.—T. Eakin, M.A., is a Presbyterian clergyman in Guelph, Ont.—Miss M. C. Edgar, B.A., is a teacher in Havergal College, Toronto.—J. D. Fal-

conbridge, B.A., is a barrister in Toronto. —J. A. Ferguson, B.A., is at Princeton University, N.J., U.S.A.—Mrs. H. M. Piper, B.A. (Miss Fortune), is at Fort William, Ont.—J. M. Foster, B.A., is in Toronto.—C. W. Freeman, B.A., is at the Toronto School of Medicine.—Charles Garrow, B.A., is a barrister in Goderich, Ont.—Miss E. L. Gillespie, B.A., is assistant in the Ontario Legislative Library, Toronto.—M. G. V. Gould, B.A., is a barrister in Oshawa, Ont.—Miss E. M. Graham, B.A., is a teacher in Quebec.—H. A. Graham, B.A., is a Methodist clergyman in Lebanon, Ont.—W. H. Graham, B.A., is a Methodist clergyman at Sparta, Ont.—A. R. Gregory, B.A., is a Presbyterian clergyman at Mansewood, Ont.—G. S. Henry, B.A., LL.B., is a farmer at Don, Ont.—G. B. Henwood, B.A., is a barrister at Colborne, Ont.—W. R. Hobbs, B.A., is a manufacturer at London, Ont.—J. E. Hodgson, B.A., is a teacher at Paisley, Ont.—E. R. C. Hosking, B.A., is in Toronto.—O. W. Howard, B.A., B.D., is an Anglican clergyman in Montreal.—D. S. Jackman, B.A., is a teacher at Kilsyth, Ont.—William Jackman, M.A., is a teacher at Kilsyth, Ont.—F. W. H. Jacombe, M.A., is in Guelph, Ont.—John Jennings, B.A., is a barrister in Toronto Junction, Ont.—F. K. Johnston, M.A., is a barrister in Toronto.—Miss M. G. Kingsmill, B.A., is in Toronto.—A. G. Kingstone, B.A., is a barrister in St. Catharines, Ont.—J. W. Kitching, B.A., is a Methodist clergyman at Orenden, Ont.—Miss I. S. E. Lafferty, B.A., is a teacher at Chatham, Ont.—W. C. Laidlaw, B.A., is a merchant in Toronto.—Miss L. R. Laid, B.A., is at Bryn Mawr University, Penn., U.S.A.—Miss N. Langford, B.A., is a teacher at Alma College, St. Thomas, Ont.—Miss A. E. Le Rossignol, B.A., is in Toronto.—R. S. Lillie, B.A., is at the University of Chicago.—J. W. Little, B.A., is a Presbyterian clergyman at Dryden, Man.—Miss E. P. Machlin, B.A., is a teacher in Toronto.—J. M. Martin, B.A., is a teacher at Niagara Falls, Ont.—A. Meighan, B.A., is a law student in Winnipeg, Man.—J. G. B. Merrick, B.A., is in Toronto.—Miss R. E. Millar, B.A., is a teacher at Burlington, N.J., U.S.A.—S. C. Moore, B.A., B.D., is a Methodist clergyman at Cavan South, Ont.—D. D. Moshier, B.A., is school inspector, Sarua, Ont.—J. B. MacCallum, B.A., is at Johns Hopkins University, Baltimore.—W. A. McClean, M.A., is a teacher in New York.—R. C. McConnell, B.A., is a Methodist clergyman at Combermere, Ont.—F. W. C. McCutcheon, B.A., is a teacher in London, Ont.—Donald Mc-

Fayden, B.A., is at Harvard University, Cambridge, Mass.—A. H. McGillivray, M.A., is a Presbyterian clergyman at Corunna, Ont.—G. A. McKee, B.A., is a teacher in London, Ont.—A. J. MacKenzie, B.A., M.B., is a physician at the General Hospital, Toronto.—A. McKibbin, B.A., is a Methodist clergyman at Strathroy, Ont.—J. S. McLean, B.A., is an insurance agent at Rossland, B.C.—John McLeish, B.A., is in the Geological Survey, Ottawa, Ont.—Miss E. McNeely, B.A., is a teacher at Carleton Place, Ont.—D. G. MacRobbie, B.A., M.D., C.M., is a physician at Shelburne, Ont.—A. McVicar, B.A., is a teacher at Windsor, Ont.—R. F. McWilliams, B.A., is a barrister at Peterborough, Ont.—Miss F. H. M. Neelands, B.A., is a teacher at St. Margaret's College, Toronto.—W. W. Nicol, B.A., is a teacher in Listowel, Ont.—D. Norman, B.A., is a Methodist Missionary in Japan.—F. Nurse, B.A., B.D., is a Methodist clergyman in Lambton, Ont.—J. R. Osborne, B.A., is a barrister in Ottawa, Ont.—R. Y. Parry, B.A., M.B., is a physician in Dunnville, Ont.—C. G. Paterson, B.A., is a Presbyterian clergyman in San Francisco, Cal.—Miss E. M. Perrin, B.A., is a teacher in Lindsay, Ont.—J. Roy Perry, B.A., is a broker in Toronto.—F. B. Proctor, B.A., is a barrister in Ottawa, Ont.—W. A. Rae, B.A., is a Presbyterian clergyman at Fort Francis, Ont.—R. J. Renison, B.A., is an Anglican clergyman at Moosefoot, N.W.T.—Miss A. R. Riddell, M.A., is a teacher in Oshawa, Ont.—C. C. Riordan, B.A., is assistant-manager Riordan Paper Mills, Limited, Merriton, Ont.—W. B. Ronald, B.A., is a Presbyterian clergyman at Abbotsford, B.C.—R. J. Ross, B.A., is a Presbyterian clergyman at Glenlyon, Man.—J. A. Rowland, B.A., is a barrister at Mt. Albert, Ont.—Miss E. L. Rutherford, B.A., is at Aurora, Ont.—Miss E. E. Ryckman, B.A., is a teacher at Smith's Fall, Ont.—E. J. Sauders, B.A., is a teacher in the State Normal School, Ellensburg, Wash., U.S.A.—A. M. Scott, B.A., Ph.D., is a professor in Fredericton University, N.B.—R. G. Scott, B.A., is a Presbyterian clergyman at Dauphin, Man.—Miss E. M. Seegmiller, B.A., is a teacher at Walkerton, Ont.—M. A. Shaw, B.A., is a Presbyterian clergyman at Sudbury, Ont.—G. F. J. Sherwood, B.A., is an Anglican clergyman at Thamesville, Ont.—A. G. Sinclair, M.A., is a Presbyterian clergyman at Port Hope, Ont.—Neil Sinclair, B.A., is a barrister in Toronto.—W. E. N. Sinclair, B.A., is a barrister in Oshawa, Ont.—A. Spotton, B.A., is a barrister at Harriston, Ont.—J. G. S. Staunbury, B.A., is a barrister in Exeter, Ont.

—J. G. Taylor, B.A., is a teacher in Glencoe, Ont.—P. J. Thompson, B.A., is school inspector, Glencoe, Ont.—R. I. Towers, B.A., is a barrister in Sarnia, Ont.

—Miss A. B. Tucker, B.A., is a teacher in the Normal Training School, Edinburgh, Penn., U.S.A.—J. F. Van Every, B.A., is a teacher in Napanee, Ont.—M. W. Wallace, B.A., Ph.D., is professor of English at Beloit College, Ill., U.S.A.—Mrs. A. C. McMaster, B.A., (Miss Wanless) is in Toronto.—Miss Louise Watt, B.A., is in Edinburgh, Scotland.—J. P. Weeks, B.A., is a law student in Toronto.—F. J. Weidenhammer, B.A., is a teacher in Leamington, Ont.—W. B. Weidenhammer, B.A., is a teacher in Wardsville, Ont.—Miss J. O. White, B.A., is in Woodstock, Ont.—Miss E. Wickham, B.A., is a teacher in Nelson, B.C.—T. M. Wilson, B.A., is a teacher in Paris, Ont.—Miss F. E. W. Withrow, B.A., is in Toronto.—W. A. P. Wood is in the Canada Life office, Toronto.—W. J. Wright, M.A., is a theological student at McMaster University, Toronto.—F. S. Wrnch, M.A., is studying in Germany.—Miss A. H. Young, B.A., is in Toronto.

1896.

Deceased.—Miss E. A. Durand, B.A., and A. S. McKay, B.A.

ADDRESSES UNKNOWN.

Part of the work which the Alumni Association has undertaken is the compilation of a catalogue of the graduates of the University of Toronto and its maintenance in as correct a form as possible. It was found that a very great number of our graduates had dropped out of sight—no response came from their addresses as found in the Registrar's books, and, as far as their Alma Mater was concerned, they were unknown. A very large number of these addresses have been already corrected by correspondence through the kindness of graduates who have sent us information. Many names are still lacking addresses, however, and we request our readers to aid in completing the catalogue by sending in at once addresses for any of the following names:—

Class of '96—John Burchill, M.A., E. E. Craig, B.A., H. M. Death, B.A., G. O. Duprau, B.A., A. F. Ewing, B.A., A. C. Grav, B.A., Miss C. Heal, B.A., E. A. Healy, B.A., R. W. Husband, B.A., J. F. Hu chison, B.A., J. C. Milligan, B.A., J. A. Montjoy, B.A., A. A. McRae, B.A., J. W. Preston, B.A., A. J. Raddon, B.A., W. J. Roach, B.A., M. L. Rush, B.A., G. A. Scott, B.A., G. Young, B.A.

Class of '66—P. M. Barker, B.A., H. B. Clarke, J. H. Miller, M.A., D. Junor, M.A.

Class of '67—J. Preston, B.A., J. W. P. Mulholland, B.A.

Class of '68—W. J. Reid, B.A., Lewis Pyper, B.A., A. Malcolm, B.A., E. M. Bigg, M.A., C. T. Atkinson, B.A.

Class of '69—F. H. Young, M.A., J. A. Jewell, B.A.

Class of '71—W. C. Middleton, B.A., J. S. Ledyard, B.A., M. Kew, B.A., H. M. Hicks, M.A., E. H. Dickson, B.A., James Crozier, B.A., T. B. Browning, B.A.

PERSONALS.

Every alumnus of the University of Toronto is invited to send to the Editor items of interest for insertion in this department. News of a personal nature about any alumnus will be gladly received.

T. W. Wright, B.A., '63, M.A., '91, is a professor in Union College, Schenectady, N. Y.

The Rev. A. P. McDiarmid, B.A., '75, is principal of the Brandon College, Brandon, Man.

J. S. Brown, B.A., '91, is assistant master in the Dufferin School, Berkeley street, Toronto.

The Rev. J. M. Goodwillie, B.A., '65, a retired Presbyterian minister, lives at Kenmore, Ont.

Richard Carney, M.D., Windsor, Ont., writes that he enjoys reading the MONTHLY and wishes it every success.

The Women's Residence Association has realized \$540.25 as the result of the Greek play last December.

Dr. Allan Shore, B.A., '95, M.D. (McGill), has received the degrees of L.R.C.P. (London) and M.R.C.S. (England).

J. H. Kennedy, C.E., '82, has been appointed chief engineer of the Victoria, Vancouver and Eastern Railway.

S. J. Rothwell, B.A., '91, is practising law in Winnipeg. The firm is Perdue & Rothwell.

J. Patterson, B.A., '00, winner of the Exhibition Scholarship last year, is now engaged in original research in University of Cambridge.

C. E. Race, B.A., '97, has removed from Arthur, Ont., to Cobourg, Ont., where he is now commercial master in the Collegiate Institute.

Don. A. Ross, B.A., '98, manager of the Sailor Mine, Camp McKinney, B.C., for the past ten years, spent a short time in Toronto lately.

E. Frisby, M.A., '63, has been for many years a resident of Washington, D.C., where he was, until he retired, on the staff of the Naval Observatory.

J. McE. Murray, B.A., '92, is acting as secretary to Mr. B. E. Walker, general manager of the Canadian Bank of Commerce, Toronto, Ont.

W. T. White, B.A., '95, is manager of the National Trust Co., Toronto, and J. C. Breckenbridge, B.A., '93, is secretary-treasurer.

W. E. H. Carter, B.A.Sc., '98, has been appointed Inspector of Mines for Rainy River and Thunder Bay, with headquarters at Rat Portage, Ont.

A. D. McIntyre, B.A., '97, is acting as cashier to the Canada Cycle and Motor Co., which firm recently absorbed the National Cycle and Automobile Co. as well.

G. M. Murray, B.A., '98, has secured an important position with E. V. Clergue, Manager of the Algoma Central Railway, and of the extensive iron mines at Michipicoten, Ont.

W. L. Mackenzie King, B.A., '95, LL.B., '96, is Deputy Minister of Labour. Associated with him is H. A. Harper, B.A., '95, who is assistant editor of the new *Labour Gazette*.

James E. Eakins, M.B., '75, whose death is referred to in another column, was physician to the Deaf and Dumb Institute, Belleville, Ont., and surgeon-major of the 15th regiment.

F. W. French, B.A., '89, has resigned the Classical mastership of the Napanee, Ont., Collegiate Institute, and will resume his post-graduate work in Classics at the University of Chicago after Easter.

G. J. Blewett, B.A., '97, who we stated in our October issue had had conferred on him a travelling fellowship by the University of Pennsylvania, is now at Oxford. His address is to Walton Well Road.

G. C. Matheson, L.D.S., '97, D.D.S. (Tor.), '97, commenced practice in Winnipeg, and has recently been elected a member of the Dental Examining Board of Manitoba; and has been appointed Secretary of that body.

Charles H. Mitchell, B.A.Sc., C.E., '92, Niagara Falls, Ont., who is rapidly assuming a position among the leading hydraulic engineers of the Province, had the misfortune to lose his office and field notes, records and plans by fire recently.

W. C. Laidlaw, M.B., '95, formerly assistant physician at the Asylum for Idiots, Orillia, Ont., who has just returned from active service in South Africa, has been appointed to the Medical staff of the Asylum for the Insane, Brockville, Ont.

Edward Fitzpatrick, L.D.S., '95, D.D.S. (Tor.), '95, and C. A. Fitzpatrick, L.D.S., '00, D.D.S. (Tor.), '00, both of Vaukleek Hill, Ont., have passed the examinations before the dental examiners of Manitoba, and have settled in that Province.

W. K. George, B.A., is now manager of the Standard Silver Co., Toronto, which is a branch of the large silver-plating establishment in the United States. He is making a success of this business, and was recently elected chairman of the Toronto company.

We notice that our distinguished alumnus, the Rev. John Monroe Gibson, B.A., '62, has in the last three years published three books which have added to his reputation: "From Fact to Faith" ('97), "A Strong City" ('99), "The Glory of Life" ('00).

H. E. T. Haultain, M.E., '89, received very high praise in the *Rossland, B.C., Miner* a short time ago at the hands of E. G. Woodford, a distinguished mining engineer, who speaks of his pleasure in meeting "a young mining engineer who knows his work from A to Z."

Wm. Lount, K.C., has been appointed a Justice of the Common Pleas Division of the High Court of Justice to succeed J. E. Rose, B.A., '64, LL.D., '85, deceased. The other justices of the Common Pleas Division are Chief Justice Sir Wm. Meredith, LL.B., '72, Chancellor of the University, and Justice MacMahon.

B. A. C. Craig, B.A., '94, is now general manager of the Canadian Corundum Co. This company has control of large corundum deposits in the neighbourhood of Combermere, Ont., and it is believed that the corundum there found will practically govern the

world's market for many years to come. He is making a success of the business.

H. J. Dawson, B.A., '98, fellow in the department of Mathematics of the University of Toronto for the past three years, has been appointed lecturer in Mathematics in the Royal Military College, Kingston. Mr. Dawson stood first in the first class in Mathematics at three out of his four May examinations in the University. He was the winner of the "Fulton" Scholarship and of the American Association for the Advancement of Science Scholarship.

L. H. Tasker, B.A., '97, M.A., '98, LL.B., has been appointed principal of the Almonte, Ont., High school. At graduation Mr. Tasker took honours in Classics, Political Science and English. He also took the gold medal at the Ontario School of Pedagogy. After graduating, Mr. Tasker was on the staff of the Tilsonburg, Ont., High School, and has since been Classical master in the Niagara Falls, Ont., Collegiate Institute. Last year Mr. Tasker published, through the Ontario Historical Society, a history of the U. E. Loyalist settlement at Long Point, Ont.

Cornell University has shown its appreciation of the exceptional ability of Hector R. Carveth, B.A., '96, Ph.D. (Cornell), '98, both as an investigator and an instructor, by appointing him successively Fellow in Chemistry, '96-'97 and '97-'98; Honorary Fellow in Chemistry, '98-'99; Instructor in Introductory Chemistry, '99-'00, and Instructor in Physical Chemistry, '00-'01. In his present position, Dr. Carveth is entrusted with the immediate supervision of a large portion of the research of what is perhaps the largest and most productive laboratory of Physical Chemistry in America.

Professor vanderSmisssen a short time ago received a letter from Wilhelm A. Braun, now fellow in German at Columbia University, which is an evidence of the esteem in which University of Toronto graduates are held in the United States. He sends news of special interest to the students in Moderns. "A new fellowship in German is being offered," says Mr. Braun, in part, "the Carl Schurz fellowship, which, a though awarded only in alternate years, insures the very generous stipend of eight hundred dollars. I am sure this matter will interest some of your advanced students. Another circumstance prompted me to write to you—the fact that no one has been appointed to succeed me in the German fellowship. This was in some measure due to the fact that since the salaries were this year increased from five hundred to six hundred and fifty dollars,

the number of fellowships was reduced from twenty-four to eighteen. But the chief reason, as Professor Carpenter told me, was that none of the candidates was able to present a claim sufficiently strong. Now I am in a position to know how highly the work of Toronto University, and especially of the German department, is esteemed by my professors here, and the thought came to me at once, 'Such a state of things should not be allowed to exist while Toronto University is in the business.' A Toronto man is given every possible chance here, both before and after he enters the University, the facilities are excellent, and I venture to suggest that if advanced students of special ability in German were interested in these fellowships a year or even two before their graduation, they would make an excellent showing."

MARRIAGES.

Rev. E. A. Wicher, B.A., '95, M.A., '96, B.D., '00 (Knox), of Claude, Ont., was married on February 11th to Miss L. E. Langlois, Toronto. The Rev. J. L. Murray, B.A., '95, M.A., '97, St. Catharines, and R. Davidson, B.A., '99, M.A., '00, Knox College, attended the groom.

DEATHS.

B. B. Osler, K.C., LL.D., died very suddenly, Feb. 9th.

J. L. Clubine, B.A., '95, who was a Methodist minister, is dead.

James E. Eakins, M.B., '75, died at his home in Belleville, Ont., Feb. 18th, at the age of fifty-one years.

John Young, L.D.S., '95, D.D.S. (Tor.), '96, practising in Smith's Falls, Ont., died, January 18th, 1901.

W. G. Beers, L.D.S. (Ont.), '70, L.D.S. (Que.), '68, D.D.S., a prominent practitioner and citizen of Montreal, for many years editor-in-chief of the *Dominion Dental Journal*, died in Montreal, December 26th, 1900.

W. J. Shotwell, B.A., '97, who was principal of the Hawkesbury, Ont., High School, died recently. His widow, formerly Miss F. S. Glashan, B.A., '97, and one son survive. He was a brother of J. T. Shotwell, '98.

J. H. McGeary, B.A., '85, M.A., '97, died very suddenly this month at his home in St. Thomas, Ont., where he was Mathematical master in the Collegiate Institute. He had been Fellow in Mathematics from '85 till '88 in the University of Toronto.

THE UNIVERSITY OF TORONTO MONTHLY

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EDITORIAL.

THE aims of the UNIVERSITY OF TORONTO MONTHLY were thus stated in the first issue:—"A university cannot do its highest work without the co-operation of its graduates. A body of graduates cannot maintain its *esprit de corps* without some constant bond of union. To strengthen the co-operation between the alumni and the University, and to supply a bond which shall unite more closely the scattered alumni, is the work that calls into being the UNIVERSITY OF TORONTO MONTHLY."

We have now published seven numbers of the MONTHLY. Our numerous readers have, no doubt, found in them information concerning the University and about their fellow graduates which has interested them and convinced them of the necessity for such a publication.

No large university that we know of is without an alumni magazine and many small colleges support one.

The success of the publication depends upon the support it receives from the graduates.

As matters stand to-day, the carrying on of the magazine for the year will leave the members of the Editorial Committee personally liable for the sum of one thousand dollars—there being an estimated deficit to that amount. Each subscription received in the meantime reduces that amount.

If the MONTHLY is doing anything for the University, it should be encouraged. There is only one way to do it. Send one dollar to the Secretary.

A full discussion of the new University Act will appear in the April issue.

Owing to the space taken up by the report of the deputation it has been necessary to hold over articles by the Rev. Wm. Clark, D.C.L., W. D. LeSueur, M.A., T. Arnold Haultain, M.A., and others.

A CENTURY OF CHEMICAL PROGRESS.

BY PROFESSOR W. R. LANG.

(Concluded.)

DAVY, it has been pointed out, obtained the alkali metals by electrolytic decomposition of their compounds. Electrolytic methods of analysis and the application of electricity to commercial processes and to more purely scientific research have gradually become of more and more importance and interest. If electricity is passed through a conductor, such as a metal bar, the current passes along or through the metal, which itself does not move or suffer any apparent alteration. But when a current is passed through an electrolyte it is transported by the moving *ions*. The theory before referred to, that a portion of the substance in solution is in a dissociated state, goes far to explain the phenomena attendant on electrolysis. Though it seems difficult to imagine that in the case of a solution of sodium chloride there can exist sodium and chlorine in the free state, especially as the metal sodium has such a violent chemical action on water, yet, according to the electrolytic dissociation theory, we must consider that the different constituents of the sodium chloride do exist as separate atoms but having enormously high charges of electricity. When, keeping to sodium chloride as our example, a current is passed, the sodium atoms charged with positive electricity travel to the negative pole and there give up their charges, appearing then as molecules of sodium possessing the properties usually associated with that element. Similarly the chlorine *ions* charged with negative electricity travel to the anode, or positive pole, give up their charges and appear as ordinary chlorine.

While these principles were gradually being unfolded and the newer ideas concerning matter were becoming more familiar, fresh discoveries of new elements were being made. It must be remembered that the compounds of many elements were known while as yet the elements themselves had not been isolated. Alumina and silica were known long before the elements aluminium and silicon were isolated; so also with fluorine, one of the chlorine group. Fluorine was known to exist widely diffused in nature in many minerals and in small quantities in plants and animals, but on account of its great chemical activity it had not been isolated, as had been its neighbours, chlorine, bromine and iodine. Davy and Scheele had both recognized its resemblance to these elements, but it was not till 1886 that Henri Moissan, professor of chemistry at l'École de Pharmacie in Paris, succeeded in electrolyzing a mixture of hydrofluoric acid and hydrogen potassium fluoride in a platinum vessel. In 1897, when the British Association met in this city, Professor Mésians, for many years assistant to Moissan, gave a demonstration of the properties of fluorine here in this lecture-room.

The last decade has been fruitful in the discovery of other elements hitherto unsuspected, notably the new atmospheric gases, argon, neon, krypton and xenon. In 1775 Cavendish, in his "Experiments on Air," published in the *Philosophical Transactions*, pointed out that in the air there was a small quantity of a gas, "not more than 1/120 of the whole" of what we now call the nitrogen of the atmosphere, which could not be made to combine with oxygen. The question as to what this was lay unanswered for more than a century, when, in 1894, Lord Rayleigh and Professor Ramsay solved the problem by isolating argon from atmospheric nitrogen. They were led to this discovery by noticing that atmospheric nitrogen was denser than nitrogen prepared from chemical sources, such as ammonium nitrite. By passing a stream of atmospheric nitrogen over heated magnesium the nitrogen was absorbed and a residue remained, which could not be induced to enter into combination with anything. The amount of this new element in the air, whose discovery caused so much excitement in the scientific world, was found to correspond very nearly to the small portion of gaseous matter that remained uncombined after sparking atmospheric nitrogen with oxygen, and which Cavendish had spoken of more than one hundred years previously. This discovery of argon led to a further research into certain minerals, which, when treated with dilute acid, evolved a gas which was supposed to be nitrogen. It proved, however, to be another new element, previously indicated as being present in the sun's atmosphere by Lockyer, and named by him helium. These discoveries did not, however, end here, as Ramsay and Travers, in experimenting with liquid air as a convenient source of argon, discovered three new gases, which they named krypton (hidden), neon (new), and metargon.

Turning now to the interesting subject of the liquefaction of gases, we find that since the beginning of this century numerous experimenters have been trying to reduce the more commonly met with gaseous substances to the liquid condition. The so-called permanent gases, which, up to a decade or so ago, resisted all attempts at liquefaction, have now succumbed to the advance of experimental science. In 1805 Northmore is stated to have liquefied chlorine by compressing it in a brass condensing syringe with a glass receiver. Then in 1822 Cagniard-de-la-Tour observed that certain liquids, such as alcohol and water, when heated and kept under pressure, became apparently reduced to a vapour, occupying from two to four times the original volume of the liquid. This led to the classical researches of Andrews, of Belfast, on "The Continuity of the Gaseous and Liquid States of Matter," set forth in the Bakerian Lecture (*Phil. Trans.*, 1869, Part II.). In the following year Faraday succeeded in liquefying chlorine, sulphur dioxide, hydrogen sulphide, carbonic acid, ammonia and many other substances previously known only in the gaseous condition. There only remained hydrogen, oxygen, nitrogen, carbon monoxide, marsh gas and nitric oxide; these were called the "permanent gases." In connection with the liquefaction of carbonic acid the name of Thilorier stands out prominently. By

means of pressure alone he obtained this in the liquid form, and by causing it to evaporate rapidly through a narrow orifice obtained it in the solid state. This was the first instance of a substance, gaseous at the ordinary temperature, being seen as a solid. Faraday, in 1845, continued his attempts to liquefy the remaining gases, and in his experiments came very near to anticipating Andrews in his famous researches and the principles deduced therefrom. Briefly stated, Andrews found that there was a certain temperature peculiar to each gas, above which no amount of pressure could cause liquefaction. This he termed "the critical temperature." From this it will be seen why so much difficulty was experienced in attempting the liquefaction of the six permanent gases, as, up to that time, the lowest temperature obtainable had been above the critical points of all of them. Towards the close of 1877 Cailletet, of Chatillon-sur-Seine, and Pictet, of Geneva, communicated simultaneously to the Académie des Sciences de Paris that they had succeeded in liquefying oxygen, carbon monoxide and nitric oxide. Cailletet subjected the gases to considerable pressure, thereby reducing greatly their volume; on suddenly relieving the pressure expansion and consequent cooling took place, and a portion of the gas appeared in the form of minute drops. Nitrogen and hydrogen now alone remained; the former yielded in 1883 to Professors Wroblewski and Olszewski, and hydrogen succumbed in 1895 to Professor Dewar, of the Royal Institution in London. The principle involved in liquefying these gases is as follows: we have seen how liquid carbonic acid, if allowed to expand, is cooled down sufficiently to enable it to become actually solid. Supposing, then, that air or hydrogen is compressed under 180 atmospheres or so (2,500 lbs. to the square inch), and the pressure gradually released, the temperature of the issuing gas will be lowered considerably. By allowing this cooled gas as it issues to pass over a large surface of copper coils conveying the compressed gas from the cylinder containing it to the expansion valve the gas becomes still more cooled down, a cumulative effect is produced, and finally the issuing gas arrives at the point of exit at so low a temperature that it becomes liquid. Different forms of apparatus have been devised by Hampson, of London, Linde, of Munich, and by Dewar, and are now used for producing liquid air in fairly large quantities, but the principle involved in each is the same. By the rapid evaporation of liquid hydrogen Dewar succeeded in obtaining it as a snow-white solid.

Thus far I have only discussed the development of what might be called scientific chemistry. The field of industrial chemistry is so wide that only a short reference can be made to the advances that have been made during the past hundred years. It must be pointed out, however, that the growth of chemical industry owes much of its progress to the reasonings and researches of the theoretical chemist.

Among the branches of industry which have advanced greatly might be mentioned the soda industry, with which the production of chlorine, and consequently bleaching-powder, is closely associated. The Leblanc

process, invented during the Napoleonic wars, at the end of the eighteenth century, for the production of alkali—essential in soap-making and other industries—from common salt has found a strong rival in the ammonia-soda process, first introduced by Solvay in Belgium, and brought to a high state of perfection by Brunner and Mond in England. An electrolytic process is also employed, common salt being converted directly into caustic soda and chlorine. Electricity is also made use of for the production of aluminium, which metal is now extracted in large quantities from alumina, both on the continent of Europe and in Scotland. Its uses are many, and the peculiarly light metal, which twenty years ago was looked upon as a curiosity, is now as familiar to us as copper or iron. The electric current is also employed for making calcium carbide from lime and coke. Though known since 1839, this substance had only been produced in the laboratory, and it is merely within the last ten years that it has become of commercial importance as the source of acetylene gas for illuminating purposes. To electricity we are also indebted for the production of chemically pure copper for electro-plating and gilding, and for the production of the highest of all temperatures, that of the electric arc. This temperature has been made use of in the electric furnace, more particularly by its inventor, Henri Moissan, for studying the effect of high temperatures on various substances, and with its aid he succeeded in manufacturing diamonds. Unfortunately, or perhaps fortunately, for if diamonds could be readily and cheaply made, then their value as ornaments would vanish—they can only be obtained very small, but diamonds they are despite their minuteness. The electric furnace is also used in many other departments of chemical industry.

The mineral oil industry, too, is one of great importance. Huge quantities of crude petroleum are found in the earth's crust. The first discovery of it was made by Playfair, of Edinburgh, in Derbyshire, but that source was soon exhausted. The source of supply is now from this continent and from eastern Europe. The production of oils from the distillation of shales is carried on in Scotland at Broxburn and elsewhere. Shale is a carbonaceous mineral which appears to have been formed from the remains of marine animals mixed with argillaceous mud and consolidated into a slaty mass. The Scottish shales, typical of their class, are below the coal measure along with strata of marl, limestone and sandstone.

To the advance in chemistry the agriculturalist is indebted for the increased crops he is enabled to take off his land. Liebig was the first to introduce the employment of artificial or chemical manures. Nitrate of soda, potash salts, and sulphate of ammonia obtained from gas-works are all employed as fertilizers, and the effect of these manures on crops has been carefully studied on experimental farms by Gilbert and Lawes.

Metallurgical processes, too, have made great progress. The extraction of gold from its ores is no longer carried out solely by the rough and ready mechanical methods by which our forefathers washed the sand of gold-bearing streams or subjected crushed auriferous quartz to the

process of amalgamation. Plant for chemically separating gold by means of chlorine or of potassium cyanide is now found all over the world and the so-called "tailings" left from amalgamation processes in large quantities in the vicinity of gold-workings have proved a fruitful source of the precious metal when subjected to present day chemical treatment. The iron and steel industries have kept pace with modern chemical progress, the Bessemer process and the Siemen's-Martin process may be mentioned as examples of improvements in methods. Not only have producers perfected to the best of their ability the processes employed for making iron and steel, but the furnace gases—formerly allowed to escape into the air—are now treated in such a way as to extract from them many useful substances which are of themselves of great market value.

As that of the chief actor in the development of the modern high explosive the name of Alfred Nobel must be a familiar word in all civilized countries. Ordinary black gunpowder is now seldom used except for producing the slow rending action required in blasting the faces of quarries, where a shattering effect would be undesirable. Schoenbein discovered gun-cotton in 1865 and nitro-glycerine was first made by Sobrero in 1847. Nobel made these nitro-compounds his special study, and in 1866, by absorbing nitro-glycerine in a porous siliceous earth known as kieselguhr, produced a brown pasty substance, and named it "dynamite." The chief constituents of the modern explosives, blasting-gelatine, cordite, gelignite and ballistite are gun-cotton and nitro-glycerine. The discovery of blasting-gelatine was accidental and deserves recording. Nobel, when in his laboratory experimenting with nitro-glycerine, cut his finger slightly, and to cover the wound applied collodion, which is a solution of nitro-cellulose in ether, to the part affected. Having done so he emptied the contents of the phial into the vessel which held the nitro-glycerine he was experimenting with. The mixture became gelatinous, and thus accidentally came about the discovery of one of the most used ingredients of modern explosives. Lately we have heard much about lyddite and its effects. This is also a product of the last decade in so far as its use as an explosive is concerned, though it has been employed for dyeing silk for many years.

I have endeavoured to show in this short address to what an extent scientific and industrial chemistry has progressed during the century now gone. It would be interesting to speculate as to future developments. The atomic theory which has so long been our chemical creed may be overthrown as was the theory of phlogiston. Elements may no longer be regarded as simple substances and may even be looked upon as different forms of one ultimate kind of matter, or again as varying modes of motion. Speculation and theories regarding this have even now been advanced by men eminent in the world of science. Chemistry and physics are drawing closer together and the investigation of physico-chemical phenomena is occupying the attention of many workers. Great have been the advances made in pure chemistry, and to no less a degree

has the application of these principles to industrial chemistry progressed. I feel I cannot close without some reference to the part that may be taken by chemists in the development of the natural resources of Canada, and more particularly of this province. I see from that useful volume a "Handbook of Canada," published by the local executive of the British Association meeting of 1897, that our province is possessed of almost untold mineral wealth. The metals gold, silver, copper, nickel, lead and iron are in abundance. Of sulphur in combination there is plenty, while coal, mineral oil, phosphates and common salt also are found. The search after the precious metals, mining, the production of copper, iron and nickel are all departments of industry in which many graduates of the University have found and will, I venture to think, continue to find employment. It is to the men we send forth from this institution that we must look for the proper exploitation of our natural resources. While in past years most of our graduates entered the professions of medicine, law or of teaching now a large proportion are going, not only into mining and the other branches of engineering, but also into manufactures and commerce. The future of this country is in the hands of these men. Now that the School of Science has become an integral part of the University and constitutes our faculty of applied science, a stronger tie has been created between this department and that presided over by my colleague Professor Ellis than was possible heretofore. It should be the aim of the departments, then, to give our students a thorough all-round training in the principles of chemistry, not omitting reference to the practical application of these principles to the arts and manufactures. A chemist thoroughly trained in his subject by a course of study such as can be obtained in any of our universities is the man who is most fitted to apply his knowledge to whatever branch of industry he may find himself engaged in after he leaves his *Alma Mater*. I have heard it advocated that the universities and technical colleges should employ special lecturers, expert in their several spheres of chemical industry, to instruct students in the particular branch which it is their ultimate intention to take up as their life-business. Where, I ask, are such men to be found? Is it likely that a manufacturer will enter into all the details of improvements in his own business that he has, after much experience, introduced for the benefit of his own or his employer's profit? In these days of keen competition, and of earnest striving to gain even a modest competency, any particular detail or device which will ensure a better yield of material or the production of a superior article than one's rivals in trade can produce is zealously guarded, as well it might be.

A general knowledge of the principles of the subject is the first great essential and whether it be metallurgy, brewing, calico-printing or dyeing that the young graduate proceeds to, he will always be able to adapt himself to his new surroundings and be of more use in improving the processes in which he is interested than if his whole time had been spent learning the details of his special work to the exclusion of the great general principles involved in the science. The man with energy and

application, but whose academic and scientific training has been nil, has hitherto in many cases succeeded in coming to the front in whatever industry or business he may have taken up, how much more, then, may we expect to see the scientifically trained graduate (*ceteris paribus*) become a successful worker in any of the many great fields open to him.

PHYSICAL TRAINING AT THE UNIVERSITY.

BY H. J. CRAWFORD, B.A.

IN the year of '87 undergraduates of the University of Toronto did not appear to relish the idea of having Literary Society elections go by default ; indeed, breaking through old party affiliations they even fought a keen contest over a scheme to saddle upon the executive of that Society the responsibility of looking after the erection of a gymnasium. Tolerably absurd as the proposal may look from this distance, it served its purpose as an election cry and stirred up considerable discussion on the gymnasium question.

The party favouring the plan modestly announced in its manifesto motto that it was engaged in planting pear-trees for the benefit of coming generations ; not much pear-tree planting was effected just then, however, but the credit for establishing the present gymnasium is largely due to more practical men of later years like Dr. Webster and his associates.

Another respect in which the lot of the student of to-day is by comparison thrice blessed, is in the ample provision made for playing-grounds in Lawn, Campus and Athletic Field ; and many a preparatory school club, too, has had reason to be grateful to the authorities for their generous policy in freely loaning these for games, since, with a truly depressing uniformity, school boards have failed to provide adequate grounds as adjuncts to their buildings. The wise play-ground policy of the present administration is worthy of all praise ; and it is to be hoped these areas may remain a possession and a joy forever to the seekers after out-door recreation. The next desideratum is a proper running-track on the Athletic Field, where improved accommodation for spectators is also urgently needed.

One would not judge from the track and field sports of some recent years, that skilled trainers and coaches were too numerous around the college ; but the admirable zeal of individual competitors has somewhat counter-vailed against that lack ; and though the exceptional few who can attain distinction should probably have supplied to them opportunities for cultivating their powers, because the brilliance of their achievements is reflected upon their college, yet after all athletic facilities exist not so much to make students athletes as to make athletic students. Recent years have witnessed the commendable development of various inter-year and inter-college competitions, such as those for the Mulock,

Faculty and Jennings Cups, and these have the merit of inducing large numbers to participate in athletic exercises.

Those students—a relatively small number—who strive to maintain the honour of their University in inter-collegiate contests find they have to contend with lack of interest, lack of system and lack of funds—these three, and the greatest of these is lack of funds.

In order to distribute the burthen of expense more equably in a matter in which every under-graduate ought to feel he has a stake, the suggestion has been mooted of following the precedent set by at least one other Canadian University, and imposing a small compulsory fee on every student. Were the general tuition fee smaller, as it ought to be smaller, this suggestion would meet with less opposition.

In the matter of the general management of University athletics, a long step forward was taken, on the initiative of Mr. T. A. Russell, about a year ago, when financial control was vested in an inner council of nine. Of these, five are chosen by an electoral college representing the various Athletic Clubs of the University, the different year classes in University College, and the affiliated colleges—in a word, the whole undergraduate body; three others are appointed by the College Council, and there is one graduate advisory member. This Committee selects a Secretary to whom a small salary is paid; and ultimately, with such modifications of detail as experience may suggest, it will doubtless be found invaluable in directing the athletic policy of the University and securing that continuity which is so essential. Already, I am told, it has planned useful measures, such as the creation of a new incentive toward striving for glory, by awarding the distinction of wearing the T to members of first teams.

The formation of such a controlling body is quite in line, too, with the practice of the best Universities in the United States; but it seems characteristic with them to give a larger representation to their graduates. For example, at Harvard, where a correspondent calls the plan "the most satisfactory of any we have tried," the Athletic Committee consists of three members from the faculties, three graduate and three undergraduate members. At Cornell, too, the Alumni Associations are given representation on their Athletic Council, and our own Alumni Association might extend its influence in the same direction.

But it is on the side of scientific and systematic physical training that our University is most conspicuously deficient when compared, in this department, with the principal American institutions; and to remark on this deficiency is the chief object of this paper.

We may take for illustration the University of Wisconsin, a state institution like our own, in a State less populous than our Province. In that University there flourishes a regularly equipped "Department of Physical Education," with Dr. Elsom as director, one instructor in Athletics, three instructors in Gymnastics, and two instructors in Gymnastics for women. Gymnastic exercise on two days of each week is required of all freshmen and sophomores, together with two days a week of mili-

tary drill under the supervision of an army officer. "We look after the physical welfare of the men," writes Dr. Elsom, "give them all physical examinations, prescribe exercises for special cases and do an extensive anthropometric work generally. The gymnastic classes are a part of the College course and credit is given toward graduation for the physical work done. The results are satisfactory. *The weak ones are those who are benefited most*, and interesting results of the growth and physical development are noted of all the classes." Many other cases might be cited.

In Cornell, where Dr. Hitchcock is gymnasium director, a similar prescription of two years' compulsory physical training is made; and this is true of several others, while some require even four years, as is the case, I believe, at Chicago. At Yale, Dr. Anderson has charge of the gymnasium and there is a certain amount of compulsory gymnasium work for freshmen. At Harvard everything is optional; but the facilities offered by Hemenway gymnasium are very great, and its director, Dr. Sargent, the well-known expert in physical education, says that as a matter of fact, large numbers avail themselves of its privileges, while each student is entitled to an examination, *with a course of exercises prescribed to meet his special needs*. Gymnasium work is also voluntary at Leland Stanford Junior University, but its director informs me that "physical examination, medical examination where needed, and close observation of the work of the individual from day to day, furnish the information upon which is based the prescription of work for each individual."

It might be added that, though at Harvard credit is not given for physical attainments, it is Dr. Sargent's opinion, after thirty years of observation in that field, "that identically the same motives for physical efforts as for mental efforts should be recognized and all placed to the credit of the man striving for a degree."

Now, whatever view may be taken by the authorities as to the expedience of establishing a physical training department like that of Wisconsin, it is quite certain that students will never gain from the gymnasium the benefits it should give, until it is put under the direction of a medical expert. Possibly we may look to the Athletic Council for advance in that direction. Nor will every student obtain the physical education he ought to have, until a course is made compulsory; and when this is done, credit for proficiency ought to be granted.

School masters interested in athletics know that, however admirable games may be (and they have their faults too) there are always some pupils whom these do not reach, and these often the very ones most needing development of physical vigour; while the compulsory gymnastic training, under present conditions, is of little benefit. But, to use an argument of which Ministers of Education have been fond, we hope that a practical system, once it has become the vogue at the University, may "filter down."

The need for scientific training for the body no less than for the mind

has been strangely disregarded ; and yet it is now no longer a matter of opinion, but of absolute demonstration, that "the pupils as a class who have the best physiques are able to do the best mental work."

Handicapped as the University has been by the lack of funds, something has been accomplished toward attaining the aim of college athletics, defined by Mr. Walter Camp of Yale as "the development of strong, courageous and sound gentlemen."

If the State, heeding the memorial of the Alumni, deals justly and therefore generously by its child, the University of Toronto, are we too sanguine in expecting that not merely shall the scientific department of mineralogy and geology be amply endowed, but also the scientific department of physical education not neglected ?

THE ALUMNI DEPUTATION.

BY J. C. M'LENNAN, PH.D.

FOR many years it was felt that the graduates of the University of Toronto, when they had become scattered in pursuit of their various vocations, were inclined to abate the liveliness of their interest in the welfare of the institution because there was no general organization round which they could rally, and through which information could be disseminated concerning its growing usefulness and requirements.

The increase in the number of its graduates was out of all proportion to the growth of public sentiment in its favour. In order to concentrate these scattered forces there was organized the University of Toronto Alumni Association. During the first year of its existence, now just drawing to a close, it has developed from a plan to a reality and from a purpose to a power. At first there were apparently so many obstacles in the way that success seemed hardly to be hoped for. These difficulties, however, have been gradually overcome. The indifferent have been found to be largely those whose occupations or location have placed them out of reach of University news and feeling. Ignorance of the present condition of the University and of the work that is being done, and well done, in spite of the greatest difficulty, has been the chief cause of the lack of sympathy from the graduates in the past.

College needs and news have been laid before the Alumni through THE UNIVERSITY OF TORONTO MONTHLY, a publication started by the Association for this purpose. By its means the graduates all over Canada have been brought more closely into touch with the University, and, through the personal news columns, with each other.

They appreciate the struggle necessary to carry on this great institution on its meagre income and to maintain the high level attained by the various departments, as evidenced by the success of our graduates at home and abroad. They also recognize the difficulty of providing for the necessary growth of the University. The knowledge rekindled the old enthusiasm for *Aima Mater*. To know was to act, and that with a promptness surprising to the most sanguine. In order to take concerted

action the graduates in the various counties have formed themselves into local branches of the Alumni Association, each of which has entered heartily into the work of relieving the University from its cramped and straitened circumstances, and elevating it into the position which the wealth of the Province and its industrial development demand. Already eighteen local organizations have been completed and several are in process of formation.

About the middle of February it was felt that the time had come for action, and at a meeting of the Executive Committee, held February 9th, which was largely attended by the out-of-town representatives of the local branches, it was decided to assemble a deputation to wait upon the Government and urge the claims of the University.

The President of the Association, Dr. Reeve, made an appointment with the Premier for the 13th of March, and preparations were begun, reduced rates being secured on all railways. The date was happily chosen, as it enabled the Alumni and their friends to attend the *Conversazione* in the Biological Building the same evening.

In spite of the inclement weather, when the deputation assembled it was found that all departments and faculties were well represented. Members of all the learned professions were numerous, and there was a large number of business men present whose standing in the community and earnest words in behalf of the University showed that it was not only to her own graduates she could appeal, but also to those whose large interests enabled them to take a wide view of the country's material growth and to see its intimate relation to intellectual and especially to scientific progress.

The following gentlemen were among those present:

COUNTY OF CARLETON.—Otto J. Klotz, Department of the Interior, Ottawa; J. Lorne McDougall, Jr., B.A., barrister, Ottawa; D. A. J. McDougal, Esq., barrister, Ottawa.

COUNTY OF DURHAM.—G. B. Henwood, Esq., B.A., barrister, Port Hope.

COUNTY OF ELGIN.—J. H. Coyne, B.A., Vice-President Elgin A. A., barrister, County Registrar, President Ontario Historical Society; S. Silcox, B.A., B.Pæd., Secretary Elgin A. A., Principal and Inspector Public Schools; W. L. Wickett, B.A., barrister; J. M. Glenn, K.C., LL.B., barrister, Treasurer Elgin A. A.; W. B. Doherty, LL.B., barrister, City Clerk and Solicitor; Rev. R. I. Warner, M.A., Principal Alma Ladies' College; G. K. Crocker, merchant, President Free Library Board; John Campbell, President Campbell Milling Co., ex-President Disciples Association of Canada; C. O. Ermatinger, Junior County Judge, President Elgin Historical Society; Sperrin Chant, Mayor of St. Thomas, merchant; P. Meehan, merchant, ex-Mayor; Thomas Meek, merchant, Alderman; R. M. Anderson, merchant (Northway & Anderson); W. H. Murch, merchant, President Atlas Loan Co., Chairman Industrial Committee; K. W. McKay, County Clerk, Editor *Municipal World*; A. McCrimmon, barrister (Liberal Candidate for West Elgin in former years); A. E. Wallace, Manager Atlas Loan Co.; J. W. Stewart, Manager Southern Loan and Savings Co.; W. R. Jackson, jeweller; E. B. Benson, merchant, ex-member Board of Education; H. Dingman, Business Manager *St. Thomas Journal*; J. McAdam, insurance agent, etc.; E. Horton, Manager Oriental Flour Co., all of St. Thomas; J. Cascadden, M.D., ex-M.P.P., Dutton; J. Youell, B.A., M. B., Aylmer; W. E. Stevens, barrister, Aylmer; J. D. Shaw, B.A., barrister, Rodney; M. E. Lyon, County Councillor, Malahide; D. Lang, County Councillor, Aldborough.

COUNTY OF HALTON.—D. O. Cameron, Esq., B.A., barrister, Oakville; C. B. Patterson, Esq., Division Court Clerk, Oakville; N. J. Wellwood, Esq., B.A., Principal High School, Oakville.

COUNTY OF HASTINGS.—F. E. O'Flynn, Esq., B.A., barrister, Belleville; S. J. Young, Esq., B.A., barrister, Trenton; W. H. Biggar, ex-M.L.A., barrister, Belleville; J. T. Luton, Esq., M.A., teacher, Belleville.

COUNTY OF KENT.—J. B. Rankin, Esq., B.A., K.C., barrister, Chatham.

COUNTY OF LINCOLN.—H. H. Collier, B.A., barrister, St. Catharines; Rev. J. O. Miller, M.A., Principal Bishop Ridley College; R. H. Smith, Esq., M.D., St. Catharines; S. H. McCoy, Esq., M.D., St. Catharines; J. Sheahan, Esq., M.D., St. Catharines; E. Jessop, M.D., M.L.A., St. Catharines; Louis Bissonette, Esq., merchant, St. Catharines; Rev. G. H. Smith, B.A., St. Catharines; Rev. J. L. Murray, M.A., St. Catharines; C. E. Klotz, Esq., St. Catharines; A. M. Smith, Esq., St. Catharines; W. A. McKinnon, B.A., Grimsby.

COUNTY OF MIDDLESEX.—Talbot Macbeth, B.A., K.C., barrister, London; Hume Cronyn, B.A., barrister, London; J. M. McEvoy, B.A., LL.B., barrister, London; S. J. Radcliffe, B.A., Principal London Collegiate Institute; C. W. McLeay, B.A., M.D., physician, London; F. W. Daly, B.A., merchant, London; Philip McKenzie, B.A., LL.B., barrister, London; W. J. Harvey, Esq., barrister, London; Arthur Little, B.A., London; F. W. Merchant, M.A., Principal London Normal School, London.

COUNTIES OF NORTH BRUCE AND NORTH GREY.—Rev. J. Somerville, M.A., D.D., pastor of Division Street Presbyterian Church, Owen Sound; A. G. McKay, Esq., M.A., Crown Attorney for the County of Grey; T. H. Middleboro, Esq., M.B., physician at Owen Sound; W. J. Ferguson, Esq., B.A., barrister and solicitor, Wiarton; C. J. Mickle, Esq., B.A., barrister and solicitor, Chesley; J. A. Hershey, Esq., M.B., physician, Owen Sound; W. D. Ferris, Esq., M.B., physician, Shallow Lake.

COUNTY OF PERTH.—Hon. Thomas Ballantyne, Stratford; J. Davis Barnett, Esq., Stratford; Duncan Ferguson, Esq., merchant, Stratford; Dr. Devlin, Stratford; W. M. O'Beirne, editor, Stratford; G. G. McPherson, Esq., Stratford; A. H. Nicholl, Esq., Listowel; Thomas Conant, Esq., Oshawa; W. E. Tilley, Esq., Bowmanville.

COUNTY OF PETERBOROUGH.—E. B. Edwards, Esq., B.A., LL.B., K.C., barrister, Peterborough; J. W. Gray, Esq., M.D., physician, Peterborough; G. E. Revel, Esq., School of Practical Science graduate, Peterborough; D. Walker, Esq., B.A., Public School Inspector, Peterborough; E. A. Peck, Esq., barrister and member of the County Council, Peterborough; J. Davidson, Esq., M.A., LL.B., Principal of High School, Norwood; S. P. Ford, Esq., M.D., physician, Norwood.

COUNTY OF PRINCE EDWARD.—Dr. Morley Currie, B.A., Picton; James A. Clapp, Esq., Picton; Wellington Boulter, Esq., Picton; H. B. Bristol, Esq., Picton; E. B. Merrill, Esq., Picton.

COUNTY OF SIMCOE.—Donald Ross, Esq., B.A., LL.B., barrister, Barrie.

COUNTY OF VICTORIA.—His Honour Judge Dean, M.A., LL.D., Lindsay; Hugh O'Leary, Esq., K.C., barrister, Lindsay; J. C. Harstone, Esq., M.A., Principal of the Collegiate Institute, Lindsay; F. C. Taylor, Esq., broker and ex-Mayor, Lindsay.

COUNTY OF WATERLOO.—His Honour Judge Duncan Chisholm, Esq., LL.B., County Judge, Berlin; Rev. W. A. Bradley, B.A., pastor St. Andrew's Church, Berlin; Rev. P. E. McEwen, B.A., pastor King Street Baptist Church, Berlin; C. Bitzer, Esq., B.A., barrister, Berlin; J. A. Scellen, Esq., B.A., LL.B., barrister, Berlin; C. K. Hagedorn, Esq., Manager Berlin X Suspenders Co., Berlin; D. Standelbauer, Esq., traveller, Berlin; D. Forsyth, Esq., B.A., Science Master High School, Berlin; A. R. Goldie, Esq., C.E., of Goldie & McCulloch, manufacturers, Galt; J. N. McKendrick, Esq., B.A., Insurance Inspector, Galt.

COUNTY OF WELLINGTON.—John Mutrie, Esq., M.L.A., Guelph; H. W. Peterson, M.A., K.C., County Crown Attorney; Wm. Tytler, B.A., Inspector of Schools, Guelph; James Davison, B.A., Principal Collegiate Institute, Guelph; H. E. Wilson, B.A., Classical Master, Collegiate Institute, Guelph; Dr. James Mills, President Ontario Agricultural College, Guelph; J. B. Reynolds, B.A., Professor Ontario Agricultural College, Guelph; Rev. R. W. Ross, Pastor Knox Church, Guelph; Rev. T. Eakin, M.A., Pastor St. Andrew's Church, Guelph; Dr. Robinson, Guelph; Dr. W. O. Stewart, Guelph; Dr. Dryden, Guelph; Dr. McKinnon, Guelph; Charles W. Kelly, merchant, Guelph; Lindsay Torrence, Public School Board, Guelph; E. R. Bollert, Esq., Public School Board, Guelph; Rev. J. Fred Kaye, Pastor Paisley Street Methodist Church, Guelph; Rev. Cassidy, Norfolk Street Methodist Church, Guelph; J. M. Duff, Manager Bank of Commerce, Guelph; G. E. Chapman, Esq., Agent Mutual Life of Canada, Guelph; J. F. Kilgour, B.A., LL.B., barrister, Guelph; Rev. W. H. Harvey, Pastor Methodist Church, Fergus; N. McMurphy, Esq., B.A., Elora High School; H. L. Hutt, B.S.A., Lecturer, Ontario Agricultural College,

Guelph; Wm. Lockhead, B.A., M.S., Professor of Geology, Ontario Agricultural College, Guelph; R. L. McKinnon, B.A., LL.B., barrister, Guelph; A. R. Hamilton, Esq., B.A., LL.B., barrister, Palmerston; F. Galbraith, editor *Mercury*, Guelph; Dr. J. Hugo Reed, veterinary surgeon, Guelph; Professor Harrison, Ontario Agricultural College, Guelph; Dr. Stirton, dentist, Guelph; Dr. Nunan, dentist, Guelph; Alex. Stewart, druggist, Guelph.

COUNTY OF WENTWORTH.—James Chisholm, Esq., B.A., barrister, Hamilton; His Honour Colin G. Snider, Esq., B.A., Judge of Wentworth county; W. H. Ballad, Esq., M.A., Inspector of Schools, Hamilton; Hugh S. Brennan, Esq., M.A., lumber merchant, Hamilton.

On arriving at the University the members of the deputation were met by a reception committee of ten undergraduates in caps and gowns, who directed them to the rotunda, where the Treasurer, Mr. S. J. Robertson, assisted by Mr. Donald Ross, B.A., '98, registered them and gave them invitations to luncheon in the University Dining Hall and to the Scientific Evening in the Biological Building. The delegates were then conducted to the Undergraduate Union, where they were received by President Loudon and other members of the staff. The reception room of the Undergraduate Union was used for the first time on this occasion, and all were impressed with the comfortable quarters which the students have been enabled to secure largely through the generous subscriptions of the business men in Toronto.

At a quarter past twelve luncheon was served in the Dining Hall to about one hundred out-of-town delegates, whose early trains enabled them to be present at that time.

The deputation assembled in the rotunda at 1.45 and then proceeded to the Legislative Buildings, where the Premier and his colleagues received them.

President Reeve introduced the deputation and presented the following Memorandum:

MEMORANDUM TO THE HONOURABLE THE PREMIER OF ONTARIO,
THE MEMBERS OF THE EXECUTIVE COUNCIL, AND OF THE LEGISLATIVE ASSEMBLY, FROM THE EXECUTIVE COMMITTEE OF THE UNIVERSITY OF TORONTO ALUMNI ASSOCIATION.

The vital connection existing between education and national prosperity is now generally recognized. The intellectual and material progress of Ontario depends upon the efficiency of its educational system, which in turn is determined by the efficiency of the Provincial University. The excellence of the work hitherto done by the University is recognized both at home and abroad. A time has come when, owing to new and increased obligations, the financial resources of the institution are no longer adequate. The attempt to discharge these obligations has given rise to a financial situation which the Alumni view with alarm.

The financial statement of the University shows the following deficits for the last four years:—

For 1896-7.....	\$ 9,517
For 1897 8.....	6,088
For 1898-9.....	1,278
For 1899-1900.....	14,683
	<hr/>
	\$31,566

The average income for the four years mentioned is about \$121,500, made up as follows :—

Income from endowment (average)	\$ 63,300
Fees from students (average)	43,500
Interest on trust funds, etc. (average).....	14,700
	\$121,500

The item of \$63,000 constitutes the whole income from the original endowment of 1798 and includes the statutory grant of \$7,000 in extinction of old claims. This income from endowment has been practically stationary for many years, while the fees have risen from \$13,431 in 1887 to \$44,441 in 1899. In this period the fee paid annually by each student has increased from \$22 to \$52. This regrettable tax, bearing with especial weight upon the poor, has been rendered unavoidable by the failure of the Legislature to supplement the income in proportion to increased obligations. The third item above, that of \$14,700, is made up of interest on trust funds, and on advances in respect of the Upper Canada College block.

Under present conditions the University is hampered for want of funds even in the work it is now attempting. This is notably the case with regard to the scientific departments, the due maintenance of which is so intimately connected with the material prosperity of the country. All of these departments are demanding increased annual appropriations, aside altogether from the question of future expansion, which will very shortly require the most serious consideration.

The department which has suffered most from lack of funds is that of Mineralogy and Geology, a department whose connection with the development of the vast mineral resources of the Province is obvious. The average annual amount expended on this department for the last four years for salaries and maintenance was \$1,665, an amount which is absurdly inadequate. To put this department upon a proper footing requires a large immediate expenditure for buildings, equipment and additions to the staff. It is possible that the failure to put this department upon a proper footing has resulted from the fact that its necessities have not been clearly and adequately brought to the attention of the Government.

In view of the above considerations, the Alumni beg to press upon the Government and Legislature the necessity of adopting such measures as will increase the resources of the University to such an extent that, (1) the recurrence of deficits shall be avoided, (2) the department of Mineralogy and Geology adequately provided for, and (3) the various departments of the University more liberally maintained.

DR. REEVE'S SPEECH.

After reading the Memorandum, Dr. Reeve said :

MR. PREMIER—We represent on this occasion an organization numbering thousands of Alumni, very many of whom fill the most important positions in the country, which fact, indeed, accounts for the absence

to-day of many who would gladly be with us. The Alumni have combined to promote the welfare of their *Alma Mater*, and they feel that in their union is a strength, a power to influence public opinion, of which they may be justly proud, and which it is their duty to wield wisely in her interests. That we have been slow of speech and effort in her behalf, we may not deny, but we hope to atone for our dereliction, not by playing the rôle of a *third party* in the arena of politics, but as a Coalition whose policy is *Alma Mater* first, and therefore in this case, in the highest sense, Country before Party. We come, Liberals and Conservatives, sinking for the nonce any party distinctions, as we trust ever to do when there is need. In so doing, we try to show what we feel, that when the normal life and growth of such a great institution are at stake or a crisis arises, as now, partyism should be left out of count.

We would fain hope that the present appeal of the University authorities will be met in that lofty spirit which actuated the House at the time of the fire, when the leader of the Opposition, now the Chancellor of the University, vied with the Executive in the prompt and generous effort to retrieve the disaster. The public utterances of yourself, Mr. Premier, the expressed sympathy and deep interest of your confrere and successor in office, the Hon. Minister of Education, coupled with the earnest and sympathetic speech of the present leader of the Opposition last night, give good ground to hope that once again a golden opportunity has been seized and our Provincial University as the cope-stone of the educational system of the country has been thought worthy of a place beyond the pale of party politics. This is specially gratifying to the thousands of her graduates to whom her welfare and progress are becoming a burning question, and the more because they feel that of all the great possessions of the State none is really so fruitful and of such high quality.

We trust the present attitude of the public men and leaders of opinion augurs a more constant and practical recognition of the fact that in a sense the University belongs to the State as much as does the Post Office, the Agricultural College or the Experimental Farm.

We believe it would be a wise economy to mortgage the estates of the Crown if need be in order to at once properly equip the State University.

What our *Alma Mater* has given back to the State during her life of fifty years is vastly more than many dream of; and in the future, history will doubtless repeat itself.

One of the leading features of this Session's legislation, we note, is the million dollar scheme for providing good roads throughout the country; primarily, of course, for the benefit of that important part of the people, the farmers. Largely in the interests of their sons, who come in goodly numbers to the University, win its prizes and share its benefits, we now urge, not that the Government and House shall provide the impossible royal road to learning, but that what are now, in respect of more than one important department of the institution, merely byways be made

highways for the many who wish to reach the goal. There can be no doubt the outlay in this regard will yield a rich reward.

A special plea is made for aid in the Department of Mineralogy and Geology, but there are other departments that sadly need help, as is clearly set forth in the report of the University Council.

We find, Mr. Premier, progressive higher institutions everywhere promoting original research. The undoubted direct gain to a student and reflex benefit to a University of such work need no argument, and are beyond cavil.

Research scholars (Professors or post-graduates) and travelling Fellows are so many ambassadors of the Republic of Letters and Science, whose status at foreign academic courts tends at once to make known and to elevate that of their *Alma Mater*.

To learn how to woo or wrest from Nature her inmost secrets and to transmute her hidden stores of treasure and of pelf, is a most important training. And thus to develop the latent wealth and manifold resources of the country and bring in time the greatest good to the greatest number is, indeed, a grand result and one which justifies our appeal for ample funds to make our *Alma Mater* more potent for good than ever. The dictum of the Rector of Glasgow University, Lord Rosebery, that "Practical Universities are the Universities of the future," we cannot afford to ignore.

At the great Birmingham meeting in 1895, under the chairmanship of the Right Hon. Joseph Chamberlain, now Chancellor, setting on foot the University movement there, which it was the speaker's privilege to attend, the same sentiment was strongly in evidence.

The lament, not a new one, then uttered and since often repeated, of England's neglect of Science, with its patent results, should prove both a warning and an incentive to our legislators and educationists.

We can aver most truthfully that for the great results gained at low cost the University of Toronto stands preeminent; its record in this respect surprises educationalists from abroad and challenges their admiration.

For the University to provide for present urgent need of laboratories, equipment, etc., out of its endowment fund is clearly to drain its own life-blood, a course as unsafe as unwise. Others will speak to-day of what is being done in other countries willingly and steadily to foster and expand State Universities. Permit the speaker in a word to voice, in a general way, the feeling of the Alumni and friends, and urge on the part of the Government and House at this time a repetition, after the lapse of a century, of that prescient policy which gave our *Alma Mater* her original endowment. Affection for their *Alma Mater* and a true patriotism alike impel the Alumni to urge upon the Government and the House the passing of a measure during this Session which will tend to stop the exodus from our Province and country of our more ambitious and brilliant youths, one that will fully accord with the progressive spirit of the age and meet the growing needs of the country and the century.

REVEREND JAMES ALLEN, OF TORONTO,

who followed, said they had heard the Premier declare that this was the richest country in the world in its natural resources, that Ontario was the banner Province of the Dominion, and that the strength of the country was not in its broad acres or material wealth, not even in the sound political opinions of its electorate, but in the character of its people, in their moral principles and trained intelligence, and the speaker believed that their University opportunities should be commensurate with the material prospects of the country.

MR. P. W. ELLIS, PRESIDENT OF THE CANADIAN MANUFACTURERS' ASSOCIATION,

read a resolution passed by the Executive Committee of that body, which, he thought, represented industrial public opinion in the Province. The resolution stated that after careful consideration they were strongly in favour of means being provided for an adequate equipment of the Provincial University. For some time the manufacturers had thought the University was not closely enough in touch with the needs of the manufacturing and business world, and they felt that the time had come when a distinct advance should be made, not only along the lines on which they were now working, but more particularly in those branches which looked to the development of our natural resources.

MR. E. V. CLERGUE, OF SAULT STE. MARIE,

who said he had been asked to speak as a representative of the industrial development of Ontario, said he had come in contact with many graduates of Toronto University, who went north seeking employment. There were many opportunities up there, but he regretted to say that owing to the lack of facilities here the heads of departments in the large Sault establishments were largely Americans, Englishmen, Germans and Swedes.

Mr. James Chisholm, barrister, of Hamilton, representing the Alumni Association of the County of Wentworth, assured the Government that they would have the support of the Opposition in generous treatment of the University. What the people of the Province asked was that the University of Toronto be again placed in the relative place it held to surrounding universities twenty-five years ago.

Mr. Otto Klotz presented on behalf of the Toronto University Club of Ottawa the following memorial to the Premier, passed at the recent meeting of the club:

"The Toronto University Club of the City of Ottawa, a club having a membership of over one hundred and fifty, and one of whose chief objects is to advance the interest of the University of Toronto in every way, learn with regret that the University is at present in the most extreme financial distress. We feel that the commanding position of Ontario, the leading Province of the Dominion, has been attained

largely through the educational advantages offered our people by our public education. The State University is the cope-stone of that system, and hence merits the hearty support of the whole people, who are, directly or indirectly, the beneficiaries. Ontario is making great strides towards the development of her vast resources, and the University will be an important factor in the consummation thereof. In view of these facts and the great stress now being especially laid on scientific education by progressive foreign countries, it seems to the club that a grant of at least \$50,000 a year should be made to the University of Toronto to place it on a proper financial footing. The most desirable form of revenue would be one that automatically adjusts itself approximately to the ever-increasing needs of the University. This would then bear a constant ratio to the progress of the Province. It may not be out of place to mention that our neighbouring State (Michigan) has a State university, which the State supports by a tax of a quarter of a mill on all the taxable property of the State. The annual revenue from this State tax is now about \$300,000, a sum many times in excess of the State aid to the University of Toronto—our State institution—yet the resources and population of Michigan are not greater than those of Ontario, in fact the reverse. It appears to the club that the name University of Toronto has been somewhat unfortunate from the fact that it has militated against the proper and full recognition by the people of the provincial character of the University—that it is essentially the University of the people, of the State. The question may, therefore, arise whether the interests of the University would not be advanced by changing the name to University of Ontario. In conclusion, the club hopes that at the present session of the Legislature the necessary steps will be taken to give adequate financial support to the University of Toronto, and in a manner to obviate for years to come the annual appeal for necessary assistance, thereby placing our Provincial University abreast of the times, and making it a credit to Ontario."

Rev. W. A. Bradley, of Berlin, in describing the inadequate provision for the teaching of Science in the University of Toronto, spoke of three young men of the town who, in order to pursue a course in Engineering, had passed by Toronto and gone to Cornell. This was an emigration which should be stopped.

Mr. John Campbell, President of the Campbell Milling Company, St. Thomas, spoke, urging the duty of the Government to develop the University in accordance with the industrial demands of the country.

Hon. S. C. Biggs made a most vigorous speech, saying that all that was claimed by the Association was admitted by the Province, Mr. Whitney, the Alumni and all others cognizant of the facts. Therefore the issues are arrived at. There is a deficit, a present lack of funds, and students have to go elsewhere to be properly equipped. The Government can find money for material development, such as railways, pulp mills, etc., and he was glad of it, but why not develop the men who are to manage these things? If there is a surplus, as the Government claims,

of \$1,000,000, why not use some of it? A surplus while the University the child of the Province, is starving! It is preposterous, and this injustice is allowing the intellectual interests of the country to suffer.

A telegram was read from Col. W. N. Ponton, Belleville, as follows:—
 “Hon. the Minister of Education: Alumni Toronto University, Hastings County, seventy strong, with public opinion represented and influenced by them, urge immediate generous action to make Provincial University our national pride and remove reproach of deficiency and want of progress. Our first duty to our Provincial educational centre, afterwards the others.”

HON. G. W. ROSS, PREMIER OF ONTARIO, IN REPLY SAID:—

“I am very much pleased indeed that the Alumni and their friends have come out to meet us in such large numbers. For many years I have been urging the Alumni to educate the public as to the needs of the University, and I am therefore glad of this gathering; and that, while the movement was late in coming, it has now come with such force and vigour. I have always been impressed with the need of having a well-equipped University, both in regard to professoriate and equipment, and to buildings. I will not say what we have done—and perhaps we have done a great deal—but what the University has done has been done at the expense of its own endowment. We helped you after the fire, we set aside certain lands, and a few years ago there was a grant of \$7,000. But, as has been pointed out, the increased cost of education has fallen upon students in the shape of fees. The students, therefore, of later years have borne the greater part of the increased cost, and more than the Government. The University has suffered like other large institutions in the depreciation of the rate of interest. I well remember when, some years ago, the average rate from its investments was six per cent.; to-day the average is only a little above four per cent.

“I admit,” Mr. Ross continued, “and have always admitted, the responsibility of the Government to the University of Toronto. I do not think you should hold us responsible to do in the Province of Ontario for the University of Toronto what is done in Germany. Their universities are national universities, and there is a population of 55,000,000 for the treasury to draw upon. Nor is it here, as in Russia, with its 130,000,000; nor as in Great Britain, with its 41,000,000. You must have regard to our resources and the many demands upon us. In this Province we are giving \$775,000 a year for education. That is a large drain upon the treasury, and if it does not go into the University it goes into the Public and High Schools, which are the feeders of the University. If these were not so well equipped the number of students would be much less. For charitable purposes—(and I don’t, like my honourable friend last evening, consider the University a charity)—we give one million dollars. What is our position? We have a regular revenue of about \$4,000,000, divided up as I have said. Year after year we have had a small surplus, which now amounts to about a million in cash. Our revenue will

probably fall off next year about \$300,000 or \$400,000 on account of the falling off in timber dues. We have to consider how much we will give to this or that. While I am most anxious that the University should be upon a strong and substantial basis, I have never subscribed to the position that it is a national calamity that graduates should go abroad to round off their education. I would not want you to suppose that we would establish here a post-graduate course equal to other universities where the endowment is very much larger.

"I just say this to show that we did not expect to make our University a post-graduate school, like those great institutions which have endowments of millions to maintain them. Our educational progress is like the progress of the country. First we were a purely agricultural community. Then, in the past twenty years, everyone will remember the great development of manufactures. Now we are at the beginning of a new era—industrial—and development of the great wealth in our mines and forests and natural resources. In my youth the goal of every student was a learned profession. He wanted to be a lawyer, or a physician, or a preacher, who could tell the people unpleasant things from a position where they could not answer him back. Now we are in another age, when the cry comes up from the manufacturer and the business man for trained men for their work. This cry is heard, and responded to, in Germany and England. Cambridge and Oxford go on teaching the classics, and piling mathematics on top of that, but eight other universities have risen to meet the new demand, such as Victoria College and Birmingham University—the latter the newest of these, but one which has prospered amazingly under the care of Mr. Chamberlain. In the United States this need is met by such institutions as Cornell, the Pratt Institute, the Massachusetts Institute of Technology, and, under the vigorous directorship of Mr. Seth Low, Columbia University is developing in the same direction. We must move on the same lines. We must see that our scientific courses are broadened. I tell you what we have to do to broaden, not the classical side of the teaching at the University, but the practical and scientific side, and I hope before the House rises to be able to do that which will assist us in developing our Province, especially New Ontario.

"I am glad," said the Premier, "that you have given us this great representation. If you had aroused public opinion a year or two ago, perhaps you would have been better off now. You have been, perhaps, as one of your number said, somewhat slow. We have felt that the graduates were inclined to hide their light under a bushel. You must be active in educating public opinion, for whatever may be our desire we can never get beyond public opinion. If we did, someone would knock us on the head.

"We cannot assist the University in the way that some want, that is, to spend a large amount of money there and take it away from the Public Schools, for the enemy would immediately say: 'A few people attend the University, and you make a large grant, 23,000 pupils attend the

High Schools, and you make them a small grant, 500,000 children attend the Public Schools, and you make them no grant at all.'

"We must help the University," concluded the Premier, "by helping the whole system. I cannot admit that the whole source of strength is at the top. In such matters it is a good thing to have a surplus, but it is better to have that surplus distributed, and that is our opinion. You are helping us, and, perhaps, preparing public opinion so that some years from now we shall be able to do more than we can do now. If the graduates do their part, we will do what we can on ours to keep this University at the head of the procession of universities of this continent."

THE MINISTER OF EDUCATION

delivered a speech in the Legislature, February 27th, in which, after making an allusion to the importance of the question, Mr. Harcourt remarked that the fact that the University was in need was not disputed. He alluded to the annually recurring deficits during the last four years, and stated that in that time they aggregated \$31,600.

The work the University had been doing was only part of the work it was designed to do, and which its friends are anxious that it should, at an early date, undertake. Even the work that it tried to do was imperfectly done because of the want of money. The Departments of Mineralogy and Geology were instanced, and it was shown that in these important Departments building accommodation was needed, as well as additional equipment, and a considerably larger staff of instructors. The mere fact that the expenditure on these subjects during a whole year was less than \$2,000 was proof that they were neglected. It was true, also, that a new building was required for the uses of a Physical Laboratory. The Biological building, too, was needed solely for the purposes of Biology, and the study of Physiology, hitherto undertaken in the Biological building, should find accommodation elsewhere. Even the library was lacking, inasmuch as a sufficient sum of money was not forthcoming which would permit of the necessary additions. In fact, six of the scientific departments urgently required more money for their maintenance. Again, there was very inadequate provision for post-graduate courses. Research work, it was true, was undertaken in Science and Oriental Literature, but through need of funds similar work was not undertaken in the Classics or the Modern Languages.

The Minister read an extract from a letter he had received from a recent graduate of the University who has been taking a post-graduate course at Chicago. The graduate in question, amongst other things, in writing to the Minister, said:—

"I am Fellow in Biology, and Assistant Instructor in Petrology and Mineralogy. It has seemed to me very unfortunate that Ontario students are obliged to leave their own Province and country to pursue graduate studies of the highest order. The fact that there are now in colleges on this side upwards of 100 students of colleges in Canada,

chiefly Ontario, seems to show that there is a great need for advancement of University education in Canada. Toronto University should be made equal to any University in the United States."

The Minister commented on this letter, and pointed out that the Province owed it as a debt to the ambitious young men of the Province that they should not be compelled to go abroad in order to take post-graduate courses.

The Minister stated that, speaking for himself, he believed it to be the duty of the Legislature to assist the University to the extent of the full measure of its needs. He believed that if that were done every Public School in the land (and we had five or six thousand of them) would be strengthened, and new life and vigour as well would be imparted to every one of the 130 High Schools in the Province. He reminded the House that nearly 300 of the graduates of the University were engaged as teachers in the High Schools of the Province, and that some of them were teaching in the Public Schools of Ontario. Indeed, the University of Toronto and Queen's University between them did all the teaching in the secondary schools of the Province. If the University had no other claim upon our ratepayers than this, that it educated 300 of those who were teaching in our High Schools, and that these in their turn educated young men and women who would soon take charge of the Public Schools of the Province, its claim for generous support was amply justified. Unless a high standard were maintained in the High Schools the Public Schools would certainly suffer. If the University were so crippled financially as to be unable to undertake research work, and thus hold up a high ideal for the schools below, then of a certainty the High Schools would soon show signs of weakness and atrophy.

He gave four historical illustrations in support of his argument. He reminded the House that when Prussia suffered defeat at Jena at the hands of the first Napoleon, its statesmen deliberated as to the best means of retrieving their lost fortunes and regaining prestige, and the conclusion arrived at was that, to bring about the desired results, the first step to be taken was to found a great University. Acting on this resolve Humboldt laid the foundations of the University of Berlin. Similarly, when France met disaster thirty years ago at Sedan, her statesmen, in order to regain the ground she had lost, set to work to reorganize the national school system, and ere many years had gone by, France established an excellent system of Normal Schools for the express purpose of training superior grade teachers.

When Jefferson on this continent wished to build up a suitable system of education, now a century ago, he founded the University of Virginia. When Johns Hopkins of Baltimore began its work, those who watched the results gave it as their opinion that the most noticeable result was that in establishing postgraduate courses and undertaking valuable research work, all the colleges in the country were stimulated and improved. Thus it is that commencing with the Universities the work of providing for the intellectual equipment of a people by degrees extends

to all the schools below. In other words was it not true that educational forces operate from the top and are not pushed from the bottom? The process of evolution is at work as relentlessly in educational matters as in all other things. During the last generation, and especially during the last decade, more attention was being given everywhere to scientific studies, and the Universities in every country have been improving and strengthening their Science Departments. It is equally true that because of this fact new strength and power and vigour and influence have come to the Universities. They have been brought into closer contact with the commercial life of the people, and have won sympathy in many new directions. For a thousand years or more Universities the world over simply preserved learning. They were storehouses of the learning, culture and erudition of the past. In thus preserving learning they made the world their debtor. Another field has opened to them in recent years, and the attention, I repeat, which they are paying scientific studies had brought new strength and usefulness and vigour to them. Even Oxford, the proud home of "*belles lettres*" for centuries, now grants a degree in science. At Oxford there are six different avenues for a degree besides Greek and Latin. At Glasgow the degree of M.A. is obtained without taking Greek. Harvard, fifteen years ago, allowed Greek and Latin to drop out of the undergraduate course. Cornell and Columbia afterwards abandoned these studies, and next June, he was informed, that the last named University would accept for entrance students who had never studied either Latin or Greek. It does not follow that Latin and Greek should be displaced. These studies are as important now as they were centuries ago. At the same time it is true that for a great many of our students the newer studies, the scientific studies, may well demand their first attention. This is true if the college is to have any relation to the after life of the student. No thoughtful man would seek to minimize the importance of the old studies such as Greek and Latin. Our regret is that so few of our students are so circumstanced as to be able to pursue them thoroughly and usefully. We need a knowledge of the culture of the ancients, of their history, their art, their philosophy. We cannot afford to discard such studies and thus to make applicable to our curriculum the words "wisdom by one entrance quite shut out." At the same time the great majority of our students, having regard to what is to be their life work, can more profitably give their time to other studies. We must strengthen the scientific side of the University, and in doing so we will certainly render good service to its every other Department.

Scientific studies require expensive equipment, and for laboratories alone a large income is needed. Our institutions will lag behind if we do not provide laboratories. Carlyle said that a good library was in itself a University, but the philosopher of to-day would say that a well-equipped laboratory takes the place of the library of Carlyle's time. Germany is noted for her well-equipped scientific schools. The Minister with some detail alluded to the Royal Technical College at Berlin, which has ample and generous provision for 3,400 students, 140 Professors and 260 assistant

Professors. This institution reserves one hundred places for poor scholars of intellectual promise. At this college engineering, chemistry and metallurgy receive special attention. It has a library of 75,000 books, not to speak of art galleries and museums. This college and similar colleges in Germany have done much towards the upbuilding of German industries. At Mannheim, for example, in one industrial establishment there are employed more than a hundred graduates of German universities. This manufactory exported more than \$1,000,000 of its product to the United States in a single year.

It has been well said that the University is the foundation of the German Empire. Twenty-five years ago her engineers were imported from England, and her ships were English built. To-day the fastest steamers which plough the Atlantic were built, not on the Clyde, but in German waters by German artisans. Not many years ago Germany imported all instruments of precision. Last year her exhibit in this line at the Paris Exposition attracted universal attention. Germany has now 790 establishments devoted to this one industry, giving employment to 13,600 men, and having an output in a single year to the value of nearly four millions of dollars. In the matter of aniline dyes Germany now commands a vast trade. England at one time almost monopolized this trade.

It could similarly be shown that in other lines of manufactures great results have been accomplished, attributable always to the thorough, systematic, scientific teaching in her schools. We find technical and commercial schools in almost every village in Germany. All North Germany is likened to one vast workshop. The graduates of German universities leave the college halls to undertake work in manufactories and shops. She has twenty universities, and no expense is spared in maintaining them in the highest efficiency. Prussia alone has nine universities. Could this rich Province not adequately maintain one?

The Minister quoted from a report of delegates sent two years ago from the city of Manchester to Germany. These delegates reported in these words:—

“It is not less clear that the schools are the root and base of this surprising industrial development and are the main contributors to this great result. It is not less certain that if we are to maintain our position as a great industrial community, it must be by following out and adopting the same methods.”

In his recent speeches Lord Rosebery had emphasized the same conclusions. Mr. Chamberlain also, addressing an audience in Birmingham, made it clear that he appreciated the close connection between widely diffused scientific training and industrial progress. One sentence may be quoted from the speech in question. Referring to the benefits to be derived from the scientific training he used these words:

“It is not too much to say that the existence of the country as a great commercial nation depends upon scientific training.”

The Duke of Devonshire earnestly holds the same opinions. In a recent address he used these words :

“Foreign nations have anticipated us to a very great extent in realizing the very close connection between commercial and industrial success.”

England spent last year in technical education upwards of five millions of dollars, and Congress, during its last session, voted for the same purpose nearly twice that sum. In the face of these facts are we not warranted in desiring to strengthen the teaching of science in our Provincial University? Our researches are as great as those of Germany. We are not weighed down with militarism. We have vaster tracts of arable land and brighter skies. Our forest wealth is illimitable and our wealth in minerals is beyond comprehension. We need captains of industry, chemists, assayists, metallurgists, in order that we may make the most of our natural resources. We need a strong University to equip these captains of industry. England began the century with only two Universities. Now she has eight or ten, not to speak of a score or more of University Colleges doing important work. A technical school recently opened in Liverpool, generously equipped, has 4,000 students. Owing to the growing demand for scientific teaching the older Universities even have felt the need of increasing revenues. In recent years Oxford has been asking aid, and the friends of Cambridge have been looking about for new sources of income.

The Minister closed by expressing the hope that the Legislature would unanimously resolve to maintain and strengthen the efficiency of the University.

MR. WHITNEY, LEADER OF THE OPPOSITION,

on the evening before the deputation waited on the Government, made a stirring speech in the House, in the course of which he spoke fully and most encouragingly on the University question. After a reference to the High and Public School systems of the Province, he said :—

“With a true foundation thus laid, and the interests of those who cannot hope to go further than the Public School in the acquirement of education, and whose interests should be our first care, duly safeguarded, we then come to the question of university education. Those who are watching the signs of the times must believe that we are approaching a period of great changes in educational methods. Just what form or shape these changes will take we cannot yet see, but the true lover of the educational interests of the Province will not be afraid to take steps to be ready for changes that may come, nor be astute in discovering obstacles in the way of preparation. We must take a forward position on the University question or else consent to be left hopelessly in the rear with disastrous results, one of which will inevitably be that our young men will go elsewhere for higher education.

“It is too late now to discuss academically the question of the advisa-

bility of a State or Provincial University. It is a condition, not a theory, with which we have to deal. The Provincial University, which is at once a provincial asset, so to speak, and a public trust, has been dragging along for many years, doing noble work, considering the means at its disposal. Several other colleges have come in under the federation scheme, and the University has struggled on manfully under great difficulties. Year after year those connected with it, and best able to judge of its requirements, have pressed upon the Provincial Government its urgent needs, but practically a deaf ear has been turned to all their appeals.

“The situation has at last become acute, and, indeed, intolerable. We must either support or abandon the University. We have arrived at the parting of the ways, and we must decide whether we will go forward or drop back.

“Being convinced that the people of the Province are unwilling that the present condition of blight and mildew shall become chronic and permanent, we, on this side of the House, are determined that, so far as lies in our power, a remedy, immediate, permanent and lasting, must be applied.

“We take the responsibility, Sir, of insisting that the finances of the University be put on a sound, stable and permanent footing, by providing such an annual payment as will fairly and fully meet the desires and propositions of those best able to judge of its necessities to-day, and that this be done forthwith.

“Further, that as soon as reasonably may be, with a due regard to the financial ability of the Province, and to careful outlay, appropriations for necessary buildings should be made, and, in order to the due carrying out of this latter suggestion, it may well be considered wise and prudent to submit the question of buildings to a commission of gentlemen who, from their standing and experience, may be trusted to arrive at a conclusion which will be satisfactory to the Legislature and to the people. Such a commission need not be costly.

“We further urge that in thus dealing with the Provincial University the direct control of the Government over it be relaxed to a certain extent, so that the experience and judgment of the governing body of the University shall have more influence and power in the appointment of Professors and in the internal management of the institution than at present.

“The fees should be so regulated that the sons and daughters of the relatively poor may find practically an ‘open door’ at the University.

“We believe that the funds provided by the succession duties should be drawn upon for, at any rate, the annual payment to the University, or a percentage of the amount realized from such duties should be devoted to that purpose. If it be objected that the charity moneys arising from the succession duties were to be devoted to keeping up the asylums and charitable institutions, the answer is that educational institutions are ‘charities’ in the eye of the law. This is well-settled doctrine.

"It is not possible to ignore, in the consideration of this very important question, the subject of Queen's University. Its standing as a great educational institution is well known. From a small beginning, its foundation, caused and justified by the then condition of our educational system, it has gone on growing deservedly in importance and influence, until to-day it is not too much to say that it is no small part of the educational life of the Province. It cannot be lightly passed over. However, sir, as I have said, we are dealing with conditions, not theories. We believe that the steps I have indicated should be taken without delay with reference to the Provincial University, and then any claim that may be advanced by the sister institution should be considered fairly and equitably on its merits, and not lightly dismissed.

"I am convinced that if the policy on this question which I have proposed be adopted, it will meet with the cordial approval of the people. It is a policy which should not be tossed back and forth between political parties, and if it be grappled with earnestly, I believe the result will be that we will hold our own, in an educational sense, among the other communities on this continent, and the way of life will be made easier for those who will come after us."

UNIVERSITY OF TORONTO ALUMNI ASSOCIATION: LOCAL ORGANIZATIONS.

HASTINGS COUNTY.

A meeting of the alumni of the University of Toronto for the county of Hastings was held at Belleville, February 28th. There was a good attendance and a hearty interest shown by those present in the welfare of their *Alma Mater*.

Dr. J. C. McLennan, of Toronto, was present and ably reviewed the position of the Provincial University. He pointed out its relationship to the public and the need of practical development in order to keep abreast of the times.

Speeches were made by other gentlemen present, and a local association was organized, and a constitution adopted. The following officers were elected:

Honorary President—F. E. Seymour, B.A., '64, Madoc.

President—Lt.-col. W. N. Ponton, M.A., '78.

Vice-Presidents—W. K. T. Smellie, B.A., '80, Deseronto; J. S. Sprague, M.D., '69, Stirling;

S. J. Young, B.A., '81, Trenton.

Secretary—J. T. Luton, B.A., '97, M.A., '99.

Treasurer—Mrs. J. T. Luton, B.A., '92.

Councillors—J. Frith Jeffers, B.A., '75, M.A., '77; W. P. Dyer, B.A., '77, D.D.; W. B. Northrup, M.A., '78, M.P.; H. A. Yeomans, M.D., '89; J. A. Marshall, L.D.S.

A memorial for presentation to the Provincial Government was drawn up, asking for financial assistance toward the Provincial University. A small membership fee, including subscription to the UNIVERSITY MONTHLY, was fixed. The meeting tendered Dr. McLennan a hearty vote of thanks for coming to Belleville and delivering an address so well appreciated.

J. T. LUTON, *Secretary*.

LENNOX AND ADDINGTON.

A meeting of the graduates of the University of Toronto residing in the Counties of Lennox and Addington was held in Napanee on March 1st, for the purpose of organizing a local branch of the Alumni Association of the University of Toronto. Dr. McLennan, General Secretary of the Alumni Association, explained the object of the meeting and the necessity for forming branches in all centres where it is convenient for the local graduates of the University to band themselves together and make some united effort for the welfare of the University. The address was listened to with much interest. It was moved by Dr. Simpson, and seconded by Mr. Van Every, that a local organization be formed to be known as "The University of Toronto Alumni Association of the County of Lennox and Addington."

The following officers were then elected :

Honorary President—Prof. A. E. Lang.

President—H. M. Deroche, B.A., '68, K.C.

Secretary-Treasurer—U. J. Flack, M.A., '89.

Vice-Presidents—W. S. Herrington, B.A., '83, K.C., Napanee; M. I. Beeman, M.B., '73, Newburg; W. W. Meacham, M.D., '69, Odessa; J. H. Davidson, B.A., '98, Bath.

Councillors—Law, J. H. Madden, B.A., '73; Medicine, F. W. Simpson, B.A., '82, M.D., '84; Arts, J. F. Van Every, B.A., '96, Miss E. Deroche, B.A., '98; Dentistry, Dr. N. Wagar; Pharmacy, T. B. Wallace.

A resolution memorializing the Government to grant more aid to the University was carried.

U. J. FLACK, *Sec.-Treas.*

LINCOLN COUNTY.

A meeting of the graduates of the University of Toronto resident in Lincoln County was held in the Collegiate Hall, St. Catharines, on the evening of March 11th. Prof. A. B. McCallum and Dr. J. C. McLennan delivered interesting and instructive addresses on University affairs. A local branch of the Alumni Association was formed and delegates appointed to wait upon the Government with the representatives from other parts of the Province. The following officers were elected :

President—John Henderson, B.A., '71, M.A., '72.

Vice-Presidents—Mrs. G. H. Smith, B.A., '96; J. S. Campbell, B.A., '83; N. H. McCoy, B.A., '89, M.B., '92.

Secretary-Treasurer—G. B. Burson, B.A., '91.

Councillors—J. Sheahan, M.B., '95; P. W. Hodgetts, B.S.A.; Rev. J. O. Miller, B.A., '88; W. J. Robertson, B.A., '73; J. F. O'Flynn, D.D.S.; F. Killiner, D.D.S.

G. B. BURSON, *Sec.-Treas.*

MIDDLESEX COUNTY.

A meeting of graduates and undergraduates of the University of Toronto resident in the county of Middlesex was held in Sherwood Hall, London, Ont., March 2nd, to organize a local branch of the University of Toronto Alumni Association for the county of Middlesex. The meeting

was well attended, there being upwards of forty present and a great deal of interest was taken in the addresses which were delivered by President Loudon, James H. Coyne, B.A., Vice-President of the General Alumni Association, and Dr. J. C. McLennan, Secretary of the General Association at Toronto.

President Loudon dealt with the financial side of the question, tracing up the history of the past endeavours of the University to obtain aid from the Government, and illustrating the economical way in which the finances of the University had been managed. He alluded to the way in which the original endowment of the University had been encumbered by burdens which they had not sought, but were thrust upon them by the Government itself. As things now stood, the University was not sufficiently equipped in its various departments to do the work which was intended. In conclusion, he drew attention to the different way "Queen's" was treated, when she sought financial aid.

Mr. Coyne, of St. Thomas, made a short address, dealing with the question in a general way, pointing out that the University at Ann Arbor, Michigan, was considered so much of a state institution that an annual tax was imposed for its maintenance. A vigorous address was then given by Dr. McLennan, who asked those present to stand together on the 13th of March, when they hoped to memorialize the Government.

The meeting then organized itself into a Local Branch of the Alumni Association for the County of Middlesex. The following officers were elected :

Honorary President—F. W. Merchant, B.A., '73.

President—Talbot Macbeth, B.A., '74.

Vice-Presidents—S. J. Radcliffe, B.A., '88, London ; J. E. Wetherall, B.A., '77, Strathroy ; F. A. Stuart, B.A., '93, Lucan ; Neil Macdougall, B.A., '93, Parkhill.

Secretary-Treasurer—F. E. Perrin, B.A., '92.

Councillors—Rev. C. C. Owen, B.A., '86 ; H. Meek, M.B., '78 ; S. Wolverton, D.D.S. ; Miss M. A. Smith, B.A., '99 ; W. M. English, M.D., '86 ; F. W. Daly, B.A., '88 ; W. R. Hobbs, B.A., '96 ; Miss Hills, B.A., '97 ; P. E. Mackenzie, B.A., '93, LL.B., '95 ; W. Spencer.

A resolution to present to the Government on March 13th was drawn up. The President and Secretary were asked to have it presented through the local members who will go on the general delegation to attend on that day.

F. E. PERRIN, *Sec.-Treas.*

THE UNIVERSITY OF TORONTO CLUB, OTTAWA.

On Friday evening, February 15th, the Toronto University Club, of Ottawa, held a quiet but successful dinner at Aylmer, Que., the arrangements for a more formal function, which had been in contemplation, having been cancelled because of the general mourning consequent upon the death of the late Queen.

During the evening the affairs of the University were freely discussed by the President, F. R. Cameron, M.A. ; J. Lorne McDougall, Sr., M.A. ; W. D. LeSueur, B.A. ; W. L. Mackenzie King, B.A., LL.B. ; J. D.

Courtenay, M.B.; William Wilfred Campbell, F. R. McNamara and others, particular attention being directed to the present financial situation and the expediency of carrying on a postgraduate course under existing conditions. Among the suggestions thrown out were the proposals that the grant to the University should be made proportional to the increase in the general wealth or the public revenue of the Province, and that the graduates, especially in the rural districts, should be organized, with a view to forming a public opinion favourable to increasing the efficiency of the University.

The Hon. Charles Fitzpatrick, Solicitor-General, who was present as a representative of Laval University, emphasized the common purpose which underlies all institutions which aim at the discovery of truth and the promotion of culture, and referred to the possibility of ultimately having in Canada a great national seat of learning open to all classes, races and creeds. Mr. P. D. Ross, speaking as a representative of the Ottawa Valley Graduates' Society of McGill University, following a similar line, suggested the holding next year of a joint University dinner open to the graduates of all of the Universities represented in Ottawa, a proposal which was received with applause.

A musical programme was supplemented by the reading of an original poem by H. F. Gadsby, B.A., '89.

HENRY A. HARPER, *Sec.-Treas.*

PETERBOROUGH COUNTY.

A meeting of graduates of the University of Toronto was held in Peterborough on March 7th, when it was decided to reorganize the Alumni Association for the County of Peterborough, which was originally established in 1883. A constitution was adopted and the following officers were elected for the ensuing year:

President—E. B. Edwards, B.A., '70, M.A., '71, LL.B., '81, K.C.

Vice-Presidents—J. Davidson, B.A., '80, M.A., '83, LL.B., '91; D. Fraser, M.B., '74; J. E. Shaw, M.B., '80.

Secretary-Treasurer—D. Walker, B.A., '91.

Councillors—D. W. Dumble, B.A., '60; W. D. Scott, M.D.; H. R. H. Kenner, B.A., '93; W. W. VanEvery, S.P.S., '99; Rev. W. H. McKnight, B.A.; H. H. Edmison, Phor. B., '97; M. A. Morrison, D.D.S., M.D.S.; W. Taylor.

J. C. McLennan, M.A., Ph.D., was present, and in a very forcible address dealt with the financial condition of the University and the strong claims it had upon the Provincial Government for support.

The following resolution was unanimously adopted: "Moved by Mr. Dumble, seconded by Dr. Greer:

1. "That the Provincial University is part of the general educational system of Ontario, providing an education for all alike, whether rich or poor, and that its maintenance in a state of efficiency is bound up with the welfare and prosperity of the country. 2. That the responsibility and the duty of maintaining the University in a state of efficiency rest upon the Ontario Government and the Legislature of the Province.

3. That the University must be kept abreast of the times, and should not be allowed to fall behind other Universities in necessary equipment and provision for instruction in all branches, and particularly in those which tend to the development of the great resources of Canada.

4. That we view with alarm the existing annual deficits, which show that the income of the University is wholly inadequate for present needs, and is wholly inadequate for the future and growing needs of a progressive national university. We, therefore, press upon the Government the necessity for making such an annual grant to the University as will reasonably provide for its requirements, and pledge ourselves to support in every possible way the action of the Government to this end."

At the close of the meeting delegates were appointed to attend at Toronto on the 13th inst. to join the deputation which was to press upon the Government the claims of the University.

DUNCAN WALKER, *Sec.-Treas.*

PRINCE EDWARD COUNTY.

A meeting of the graduates of the University of Toronto resident in Prince Edward county was held in Picton on February 28th. It was decided to organize a local Alumni Association. The following officers were elected:

Honorary President—R. Dobson, B.A., '80.

President—Morley Currie, B.A., '91, M.B., '95.

First Vice-President—John A. Wright, B.A., '70.

Second Vice-President—Miss E. M. Ackerman, B.A., '96.

Secretary-Treasurer—A. W. Hendrick, B.A., '97.

Councillors—Dr. John W. Wright, B.A., '75; Harvard C. McMullen, B.A., '66; George M. Hermiston, D.D.S.; A. C. Bowerman, M.B., '76; T. G. Raynor, B.S.A.

Dr. J. C. McLennan, of the University of Toronto, was present and addressed the graduates upon the outlook for Toronto University. From his remarks we learned something which will stir every graduate and undergraduate in this county to greater activity to bring about a change in the prospects of the University. The graduates of this county feel strongly that the time has come when the University should be placed on its proper basis as a State University, and that the Government should afford financial assistance sufficient to render the University thoroughly efficient in all its departments, wipe out the recent deficits and materially reduce the present high fees, which are placing the advantages of University training beyond the reach of the people. These ideas were embodied in a memorial, which will be signed by all graduates and undergraduates and transmitted to the local member in the Legislature and the Minister of Education.

A cordial vote of thanks was tendered Dr. McLennan for his kindness in coming and for the valuable and interesting information he gave us of our *Alma Mater*.

A. W. HENDRICK, *Sec.-Treas.*

SIMCOE COUNTY.

The graduates of the University of Toronto residing in Simcoe county held a meeting in Barrie, March 19th, in the Public Library Hall, Judge Boys presiding. Among those present from a distance were President Loudon and Dr. J. C. McLennan, who renewed old acquaintances, and in response to a request gave addresses on University matters.

President Loudon laid stress upon the needs of the six scientific departments. In order to keep pace with the vast strides of science, and to compete with the efficient equipment of many universities on this continent, the financial support received by the provincial institution is too small. He also deprecated the formation in this province of two or three weak scientific institutions of each kind, such as mining schools, instead of one strong, well-equipped and efficient institution. The province cannot support more than one good institution in each branch of scientific work. He appealed to everyone to deal with the University question in a non-partisan way, and also from a non-denominational point of view.

Dr. McLennan said that a great change was taking place in public sentiment regarding the University. He showed how scientific knowledge had made Germans great in industrial affairs. The advantage of this is shown by their progress in the synthetic production, at a low cost, of indigo, perfumes, sugar, etc. University education, especially in science, is the means of developing the natural resources of our province. Mr. Clergue has been compelled to employ Germans, French and Swedes as experts, in preference to Canadians, who have the natural ability, but not the educational advantages, and have had to take minor positions.

The outcome of the meeting was the formation of an Alumni Association for Simcoe county with the following officers :

Honorary President—His Honour Judge W. F. A. Boys, LL.B., '61.

President—Donald Ross, B.A., '91, LL.B., '95.

Secretary-Treasurer—A. F. Hunter, B.A., '89, M.A., '92, Barrie.

Vice-Presidents—A. B. Thompson, B.A., '85, M.P.P., Penetanguishene; G. M. Aylesworth, M.D., '69, Collingwood; J. E. Dickson, B.A., '79, Orillia; W. K. Foucar, B.A., '94, Bradford; J. M. Duncan, B.A., '80, Alliston.

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The Legislature was memorialized to grant the needed aid for the support of the University in an efficient condition.

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TORONTONENSIA.

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NEWS FROM THE CLASSES.

The personal news is compiled from information furnished by the Secretary of the University of Toronto Alumni Association, and by the Secretaries of local organizations, and from other reliable sources. The value of this department might be greatly enhanced if University of Toronto men everywhere would contribute to it. The correction of any errors will be gratefully received by the Secretary of the Alumni Association.

1857.

T. H. Bull, B.A., is clerk of the peace in Toronto.—Nelson Burns, B.A., is a clergyman in Toronto.—W. T. Francis, M.A., M.B., is a physician in Gore Bay, Ont.—Geo. Kennedy, M.A., LL.D., is in the Crown Lands Department, Toronto.—W. Oliver, B.A., is a retired high school teacher, living in Toronto.—J. F. Smith, B.A., barrister, is editor of the Ontario Law Reports in Toronto.

Deceased.—Adam Anderson, B.A.—Marcellus M. A. Crombie, M.A., LL.B.—George Dormer, B.A.—Robert Hope, B.A.—Peter McDermid, B.A.—James Ross, M.A.—James Windeat, M.A.

Address Unknown.—John Turpin, M.A.

1867.

John Adams, B.A., is assistant inspector of the Bank of Toronto, Toronto.—Rev. George Bryce, M.A., LL.D., is a professor in Manitoba College, Winnipeg, Man.—C. D. Curry, B.A., is living at Minden, Ont.—W. H. Ellis, M.A., M.B., is professor of applied chemistry in the School of Practical Science, Toronto.—W. E. Ledyard, B.A., M.B., is a physician in San Francisco, Cal.—Rev. G. A. Mitchell, B.A., is a Methodist clergyman at Waterloo, Ont.—W. Macdiarmid is a barrister at Lucan, Ont.—E. G. Patterson, M.A., is in Winnipeg, Man.—O. Sills, B.A., is in Pembroke, Ont.—E. H. Smythe, M.A., LL.D., K.C., is a barrister in Kingston, Ont.—J. W. A. Stewart, B.A., is a Baptist clergyman in Rochester, N. Y.—McLeod Stewart, M.A., is a barrister in Ottawa, Ont.—J. D. D. Sully, B.A., is in Rochester, N. Y.—Donald Tait, B.A., is a Presbyterian clergyman at Quebec, Que.—Henry Yale, B.A., is at St. Catharines, Ont.

Deceased.—James Barron, B.A.—Davidson Black, B.A.—Charles H. Connon, M.A.—William McBride, M.A.—David J. Pruyn, M.A.—John Taylor, M.A.—William F. Walker, M.A., LL.B.—John White, M.A.

PERSONALS.

Every alumnus of the University of Toronto is invited to send to the Editor items of interest for insertion in this department. News of a personal nature about any alumnus will be gladly received.

M. L. Rush, B.A., '96, is a teacher in Chesley, Ont.

J. F. Hutchinson, B.A., '96, is a teacher in Oxbow, Assa.

J. B. Dixon, B.A., '68, is practising law in Boston, Mass.

W. J. Wright, B.A., '96, is a teacher at Warkworth, Ont.

M. G. V. Gould, B.A., '96, is a barrister in Brockville, Ont.

J. A. Mountjoy, B.A., '96, is living at his home at Enniskillen, Ont.

R. A. Brunt, B.A., '97, is science master in the High School at Oakville, Ont.

Miss Janie S. Hillock, B.A., '95, is spending a pleasant winter at Ashville, N. C.

J. J. Smith, B.A., '95, is teaching at Lebre, N. W. T.

W. Clark, B.A., '96, is principal of the Qu'Appelle, N. W. T., public school.

A. J. Raddon, B.A., '96, is inspector for the Trent Valley Canal at Peterborough, Ont.

Miss A. J. C. Dawson, M.A., '00, is now living in London, Eng., at 53 Hillcrest Rd., Acton Hill, W.

C. E. Shaw, B.A., '95, is taking steps to organize a branch Alumni Association in the North-West Territories.

G. L. Brown, O. L. S., '93, has been appointed county engineer for the counties of Dundas, Stormont and Glengarry.

R. S. Lillic, B.A., '92, has recently received the degree of Ph. D. from the University of Chicago *magna cum laude*.

J. W. Preston, B.A., '96, is connected with the legal department of the Missouri Pacific Railway at Denver, Colorado.

Miss M. J. Northway, B.A., '98, at present in Bryn Mawr, Pa., has been granted a Fellowship in Physics in the University of Chicago.

Professor Ramsay Wright has been appointed by the Dominion Government to the position of assistant Director of the Marine Biological Station.

Miss M. C. Cooper, B.A., '98, formerly of Melbourne, who married the Rev. R. M. Bennett, is living at Grenfell, Assa., where Mr. Bennett's pastoral work lies.

E. I. Sifton, who obtained a certificate in Electricity from the School of Practical Science in '96, is now manager of the Electrical Construction Company of London, Ont.

Richard Unsworth, B.A., '56, who taught school in Fergus, Ont., until ill health compelled him to retire in 1880, has since been librarian of the Public Library there.

F. J. Robinson, D. & O. L. S., '95, has been appointed assistant engineer on the Trent Canal at Kirkfield, Ont. J. M. Fairbairn, O. L. S., '93, holds a similar position at Beaverton.

Henry W. Miller, M.B., '95, has lately been appointed pathologist and clinical director in the Tauton Insane Hospital, Tauton, Mass., after three years' special study in other hospitals in Massachusetts.

W. J. Roach, B.A., '96, has joined the Basilian Community, and is at present studying Theology at the Basilian College at Sandwich, Ont. He will, in all probability, be ordained to the priesthood in the coming summer.

A special course of six lectures on "The Quadrature of the Circle" will be delivered in the Mathematical Department of the University by J. C. Fields, B.A., '84, Ph. D. (Johns Hopkins), the first lecture being on April 4th.

The following graduates of the School of Practical Science have passed the final examinations of the Dominion Land Surveyors Association:—C. Fairchild, O.L.S., '92; A. J. McPherson, B.A.Sc., '93; F. J. Robinson, O.L.S., '95.

I. E. Moore, B.A., '93, principal of the Rothesay College, Rothesay, N.B., and H. R. Trumpour, B.A., '00, are corresponding with fellow-graduates in New Brunswick with the view of establishing a branch of the Alumni Association.

Norman Duncan, '95, has been for some years on the staff of the New York *Evening Post*. His work, "The Soul of the Street," was referred to in our January issue. We understand that he is collecting material for another book among the French fishermen of Newfoundland.

Judge J. W. Holcomb, B.A., '59, M.A., '60, LL.B., '62, of Grand Rapids, Mich., is the writer of an article on King Edward's visit to Canada in a recent issue of the Grand Rapids *Herald*, in the course of which he describes the convocation at which the King received the honorary degree of M.A.

A memorial to the Government on the state of the University was drawn up by the Waterloo Alumni Association, and had been signed by all the graduates in Berlin, Waterloo, Galt, Ayr and Preston, and was forwarded on the 9th inst. to Hespeler for signatures. The next day the post office at Hespeler was struck by lightning and burned. Among the mail matter destroyed was the memorial.

R. K. Duncan, B.A., '92, has been eminently successful as a teacher of elementary chemistry. The positions he has held in the Auburn High School, Auburn, N. Y., and in Dr. Julius Sack's Collegiate Institute, New York City, and his present position in the Hill School, Pottstown, Pa., are among the best secondary schools of the United States. Mr. Duncan has also spent some time in research work in Clark and Columbia Universities and in Nikola Tesla's laboratory. He was married in December, 1899, to Miss Charlotte Foster, of Brantford.

Geo. Cooper, B.A., '62, M.A., '64, M.A. (Colgate), '66, D.D. (Bucknell), '84, who was for a time Classical Tutor under Dr. McCaul in University College, after the retirement of Dr. Arthur Wickson, has been pastor of the First Baptist Church, Richmond, Va., for the past sixteen years. For the past twenty years Dr. Cooper has been connected with the governing boards of many institutions: Bucknell University; Crozer Theological Seminary, Philadelphia; Richmond

College; Woman's College; Virginia Union University, Richmond, Va., and others.

A. W. Ross, B.A., '74, who died from paralysis in Toronto, March 23rd, was the father of Donald A. Ross, B.A., '98. He was born at Naim, Ont., in 1846. In 1868 he became headmaster of Cornwall High School, and in 1871 was made public school inspector of Glengarry. In 1874 he graduated from the University. After practising law in Winnipeg he went into business. In 1872 he was elected to the Manitoba Assembly for Springfield, and in 1882 was elected to the Dominion Parliament for Lisgar, which constituency he represented until 1896, when he retired.

G. A. H. Fraser, B.A., '86, M.A., '90, late Professor of Latin in Colorado College, has entered on the practice of Law in Denver, Colorado. Mr. Fraser, after graduation, held the position of Classical Fellow in University College, and is remembered as a man of exceptional ability both as a scholar and teacher. At his final examinations in Law he maintained in a striking manner his own reputation and that of his *Alma Mater*. The following item referring to his success is quoted from a Denver paper: "Of the new attorneys we understand that Mr. George A. H. Fraser stood first, with an average of over ninety-five per cent., the highest reached by any candidate in recent years. Mr. Fraser is a University of Toronto man. Mr. Warral Wilson, of Colorado Springs, a graduate of Yale University and of the Harvard Law School, was second on the list."

The annual clinic of the Toronto Dental Society, held in the rooms of the Royal College of Dental Surgeons on February 25th and 26th, was very successful, over 600 practitioners being present. Much additional interest was given by the presence of T. W. Brophy, D.D.S., LL.D., Dean of the Dental Department of Lake Forest University, Chicago, a noted dental surgeon; A. Price, D.D.S., a member of the staff of the Dental Department of Western Reserve University, Cleveland, an expert in X ray photography; and Dr. Ames, Chicago. The Canadian Dentists have the greater interest in these distinguished visitors from the fact that Dr. Price is a native of Ontario and Dr. Brophy's parents are both Canadians.

MARRIAGES.

On February the 25th at the residence of the bride's parents, Toronto, by Rev. Dr. Thomas, O. G. A. Plaxton, I.D.S., D.D.S., (Tor.) '99, to Florence, daughter of Henry G. Love, Esq.

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EDITORIAL.

THE Editorial Committee in the last issue asked for one thousand paid subscriptions to meet the deficit in the publication of the MONTHLY for the year. So far thirty-eight dollars have been received.

One thousand dollars has been subscribed towards the funds of the University by Mr. F. H. Clergue, of Sault Ste. Marie, conditional upon a sum of fifty thousand dollars being subscribed. Another friend of the University in Western Ontario has written promising a similar sum.

A discussion of the University Act, which came into force on the 15th inst., is being written for the MONTHLY by Mr. J. A. Paterson, M.A., solicitor for the University. It will appear in the May number.

The following gentlemen have been appointed to the new Board of Trustees: John Hoskin, K.C., LL.D., Chairman; James Loudon, M.A., LL.D., Vice-Chairman; Hon. Sir William Meredith, LL.D., Hon. Charles Moss, LL.D., Maurice Hutton, M.A., B. E. Walker, Esq., J. Herbert Mason, Esq., Hon. A. T. Wood, C. S. Gzowski, Esq. We note with pleasure that Dr. Hoskin, who has so long and ably acted as chairman of the old Board of Trustees, has been re-elected as chairman of the new Board.

THE PROBLEM OF POPULAR GOVERNMENT.

BY W. D. LESUEUR, LL.D.

THERE are many distinct problems of popular government, but the one great and comprehensive problem which it presents is: how the best results may be obtained from it—how it may be made to work for the highest good of the community in which it is established. Popular Government, or Democracy, is now an almost universal datum throughout the western world, in which, of course, we include western Europe. Early in the last century, as we must now designate the nineteenth, the philosophical De Tocqueville somewhat sadly proclaimed its

coming, bidding the world prepare for a *régime* under which privilege, precedent, personal authority, the sagacity of the statesman, the wisdom of the philosopher, and the erudition of the scholar would alike be swept out of sight by one vast wave of popular domination. He mentions in his correspondence that, in America, he had found manners and ideas uniformly commonplace; and what he feared was that Democracy everywhere would simply mean the reign of commonplace. To a refined and sensitive spirit the prospect was not encouraging; but a robust philosophy might, perhaps, have enabled him to feel that there was still hope for the world—that, however mediocrity might assert itself for a time, the finer fruits of the human spirit would flourish again in due season. Some, however, of De Tocqueville's contemporaries were not disposed to acquiesce in the opinion that the universal triumph of democracy was inevitable. They saw the foe advancing, and armed themselves to give him battle. Our own annals afford a conspicuous example of this political temper in the person of Sir Francis Bond Head, who, sixty-three years ago, was administering in this city the government of the Province of Upper Canada. "The British Constitution," he says in one of his despatches to the Colonial Office, "has nothing to dread from its low-bred antagonist (democracy) in America if His Majesty's Government will not avert from us its support." He was greatly scandalized to hear that instructions had been given to the Lieutenant-Governor of New Brunswick to endeavour to place in his Council "gentlemen representing the various interests which exist in the Province, and possessing at the same time the confidence of the people at large." It seemed to him, and he said as much to the Colonial Secretary (Lord Glenelg), that this was neither more nor less than giving the highest official countenance to anarchy. He speaks in another despatch of "the repeated repulses which the American people have met with whenever they have attempted to invade Canada for the purpose of forcing upon us their loathsome institutions." That Sir Francis was a high-minded man—a much more high-minded man than some of the Reformers with whom he had to contend—no impartial reader of his "Narrative" can doubt; but he was on the losing side. He was a man of great force of character, and he had in fact rallied a large portion of the Province to his views; but the Colonial Office clearly saw that a cause which depended on personal force of character could not be permanently sustained. He was informed that "His Majesty's Government looks to no transient results or temporary triumphs." Finally, as you are aware, he sacrificed his office rather than obey the instructions he had received to restore a certain person to office whom he had thought it proper to remove.

I do not know whether the conflict between the two irreconcilable ideas of personal government and popular government can be better studied than in the volume to which I have been referring. It is almost impossible not to sympathize with the champion of the dying cause; and yet the very heroism which he throws into the fight gives foreboding

of failure. His opponents did not require to be heroic, nor yet uncommonly straightforward. They only needed to unite on a policy, and pursue it with persistence. What they wanted above all things was control of the patronage; and that they got through the establishment of what was called "responsible government."

At the time that Sir Francis was waging his hopeless contest in this Province the Reform Bill (1832) had already been passed in England. That bill, as it proved, contained in germ the whole democratic system of government; but this was not perceived at the time by its authors, nor even, for the most part, by its opponents. It contained the principle of Democracy in this respect, that it gave *substantial* representation to the masses of the people; the play of party politics did the rest. So long as there is an untouched reservoir of political power anywhere, so long will it attract the covetous glances of the party most likely to profit by tapping it. It is difficult for the practical politician to pass by a mass of possible votes *irretortis oculis*. At the same time many were the declarations made that there was no intention, or even thought, of democratizing the Constitution of England. Lord John Russell declared in 1837 that, so far as he was concerned, the settlement of 1832 was final. "Having," he said, "only five years ago reformed the representation, having placed it on a new basis, it would be a most unwise and unsound experiment now to begin the process again. . . . I say, at least for myself, that I can take no share in such an experiment." As we all know, however, that indefatigable statesman did in later years take part in several such experiments. In 1854, and again in 1859, he made unsuccessful attempts to carry further measures of reform. On the latter occasion he is recorded to have said: "I wish to disclaim entirely any intention to frame a new Constitution. I disclaim such a project for two reasons. One is that I have no wish to alter the Constitution of this House; the other is that, if any such alteration were sought, I should feel totally unable to propose anything that would stand in the place of the ancient and glorious Constitution of the country." This sentiment was echoed and reinforced by Mr. Disraeli on the other side of the House. "We think," he said, "that the English Constitution is not a mere phrase. We believe that we live under a monarchy, modified in its action by the authority of estates of the realm. . . . Under a democracy we do not live, and I trust it will never be the fate of the country to live." In 1859 Lord Palmerston was at the head of the Government; and it was an open secret that he was far from enthusiastic for the cause of Reform. In reply to some one who was maintaining that, even though the suffrage were extended, the same class of men would continue to be elected to Parliament, he is reported to have said: "Yes; I dare say the actors will be the same, but they will play to the galleries instead of to the boxes." We all know the course which Parliamentary Reform followed in England: how Lord Russell was again unfortunate with his bill of 1866, and how Lord Derby and Mr. Disraeli put their heads together to "dish the Whigs" with their more radical

measure of the following year, which became law. It was at the latter date that Deleme, the celebrated editor of the *Times*, said, as quoted in a letter of Lord Houghton's, that "the extreme party for reform are now the grandees; and the dukes are quite ready to follow Beale into Hyde Park." Disraeli had educated his party with a vengeance—all except the three recalcitrants, the Earl of Carnarvon, General Peel and Viscount Cranbourne, now Lord Salisbury. The Whigs, however, were not so completely "dished" as had been hoped, for they came back into power with a rush in the first election held under the new Act. Still, the name "democracy" remained in disfavour. Even in 1884, when Mr. Gladstone brought in and carried his last Reform Bill, he disclaimed any intention "to call into existence a majority of working class electors." With the dexterity that characterized him, and made him so extraordinary a "Parliamentary hand," he added the significant words: "I cannot say I think it would be attended with any great danger, but I am sure it is not according to the present view or expectations of Parliament." In spite of all disclaimers, however, the Constitution of England was by these successive measures being steadily democratized; and at this moment, in the opinion of no less an authority than Sir H. S. Maine, it rests on a more dangerously democratic basis than that of the United States.

If I might be allowed to give my own definition of Democracy, I should say it was a system of government under which the sovereign power of the State—the great "Leviathan" of Hobbes—was distributed, as the lawyers say, "per capita." Let x be the sovereign power of the State in its totality and n the varying number of citizens, then $\frac{x}{n}$ represents each man's share of power. This formula takes no account of moral or intellectual force, which cannot be severed from the individual possessing it. This, alas! is the fly in the precious ointment of pure and unadulterated Democracy, or Democracy conceived as absolute equality between man and man. If a man has money we can take it from him. If he has physical force, he can be overpowered by numbers; but if he has intelligence and force of character we cannot seize upon these. Democracy, let me hasten to say, has its foundations deep in human nature. The whole philosophy of it is summed up in a single line of Æschylus, on which my eye casually fell the other day, and which, in this place, I may venture to repeat:

Ἐκὼν γὰρ οὐδεὶς δουλίῳ χρήται ζυγῶ—

the English of which is simply, "No one willingly bears a servile yoke." In a State, the power of which is made up of the aggregate strength of all its members, no man likes to think that, while contributing strength and helping to make the arm of the law effective, he has no voice whatever in public affairs. Political Economy and the Bible, it has been said, have been the two great preachers of Democracy—Political Economy by concentrating attention upon what is to the common advantage, and

taking no account of political privilege; the Bible, by proclaiming the essential equality of all men, and basing all social relations on the Golden Rule. However this may be, Democracy has come, it is with us now, and there is every appearance that it is going to stay. Even were we opposed to it, we might well exclaim in the words of a great poet:

"Far other bark than ours were needed now
To stem the torrent of descending time."

But no reasonable man will oppose himself to that which he sees to be inevitable. Rather, perceiving it to be inevitable, he will seek out the causes and conditions which, in making it so, make it also best suited on the whole to the age in which it has appeared.

How much obloquy has been heaped upon popular government it would weary you to tell. Those of you who have read Sir Henry Maine's work entitled "Popular Government" know with what dignified irony he treats the hopes which Democracy has inspired in its champions and advocates. Those of you again who have read Mr. Lecky's volumes have not failed to recognize his evident desire to place popular government in the worst possible light. No doubt both these eminent writers say many things that are true; they point out real flaws and weaknesses in popular government; but they do not attempt to show how the tendency of the times in the direction of Democracy is to be reversed. I cannot help agreeing with the verdict of Mr. John Morley, on the first of these writers. "Sir Henry Maine," he says, "is a bureaucrat who cannot bear to think that Democracy will win. . . . His tone is that of a political valetudinarian, watching with uneasy eye the ways of rude health." Mr. Lecky, too, is a writer who, as his later writings have particularly shown, and, I may add, as he is exhibited to us by no mean judge of character, "Punch," is more or less disgusted with life, and consequently with Democracy. No despondent man, however, can be a safe guide. The men to trust are those who, if they have to recognize evil, think at once of the remedies that can be applied, or look beyond the evil to the good that may eventually be evolved from it. Say what we will of Democracy it means political life of a certain kind for everybody except those who turn aside from the boon because they are obliged to share it with so many quite plain people.

Let us admit that Democracy is open to much criticism, that its ways are not the ways of the philosopher or the saint, that there is a terrible flavour of average humanity, and sometimes of inferior humanity, about its doings; all that does not prove that it is not in theory, or that it is not destined to become in practice, the best form of human government. When a child is learning to walk we do not feel like deriding its hesitation and timidity, or exulting over its falls. Popular government, to my mind, is very much in the position of a child learning to walk. The child is born unable to walk, but it *must* learn to walk; its whole future development depends on the acquisition of that accomplishment. Human societies, in like manner, are born unfit for self-

government; but their complete development depends on their becoming fit for it. That seems to me to be the case in a nutshell. The stage of imperfect attempts, marked by many lapses and many more or less ungainly movements, has to be passed through. We are yet in that stage, and clever writers, if they are so minded, can find much to satirize in our performances. But, looking at the main question, who can deny that a community in which each individual contributed some grain of wisdom or moral force to the general direction of affairs, would constitute a higher political type than one in which a few ruled and the rest submitted to their dictation, however benevolent that dictation might be. The problem of popular government is precisely the problem how to make each individual a helpful, not a retarding or an opposing, influence in the work of good government. The historian Grote has well said that "No system of government, even supposing it to be very much better and more faultless than the Athenian democracy, can ever pretend to accomplish its legitimate end apart from the personal character of the people, or to supersede the necessity of individual virtue and vigour." Democracy comes to the individual citizen without respect to social rank and says, "The time has come for you to assume a share in influencing and directing the government of your country. You may not at present have all the qualifications required for that duty, but you cannot begin earlier; and it is necessary that you, a citizen, should acquire the education of a citizen. Therefore begin now, follow your best judgment, try to rise superior to purely selfish interests, and in due time you will find yourself doing fairly well."

Unfortunately this is not the prevalent conception of the meaning of Democracy or of the nature of its appeal. The idea that the power once possessed by one, or by a limited class, is now divided amongst the whole people is familiar enough; but the idea that each man should try himself by the rule which he applies to the monarchs and oligarchs of the past is not a familiar one. We condemn the rulers of the past because they did not consider themselves the mere trustees of power, and study at all times the good of the whole people. And yet, I fear the common idea to-day is that each man's vote is his own private property, to be used as may best suit his private ends. It was for a precisely similar misuse of power that some monarchs have lost their heads in times past. That a man's vote is not absolutely his own to do what he likes with is proved by the laws against bribery. Unfortunately, the laws against bribery cannot reach all forms of bribery, cannot touch, for example, the shameless offers often made of vote and influence in return for some favour or other from the government of the day. There is something very discouraging, it must be admitted, in the willingness of the people, as the phrase is, to be bribed with their own money—in such a phenomenon, for example, as the monotonous regularity with which bye-elections go in favour of a government with a strong majority.

In this respect it can hardly be claimed that the wealthier classes show an example of singular virtue to their humbler fellow-citizens. Look at

this portly gentleman, dressed in irreproachable English tweed, with a decided dash of social culture, who comes forward to address an audience of electors in a mining town. Being the person of the most weight in the community, he has been elected chairman of the meeting; nevertheless he ventures an opinion of his own. "Gentlemen," he says, "as chairman I have not much to say to you on this occasion. I shall just say this, however, that the question you have to consider is, in my opinion, a very simple one; namely, whether the party in power or the party out of power is likely to do most for the business interests of this locality. We need not wander beyond that." Here was the keynote struck by a man possessing all the advantages of education, social position and pecuniary independence, which go to make up a typical specimen of what used to be called the "ruling classes." A discussion follows, and some very plain citizens seem to think that certain other questions, more remote from their own local interests, might properly be taken into consideration. The great man, however, speaks again, and makes it clear that he looks with great disfavour on all such divagations. I dare say many of you have witnessed scenes very similar to this. My own sketch is drawn from life, and it seems to me to cast a somewhat doubtful light on the influence exerted by those so-called higher classes who, fifty years ago or so, were thought to be the only safe depositaries of political power. Is Democracy, it may be asked, having a fair trial when men of wealth and influence are doing their utmost to hold it down to the most inferior conceptions and practices? There is worse than this, however; there is the fierce contempt which men conducting large enterprises sometimes show for political issues of all kinds, and their avowed willingness to throw all their influence on the side of any government whatever with which they can make an advantageous deal.

Everyone remembers Montesquieu's dictum about the different forms of government and their respective fundamental principles. Absolute governments must repose on fear, monarchies on honour, aristocracies on moderation, and republics on virtue. To someone who cited the remark as to republics to Alexander Hamilton, the latter replied that, in his opinion, what republics most depended on was corruption. Montesquieu, however, was perfectly right in postulating public virtue as a condition of the permanence of republics. If the electorate as a whole is corrupt, republican institutions will be of short duration. On the other hand, Hamilton was not altogether wrong in his fling as to the necessity of corruption. There is no absolute contradiction between the two views: the one refers to the conditions for the *existence* of a republic, the other to the conditions necessary as things are to the carrying on of the work of government. The more public virtue there is, the less need will there be for resorting to Hamilton's prescription for keeping the machinery of government going. Raise the level of public virtue and certain things which are now only done from uninterested and selfish motives will be done from disinterested and unselfish ones. Raise the level of public virtue and better laws will be passed, and once passed will be observed,

not evaded. Raise the level of public virtue and the whole political system will work with greater power towards better ends. But meantime many compromises that would not look well in broad daylight have to be made.

Sir Henry Maine speaks with great severity of the abject flattery administered to the multitude by those who would win its favour. To whom, however, is this mainly a reproach? It is indeed to be regretted that the populace should not have a more delicate taste in this matter than the monarchs and other great ones of the past before whom men of intellect used to debase themselves; but what are we to think of the more or less educated gentlemen who purvey the stuff? If the people would take a true measure of themselves they would be aided by referring to a book that never flatters, and that knows nothing of party views. They would there find such utterances as these:

"Why do . . . the people imagine a vain thing?"

* * *

"Where no counsel is, the people fail."

* * *

"Where there is no vision, the people perish."

* * *

"The people that know their good shall be strong."

* * *

"The people that do not understand shall fall."

* * *

I do not imagine that in relation to the problems of to-day "the people" of to-day enjoy any advantage over "the people" of the times of Daniel or Hosea. In simpler times there were simpler problems; the problems of our time tax the wisdom of the wisest; so that now, as ever, the people need to take heed against imagining vain things and against acting without counsel or vision. To believe in their own infallibility is a sure way of falling into hurtful errors. Yet something like this state of mind does exist, there is reason to fear, in democratic communities. "No observer of American politics," says a very able writer, Mr. E. L. Godkin, "can deny that, with regard to matters that can become the subject of legislation, the American voter listens with extreme impatience to anything which has the air of instruction; but the explanation is to be found not so much in his dislike of instruction as in his dislike, in the political field, of anything which savours of superiority. The truth seems to be," he continues, "that, with regard to all matters within the field of politics, the new democracy is exceedingly sensitive about any doubts of its competency. It will not suffer any question, or sign of question, of its full capacity to deal with any matter which calls for legislation."

Other testimonies can be cited to the same effect. The late James Russell Lowell, in his essay on Abraham Lincoln, written in 1864, expresses surprise that, "in a country which boasts of its intelligence, the theory should be so generally held that the most complicated of human contrivances, and one which every day becomes

more complicated, can be worked at sight by any man able to talk for an hour or two without stopping to think." Again, Senator Hoar, of Massachusetts, in an article written only a few months ago, says: "Some people never seem to learn that the task of governing a great people is a serious and difficult task, and that the task of governing itself, by a great people, is more serious and difficult still."

The psychology of the case is not, I think, hard to understand. We are all familiar with the adage, "Every man to his trade." Negatively, it means that nobody should dabble in a trade that is not his and that he does not understand; and, positively, it means that every man is assumed to understand *his own* trade. The expansion of free institutions has thrown the work of government into the hands of the people, therefore government has become *their* trade; therefore they must know all about it; or, if they do not, they must refuse to acknowledge the fact. They must not let any college-bred man, or other superior person, affect to teach them their trade. The average voter does not like to think that there are any technicalities in the art of government or of administration which any plain man is not capable of dealing with. As to the government service, it is filled with *our* clerks, and of course, like other employers, we are all quite capable of telling *our* clerks what to do. A well-disposed village blacksmith in the neighborhood of Ottawa once offered me a "lift" in his buggy. As we drove along we passed the house of a prominent civil servant, when my friend enquired what salary the gentleman in question had. I said I was not sure, but thought about two thousand dollars; whereupon, turning to me, the man of muscle said very earnestly: "No man can earn two thousand dollars a year at a desk." He was himself earning at least that amount in his forge and carriage shop; but he did not think the feat could be honestly performed at a desk. My friend was a man of more than average intelligence and business ability, and his blunt declaration gave me a measure of the importance attached by the people to the work of the public departments. It must all be very simple, because, theoretically, it is all such work as the humblest voter could, if necessary, either perform or direct. In the United States the theory is now freely advanced that the President does not need to be a man of any special ability; if he only does what the people tell him he will be clever enough. In this country I imagine that the only ability that is distinctly recognized as necessary is the ability to outwit opponents in the political field.

We seem here to be face to face with a paradox. On the one hand government is committed to the people; and it is so far assumed that they are capable of performing the political duties thus devolved on them. On the other hand it is a matter of certainty that the majority of the voters are not very good judges either of the larger questions of politics, or of the details of administration. They are very mediocre judges of what constitutes their own interest in many matters. A nation may want to hold silver in unlimited quantities at par with gold in some arbitrarily chosen ratio; but it does not follow from their wanting it.

that the thing is feasible, or that the bare attempt to carry it into effect would not be fraught with disaster. A nation may want a high tariff, or government ownership of railways and telegraphs, or a system of old age pensions, or compulsory arbitration, or an elective judiciary, or a strict prohibitory liquor law; or it may hanker after a foreign war, or experience a sudden yearning for a vigorous policy of colonial expansion; but it would be fatuous to imagine that any one of these measures would be secure from failure because it had been demanded by a popular majority. Mr. Frederic Harrison says that "Very plain men know who wish them well, and the sort of thing that will bring them good." To the first half of this statement I am ready to give a general assent; but in regard to the latter half I am far from certain. All depends upon the complexity of the question under consideration, and many of the questions of politics are most complex.

What, then, is the solution of the paradox? The solution seems to me to lie here: the suffrage is not a privilege, but a trust, and universal suffrage does not signify that all men are equally and fully capable of grappling with political questions of whatever order, but that all have an interest in the wise decision of such questions. The art of government is not any men's trade or mystery; it presents an inexhaustible problem in the solution of which we may all co-operate. The fact that a certain section of society may cast a majority of votes does not confer upon them any special competence in dealing with political issues. It may give them power, but as Horace says:

"Vis consili expers mole ruit sua."

It is too narrow a view to take of the suffrage to regard it merely as a means of protection for each member of the community. Without questioning the maxim that taxation without representation is tyranny, we cannot consider it as summing up the whole philosophy of the suffrage. The late Mr. Lowe (Lord Sherbrooke) talked most mischievously when he insisted, as he did, upon the necessity of "educating our masters." In a free state no man is master of any other, nor is there any need that he should be. What Mr. Lowe was really afraid of was that the mastery previously possessed by a limited class should pass out of their hands.

In the present day we are accustomed to make a broad distinction between legislation and government; but, in point of fact, legislation is one of the two great divisions of government, the other being administration. Parliament makes laws; the duty of the executive is to administer those laws faithfully and honestly, without respect to persons and with a sole view to the public good.

As regards legislation an important point to notice is the altered position of the legislator as compared with that which he occupied under a more limited suffrage. If we go back a little over one hundred years, we find Edmund Burke addressing the electors of Bristol as follows: "If we do not allow our members to act upon a very enlarged view of things, we shall at length infallibly degrade our national representation

into a *confused and scuffling bustle of local agency*." Burke wanted a strong and enlightened Parliament to stand up against an encroaching court; and he did not think Parliament could be strong if its members were reduced to the rank of mere delegates—echoes, not voices. It is impossible not to be struck with his foresight when he speaks of the danger that Parliament may degenerate into "a confused and scuffling bustle of local agency." I think the words describe something with which we are not wholly unacquainted in this country, and which exists in great perfection across our border. I must, however, quote a few words more to show the distance we have travelled since Burke's time. Referring to the course he had held in regard to the troubles in Ireland, he says: "I conformed to the instructions of truth and nature, and maintained your interest against your opinions with a constancy that became me. A representative worthy of you ought to be a person of stability. I am to look indeed to your opinions, but to such opinions as you and I must have five years hence. I was not to look to the flash of the day. I knew that you chose me with others to be a pillar of the state, and not a weathercock, on the top of the edifice, exalted for my levity and versatility." In a former speech he had said: "Your representative owes you not his industry only but his judgment, and he betrays instead of serving you if he sacrifices it to your opinion. . . . Parliament is not a congress of ambassadors from different and hostile interests. . . . It is a deliberative assembly of one nation, with one interest, that of the whole, where not local purposes and local prejudices ought to guide, but the general good. . . . You choose a member indeed, but when you have chosen him, he is not a member of Bristol, but a member of Parliament."

A generation or more later, when the Reform Bill of 1832 was being introduced, Sir Robert Inglis, the member for Oxford, took a very similar stand. "This House," he said, "is not a collection of deputies as the States General of Holland, and as the assemblies in some other countries. We are not sent here *day by day* to represent the ideas of our constituents. Their local rights, their municipal privileges we are bound to protect; their general interests we are bound to consult at all times, but not their will, unless it shall coincide with our own deliberate sense of right." More explicit still, if possible, is the following declaration of the same speaker: "We are not sent here for the particular spot we represent, but to consider the affairs of the country and the good of the church. When a member is returned to this House he ceases to be responsible to his constituency. It is at the end of the period for which he has to serve them in Parliament that he again comes before them and it is then only that he is accountable to them." We may come forward another generation still, to the date of the publication of Mr. Mill's "Representative Government," and find the same principle not yet extinct. "A man of conscience and known ability," says that philosopher, "should insist on full freedom to act as he, in his own judgment, deems best, and should not consent to act on any other terms." Since that

time the doctrine in question has been less and less heard of; and to-day the "delegate" theory of parliamentary representation may be said to be thoroughly established. Where could we find a constituency in Canada that would elect either Burke or John Stuart Mill on the conditions they lay down? If one is to be found, I should be disposed to look for it in the Province of Quebec, where the voters have not yet been educated into jealousy of superior talents, or into distrust of wider views.

The effect of the change has undoubtedly been to impair the character of modern parliaments considered as deliberative bodies, as well as their ability to deal with great measures. There can be no true deliberation without a certain amount of openness to conviction. As things are to-day each member feels bound to carry out the understanding he had with his electors and support the party he undertook to support. An atrophy of the deliberative function of representative bodies has thus set in. How far it will proceed, and what modern parliaments will be reduced to, remains to be seen. How a political structure intended to have a distinct use of its own may undergo complete atrophy we may observe in the case of the college of so-called Presidential Electors in the United States. According to the Constitution these electors were to exercise a real choice of their own; but to-day, and indeed for long since, the college has dwindled into a purely formal device for registering the popular vote. Much is heard nowadays of the machine in politics. It is not much praised in public, though I believe it is sometimes "hugged" in private. Delicacy would of course prescribe privacy for so affectionate an operation. An enterprising newspaper was proposing some time ago to "smash the machine," and, if there were two—of which there was more than a suspicion—to "smash them both." How it was going to be done was not explained, nor who was to be the smasher; and, so far as I can learn, the feat has not yet been accomplished. The fact is that the machine is an absolutely necessary accompaniment of universal suffrage in the present condition of society. It is a kind of primary school of politics, an institution in which raw, untutored minds get their first introduction to political ideas and methods. If there were any possibility of getting into a blue book a representative selection of the correspondence of the local machines throughout the country, with a few samples of the higher epistolary style of the Provincial and Dominion staff officers, I think the country would start back at the revelation. It would not want to hug either the machine or itself. It is wonderful how ugly a little daylight makes some things look. At the same time good comes out even of this seething mass of evil. The primary school does not give a finished education, but it educates up to a certain point those who have any capacity to learn. The member of the local committee is trained to a certain sense of responsibility. He learns what can be done and what cannot be done. He finds out that men are not always governed by their lowest motives. He finds his more disreputable proceedings encountering the reprobation of the decent part of the community. He gets disgusted with the unmitigated self-seeking of some of those

with whom he has to deal, and possibly has some useful fits of reflection on his own doings. If his party is in opposition he may learn some lessons of disinterestedness. We may further say this for the machine, that it is a contrivance for getting work done that would not otherwise be done. After its own fashion it keeps alive an interest in politics; it greatly helps to "bring out the vote" in a general election.

(To be continued.)

OF MIRTH.

BY ARNOLD HAULTAIN, M.A.

WE have recently been treated to some very elaborate psychological analyses of Art and Sport: the German Professor, Karl Groos, has published two volumes, one on the "Play of Animals," the other on the "Play of Men;" the Swedish Professor, Yrjö Hirn, has written a voluminous treatise on "The Origins of Art;" and Tolstoi, too, has lately asked the question, "Qu'est-ce que l'Art?" But, so far as I know, Mirth has been as yet only tentatively and partially treated. And yet Mirth deserves a careful psychological analysis quite as much as does Art or Sport. Whether or not its rudiments may not be found (closely associated, probably, with Play) amongst animals, certainly it is universal amongst men. That it exists is proof that it subserves some evolutionary purpose; that it is necessary in the struggle for existence. Herr Groos has shown us how important a factor in evolution is Play. According to him, Play is the hereditary and instinctive youthful preparation for that strife for life, for food, and for a mate, which is the inevitable lot of maturity. Well, Mirth, I take it, is very analogous to Play. It is the hereditary and instinctive—though not necessarily youthful—preparation or exercise for the intellectual strife of life. Play, amongst animals, is usually an amicable muscular contest; amongst men it is also largely mental. When Play develops and becomes purely intellectual, it is called "wit" or "humour" or "jocularly"—in a word "Mirth." Mirth, virtually, is the pleasure evoked by the amicable outwitting of another. Hobbes, therefore, was right in calling laughter the "glorying over" one's fellow. It is important to remember that it is an amicable contest. Only when you put your fellow into an awkward predicament do you laugh. To put him in jeopardy is to raise the action from the plane of the ludicrous to the plane of the serious. Make-believe, pretence, representation, are of the essence of Play, Mirth, and Art.

It would be interesting to discuss whether Sport and Mirth and Art were not, despite Professor Hirn's *caveat*, the three evolutionary stages of the same instinct. Sport is, in its primitive aspects, an amicable muscular contest. As it develops, the mental faculties are brought into requisition, and we have the higher species of games. As it develops still further, and becomes purely an intellectual contest, we call it Mirth. In the next stage the imaginative and emotional faculties are brought into

requisition, and we call the effort to prove our superiority to our fellows in the struggle for existence by poetic expression or pictorial representation Art. Art can only arise when life has ceased to be an internecine strife, and men have combined into tribes or clans; when the feeling for the beautiful is a valuable and useful commodity, and life and food and a mate are to be won by poetry as well as by prowess. But the psychology of Art is beyond my present purpose.

Mirth, it has been rightly said, is evoked by either or both of two factors, Wit and Humour. The difference between Wit and Humour it is hard to define; but we shall not be far wrong in saying that in Wit we glory over the predicament of our fellow-man because that predicament is due to his want of gumption in his intellectual rivalry with his fellow-men; in Humour we glory over him because his predicament is due to his want of gumption in his rivalry with fate. This is why Humour is always deeper than Wit, and why there is often, if not always, an element of pathos in Humour. The lowest form of wit is probably either the practical joke or the pun. In the first, the cause of the Mirth is obvious: you out-wit your rival. In the second there is the same outwitting, but it is not so obvious. We propound a seemingly serious problem; we ask, for example, why an angler's scales are like an enemy in ambush; and we laugh because our interlocutor does not see that it is because they so often lie in weight. In fact the pun is a sort of lying in wait, an intellectual ambush, and we laugh when our rival falls into it. A pun is but the juxtaposition of incongruous ideas, the juxtaposition being devised by some absurd trick of sound or sense. Humour is far deeper. Humour is evoked by the futile fight with fate when there is in the futility an element of pretence. It is the jocular laughing at fate, the make-believe to be superior to fate, the pretence that we succumb voluntarily, not obligatorily, to fate. Mercutio is humorous when he says his wound is not as wide as a church-door nor as deep as a well, but 'twould do. Charles II. was humorous when he apologized to his courtiers for being so unconscionably long time a-dying. That clever undergraduate was both witty and humorous when he described that dejected equine quadruped dragging at a barge as τὸ πάθος (tow-path 'oss). But, indeed, Mirth is a recondite topic, and its ramifications would lead us far. Suffice it to see that, like Sport, it is instinctive, hereditary, and auxiliary; that it subserves an evolutionary purpose; that it is an integral and necessary element of life. Soon, let us hope, some psychologist will give us its full analytical exposition.

COMMERCIAL EDUCATION.

BY PRESIDENT LOUDON.

ON the invitation of the University of Fredericton, New Brunswick, President Loudon delivered an address on "Technical Education," on the occasion of the inauguration of the new Science Building in con-

nection with that institution. The ceremony took place in the presence of the Lieutenant-Governor and the Legislature on the 26th March on the conclusion of the address the University authorities were assured by the Attorney-General of the Province that the Government and Legislature would vote the financial aid which has been applied for. The following remarks regarding commercial education, a topic of interest in Ontario, are reprinted from the President's address:

Let me refer, in a word or two, to the most recent development in technical education. This consists in the establishment of commercial departments in the universities. This new departure has been rendered necessary by the great development, in recent years, of trade and commerce—domestic and foreign—and the demand for men trained to grapple with the higher problems of the new condition of things. Such a department was established some two years ago at the University of Leipzig, and similar courses are being established at Hamburg, Frankfurt and Magdeburg. Some of the special subjects treated are Commercial Law, Economic Theory, Economic History, Economic Geography, Public Finance, Insurance, Banking, Foreign Exchanges and Transportation.

A beginning in the same direction has also been made on this continent, viz., at the Universities of New York, Pennsylvania, California, Chicago and Wisconsin. At the University of Toronto many of the subjects just mentioned are taken up in the Political Science course, but we have taken steps now to establish a new and distinct course leading to a diploma in Commercial Science. This course will serve a double purpose. It will suit the needs of the young man who with a good elementary education comes to the university to fit himself solely for a business career, and on the other hand the ordinary undergraduate may take the commercial course as part of the work for his Arts degree, and so fit himself for a possible business career. This technical, commercial side of university education is one of the new problems in academic administration. Hitherto we have been accustomed to think of a university course as leading almost invariably to theology, law, medicine or pedagogy. Some persons, very foolishly I think, have regarded any other career as derogatory to the dignity of a university man. But the professions are now full to overflowing, and large numbers of future graduates will be obliged to make their way in the paths of commerce. I can recall the names of a considerable number of our recent graduates who have gone into business, and I am proud to say that they are rapidly rising to the top. I have in mind particularly one able young man who within a year has risen to an excellent position in one of the leading firms in Toronto.

Looking at the tendencies of the times, I feel like advising the young men before me not to consider it as decreed by the fates that they shall inevitably become ministers, or doctors, or lawyers, or schoolmasters, but to keep their eyes open to the possibilities of a business career, and to the possibility of equal usefulness and perhaps much greater remunera-

tion in such a career. There is, in fact, every reason why the university graduate with his broader knowledge, and his mind trained to quick and accurate thinking, should succeed in business. The facts seem to bear out this view. A well-known publisher recently gave me a striking illustration from his experience. Some years ago, when the typewriter was more of a novelty than it now is, this gentleman had business with a leading publishing house in New York, and observed there a young man employed in typewriting. They fell into conversation *apropos* of the new invention, and it transpired that the young man was a graduate of Harvard who had come into the business at the bottom with the intention of working his way up. In four years that young graduate had risen to be a member of the firm. My friend, who is not a university man, added: "It would have taken me ten years at least to rise to such a position, and perhaps I never should have got there."

There is another moral in this little story which my young friends will pardon me, perhaps, for pointing out in conclusion. I would say to them: If you do enter a business career do not expect a position of responsibility at the outset. If you have the knowledge and capacity, your promotion is bound to follow as a matter of course. Be less anxious for promotion than to increase your knowledge of detail and your breadth of outlook. Strive to make yourselves more efficient. And indeed, whatever be your future career, remember that here and now you are laying the foundation for future success or future failure, according to the measure of your building from day to day in the class-rooms and laboratories of the university.

UNIVERSITY EDUCATION FOR THE CLERGY.

BY THE REVEREND WILLIAM CLARK, LL.D.

WHAT is the value of university education, and for what classes is it specially valuable? These are questions which are now frequently and reasonably asked, and to which different answers are given. If the present writer shall be thought to contribute little to the solution of these problems, he must plead partly that the subject was not entirely his own choice, and partly that many occupations have left him little time to deal with it.

One thing would appear to be tolerably clear, namely, that the public at large are coming to a larger appreciation of the benefits of a university education, if we may judge, as surely we may, by the numbers who are now entering the different universities of our own country, and, indeed, of all other countries, as far as we know, and by the increase in the numbers attending university lectures. Indeed, it is gravely doubted by not a few whether all of those so entering are making the best use of their time. As, however, we are here thinking of a particular class, this general question need not here detain us.

The question before us is the utility, or the contrary, of a university education for those who are entering the Christian ministry; and probably there are a good many persons ready to defend either side of the question. But we must not forget that there are some—at present very few, and not, in our judgment, likely to become more numerous, who would dismiss the question as unnecessary on the ground that Christian ministers will not be much longer required. This is no imaginary position. One writer, at least, and that one of great learning and ability, has solemnly raised the question, What is to be done with the clergy when their occupation is gone, when Christianity has had its day, and churches and ecclesiastics are no longer needed? On this point the present writer has no misgivings. It is not the first time that the opinion has prevailed that “the good Lord Jesus has had His day.” Yet, when we look back upon the history of the world, and see that nearly everything has changed except the power of His thoughts, how His prophecy has been fulfilled, “Heaven and earth shall pass away, but My words shall not pass away,” we shall hesitate to believe that this influence has come, or will soon come, to an end, or even that the means which He ordained for the diffusion of His words and thoughts are likely to be discontinued. It may be true enough that Christians have not made their light to shine as followers of Him who is the Light of the world should have done. It may also be true that the Christian Church has not always been on the side of Christ; yet the removal of the Church and her ministries and agencies would cause a terrible blank in the world. But we do not anticipate any such event in the near or in the distant future.

There will still, then, be a ministry of men—or at least we may, for our purpose, assume that this state of things will not suddenly come to an end. And this being postulated, it is of no small importance to determine what shall be the education of our teachers. For they are our teachers, and will continue to be so for some time to come. Granting that men are not, in the present day, dependent upon the pulpit for their religious knowledge and their theological opinions to the same extent as they were in past times, it may still be said that the vast majority of men and women, who take any real interest in religion, grow up with the religious opinions of the men by whom they have been taught from the pulpit. It is, then, unnecessary to waste any words to prove that those who teach should themselves be taught, and that any defectiveness in their education will tend to narrow and cramp their teaching, and so, consequently, the views of those who are taught by them.

A glance at the state of things in Great Britain may help us to appreciate the different ways in which men have been prepared for the ministry. Until recently it may be said, in a general way, that the clergy of the Established Church were educated at the universities and those of the nonconforming denominations and of the Roman Catholics at theological colleges and seminaries. Perhaps this rule did not apply

to some of the nonconforming Presbyterian bodies in Scotland. Now, the general impression, in the public mind, with reference to these ecclesiastics was very much to the effect that the university men were the more cultivated, and the seminary men were the more religious. Not only so, but the one class would naturally be more liberal and the other more earnest. We are here coming to the very point which we are required to consider: not so much whether the university education at Oxford and Cambridge, for example, would suffice without further theological instruction, but whether a university education is not a necessary foundation, or a very useful foundation, for the study of theology.

And here it is necessary to make some reservations. Most certainly the education of the English clergy, up to about the middle of the nineteenth century, was by no means a sufficient preparation for the work of the ministry. Practically, the English clergyman had no more theological teaching than the English layman. When he took his B.A. degree and left the university he was usually ordained deacon at once. If he were an earnestly religious man he had his personal religion, his Bible, "Bishop Pearson on the Creed," "Burnet on the Articles," and little more for his stock-in-trade. If he had not been deeply touched by religion he probably borrowed his sermons, looked after the poor and needy, was kind and attentive to his neighbours, and behaved himself like a gentleman in his parish. The Nonconformist ministers, on the other hand, presented greater differences among themselves. Those in towns were, many of them, highly educated men, and, as a rule, much better preachers than the Anglican clergy. Probably the majority of them were not university men, although a good many, like Robert Hall, had studied at one of the Scotch universities. It was different with most of those in country places.

Now, we think that anyone who carefully considers the past history of Christianity in England will have two things deeply impressed upon him: on the one hand, the importance of a university education. It gave something which, as a rule, could not be got elsewhere. But, on the other hand, we are equally impressed with the insufficiency of a university education by itself, and as it used to be in Oxford and Cambridge.

Moreover, it may not be unnecessary at this point to say something in the way of protest against what may be called the "priggishness" of university men, a kind of assumption that no real knowledge or cultivation can be possessed by any but themselves. Readers of "Bishop Magee's Life" will remember how this great speaker and thinker of the Anglican communion was irritated (the word is not too strong) by the assumption of some of the Anglican bishops that a graduate of Dublin was necessarily inferior to Oxford or Cambridge men; and in reality most of them were poor creatures in comparison with Magee. Are there not tendencies of this kind among other university men besides

those of Oxford and Cambridge? Now, we may as well make it clear to ourselves that such "priggishness," wherever it exists, among graduates or non-graduates, among university men or those who have "never worn the gown," is the work of an uneducated mind. And, besides, no moderately informed person will deny that there are many men in every country who have never darkened the doors of university or college who are, in the best sense of the words, scholarly, educated, cultivated men. Some such remarks as these are not altogether unnecessary in connection with the subject before us. But what, after all, do such cautions amount to? They simply remind us that every privilege has its dangers, that any good thing may be misused.

On the whole, however, there seems to be no doubt in the public mind and in the mind of the Churches that a university education is of advantage to those who are preparing for the Christian ministry. Almost every denomination has its university or its theological college affiliated to one of the universities; and probably the majority of those who are ministering in the Churches are graduates of British or Canadian or, in some cases, American universities. And there is no great difficulty in seeing the reasonableness and wisdom of such a course. Surely, if the ministers of the Church are to be the teachers of the people, they should themselves be taught,—otherwise we should have but blind leaders of the blind. And not only taught, but taught in a broad and liberal spirit, so as to have sympathy with all the movements of thought around them.

A mere theologian is not fit to deal with the difficulties by which in these days he is confronted. We said a mere theologian, but the phrase is unsuitable. Such an one would not be even a theologian. Theology is the science of sciences: it is the science of Him who is the Source, the Unity, the End of the universe, of whom and through whom and to whom are all things. There is no study that will not contribute to the education of the minister, for there is no knowledge which is not, directly or indirectly, the knowledge of God.

Now, such width and variety of learning can, as a rule, be got only at the university. The seminary has its uses: it will concentrate the intellectual and moral energies upon those special studies which concern the work of the minister; and it is hardly denied that in the Anglican Church this part of the preparation of the clergy was too much neglected. But such instruction and training as are gained at the seminary will be chiefly valuable when there is beneath them and before them a good general, liberal education. As a rule, this is got at the university; and, as a rule, the university man has a breadth of view, a completeness of knowledge and discipline which can hardly be expected or found in those who have not enjoyed similar privileges. So much for the mere equipment of the teacher.

But this is not all. As a public speaker the university man will have a great advantage from his wider knowledge of literature, from his greater familiarity with languages, ancient and modern, from the discipline which

he has received in the use of his own language. It is said that in this last respect there is still much to be done by our universities; and, indeed, there is not much done in the way of teaching English directly and formally in the English universities; yet who can doubt the influence of an English university education on the speech of its members? If the universities here and elsewhere do less than they might do, the seminaries certainly do less than the universities.

And in one other respect we must hold that the university education is of advantage to the Christian minister, as one who has to mix in the world and have intercourse with his fellowmen. For, indeed, this must always make no small portion of the minister's work. He is not merely a student and a teacher. He must be seen elsewhere than in the pulpit, the study, or even the sick room. He has to be, in an important sense of the word, a man of the world, able to understand his fellowmen as one of themselves, able to hold converse with them on equal terms, unless he would forfeit much of his lawful influence. And for all such work and life his university training will be invaluable.

Much more might be said than has been conveyed by these hurried lines; but at least a beginning has here been made in the discussion of a subject of high and increasing importance; and the writer will rejoice if it should be taken up by other and abler hands.

UNIVERSITY YOUNG MEN'S CHRISTIAN ASSOCIATION.

THE committee of ladies appointed to provide means for the re-furnishing of the Young Men's Christian Association Building, report that considerable success has attended their efforts. Total receipts from subscriptions and the concert given by the student members of the Association and others amount, in all, to two hundred and forty-three dollars and fifty cents (\$243.50).

The committee, on behalf of the Association, are much indebted to those who kindly gave their assistance in making the concert a success, and also to those who have so generously contributed, once more, to the support of the Association.

The following is the list of subscribers with amounts contributed:—Robert Parker, Esq., \$5.00; W. H. Howitt, Esq., M.D., \$5.00; Mrs. T. M. Harris, \$10.00; The Hon. S. H. Blake, \$10.00; A. H. Campbell, Esq., \$5.00; C. S. Czowski, Esq., \$15.00; Stapleton Caldecott, Esq., \$1.00; Mrs. Sheraton, \$1.00; Dr. T. Millman, \$2.00; E. H. Eakins, \$1.00; The Hon. Mr. Justice Moss, \$5.00; Herbert Mason, Esq., \$5.00; John Hoskin, Esq., LL.D., \$10.00; Robert Kilgour, Esq., \$5.00; The Rev. Elmore Harris, \$10.00; Mrs. Loudon, \$1.00; Mrs. Edward Blake, \$2.00; Mrs. Wrong, \$1.00; Mrs. Knox, \$1.00; Wm. Wilson, Esq., \$5.00; Mrs. Caven, \$2.00; Hamilton Cassels, Esq., \$1.00; Dr. Milligan, \$1.00; Mrs.

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Secretary of Committee.

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NEWS FROM THE CLASSES.

The personal news is compiled from information furnished by the Secretary of the University of Toronto Alumni Association, and by the Secretaries of local organizations, and from other reliable sources. The value of this department might be greatly enhanced if University of Toronto men everywhere would contribute to it. The correction of any errors will be gratefully received by the Secretary of the Alumni Association.

1845.

We are indebted to Mr. Wm. Wedd, M.A., for much of the following information:—

D. W. Beadle (B.A., Yale, '44), B.A., *ad eundem*, '45, attended Professor W. H. Blake's Law Lectures, '45, '46; LL.B., Harvard, '47; called to New York Bar, 1848; returned to Canada, 1854, taking up the nursery business of his father, whose health had failed. He never resumed law. Residence, 307 Givens Street, Toronto.—N. Bethune, B.A., '45, '46, having passed his examinations, went to the Mother Country to supplement his studies, where he took the following degrees:—M.D., Edin.; F.R.S.A., Edin.; F.R.C.S.E., Lond. He held a di-

ploma for four years' study at Guy's Hospital, London. After serving some time as surgeon in the French army, he returned to Toronto and practised his profession here for several years (*Ob.*)—C. K. Boulton accidentally killed while an undergraduate.—H. J. Boulton, B.A., '45, B.C.L., '47, practised law in Toronto; possessed a farm in which he took great interest, introducing sub-soil drainage and other modern improvements; had also erected the stone mill (Boulton's mill) at the foot of Bay St. (*Ob.*)—J. A. Cathcart (*Ob.*)—G. Crookshank, B.A., '45, B.C.L., '47, M.A., '48, D.C.L., '52, practised law in Toronto (*Ob.*)—W. G. Draper, B.A., '45, M.A., '50, practised law, Judge at Kingston (*Ob.*)—E. Grasett, B.A., '45, M.A., '48, Rev. Elliott Grasett, M.A., Rector of Simcoe (*Ob.*)—J. T. Hagerman, B.A., '45, studied medicine, travelled (*Ob.*)—J. Helliwell, B.A., '45, M.A., '50, practised law in Toronto, and was solicitor to the Bank of Toronto (*Ob.*)—W. D. P. Jarvis, lawyer, practised at Guelph (*Ob.*)—E. C. Jones, B.A., '45, practised law in Toronto (*Ob.*)—I. Lewis (B.A., Yale, '44), B.A., *ad eundem*, '45, B.C.L., '47, M.A., '48, is a barrister at Goderich, where he is also Crown Attorney and Clerk of the Peace, County of Huron.—S. Lightburne (B.A., Dublin.), B.A., *ad eundem*, '45, M.A., '45.—W. M. Lyons became a medical man in England (*Ob.*)—J. J. Macaulay was a barrister and solicitor in Toronto (*Ob.*)—S. S. Macdonell, B.A., '45, B.C.L., '47, M.A., '49, LL.D., '58, practised law at Windsor, being also Master-in-Chancery there.—T. A. McLean, B.A., '45, M.A., '50, was a lawyer, and Registrar of Deeds at Calgary, N.W.T. (*Ob.*)—A. Maule, while yet an undergraduate, received a commission in the British Army; Captain Arthur Maule killed at the battle of the Alma.—R. O'Hara, lawyer and Master-in-Chancery, Chatham (*Ob.*)—J. Patton, B.C.L., '47, LL.D., '58, lawyer; Hon. James Patton, Solicitor-General and also a member of the Senate of Canada (*Ob.*)—J. Roaf, B.A., '45, B.C.L., '47, M.A., '48, practised law in Toronto and became a Q.C. (*Ob.*)—A. Sharpe branched off into Medicine; Dr. Alfred Sharpe, Medical Staff, Woolwich, Eng.—J. T. Small, after spending the requisite time in Arts, branched off into the Faculty of Medicine, and having completed his studies and passed his examinations in '45, went to the Mother Country, took the degree of M.B. at St. Andrew's University and M.R.C.S. in London; was for several years at Guy's Hospital; also studied in Paris; was (with the exception of his return for a short time) absent in the United King-

dom and on the Continent altogether for about seven years. Having finally come back to Toronto he practised here for many years (*Ob.*)—L. W. Smith, at the end of the second year in Arts, passed over to the Faculty of Law and took the degrees B.C.L., '47, D.C.L., '52; is a practising barrister in Toronto, also a K.C.; is president of the Consumers' Gas Company.—J. Stanton, B.A., '45, practised law and was County Attorney at St. Thomas, County of Elgin (*Ob.*)—W. Stennett, B.A., '45, M.A., '48, Third Classical Master, 1846, Second Classical Master, 1849, and Principal of Upper Canada College, 1857-1861; Rev. Canon Stennett, M.A., Rector of Cobourg (*Ob.*)—J. E. Thomson, B.A., '45, at first studied and practised law, afterwards appointed University Librarian (*Ob.*)—W. Wedd, B.A., '45, M.A., '48, Third, Second, First Classical Master of Upper Canada College, 1849-1891.

1862.

Deceased.—J. M. Buchan, B.A.—H. F. H. Gibbon, B.A., LL.B.—C. C. Hagar, B.A.—R. T. Livingston, B.A.—C. McFayden, B.A.—S. Woods, M.A.

G. Cooper, B.A., is a Baptist clergyman in Richmond, Virginia.—W. G. Crawford, B.A., is a teacher in Toronto.—James Fisher is a barrister in Winnipeg, Man.—J. M. Gibson, M.A., is a Presbyterian clergyman in London, England.—James Loudon, M.A., LL.D., is president of the University of Toronto, Toronto.—J. A. McLellan, M.A., LL.D., is principal of the Ontario Normal College, Hamilton.—W. McWilliams, M.A., LL.B., is principal of the Bible Training School, Toronto.—R. A. Reeve, B.A., M.D., is Dean of the University of Toronto Medical Faculty.—W. M. Roger, M.A., is a Presbyterian clergyman in Peterborough, Ont.—H. I. Strang, B.A., is principal of the Collegiate Institute at Goderich, Ont.—W. Tytler, B.A., is school inspector in Guelph, Ont.—R. Wardrope, B.A., is a barrister in Toronto.—A. L. Willson, M.A., is living in Toronto.

1872.

Deceased.—John Gibson, B.A.—J. J. Magee, B.A.—D. A. O'Sullivan, B.A.—J. L. Stuart, B.A.

Hon. S. C. Biggs, B.A., is a barrister in Toronto.—J. D. Christie B.A., is a teacher in Simcoe, Ont.—J. Crerar, B.A., is a barrister in Melita, Man.—W. J. Ferguson, B.A., is a barrister in Warton.—J. Fletcher, B.A., is a Professor in University College.—W. Forrest, B.A., is a physician

in Toronto. — Canon A. C. Hill, B.A., is an Anglican clergyman in St. Thomas, Ont. — William Houston, B.A., is a teacher in Toronto. — Albert Clemeuts Killam, B.A., is Chief Justice of Manitoba, Winnipeg. — John Millar, B.A., is Deputy Minister of Education for Ontario. — S. J. McKee, B.A., is in Brandon, Man. — D. A. McMichael, B.A., is in Toronto. — W. W. Rutherford, B.A., is a teacher in Aylmer, Ont. — H. J. Scott, B.A., is a barrister in Toronto. — Dugald Stewart, B.A., is in Teeswater, Ont. — W. M. Sutherland, B.A., is a proofreader, living in Toronto. — E. Traver, B.A., is a barrister in Strathroy, Ont. — J. White, B.A., is a physician in Hamilton, Ont. — W. Williams, B.A., is a teacher in Collingwood, Ont.

1877.

H. W. Aikins, B.A., is a physician at 264 Church St., Toronto. — A. B. Baird, B.A., is a professor in Manitoba College, Winnipeg. — W. R. Black, B.A., is a barrister at Carman, Man. — E. B. Brown, B.A., is a barrister living at 99 Wellesley St., Toronto. — J. E. Bryant, B.A., is in Philadelphia. — P. S. Campbell, B.A., is a professor in McMaster University, Toronto. — D. P. Clapp, B.A., is a school inspector living in Harriston, Ont. — J. R. Craigie, B.A., is a Presbyterian clergyman, Hanover, Ont. — O. G. Dobbs, B.A., is an Anglican clergyman, Brockville, Ont. — S. H. Eastman, B.A., is a Presbyterian clergyman, Meaford. — R. Fairbairn, B.A., is a Presbyterian clergyman, Dungannon. — W. A. Graham, B.A., is an Anglican clergyman, St. Thomas, Ont. — Elmore Harris, B.A., is a Baptist clergyman, living at 17 Walmer Road, Toronto. — J. C. Harston, B.A., is principal of the Collegiate Institute, Lindsay. — J. Houston, B.A., is principal of the Collegiate Institute, Clinton. — W. A. Hunter, B.A., is a Presbyterian clergyman, Denver, Col. — Adam Johnston, B.A., is a barrister in Morrisburg, Ont. — J. R. Johnston, B.A., is a Presbyterian clergyman, Preston, Ont. — W. DeG. Johnston, B.A., lives at Cornwall, Ont. — R. W. Kennedy, B.A., lives at Kingsville, Ont. — J. R. Kerby, B.A., is an inmate of the Asylum for Insane, Toronto. — J. O. McGregor, B.A., is a teacher in Vienna, Ont. — G. McLaurin, B.A., is a barrister in Ottawa, Ont. — W. B. Northrup, B.A., is a barrister in Belleville, Ont. — T. O. Page, B.A., is in Guelph, Ont. — W. N. Ponton, B.A., is a barrister in Belleville, Ont. — J. Ryerson, B.A., is in Orillia, Ont. — G. H. Smith, B.A., is a barrister at 9 Toronto St., Toronto. — S. J. Taylor, B.A.,

is Secretary French Evangelizing Society, Montreal, Que. — J. C. Tibb, B.A., is a Presbyterian clergyman at Eglinton. — J. E. Wetherell, B.A., is principal of the Collegiate Institute in Strathroy, Ont. — N. Wolverson, B.A., is in Brandon, Man.

1882.

Deceased. — Wm. F. W. Creelman, B.A. — O. L. Schmidt, B.A. — F. A. Vines, B.A.

A. F. Ames, B.A., is a teacher in Riverside, Ill. — J. Baird, B.A., is a barrister, living at 109 Gloucester street, Toronto. — A. Blair, B.A., is a Presbyterian clergyman at Nassagaweya, Ont. — W. H. Blake, B.A., is a barrister in Toronto. — C. R. Boulton, B.A., is a barrister in Toronto. — C. G. Campbell, B.A., is an editor living at 122 Yorkville Avenue, Toronto. — J. Caven B.A., is a physician in Toronto. — J. M. Clark, B.A., is a barrister in Toronto. — L. C. Corbett, B.A., is a teacher in Sarnia, Ont. — G. R. Cruickshank, B.A., is a physician in Windsor. — E. P. Davis, B.A., is a barrister in Vancouver, B.C. — W. A. Duncan, B.A., is a clergyman in Sault Ste. Marie, Ont. — H. L. Dunn, B.A., is a barrister in Toronto. — W. Elliot, B.A., is a teacher in Mitchell, Ont. — W. T. Evans, B.A., is a barrister in Hamilton. — D. Faskin, B.A., is a barrister in Toronto. — Wm. O. Galloway, B.A., is statistician to the Department of Agriculture, Toronto. — E. G. Graham, B.A., is a barrister in Brampton, Ont. — J. Gray, B.A., is a teacher in Kincardine, Ont. — W. J. Greig, B.A., is a physician in Toronto. — J. F. Grierson, B.A., is a barrister in Oshawa, Ont. — E. F. Gunther, B.A., is a barrister in Toronto. — R. Haddow, B.A., is a Presbyterian clergyman and journalist in Toronto. — J. Hamilton, B.A., is a Presbyterian clergyman in Goderich. — J. A. Jaffray, B.A., is a Presbyterian clergyman in MacLeod, Alta. — D. B. Kerr, B.A., is a journalist in Toronto. — G. G. S. Lindsey, B.A., is a barrister in Toronto. — W. J. Logie, B.A., is a physician in Paris, Ont. — S. Love, B.A., is a barrister in Toronto. — C. A. Mayberry, B.A., is a teacher in Stratford, Ont. — H. W. Mickle, B.A., is a barrister in Toronto. — J. W. Mustard, B.A., is a physician in Cleveland, O. — C. J. McCabe, B.A., is a barrister in Toronto. — A. R. McDonald, B.A., is a Baptist clergyman in Hespeler, Ont. — G. S. Macdonald, B.A., is a barrister in Montreal. — A. H. McDougall, B.A., is a teacher in Ottawa, Ont. — D. McGillivray, B.A., is a Presbyterian missionary in Honan, China.

—J. McGillivray, B.A., is a professor in Queen's University, Kingston, Ont.—A. MacMurphy, B.A., is a barrister in Toronto.—W. L. H. Rowand, B.A., is a Presbyterian clergyman in Fort William, Ont.—A. Y. Scott, B.A., is a physician in Toronto.—W. T. Simpson, B.A., is a physician in Napanee, Ont.—G. A. Smith, B.A., is a teacher in Toronto.—J. C. Smith, B.A., is a clergyman in Indianapolis, Ind., U. S.—A. F. Teefy, B.A., is a barrister in Chicago.—T. Trotter, B.A., is a clergyman in Wolfville, N.S.—F. C. Wade, B.A., is commissioner in the Yukon Territory.—A. H. Watson, B.A., is a teacher in Madoc, Ont.—D. J. G. Wishart, B.A., is a physician in Toronto.—H. Wissler, B.A., is a barrister in Elora, Ont.—H. J. Wright, B.A., is a barrister in Toronto.—L. J. Clarke, B.A., is in Calgary, N.W.T.—J. C. Elliott, B.A., is in Port Robinson.—C. T. Glass, B.A., is in Melita, Man.—A. H. Gross, B.A.—T. P. Hall, B.A., 605 E. 8th street, Kansas City, Mis.—T. Hepburn, B.A., is in Preston, Ont.—R. Moir, B.A.—R. McKnight, B.A., is in Dunville, Ont.—S. E. Robertson, B.A.—J. Smith, B.A., is in Chicago.

1887.

A. Abbott, B.A., is a lawyer in Trenton, Ont.—H. A. Aikins, B.A., is a professor in Western Reserve University, Cleveland, Ohio.—A. J. Armstrong, B.A., is a barrister in Cobourg.—E. Bayly, B.A., is a barrister, 103 Bay St., Toronto.—H. Bonis, B.A., is a teacher in Leamington, Ont.—J. C. Burrows, B.A., is in Katrine, Ont.—A. Burwash, B.A., is at 184 Aqueeduct St., Montreal.—A. Campbell, B.A., is a teacher in Sarnia, Ont.—H. Carpenter, B.A., is a barrister, 36 James St. south, Hamilton.—R. J. Chrystal, B.A., is a physician in Avonton, Ont.—J. Crawford, B.A., is a Presbyterian clergyman in Niagara Falls, Ont.—J. T. Crawford, B.A., is a teacher in Hamilton.—A. Crozier, B.A., is a barrister in Sutton, Ont.—J. D. Dickson, B.A., is principal of the Collegiate Institute in Niagara Falls.—J. Drummond, B.A., is a Presbyterian clergyman in Bridgton, Pa.—J. A. Duff, B.A., is an instructor, School of Practical Science, Toronto.—L. P. Duff, B.A., is a barrister in Victoria, B.C.—J. Elliott, B.A., is a Presbyterian clergyman in Nairn, Ont.—T. E. Elliott, B.A., is living in Weston, Ont.—J. A. Ferguson, B.A., is a barrister, Temple Building, Toronto.—U. J. Flack, B.A., is a teacher in Napanee, Ont.—C. Fraser, B.A., is a barrister in Winnipeg, Ont.—J. A. Freeman, B.A., is a teacher in Waterdown.—J. A. Garvin, B.A., is a reporter, 16 Wilton Crescent, Toronto.—

A. H. Gibbard, B.A., is a journalist in Whitby, Ont.—J. R. Hamilton, B.A., is a teacher in Brantford, Ont.—R. McI. Hamilton, B.A., is a Presbyterian clergyman in Brantford, Ont.—E. J. Harris, B.A., is in Salford, Ont.—L. S. Hughson, B.A., is a Baptist clergyman in Lindsay, Ont.—J. G. Hume, B.A., is a professor in the University of Toronto.—W. H. Hunter, B.A., is a barrister, Temple Building, Toronto.—J. I. Jackson, B.A., is town treasurer, Toronto Junction, Ont.—R. L. Johnston, B.A., is a barrister, living at 423 Ontario St., Toronto.—A. J. Keeler, B.A., is a barrister, 9½ Adelaide St. East, Toronto.—M. V. Kelly, B.A., is a Roman Catholic clergyman, 50 St. Joseph St., Toronto.—T. Logie, B.A., is a professor, Williamstown, Mass.—F. Matheson, B.A., is at Artnow, Ont.—W. L. Miller, B.A., is a professor in the University of Toronto.—A. E. Mitchell, B.A., is a Presbyterian clergyman at Ottawa, Ont.—J. Munro, B.A., is at Portage La Prairie.—R. A. MacArthur, B.A., is a physician in Chicago, Ill.—W. McBrady, B.A., is a barrister in Port Arthur, Ont.—E. B. McGhee, B.A., is at Bellona, N. Y.—R. B. MacKay, B.A., is in Toronto.—J. N. McKendrick, B.A., is in Galt, Ont.—P. W. H. McKeown, B.A., is a physician, 80 McCaul St., Toronto.—J. N. McLaren, B.A., is a Baptist clergyman at Blenheim.—P. J. McLaren, B.A., is a Baptist clergyman at Strabane.—J. S. MacLean, B.A., is a journalist in Montreal.—J. A. McMillan, B.A., is a physician, 446 Cass Ave., Detroit.—T. Nattress, B.A., is a Presbyterian clergyman in Amherstburg, Ont.—W. B. Nesbitt, B.A., is a physician, 71 Grosvenor St., Toronto.—W. H. Nesbitt, B.A., is living in Brighton, Ont.—J. H. Philp, B.A., is living in Forest, Ont.—T. H. Rogers, B.A., is a Presbyterian clergyman in Toronto.—W. F. Robinson, B.A., is in Denver, Col.—T. R. Rosebrugh, B.A., is a professor, School of Practical Science, Toronto.—R. Ross, B.A., is a teacher in Pembroke, Ont.—N. H. Russell, B.A., is a Presbyterian clergyman in Mhow, India.—F. Sanderson, B.A., is an actuary in Hamilton, Ont.—J. McP. Scott, B.A., is a Presbyterian clergyman, 8 Simpson Avenue, Toronto.—E. O. Sliter, B.A., is a teacher in Kingston, Ont.—A. G. Smith, B.A., is in Victoria, B.C.—Miss N. Spence, B.A., is a teacher in Jameson Avenue Collegiate Institute, Toronto.—J. Stafford, B.A., is in Chicago, Ill.—A. W. Stratton, B.A., is in India.—J. C. Stuart, B.A., is in Windsor, Ont.—T. M. Talbot, B.A., is a Methodist clergyman in Carberry, Man.—J. A. Taylor, B.A., is a barrister in Souris, Man.—A. H. Young, B.A., is a professor in Trinity University, Toronto.

ADDRESSES UNKNOWN: GRADUATES

IN MEDICINE.

Part of the work which the Alumni Association has undertaken is the compilation of a catalogue of the graduates of the University of Toronto and its maintenance in as correct a form as possible. It was found that a very great number of our graduates had dropped out of sight—no response came from their addresses as found in the Registrar's books, and, as far as their *Alma Mater* was concerned, they were unknown. A very large number of these addresses have been already corrected by correspondence through the kindness of graduates who have sent us information. Many names are still lacking addresses, however, and we request our readers to aid in completing the catalogue by sending in at once addresses for any of the following names:—

1880.

Frank Bentley, M.B.—J. I. Clendenning, M.D.—Judson Ellis, M.B.—J. Galbraith, M.D.—O. J. Gordon, M.D.—J. E. Graham, M.D.

1881.

A. Campbell, M.D.—A. Chapman, M.D.—Thomas Chisholm, M.D.—John Malton Collon, M.D.—G. H. Hahen, M.D.—Edward Ambrose Nealon, M.D.—Malcolm Alex. Nicholson, M.D.—Edward Robillard, M.D.—William H. Street, M.D.—James Benson White, M.D.—George Wilcock, M.D.

1882.

Ralph Burton, M.D.—James Campbell, M.D.—J. T. Carroll, M.D.—Thomas McKetchie Milroy, M.B.—William G. Stuart McDonald, M.D.—Charles James Wilson, M.D.

1883.

J. S. Draper, M.D.—Wm. Kennedy, M.D.—Elgin Laws, M.D.

1884.

Alexander Broadfoot, M.D.—James W. Campbell, M.D.—George A. Cherry, M.D.—A. C. Smith, M.D.—George S. Wat-tam, M.D.

1885.

L. L. Hooper, M.D.—C. E. Lawrence, M.D.—John Morty, M.D.—Hector McGillivray, M.D.—Mark Richard Saunders, M.B.

1886.

G. McDiarmid, M.D.—T. J. McDonald, M.D.

1887.

Jerrold Campbell, M.D.—Charles Frederick Durand, M.B.—Angus Kennedy, M.D.—Peter J. Rice, M.D.—George Stewart, M.D.—G. S. Stockton, M.D.—Henry Westlake, M.D.

1888.

W. R. S. George, M.D.—P. W. Thomson, M.D.—J. Tyrell, M.D.

1889.

Stuart Bates, M.D.—Fred. Cunningham, M.D.—John B. Guthrie, M.D.—Charles D. Lockyer, M.D.—Robert McDonald, M.D.—Wm. A. McPherson, M.D.—Frederick Preiss, M.D.—Thomas N. Rogers, M.D.—Jos. S. Tweddle, M.D.

1890.

A. C. Aylesworth, M.B.—H. H. Gray, M.D.—J. Lockridge, M.D.—Charles Emeric Vidal, M.B.—A. J. Watt, M.D.

1891.

D. B. Alexander, M.D.—Dewitt C. Jones, M.D.—A. J. L. McKenzie, M.D.—Michael Sweeney, M.D.

1892.

W. C. Belt, M.D., C.M.—E. O. Bingham, M.D., C.M.—A. M. Cleghorn, M.D., C.M.—Arthur Flath, M.D., C.M.—F. N. Henry, M.D., C.M.—John McFadgen, M.D., C.M.—J. J. Roach, M.D., C.M.—F. C. Trompour, M.D., C.M.

1893.

Joseph Murray, M.D., C.M.

1895.

Henry Paine, M.B.

PERSONALS.

Every alumnus of the University of Toronto is invited to send to the Editor items of interest for insertion in this department. News of a personal nature about any alumnus will be gladly received.

H. J. O'Higgins, of the class of '98, is a journalist in New York.

Miss May Sinclair, B.A., '97, is teaching at Erin, Ont.

J. C. Milligan, B.A., '96, is a barrister in Cornwall, Ont.

Miss E. M. Henry, B.A., '98, is teaching at Lanark, Ont.

F. K. Johnston, B.A., '96, is practising law in New York.

J. Nelson Hutchison, M.B., '95, is a physician in Winnipeg.

W. C. Middleton, B.A., '71, is ranching at Crescent Lake, N.W.T.

C. P. Megan, B.A., '95, is teaching in the public schools in Chicago.

Miss E. Nora Dennis, B.A., '99, is teaching in Samokin, Pa., U.S.A.

J. G. Little, B.A., '84, has given up teaching on account of his health.

A. E. MacFarlane, B.A., '98, is engaged in journalistic work in New York.

Miss R. E. C. Mason, B.A., '95, is principal of the Wellsville High School, Ohio.

Miss Nellie Lamont, B.A., '98, is teaching in the public schools of Flushing, N.Y.

Miss Mary Johnston, B.A., '93, M.A., '97, is teaching in the Harlem High School, New York.

Arthur J. Stringer is now living in New York, and is writing for some of the leading journals.

G. A. Scott, B.A., '96, is a teacher in Ward-Whates' Private School for Boys in Montreal.

W. S. Milner, M.A., Lecturer in Latin in University College, will spend the summer in Europe.

G. O. Duprau, B.A., '96, is attending lectures at the Royal College of Dental Surgeons, Toronto.

Miss Alice K. Healy, B.A., '98, has been appointed teacher in the public school, Brooklyn, N.Y.

Miss K. L. Mullins, B.A., '98, is teaching Italian and French in the Harlem High School, New York.

Miss Helen Johnston, B.A., '98, is at present teacher of French in the Peekskill Ladies' College, Peekskill, N.Y.

Miss E. E. Scott, B.A., '97, who has been visiting for some time in Toronto, has returned to Brampton, Ont.

Miss Bertha Rosenstadt, B.A., '98, M.A., '99, who spent last year in Havana, Cuba, is now teaching in New York.

Miss J. M. Pearce, B.A., '98, has been vice-principal of the Caldwell High School, Caldwell, N.J., for the past year.

J. E. Bryant, B.A., '77, M.A., '78, is librarian in the Book Lovers' Library, 1323 Walnut street, Philadelphia, Pa.

Miss Dottie Cowan, of the class of '98, is at present taking a course in the Christian Mission Training School, New York.

R. W. Husband, B.A., '95 (Leland Stanford), *ad eundem*, Toronto, '96, is instructor in Greek at Dartmouth College, N.H.

J. W. Preston, B.A., '96, was called to the Colorado bar last year, and is an attorney-at-law in Denver, Col., U.S.

Professor vanderSmissen has sailed for Europe with his family, and will spend the next eighteen months in study and travel.

Miss J. M. Johnston, B.A., '99, recently severed her connection with a Pennsylvania ladies' school, and is now teaching in New York.

F. T. Congdon, B.A., '79, formerly of Halifax, N.S., has been appointed to succeed F. C. Wade, B.A., '82, as Commissioner to the Yukon Territory.

F. D. McEntee, B.A., '00, formerly editor of "College Topics," has been for some time manager of the Walter Whitesides Theatrical Company, New York.

George B. Wiltsie, B.A., '82, who has lived in the State of Ohio since graduation, is now pastor of the Monroe Street Methodist Episcopal Church, Toledo, Ohio.

J. C. McLennan, B.A., '92, Ph.D., Demonstrator in Physics, University of Toronto, has gone to Cambridge, England, to resume his investigations with Professor J. J. Thomson.

J. A. Robinson, M.B., '90, died about four years ago from tuberculosis contracted in Vienna, where he was pursuing post graduate studies in Pathology and Dermatology.

Miss F. M. Webb, B.A., '98, recently resigned her position in Miss Bennett's Ladies' Boarding School, Irvington-on-the-Hudson, to take a more lucrative post in New York.

R. J. Bonner, B.A., '90, Professor of Latin in the John B. Stetson University, DeLand, Fla., U.S., writes of the MONTHLY: "It deserves the support of every Toronto man wherever he may be."

Rev. F. E. Malott, B.A., '99, pastor of the Guilds, Ont., Methodist Church, has been awarded the Sanford gold medal in the examination for the degree of B.D. just held by Victoria College.

E. Andrewes, S.P.S., '97, has been appointed resident engineer in charge of the Moen Offeren Slate Quarry Co., of 63 Queen Victoria street, London, Eng., whose quarries are at Blanau Festiniog, Merionethshire, North Wales.

The engagement is announced of Miss G. B. Wright, Pinckney street, Beacon Hill, Boston, to H. W. Miller, M.B., '95, pathologist at the Tauton, Mass., State Hospital, and formerly of the McLean Hospital, Waverley, Mass.

H. G. Tyrrell, C.E., '86, Mem. Can. Soc. C.E., who is practising as a consulting engineer at 178 Devonshire St., Boston, Mass., has designed many well-known bridges in the United States.

From the list of those who waited upon the Government to press the claims of the University last month the names of T. Otway Page, ornithologist, and Professor Zavitz, of the Ontario Agricultural College, Guelph, were accidentally omitted.

Jno. McKay, B.A., '99, who went to Glasgow on graduation and entered United Free Church College to study theology, has just graduated at the head of his class and has gone on the invitation of Professor Geo. Adam Smith for a two months' tour in Palestine.

A. R. Robinson, M.B., '69, L.R.C.P. and S. (Edin.), is the author of a Manual of Dermatology, published by the Appletons. Dr. Robinson is professor of Dermatology at the New York Polyclinic, and of Histology and Pathological Anatomy and Dermatology at the Woman's Medical College of the New York Infirmary, and is a corresponding member of the Société Française de Dermatologie et de Syphiligraphie.

On April 13th Dr. J. C. Fields brought to a close his course of lectures in the University of Toronto on "The Quadrature of the Circle," a phrase which, however, very imperfectly describes the purpose and scope of the lectures. The learned doctor's object was to show the transcendency of those constants that occur so frequently in analysis and geometry— e , the base of the Napierian system of logarithms, and π , the ratio of the circumference to the diameter of a circle. In the opening lectures he dealt with the subject historically. Then followed a demonstration that these quantities were irrational—*i.e.*, that they consisted of endless decimals. The closing lectures were occupied with proving that the quantities in question could not be the roots of any ordinary algebraic equation. Altogether the lectures were a brilliant performance in the higher mathematical analysis, and such as could have come only from a mathematician of the highest attainments. It is confidently expected that Dr. Fields' researches and discoveries in the theory of algebraic functions will, from their profound originality and great value, be epoch-making in a certain field of mathematics, and shed lustre on his *Alma Mater*.

MARRIAGES.

At the residence of the Rev. E. B. Ryckman, D.D., Brockville, April 10th, by the bride's father, Professor Wm. Dale, B.A., '71, of McMaster University, to Florence Frederika Ryckman, B.A. (Queen's).

John McEwen Murray, B.A., '92, has been married to Miss Jean Adair, of the class of '00.

DEATHS.

Henry Langford, B.A., '88, Crown Attorney, Rat Portage, Ont., died there April 15th, and was buried in Toronto. He was a brother of Professor A. L. Langford, of Victoria College, and of Rev. E. Langford, B.D., Gravenhurst, Ont.

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EDITORIAL.

FIVE thousand members of the Alumni Association receive THE UNIVERSITY OF TORONTO MONTHLY each month. Only a small proportion of these have paid their fees to the Association. On March 1st a deficit of one thousand dollars was estimated on the year's publication of the monthly. Since that date 161 fees have been received. If you have not already done so, kindly send one dollar to the Secretary at once.

THE PROBLEM OF POPULAR GOVERNMENT.*

BY W. D. LESUEUR, LL.D.

(Concluded.)

IT is a somewhat singular thing that the framers of the Constitution of the United States do not seem to have any prevision of the difficulty there would be in getting the people as a whole to act in political matters. The explanation may, perhaps, be found in the fact that they had been accustomed chiefly to town meetings, in which, the subjects discussed being of local interest, decisions were easily arrived at. The Constitution, however, had not been long in operation before there was found to be a missing link—a device for getting the people interested and bringing them to the polls. It was to meet this need that the machine may be said to have been invented. As an impelling and controlling force it has since been brought to great perfection; and yet it cannot be said that the machine itself has either a clear insight into large

* A lecture delivered in the Chemical Building, University of Toronto, February 23rd, 1901.

political questions or any great interest in them. It does not, in fact, look upon great questions with favour. Its saws are not adapted to cut such lumber. It does not argue the question of the tariff, or of grants to higher education, or of Imperial federation, nor yet of prohibition; it approaches the elector with personal solicitation, and with arguments addressed more or less directly to his self-interest. The highest note it ever strikes is local interest: it sometimes reaches that. It does not make the issues that are presented to the country. These are hammered out in the press and, to a much less extent, in Parliament; but it gives many a shrewd hint to the party leaders as to what questions should *not* be allowed to grow into issues. The instinct of the party politician is to fight shy of all large questions; he always sees in them more of danger than of safety, more chances of loss than of gain.

We strike here an ugly feature of the party system. Why do practical politicians shrink so much from dealing with large questions? Simply because they know that unfair means will be tried to embarrass them in carrying such measures through. To bring forward some large measure of legislation is to deploy in the open before an entrenched enemy. The theoretical justification of a parliamentary Opposition is that the acts and measures of every Government require criticism. True, but criticism does not imply deliberate misconstruction and misrepresentation. What should we think of a literary critic who, sitting down to the examination of a book, professedly allowed himself to be dominated by a desire to create as much odium as possible in the mind of the public against the writer? And yet we all know that this is precisely the line an Opposition in Parliament and in the press usually takes in regard to the measures of the Government of the day. The thing is done by each side in turn, so that it is difficult for either side to feel any very genuine indignation when their own methods are retorted on them. What a common thing it is to see this or that casual and really harmless remark of some public man converted by party malice into a studied insult to some sect or class in the community! What a ready recourse there is to charges of want of patriotism! What sad use has been made in more than one emergency of the appeal to national and religious prejudice!

It is impossible to associate much with politicians without being struck by their extraordinary and, as it seems to me, morbid sensitiveness to what they call public opinion. What they are really afraid of is less public opinion than public silliness. If the public only knew how little common sense they are credited with by the very men who, on the hustings, load them with every kind of flattery, they would feel far from complimented. The common idea among politicians is that the people can be stampeded by a word, a phrase, some unguarded expression or trifling act which in any way touches, or might be so misinterpreted and twisted as to appear to touch, a popular prejudice. It is, of course, taken for granted, and rightly as things go, that opponents will do their utmost to make mischief out of the word, phrase or act; but where is that confidence in the superior judgment and sterling common sense of the

masses of the people of which we hear so much on certain occasions? Can the voters be at once so wise as we are told, and also so strongly resemble a herd of buffaloes with their snouts in the air ready for a whirlwind dash at the faintest scent of danger? I do not readily reconcile the two conceptions.

There was a politician once, a true man of the people, who did not believe in the buffalo herd theory. That man was Abraham Lincoln. Of him James Russell Lowell, in his celebrated essay, has said: "This was a true Democrat, who grounded himself on the assumption that a democracy can think. 'Come, let us reason together about this matter,' has been the tone of all his addresses to the people. . . . He put himself on a level with those he addressed, not by going down to them, but only by taking for granted that they had brains, and would come up to a common ground of reason. And accordingly," adds Mr. Lowell, speaking for the people of the United States, "we have never had a chief magistrate who so won to himself the love, and at the same time the judgment, of his countrymen. To us that simple confidence of his in the right-mindedness of his fellowmen is very touching, and its success is as strong an argument as we have ever seen in favour of the theory that men can govern themselves."

Time flies; it is thirty-six or thirty-seven years since that essay was written, and a change may have passed over the spirit of democracy; it may be that there is a "*facilis descensus*" for self-governing as well as for autocratically-governed communities; but, for my own part, I should be inclined still to have faith in Lincoln's method. One, however, who would walk in Lincoln's footsteps needs to have Lincoln's simplicity, sincerity and strong human sympathy. Of him it may be said that he was a true shepherd of his people, and that the people knew his voice.

What are the voices that people ordinarily hear in the political controversies and discussions of our time? Broadly speaking, are not all the voices merely repetitions of one voice—the voice of Codlin strenuously warning us that *he* is the friend, not Short? In Codlin we must put our trust if all our interests are not to be wrecked. It is at our own risk if we have any dealings with Short. The great trouble with Codlin is that he is not disinterested. If he is in power he wants to stay there; if he is out of power he wants to get there. I do not say, and I am far from thinking, that there is no disinterestedness amongst public men; but I do say that parties *as parties* are not disinterested. Their primary object is power, not the good of the country. To get power they will do many things that are not for the good of the people; to retain power likewise. In saying this one merely repeats the unceasing criticisms of the parties on one another. But is it really possible, one may ask, for a party either to gain or retain power by acts that are not for the good of the people? It is not necessary for my present purpose to maintain that it *is* possible; it is enough to say that political parties *think* it possible sometimes, and act accordingly. But as I am not here to flatter any one, but simply to offer my humble contribution to the discussion of a

great subject, I will venture to go farther, and say that parties *may* climb into power on false issues, and may retain it for a time by specious but really hurtful legislation. This is but another way of saying that the people may at times be imposed upon. But, as Abraham Lincoln remarked, they cannot be imposed upon "all the time."

It would really be a great thing if some one from a position of advantage could talk plainly to people about the actual facts of current politics. It is not ornate phrases that are wanted, but honest grappling with realities. The question should be put fairly and squarely to the people: How far they think it is right for any man to have pecuniary motives of a personal kind for supporting this or that candidate or party. Bribery by means of five dollar notes is punishable by law; but what moral difference is there between bribery of this kind and bribery by the promise of petty offices and the thousand and one advantages which a party in power can deal out, and does deal out, to its supporters? It is an accepted principle of politics that constituencies returning Government supporters shall be more favoured than those returning members of the Opposition. "If I had a son," I once heard a member of Parliament say, "that cheeked me, do you think I should feel like doing anything for him? I rather think not. Well, neither should a Government do anything for constituencies that go against it." This was several years ago; but much more recently a bright young man, a political worker in one of the newer parts of the country, remarked to me that a new constituency should always side with the Government of the day, as otherwise its growing interests would be in danger of being overlooked. Is it not time that *some* one should say to the people of Canada: "Come, let us reason about this matter. Is the suffrage in this country free or is it not? What do you understand by a free suffrage? You mean, do you not, that every citizen is at perfect liberty to vote according to his views and convictions of public duty? But can a man be said to be at *perfect* liberty to vote in that way if certain very material disadvantages attach to his exercising the suffrage in opposition to the Government of the day? You know, of course," such a speaker would add, "that no man who has voted against a Government candidate has the remotest chance of any public employment unless he recants his political opinions, and promises to reverse his vote on the next occasion. Is this freedom? If so, what would you understand by restraint? You have heard of "pulls," have you not? The way to get a "pull" is to "swing" votes—that is the up-to-date expression. The more votes you can swing, the stronger your pull. By means of a pull a man can exert a defecting influence on Government action. A Government left to itself will generally want to do the right thing. The head of a public department gets interested in his work, and devises many things for the public good. But what does the man with the pull care about the public good? What are laws and regulations, or the rights of individuals, or the efficiency of the public service to him? Such ideas are foreign to all his ways of thinking. All he knows is that he did his work, and that he wants his

reward. You complain sometimes that the public service is not what it ought to be ; but under such a system how can it be what it ought to be ? Yet it is *your* service ; it is *your* money that goes to maintain it ; and in whose interest should it be run but in yours ? Why should any man have it in his power to cause that to be done which is not in your interest ?

An earnest appeal to the public on these lines could hardly fail of producing some good effect. There are other points of view which might be taken. Surely it is somewhat undemocratic that in each locality there should be a boss who more or less commands the avenues of approach to a Government that is supposed to exist for all. Why should one man be more readily listened to than another upon a matter of public business ? Do we not all pay taxes alike ? Why should one man have to go and put himself under obligation to another, whom the business in hand does not in the least concern, and with whom he may, perhaps, strongly object to come into contact ? It is for the people to remedy this evil. It is for the people to seize the idea that the present system deprives them of a free suffrage, and that it tends to corrupt the suffrage by giving men all kinds of mercenary motives for supporting one party rather than another. In the jargon of party politics those who vote against the party to which we belong are spoken of as "our enemies." Why "our enemies ?" Is it not a hateful thought that we must make an enemy of a man who differs from us on some question of public policy, or in his appreciation of certain public men ? Under the present system a Government is supposed to be greatly beholden to its supporters. The understanding is, "Put us in office, or keep us in office, and we will show you special favour. We want office and you want favours ; let us do business on that basis." Well, the basis is not a good one, and it says something for human nature and inspires a certain amount of confidence in the larger currents of influence that make for good in the general economy of things, that, upon such a basis, government should be as well carried on as it is.

The fact is that there is a higher public opinion abroad in the country with which politicians have to reckon ; and it is this higher opinion which forms the strongest support of the public man who desires to do his duty to the whole country. The machine even feels its force at times, as we see by some of the men it brings forward. A "strong" man is wanted to contest a certain constituency, and the strength of the strong man sometimes—not unfrequently—lies in the fact that he is a good man—a man with a reputation for honesty and fair dealing, for kindness of nature and public spirit. The sense of public duty grows rapidly upon such men ; and, when they come into contact with the administrative system of the country, they perceive the iniquity of trying to twist it out of shape in order to serve their own private purposes. They recognize that "business is business" in a sense far different from that in which the phrase has sometimes been used. If patronage is forced upon them—and in a certain position a man cannot escape it—

they exercise it with moderation, and, as far as possible, with an eye to the public good. But as to patronage in general, they sympathize with the feeling Sir Robert Peel had on the subject when, in a letter to Cobden, he spoke about "the odious power of patronage." Men of this character are not those whom the machine likes best to deal with. There are meannesses to which they will not stoop; there are vengeances they will not perpetrate; there are enmities they will not recognize. When men of superior character are forced, as they sometimes are, out of public life, it is this that breaks their spirit, the everlasting cropping up in their correspondence of paltry suggestions and impossible, if not iniquitous, demands.

The lesson I draw from these facts is that more trust should be reposed in the people, and that the people should put more trust in themselves. A recent writer has spoken of a certain course of education as tending to "substitute for those warm, wholesome sympathies which are the safest guides in understanding our fellows and regulating our conduct towards them, a cold, critical demeanour of superiority." I trust that such an education is not imparted by any institution of learning in this country. There is something, however, even worse than the "cold, critical demeanour of superiority," and that is a cold, calculating intention to exploit our fellow-men for our own personal advantage. This is a feeling which, I fear, is not unknown among the rising generation of to-day. It is a very serious question at every epoch: What are the young men thinking of? Or to put it more precisely: What are their plans for the future and with what eyes do they look on the world in which they are shortly to play their part? Is each resolving to play solely for his own hand, or are some of them wondering how they can best serve their fellow-men? Surely in a civilization the religion of which is founded on the idea of self-sacrifice, there should not be wanting some volunteers for the cause of public righteousness. If any word of mine could influence those who are entering on life and who may look forward to a public career, I would say: Let disinterested and high-minded regard for the progress and honour of the country which has nourished you be the basis of all your action. Refuse to believe those who tell you that guile and finesse are the chief resources of the statesman, for nothing can be less true; they are the resources of the man who is too weak, too deficient in courage and in large views of public policy, to be a statesman in the best sense. Over three hundred years ago the greatest of English poets summed up the political wisdom which he imagined to have come to the mighty Wolsey from his long converse with affairs, and also from his later misfortunes, in these memorable lines:—

" Love thyself last, cherish those hearts that hate thee ;
 Corruption wins not more than honesty.
 Still in thy right hand carry gentle peace
 To silence envious tongues. Be just and fear not.
 Let all the ends thou aim'st at be thy country's,
 Thy God's and truth's."

It requires courage, it requires faith, it requires enthusiasm, to lay out one's life on this plan; but are these qualities dead in this Canada of ours? The times call loudly for men who will apply themselves to politics with the high purpose, not of leading a party to victory, and sharing in the spoils of party triumph, but of raising the public life of the country to a higher plane, and quickening throughout the land the sense of public duty. An excellent writer, the late Sir Henry Taylor, has said that a statesman should have such a disposition that "he may *sun out* all the good in men's natures." Here is a much better clue to the true nature of statesmanship than any that a cynical philosophy can afford. There is also a saying of Burke's that I greatly admire: "We have no other materials to work with than those out of which God has been pleased to form the inhabitants of this island." This means that we should not wait for millennium to take our stand on the side of justice and truth in national affairs, but, accepting the world as it is, we should do it now. If we wait for the millennium, we shall wait till our valuable assistance is no longer required. But if we fear that circumstances may now and again be too strong for us, let us consider this saying of a great writer whom I have already quoted, James Russell Lowell: "It is loyalty to great ends, even though forced to combine the small and opposing motives of selfish men in order to accomplish them, that we demand in public men." It seems to me that in these three sayings we have the outlines of a whole scheme of statesmanship. There is no nobler ambition than political ambition if, high above every personal aim, is kept the thought of public service. All cannot hope to occupy a central place in the political arena, but there is useful work to be done by every one who believes in his heart that the public life of the nation should be based on equity and truth, and upon whom the conviction has been forced that every taint of interested motive in the support of a candidate or a party contains the promise and potency of full-blown political corruption. To act steadily upon these views in the humblest private sphere is to render the state most honourable service.

A UNIVERSITY TRAINING AS A PREPARATION FOR THE LEGAL PROFESSION.

BY PROFESSOR LEFROY.

TO ask whether a university training is desirable as a preparation for the legal profession would, in the broadest aspect of the question, be tantamount to asking whether it is desirable for a lawyer to be a well-educated man. The answer may seem too obvious to need expression; and yet, if a high education, even in the very theory of the law itself, is to advance a lawyer in his profession, his mental acquirements will need to be balanced by certain other qualities. If his education

leads him to exclaim over his law reports and his briefs with Thackeray in "Pendennis," "What a loss of labour and of love!" or if it makes him feel as Bentham did, who writes, "On my being called to the bar I found a case or two at nurse for me. My first thought was to put them to death, and the endeavours were not, I believe, altogether without success," then a university training will not advance a lawyer's prospects of practical success. It may be said no doubt with some degree of truth that the law is the most intellectual of professions, but it must not be forgotten that it is also one which calls for a great sacrifice of the intellect. It is largely true that a man who aspires to become a really great lawyer must scorn the delights of literature, philosophy, history and science, as well as those of a more material kind, and live laborious days cultivating that kind of mental taste which impelled Baron Parke to take a "beautiful demurrer" to the sick bed of a legal friend, because it was so exquisitely drawn that he felt sure it must cheer the patient to read it, and which induced Chief Justice Dallas, as Mr. Justice Patteson used to relate, to propose to him that they should employ a rainy day in a country house reading a little law together, and to suggest for choice Sergeant Williams' "Note on Executory Devises."

Moreover, we may never hope to see the day when a man's mental equipment is likely to prove the first and most essential element of his success in the profession. Some, indeed, might go so far as to say that among conditions precedent to great success business interest is first in importance, and the rest nowhere. At all events, in law as in many other things, the half is greater than the whole, and the question whether a man has friends in high business places, who can and will send business his way when he enters upon the profession, is and must be of paramount importance. Success, moreover, like ambition, grows by what it feeds on, and the experience that one favoured in this respect may acquire, is worth as much, if not more, than any book learning can be to the practitioner. As has been well said, the best way to learn how to do a thing in law is to go and do it. But it is clients alone who give the opportunity of learning one's profession in this effective way.

Then, again, what university training can give a man that broad humanity and genial humour, that mental balance and common sense which go to make a great counsel. "Clear-headed common sense," wrote Lord Russell, of Killowen, in a paper contributed by him to a London magazine on the "Bar as a Profession," is the quality which most commands success at the bar. I place this far above grace of imagination, humour, subtlety, even commanding power of expression, although these have their due value." Where can we find a professor for a faculty of common sense?

The above are rather gifts which lie on the knees of the gods than in the bestowal of any university; but, putting them all out of consideration, the question I wish to consider here is the value, from the point of view of the practical lawyer, of that treatment of law on its theoretical side which in these days forms a part of the curriculum of most universities.

Greville records Lord Melbourne's reply to the observations that "the Austins were not fools." "Austin? Oh! a damned fool. Did you ever read his book on Jurisprudence?" "Jurisprudence is a word which stinks in the nostrils of the practical lawyer," is the way Professor Dicey prefaces an able defence of the study in the "Law Magazine," words (thanks largely to Professor Holland) perhaps a shade, but only a shade, less true in 1901 than they were in 1880, when they were written. The practical man is now, and I imagine always will be, at variance with the theoretical and academical man.

Perhaps the explanation is not far to seek. The qualities which go to make the practical man differ for the most part from those which go to make the contemplative man and the student, and are not often found combined in an equally high degree in one and the same individual; and your practical man is apt to have scant respect for qualities which he not only does not possess himself, but which he often sees militate against, and but rarely sees directly conduce to, that material success in life which to him is the one goal for a sensible man to strive for. Now, a lawyer, to be successful, must be pre-eminently a practical man, and the only question is whether those studies of law on its more theoretical and scientific side to which a university training may have introduced him are likely to conduce to his attaining a yet higher degree of success in his profession than he otherwise would have done. In my opinion it is as clear as the sun at noonday that they must and will do so. From the moment he commences his career those studies will heighten the interest of his work, and so lessen its burden. From the first day they will give him a better grasp on every text-book and on every case he reads. But it is in my view chiefly after he has already attained the higher walks of the profession that they may be relied upon to contribute materially to the degree of practical success which he can accomplish. They may not suffice to make a man a successful lawyer, but they will make a great lawyer greater.

I am not, of course, here referring to the general educational value of what I may call academical law in its various branches. Yet, at the risk of incurring the accusation of proclaiming that "there's nothing like leather," I cannot refrain from expressing my belief that this is in fact far greater than is even now generally realized. This is not the place, as I understand my subject, to enlarge upon Edmund Burke's words, that the science of law "does more to quicken and invigorate the understanding than all the other kinds of learning put together"; or to advance the educational claims of that law of Rome, of which it has been truly said that, with the exception of the Bible, there is no book which has so profoundly affected western civilization as the "Corpus Juris." The day will yet come, in my belief, when we shall have the elements of law taught not only in universities, but in schools, and not only in boys' schools but in girls' schools; and, indeed, in one or two of the great public schools of England elementary law is already one of the subjects on the regular curriculum. The Romans knew what they were about

when, as Cicero tells us, they made their schoolboys learn by heart the Twelve Tables of the Law. The educational value also of international and constitutional law, generally taught at universities, from their close connection with history and the higher politics, and the breadth of view which they necessarily encourage, is quite obvious. I must not, however, enlarge on these considerations, nor yet on the tendency of such studies to give a lawyer a high view of his profession. My subject, as I understand it, is a narrower one, namely, what is the value of the study under consideration as part of the equipment of a lawyer from an entirely practical and professional point of view, although it may not be possible always to entirely separate the two aspects of the matter.

Now, *ceteris paribus*, that man will be the best lawyer who has the most accurate logical faculty and the greatest power of drawing subtle mental distinctions, and I do not think it can be denied that no better training for accurate and precise thinking can be found than analytical jurisprudence, which, moreover, is the more interesting to the student in that it is not so abstract as to be altogether divorced from the practical affairs of life. J. S. Mill is assuredly no bad witness on such a point as this, and he wrote in the *Edinburgh Review*, of the writings of Austin, that "as a training school for the higher class of intellect there is not extant any other book which can do for the thinker exactly what this does"; and that "as a mere organon for certain faculties of the intellect, a practical logic for some of the higher departments of thought, these volumes have a claim to a place in the education of the statesmen, publicists and students of the human mind."

Again, it is surprising for how many years a practising lawyer may read up his cases and argue his briefs, and yet never have a really clear understanding of fundamental legal conceptions, such as the precise distinction between ownership and legal possession, the constituents of legal possession and of a legal contract, or the exact import of the English doctrine of consideration; yet we shall surely grasp and retain any subject of study much better if we clearly understand the fundamental rules and conceptions involved in it than if we do not. There is, too, I fear, even now much truth in Austin's assertion that "the knowledge of an ordinary practising lawyer is nothing but a beggarly account of scraps and fragments. His memory may be stored with numerous principles, but of the law as a whole and of the mutual relation of its parts he has not a conception." Now, it is the special function of analytical and general jurisprudence to analyze and explain fundamental legal conceptions, while it also impresses upon the mind of the student the ground plan, as it were, of the whole body of the law, and arranges its various parts according to their logical connections; and a lawyer who is possessed of what it has to teach him must necessarily have the same sort of advantage in respect to understanding and retaining whatever he may learn in the course of his professional research, and in ability readily to reproduce it at need, as the head of a department or business, who has his papers docketed and arranged in proper receptacles

according to a well-conceived plan, will have over one who is unmethodical and haphazard in these respects.

Again, as to Comparative Jurisprudence. Just as it is scarcely possible for a man to have an exact comprehension of the structure and grammar of his own language if he knows no other language but his own, so also a knowledge of the primary conceptions, principles and terminology of other systems of law cannot fail to give a lawyer, by force of contrast, a clearer understanding and a more perfect grasp of his own system.

As to the study of legal history, as an eminent English lawyer points out in an article in the *Law Quarterly Review* for October, 1896, the future lawyer will by its pursuit lay a broad foundation, which will aid him in grappling with the details of his profession, because the historical clue will be in his hands; and the same writer also shows how much of the old learning is still indispensable to all who wish to be sound, common lawyers, and cites more than one recent case in England in which the correct knowledge of the history of ancient doctrines relied upon was essential.

As to the law of Rome, it would be strange, indeed, if its study was otherwise than invaluable to lawyers of all time. As Sir Henry Maine points out in a famous essay, unlike the law in these days, it had few, if any, rivals to contest its claim on the highest intellects. What wonder, then, that it reached the perfection which, though the empire fell, caused it still to live on, *non ratione imperii sed imperio rationis*. Space will not permit me here to dwell upon the regularity and symmetry of its forms and the matchless consistency of its parts—its wealth of leading principles, and their logical application to daily life—its terminology, so concise and telling that it has been called the shorthand of jurisprudence, or the style of the classical jurists, simple and clear, brief and nervous, which Austin declares bears the same relation to that of Blackstone which a Grecian statue bears to a milliner's doll in the finery of the season. "Read the Pandects," said Lord Westbury to a young friend of his; "not only read the Pandects—absorb them." I might call to witness also such mighty men of the law as Sir Matthew Hale and Lord Mansfield. I shall be content, however, by again citing Lord Russell, of Killowen, a practical success at the bar if ever there was one—the B. B. Osler of London. He writes in the paper I have already referred to: "One special subject in reading for the bar I would name, because in my experience I have found it invaluable, and that is a study of the 'Corpus Juris,' or the body of the civil law." I had the signal advantage of being a student in the days when the late Sir Henry Maine was professor of civil law to the Inns of Court; and under him, as in university classrooms, we read no inconsiderable part of the civil law. After all, a great body of our law finds its source in the Roman law; and in the Corpus Juris law is systematized in a way for which our English law has no parallel. Its reading gives to the attentive student a knowledge and a grasp of principle hardly otherwise attainable, which he will always find "useful throughout his life."

When a lawyer has a strong case he naturally feels disposed to make the most of it. I feel I have had a strong case in the subject of this article, however inadequately I may have handled it; and I also feel that I have trespassed already too much upon the pages of the MONTHLY, though I have done little more than touch the outer fringe of the matter.

THE UNIVERSITY ACT, 1901.

BY JOHN A. PATERSON, M.A.

Solicitor for the University.

“Let us consider the reasons of the case. For nothing is law that is not reason.”—*Coggs v. Bernard*, 2 Ld. Raym. 911.

THE University Act of 1901, which came into force upon the 15th day of April, presents new and interesting features, some of them destructive of certain sacred statutory traditions and many of them pointing to a more liberal autonomy to be possessed by this University of the people. And yet among the changes the preservation of the useful and practical stands pre-eminent—vested rights that have become sacred and imbedded in the very heart's core of the University are conserved. As illustrative of this there stands *in limine* the principle “that the University and University College shall have, hold, possess and enjoy all the rights, powers and privileges which they respectively now have, hold, possess or enjoy.” That is a most auspicious opening, and all that follows shows that Lord Bacon's maxim has been observed—“Well to beware that it be the reformation that draweth on the change, and not the desire of change that pretendeth the reformation.”

From the very beginning of the existence of the University and University College, their property and income have been vested in the Crown and managed by a Crown officer called the “Bursar,” and under the ægis of royalty these institutions have enjoyed many valuable privileges, and amongst them not the least practical and profitable has been a large, useful and reasonable exemption from taxation. Now, however, for the first time a change has come over the technical title of the University and College property, and it is now vested in a Board of Trustees “consisting of the Chancellor, the Vice-Chancellor, the President of the University, the Principal of University College and five persons appointed “by the Lieutenant-Governor-in-Council,” the Board being duly incorporated and doing business under the name and style of the “Trustees of the University of Toronto.” This change of title would in itself have deprived the University of its pristine immunity from taxation, and so to cure this difficulty the Statute, in careful terms, declares that this privilege, freedom from expropriation, and other immunities, shall apply to the Trustee-held property as fully and effectually as in the past it applied to the property when held by our Sovereign Lord, the King.

Some difficulty was met under the old University Act as to the exemption from taxation of any part of this property when occupied by a

tenant who was a professor and who enjoyed the occupation of the property as part of his emolument. In fact, the question under these circumstances had been decided against the University in a concrete case arising out of the Assessment Act, and now transferred to the Court of Appeal at the instance of the University. By the present Act, however, that difficulty will in the future be swept away. Property so occupied is now saved from the vandalic hand of the assessor, and Legislature has with kindly touch smoothed out that wrinkle in the Assessment Act. No doubt the reason of the amendment was that under these circumstances Crown lands should be exempt, as the taxes in that case come out of the University income, so that what has been done has been done according to the spirit of the exemptive principle, and, in the opinion of many, according to its letter, as laid down in the present Assessment Act.

These Trustees have very extensive powers of administration, such as the appointment and removal of the Bursar and his assistants, and of all officers and servants of the University and College employed about the grounds, the control, management and government of the property, endowment, income and revenues, fixing salaries of the President of the University, the Principal of the College and the professors and teachers, the Librarian, Registrar, Bursar, officers and servants. They are also given special and particular powers of investment of endowment and permanent funds, of selling and leasing, fixing fees for post-graduate instruction and under-graduate instruction, authorizing improvements or additions to the buildings, leasing any part of the property to any duly incorporated society of under-graduates and investing any portion of the endowment or permanent funds in a loan to any such incorporated society for the purpose of the erection of any buildings.

The trustees are also empowered to require from the proper officers annual estimates for all University and College purposes. They are also empowered to make regulations for the superannuation of the President of the University, the Principal of University College, and of any professor or teacher, librarian, registrar, bursar and officer and servant of the University or College. The trustees are therefore an "imperium," but yet are also an "imperium in imperio," because the Crown keeps its august hand over all in many vital particulars. The Crown appoints seven out of the nine trustees; the Lieutenant-Governor of the Province is a visitor; he may declare certain lands to be necessary for the accommodation of the University or College, and so free them from the trustees' powers; the Legislative Assembly must ratify any authorization by the trustees for improvements or additions to the buildings; the Crown must approve of any superannuation regulations made by the trustees, and, indeed, of all by-laws, rules or regulations of the trustees, so that they may have force and effect; if any person endows a chair or scholarship, then the Crown must approve of the conditions of such endowment. The Crown also appoints the President, Principal and Deans of the faculties of Arts, Law, Medicine and Applied Science and Engineering, the Librarian, the Registrar, and all Professors and other

instructors in the several faculties of the University and University College. The Crown also controls any proposed transference of subjects, assigned by the Act to the University or University College, from one to the other. That is effected by obtaining not only the unanimous consent of the Senate, but also such consent must be concurred in by the Crown. These are examples of the control exercised by the sovereign people, embodied in the Crown, over this University and College of the people.

As a fitting climax to all these powers given to the Crown comes the section of the Act headed, "Instruction in Science," and there it is set forth that "for the purpose of encouraging the study of the mineral and other natural resources of the Province, and for supplying the demand for expert knowledge in engineering and manufactures, the Lieutenant-Governor may from year to year pay out of the consolidated revenue of the Province the salaries of all professors, lecturers and other instructors in the departments of Chemistry, Physics, Mineralogy and Geology, and the cost of maintenance of said departments; such payments to be based on the annual estimates of the trustees as approved by the Lieutenant-Governor-in-Council, the first payment thereof to apply to the financial year of the University, which closes on the 30th of June, 1901."

The Lieutenant-Governor is also empowered to set apart that portion of land on the north side of College street, immediately south of Wycliffe College, for the purposes of the University and College, to be used as a "site of buildings for the departments of Mineralogy and Geology in connection with the University, and for the extension of the School of Practical Science." So that we notice that while the Government are encouraging the study of "mineral and other natural resources" of the Province, the graduates and friends of the University have touched those auriferous governmental strata which have so long been an interesting and curious study from a graduate and undergraduate point of view. Someone wrote, "the learned pate ducks to the golden fool." That, however, does not apply to this Act, although the heads are learned and the Crown golden, yet the wisdom of the Crown has been already shown by giving what we may all hope is a first instalment of even better and brighter things yet to come. These "natural resources" of the Government will bear closer study by the friends of the University, with a result which I am sure will strengthen other departments of the University besides those named in the Act. These generous gifts are additional to former gifts. The gift to the University of six townships of wild lands by the Act of 1897 is preserved, and the gross sale moneys still go to the Income Fund, and the annual payment of \$7,000 by the Province to the University is also continued without any blemish or abatement. Before leaving this part of the subject, I must not forget to point out that a legislative *quietus* has been put upon that ancient controversy as to the claim of the City of Toronto to the old Upper Canada College block, or Russell Square. That dispute dates back to a period whereto the memory of some men at least "runneth not to the contrary,"—it may indeed be as old as "Doe on the demise of Roe," of revered memory.

But by this Act the title is solemnly vested in the Trustees for University purposes, and so the pen of legislation is mightier than the sword of litigation. Let us therefore with uncovered heads reverently say of that restless theory of the Russell Square title that used to go to and fro through the columns of the city Press, seeking rest and finding none,—“*requiescat in pace!*”

The Act contains three main divisions:—I. Property and Income. II. Federation. III. Academic Management.

Let us now turn to division II., and for the first time we get a Statutory Declaration of the names of institutions in federation or affiliation, which are as follows:—

FEDERATED.—Victoria University, Knox College, Wycliffe College, St. Michael's College.

AFFILIATED.—Trinity Medical School, Toronto School of Medicine, Albert College, Ontario Agricultural College, Royal College of Dental Surgeons, School of Practical Science, Toronto College of Music, Women's Medical College, Ontario College of Pharmacy, Toronto Conservatory of Music, Ontario Veterinary College.

The rest of division II. is made up of sections relating to conditions of federation, status of graduates, affiliated Universities and affiliated Colleges generally, the powers of Senate to remove from federation or affiliation, all of which are re-enactments of the former University Act in R. S. O. 1897, ch. 298.

III. ACADEMIC MANAGEMENT.

The academic government is continued in principle as formerly, and remains with the Chancellor, Vice-Chancellor, Professors, Senators and members of Convocation, with the new addition of the President of the University and the Principal of University College, although these latter may in most instances be practically included in denomination “professors,” although not necessarily so. The Crown makes the academic appointments as I have before mentioned. There seem to be five new officers created by the new Act, namely,—the Principal of University College and the deans of the faculties of Arts, Law, Medicine and Applied Science and Engineering, or, at least, they may be said for the first time to have received statutory recognition.

The non-sectarian character of the University and College is carefully preserved, it being provided, as formerly, that no religious test shall be required of any professor, lecturer, teacher or student, officer or servant of the University or College, nor shall religious observances according to the forms of any particular religious denomination be imposed on them or any of them, but, at the same time, it is provided that regulations touching the moral conduct of the students and the attendance at public worship in their respective churches shall be subject to regulation by the Council of the College.

There is in the present Act a further provision that nothing therein contained shall be considered as interfering with the rights of any federated University or College to make such provision in regard to

religious instruction and worship for its own students as it may deem proper, and to require the same as a part of its own College discipline.

The subjects of instruction in the University are practically unchanged, although they appear under changed nomenclature, *e.g.*, Zoology and Botany of old are now "Biology." Psychology is added to our old friends, Logic and Metaphysics, and Constitutional History is added to Constitutional Law, although it is difficult to understand how one can be instructed in Constitutional Law and be void of instruction in Constitutional History. The only decided change is that Engineering is dropped—this being now and having been for some time past a separate faculty. The faculties of Law and Medicine are continued. University College retains its former subjects of instruction and the Theological options in the subjects of Biblical Greek, Biblical Literature, Christian Ethics, Apologetics, the Evidences of Natural and Revealed Religion and Church History are left intact. The necessity for enrolment of students in University College or affiliated College or federated University is continued, and the provisions for attendance for instruction are not departed from.

The constitution of the Senate is carefully provided for. The *ex-officio* members are as follows: The Minister of Education, the Chancellor, the President of the University, the Principal of University College, the President or other head of each federated University or federated College, the Deans of the faculties of Arts, Law, Medicine, and Applied Science and Engineering, and all ex-Chancellors or Vice-Chancellors of the University. There are important differences in the number and distribution of the elected members. So that we may understand the new Constitution of the Senate as compared with the old, the following schedule is presented:—

APPOINTOR OR ELECTORATE.	Number of Mem- bers appointed or elected under R.S.O. 1897, ch. 298	Number of Mem- bers appointed or elected under the Act of 1901.
University College Council	1	1
Law Society of Upper Canada	1	1
Each Federated University	1	1
Each Federated College	1	2
Each Affiliated College	1	1
University Council	3	.....
Lieut.-Governor-in-Council	9	.....
University Professors and Associates in Arts and Law .....	.....	3
University Professors and Associates in Medicine .....	.....	2
Arts Graduates of University and Federated University	17	.. .
Medical Graduates of University and Federated University	4	4
Law Graduates	2	2
Arts Graduates of University from University College .....	.....	12
Graduates of Victoria in Arts and Science and Art Gradu- ates of University from Victoria College .....	.....	5
Graduates in Applied Science and Engineering .....	.....	1
High School Principals and Assistants	2	2
Graduates of future Federating University .....	.....	} One per cent. of Graduates.

An examination of the schedule will show that there are some changes from the old order of things. The University Medical Professors now appoint two Senators. They had formerly no such privilege. The Crown formerly appointed nine, but now it has lowered its sceptre and makes no appointments. So the autonomy of this child of the Province is more distinctly recognized. There is less paternalism. The child governs itself more fully, and why should it not?

By a careful computation I find that under the former Act there were sixty-one members of the Senate, and by this Act there are sixty-three (if all the affiliated Colleges are represented) in addition to ex-Chancellors and ex-Vice-Chancellors in each case. And, of course, as long as the number of federated Universities or Colleges and affiliated Colleges increases, the Senate enlarges automatically.

It will be remembered that by the former University Act it was provided that graduates of any federating University should for six years vote separately from the graduates of Toronto University and that at the end of the six years they should all then vote in one Convocation. This principle was receded from by the University Statute of 1898 in the case of Victoria, the only federated University, whereby the period of separate voting was extended for six years from the year 1898, and it was provided that at the expiry of that further period her graduates were to vote with the graduates of Toronto University as one Convocation.

By the Act of 1901, it is provided that the graduates of the University of Toronto, enrolled in University College, and the graduates in Arts of any federated University, should always vote as separate bodies, which effectually bars the theory of that complete fusion that the Federation Act in its inception proposed to accomplish. It is a remarkable thing that by the Statute graduates in Medicine of the University and of any federated University vote as one body, and so there is fusion, and a similar rule applies to graduates in Law, but the graduates in Arts must keep on either side of the statutory fence.

The old quorum of five at a meeting of the Senate is now raised to nine. The method of election of the Chancellor and Senators is not essentially different from the former method. I pause simply to note that for the first time it is specially provided that "no voting paper shall be counted which has not been furnished by the Registrar." I do not know whether this has in the past presented any practical difficulty.

The powers of the Senate are put in this Act much more concisely, but I think just as effectually. In section 36 of the former University Act, being Chap. 298, R. S. O. 1897, the powers of examination and conferring degrees are put *in extenso*. They are not so in the present Act. It must, however, be remembered that the Act makes its advent upon the stage of legislation by declaring that the University and College shall have, hold, possess and enjoy all their former rights, powers and privileges, and thus is compacted a dynamic power that saves a great deal of verbiage in the new Act. It may be noted in passing that in the

present Act the power of the Senate to establish and award exhibitions, scholarships and prizes is unlimited. By the former Act (Sec. 52) it was specially provided that "no such scholarships, prizes or rewards shall be paid out of the University funds." There is a peculiar wording in section 33 (2) of the present Act. The Senate has there power to make Statutes for the affiliation of any institution established in the Province "for the promotion of science or art, or for instruction in law, medicine, engineering, agriculture, or other useful branch of learning." By the former Act, section 53 (1) the Senate had power to affiliate an institution "established in the Province for the promotion of *literature*, science or art, or other instruction, etc." Is there any reason why the word "literature" was dropped?

Convocation is enlarged, and now comprehends not only the graduates of the University, but of "all federated Universities." Its powers are much the same as formerly.

The University Council is in its constitution entirely changed. Formerly, it consisted of a President and of the Professors of the University. Now it is composed of the President of the University, the Senior Professor in each department of the several faculties of the University, the Principal of University College, the Principal of each federated University or federated College, and the Librarian of the University. Its powers are to deal with discipline, including the imposition of reasonable fines, the control of the Associations of Students in the University, to decide finally what are University Associations, to determine the time tables, lectures and laboratory work of the University to grant dispensations, to authorize lecturing and teaching by others than the Professors (as they may deem expedient), and to prevent all lecturing and teaching not so authorized. The Registrar of the University shall be Registrar of the Council. Some of its former powers are now possessed by the trustees. The President has extensive powers. It is his duty to arrange with respect to University examinations where no provision has been made by the Senate; to call, of his own motion, or at the request of at least five Professors, meetings of the Professors; to arrange the duties of assistant instructors; to exercise supervision over the buildings, grounds and apparatus; to exercise general executive powers not otherwise provided, and to report annually to the Lieutenant-Governor.

The constitution of the University College Council is much the same as before. Their powers are associated directly with University College, and they have full authority over, and entire responsibility for, the discipline of the undergraduates in regard to lectures and other instruction. The powers of the Principal of University College (who is a new officer) are to call meetings of the Professors, from time to time, with a view to increasing efficiency of the College work, and to arrange the appropriate duties of all assistant instructors, and exercise general supervision over the College instruction, and also to exercise proper discipline over students, officers and servants.

By the closing sections of the Act an opportunity is afforded for the federation of Trinity University if the Senate of that University decide so to do on or before the 1st of January, 1904, and in such event all the sections of the Act relating to the federation of Universities with the University shall apply to Trinity University with some special provisions therein set forth. It is provided that the Trinity graduates in Law and Medicine shall vote with the University graduates in Law and Medicine for Senators as one convocation. Also that undergraduates and graduates of Trinity shall be allowed to proceed to their degrees within six years after federation under Trinity regulations in force when they matriculated. Also that until new buildings are provided University instructors may lecture in Trinity University. It is also provided that a site in or near Queen's Park shall be reserved for new buildings for Trinity, to be occupied free of ground rent so long as federation remains. The trustees of the University are empowered to enter into any other special provisions with Trinity for effecting federation under the Act, such agreement to be assented to by the Senate and approved of by the Crown.

And this is to be effected in a dignified way by a conference between the contracting parties, who, it may be fully assumed, may be trusted to make a bargain. It is true that, although the Board of Trustees only received the breath of life upon the 15th April, 1901, as a corporation they are yet *sui juris*, and, like Minerva, they spring into life fully provided with all necessary mental equipment. This latter observation is generated by the fact that I notice that by an earlier reading of the bill it was provided that any federation contract was to be worked out by a sort of Triumvirate, or Board of Arbitrators, but after further consideration the Triumvirate was quietly inurned. The French say, "Polissez et repolissez," and the Act bears traces of the application of that maxim. This federation arrangement is one of the proofs of it, and, I may be permitted to say, the same principle could have been applied to other parts of the machinery.

I must not forget to call attention to the clause that the Lieutenant-Governor has power by proclamation to change the name from the "University of Toronto" to the "University of Ontario," after a Statute of the Senate has been passed by three-fourths majority at a meeting specially called for the purpose of considering the proposed change.

The Statute of 1901 has a much better arrangement of headings and sections than that of 1897; and, although it bears the trace of emanation by many hands, and is therefore to some extent of mosaic texture and pattern, it yet bears the impress of the methodical and perspicuous arrangement of its first draft. It is a very remarkable circumstance that the Statute of 1897 contained a most extraordinary error in section 11 (3), which provided for the appointment of Senators by the graduates. By it the united representation was increased, and perhaps even doubled, as it provided for the election of one per cent. of the graduates "and in addition thereto seventeen further members." This was not careful

codification, but simply an adding up of the provisions of two different Statutes.

I have thus, at the request of the Editorial Committee of this publication, attempted to present but imperfectly to the graduates, undergraduates and friends of the University the features of the new University Act. As these lines are not intended to be read only by lawyers and law students I trust I may be pardoned for having deflected somewhat from the highway of dry and technical detail and strayed afield, for the alumni are not made up of mere statute-readers and dealers in "afore-saids" and "whereases." I shrink from marching, like Sir Galahad the blameless Knight when on his Quest, always in a "land of sand and thorn." Almost at the lifting of the latch of the gate-way of this twentieth century another page in University history has been opened and a fresh impetus has been given to its efforts and better things are yet in store for us.

" This mournful truth is everywhere confessed,
Slow rises Worth by poverty depressed."

The first point is assured and has always been assured—we have the worth—and if we get our poverty cured, and it is not an incurable disease, a great place is open for us in the Pantheon of great Universities. I do not mean a Pantheon for worship, but a Pantheon for work and for life and for truth.

" God doth anoint thee with his odorous oil
To wrestle, not to reign."

It is the oil of the palæstra we want, not the chrism of a king. It is true that large endowments may bring in large opportunities, but as there is no royal road to learning neither is there a royal road to an emporium of learning. We must have brains first for money to help. We have trained brains, enough and to spare, for tribute has been paid to the scholarship of our University by the fact that our graduates are sought often to fill fellowships, lectureships and professorships in wealthier, but not necessarily richer, Academies. With men as with universities there is some virtue in having the bayonet of necessity at the back when in front we see a public opinion becoming more and more enlightened, and which will be reflected by increased measures of relief in the time not so far hence. Let the pen of every alumnus, alumna and under-graduate become a clarion to call the nation more truly to our help. Our help is the nation's own help, and when the nation is aroused, then the cause of knowledge and of that wisdom that is far better than knowledge is advanced, and our University will take a prouder place in the "far flung battle-line" of great nationalizing and epoch-making forces.

YEAR SCHOLARSHIPS.

To the Editor University of Toronto Monthly :

DEAR SIR,—A good deal is heard nowadays about financial aid to our *Alma Mater*. Under this heading allow me to make a suggestion. Every "year" should organize, choosing the best person available as its permanent secretary, who should, if possible, reside in Toronto. The members should then proceed to raise funds with which to endow a Scholarship in the University. There are many "years" whose members could easily raise \$1,000. which would provide an annual scholarship of \$50. These would be known as the "1875 Scholarship" for instance. If more than \$1,000 could be raised, the scholarship could be made more valuable. These ideas were suggested to me by the lamented death of the late A. W. Ross, M.A., upon whose coffin I was deputed to place a wreath on behalf of his classmates of 1874. This is another feature that would follow from the organization of the "years," and who will say it is not a good one?

Truly yours,

FRED. F. MANLEY, '74.

The Collegiate Institute, Jarvis St., Toronto,
March 30, 1901.

THE JUNE CONVOCATION.

CONVOCATION DAY has been fixed for Friday, June 7th, and at a meeting of the Executive Committee of the Alumni Association held on May 4th it was decided to group the various events occurring at the time of Convocation on the same day, so as to enable members outside of Toronto to attend with the least possible sacrifice of time. It is hoped that a large number of the Alumni and Alumnae of the University will feel it to be both a duty and a pleasure to attend. Reduced railway rates have been secured, and members wishing to avail themselves of this reduction, which is good coming to Toronto from the 4th and returning till the 10th, will buy the regular first-class tickets to Toronto, securing at the same time standard railway certificates, upon presentation of which return tickets will be issued at one-third regular rates, and if sufficient certificates are presented, the return tickets will be issued free.

The following is the programme:—

Annual meeting of the Alumni Association at 10.30 a.m. in the Chemical Building.

Luncheon in the University Dining Hall, 12.30 to 1.30.

Convocation at 2 o'clock in the Gymnasium.

Garden Party given by the Senate to the Alumni and their friends at 4 o'clock in the Quadrangle.

Annual Dinner at 8 o'clock in the Gymnasium.

The Chancellor, Sir William Meredith, will make an important speech on the University question. The Honourable Richard Harcourt and Doctor Louis Frechette, C.M.G., will also speak.

S. J. ROBERTSON, *Acting Secretary*.

THE ALUMNÆ ASSOCIATION OF UNIVERSITY COLLEGE.

ON the afternoon and evening of the 12th of April, the Alumnæ Association of University College held its third annual meeting in the Students' Union Building. The afternoon session was devoted entirely to business. When the minutes of the last annual meeting had been read and confirmed, Miss Lawson, the Historian, read an account of the progress of the Association, and of the work accomplished through its various committees. The increase of members over last year was gratifying; while the death of one, Miss E. A. Durand, was recorded.

The report of the Committee on Occupations caused a great deal of discussion. Miss Street, convener of this Committee, pointed out several difficulties with which she and her colleagues had to contend, and asked for advice as to the best means of making the results of their research of practical value to the members. She also suggested that some sort of bureau might be established, where information could readily be given and received.

Miss Alice Willson, Treasurer, reported a balance after the payment of current expenses and of the English Prose Prize, offered by the Association to the second year.

Miss L. Hamilton reported for the Women's Residence Committee that during the last twelve months the general fund had been increased by \$842.25. Some discussion arose as to the best means of raising money next year.

The annual elections resulted as follows : *President*, Miss E. Curzon, '89; *Vice-President*, Miss Julia Hillock, '92; *2nd Vice-President*, Miss Laura Jones, '91; *Treasurer*, Miss Grace Hunter, '98; *Recording Secretary*, Miss H. Charles, '88; *Corresponding Secretary*, Miss Grant-MacDonald, '98; *Historian*, Miss E. M. Lawson, '94.

The evening session took the form of a social gathering. A couple of papers were read. The first, by Miss Fleming, dealing with "Domestic Science," interested all.

After refreshments had been served, Miss E. Curzon gave a sketch of the "Origin and Growth of College Settlements." The meeting then adjourned till next Easter.

MISS E. M. LAWSON,
Historian A. A. U. C.

TORONTONENSIA.

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NEWS FROM THE CLASSES.

The personal news is compiled from information
furnished by the Secretary of the University of Toronto
Alumni Association, and by the Secretaries of local
organizations, and from other reliable sources. The
value of this department might be greatly enhanced
if University of Toronto men everywhere would con-
tribute to it. The correction of any errors will be
gratefully received by the Secretary of the Alumni
Association.

1848.

Deceased.—John Boulton. — John
Boyd.—William Craigie.—J. G. Geddes.
—T. A. Hudspeth.—J. B. Hurl-
burt.—T. W. Marsh.—D. McMichael.
—E. F. Ryerson.—John Shaw.

Alexander Dixon is an Anglican clergyman
in Guelph, Ont.—J. W. Marsh is a bar-
rister in London, Ont.—A. Wickson is an
Anglican clergyman in London, Eng.

Address Unknown.—R. G. Westropp.

1858.

Deceased.—R. B. Bernard.—S. H. Gray-
don.—G. S. J. Hill.—William Milroy.

—Thomas Moss.—Thomas McNaughton. W. J. Ratray. — F. B. Tisdell.

Hon. S. H. Blake is a barrister in Toronto.—G. W. Des Voeux is in London, Eng.—H. C. Jones is a barrister in Toronto.—C. D. Paul is Secretary of the Orange Heights Land Co., New York, N.Y., U.S.A.

Addresses Unknown.—E. D. Montgomery.—W. A. Watts.

1868.

Deceased—John Edgar Croly, James Morrison Dunn, William MacDonald, William Hector Rennelson, Edward Samuel Stevenson.

E. M. Bigg is a teacher at Vienna, Ont.—George Bruce is a Presbyterian clergyman in Toronto.—Robert Cameron is in Denver, Col., U.S.A.—Allan Cassels is a barrister in Toronto.—R. H. De La Matter is a physician in Attercliffe, Ont.—H. M. Deroche is a barrister in Napanee.—J. Galbraith is Principal of the School of Practical Science, Toronto.—G. S. Goodwillie is a barrister in Georgetown, Ont.—T. M. Grover is in Norwood, Ont.—Alexander Hamilton is a physician in Toronto.—Charles Millar is a barrister in Toronto.—Andrew Murdock is a Baptist clergyman in Waterford, Ont.—E. T. Paul is in Chicago, Ill., U.S.A.—J. Pepper is a Methodist clergyman at Palgrave, Ont.—F. A. Reesor is manager of the Standard Bank, Markham, Ont.

Addresses Unknown.—Alexander Malcolm.—Lewis Pyper.—William John Reid.

1889.

Deceased.—C. B. Carveth, B.A.—John R. Sinclair, B.A.—L. B. Stephenson, B.A.—A. Stevenson, B.A.

Thomas Beath, B.A., is a physician in Winnipeg, Man.—R. R. Bensley, B.A., is Demonstrator of Chemistry in the University of Toronto.—G. C. Biggar, B.A., is a barrister, 46 King St. W., Toronto.—J. R. Blake, B.A., is a barrister in Galt, Ont.—J. G. Brown, B.A., is a clergyman in Orangeville, Ont.—D. M. Buchanan, B.A., is a clergyman in Lanark, Ont.—A. Carrick, B.A., is a clergyman in Holdrege, Neb., U.S.A.—K. B. Castle, B.A., is living in Rochester, N.Y., U.S.A.—H. V. Cawthra, B.A., is a barrister in Toronto.—Adelaide H. R. Clayton, B.A., is a teacher in St. Mary's, Ont.—C. S. Coatsworth, B.A., is at 49 Bryan Block, Chicago, Ill.—H. J. Cody, B.A., is an Anglican

clergyman in Toronto and a professor in Wycliffe College.—F. C. Cooke, B.A., is a barrister in Toronto.—J. S. Copland, B.A., is in Brockville, Ont.—I. Corbett, B.A., is in Brantford, Ont.—W. W. Craw, B.A., is a clergyman in Thorndale, Ont.—W. Cross, B.A., is a barrister in Madoc, Ont.—Edith M. Curzon, B.A., is an analyst in School of Practical Science, Toronto.—T. C. Des Barres, B.A., is an Anglican clergyman, 117 Bloor St. East, Toronto.—J. A. Donald, B.A., is in St. Mary's, Ont.—E. W. Drew, B.A., is in Oshawa, Ont.—J. N. Elliott, B.A., is a clergyman in Chicago.—W. J. Fenton, B.A., is a teacher in Brampton, Ont.—W. C. Ferguson, B.A., is a teacher in London, Ont.—C. Forfar, B.A., is a teacher in Harbord Street Collegiate Institute, Toronto.—G. A. H. Fraser, B.A., is a barrister in Denver, Col., U.S.A.—F. W. French, B.A., is a teacher in the University of Chicago.—J. W. Henderson, B.A., is in New York.—H. F. Gadsby, B.A., is a journalist on the staff of the *Star*, Toronto, 5 Peter St., Toronto.—W. Gauld, B.A., is a missionary in Tamsui, Formosa.—R. J. Gibson, B.A., is a barrister in Toronto.—J. Gill, B.A., is a teacher in Hamilton, Ont.—J. A. C. Grant, B.A., is a physician in Gravenhurst, Ont.—W. H. Grant, B.A., is a missionary in Honan, China.—W. H. Harvey, B.A., is a clergyman in Fergus, Ont.—D. Hull, B.A., is a teacher in a High School, Milwaukee, U.S.A.—A. F. Hunter, B.A., is in Barrie, Ont.—J. Hutchison, B.A., is in Fordwich, Ont.—J. S. Johnston, B.A., 571 Jarvis St., Toronto.—R. H. Johnston, B.A., is in Washington, D.C.—C. S. Kerr, B.A., is a teacher in Woodstock, Ont.—B. Kilbourne, B.A., is a physician in S. Milwaukee, Wis.—J. F. Messmore, B.A., is a teacher in Windsor, Ont.—J. H. Moss, B.A., is a barrister in Toronto.—Nellie Mott, B.A. (Mrs. R. W. Shaw), is in London, Ont.—J. A. Mustard, B.A., is a clergyman in Kent Bridge, Ont.—John McCallum, B.A., is a farmer in Annbree, Ont.—W. McCann, B.A., is in Omeme, Ont.—S. H. McCoy, B.A., is a physician in St. Catharines, Ont.—D. McKay, B.A., is a teacher in Alexandria, Ont.—N. S. McKechnie, B.A., is a teacher in Woodstock, Ont.—John McNair, B.A., is a clergyman in Oakville, Ont.—F. R. McNamara, B.A., is in Toronto.—J. McNichol, B.A., is a teacher in Hagersville, Ont.—M. J. O'Connor, B.A., is in Ottawa.—H. S. Robertson, B.A., is a teacher in Stratford, Ont.—Madge R. Robertson, B.A. (Mrs. Watt), is living in Victoria, B.C.—Jessie H. Robson, B.A. (Mrs. F. W. Galbraith), is living in

Guelph, Ont.—J. H. Rodd, B.A., is a barrister in Windsor, Ont.—R. W. Ross, B.A., is a clergyman in Guelph, Ont.—E. G. Rykert, B.A., is a barrister in Montreal.—J. H. Senkler, B.A., is a barrister in Vancouver, B.C.—John G. Shearer, B.A., is a clergyman in Victoria, B.C.—H. W. C. Shore, B.A., is a barrister in Toronto.—Alex. Smith, B.A., is secretary of the Liberal Association of Ontario, 242 Simcoe Street, Toronto.—J. F. Snetsinger, B.A., is a reporter in Toronto.—F. C. Snider, B.A., is a barrister in Toronto.—J. D. M. Spence, B.A., is a barrister in Grand Forks, B.C.—W. H. B. Spotton, B.A., is a barrister in Wiaraton, Ont.—Etta M. Stewart, B.A., is living in Aylmer, Ont.—J. R. Stone, B.A., is a physician in Parry Sound, Ont.—J. D. B. Swanson, B.A., is in Kamloops, B.C.—W. B. Taylor, B.A., is a barrister in Toronto.—F. Tracy, B.A., is a Lecturer in the University of Toronto.

Addresses Unknown.—W. McC. Allen, B.A.—J. K. Arnott, B.A.—F. W. McConnell, B.A.—T. R. E. McInnes, B.A.—W. W. B. McInnes, B.A.

1892.

Deceased.—J. A. McMurchy.—G. L. Tucker.

W. L. T. Addison is a physician at Byng Inlet, Ont.—Miss M. Annis is a teacher at Markham, Ont.—R. K. Barker is inspector in the Imperial Life Insurance Co., Toronto.—F. H. Bell is a teacher in Windsor, Ont.—C. J. R. Bethune is a barrister in Ottawa, Ont.—J. H. M. Borland is a clergyman in Banks, Ont.—F. C. Brown is a journalist in Toronto.—W. H. Bunting is editor of the *Mail and Empire*, Toronto.—J. Burnett is a Presbyterian clergyman at Rosseau, Ont.—A. W. Cameron is a teacher in Streetsville, Ont.—J. C. Cameron is a Presbyterian clergyman at Moosejaw, N.W.T.—J. S. Carstairs is a teacher in the Harbord Street Collegiate Institute, Toronto.—A. D. Chambers is a professor at Ashburn, Mo., U.S.A.—Miss J. Climie is a teacher in Los Angeles, Cal., U.S.A.—W. Clutton is a professor at Ann Arbor, Mich., U.S.A.—T. Coleman is a physician at Copper Cliff, Ont.—A. E. Coombs is a teacher at Newmarket, Ont.—J. A. Cooper is editor of the *Canadian Magazine*, Toronto.—W. Cowie is a physician in Montreal, Que.—F. D. Davis is a barrister in Windsor, Ont.—R. K. Duncan is a teacher in Pottstown, Pa., U.S.A.—O. P. Edgar is a professor in Victoria University, Toronto.—G. Elliott is in Mofewood, Ont.—J. L. Garvin is a teacher in West Lorne, Ont.—J. W. Garvin is an insurance agent in Peter-

borough, Ont.—W. M. Govenlock is a teacher in London, Ont.—J. W. Graham is a Methodist clergyman in East Toronto. Mrs. W. Pakenham (Miss L. L. Green) is in Toronto.—Mrs. W. R. Sills (Miss Z. U. B. Hare) is in Kingston, Ont.—E. J. Haughton is an Anglican clergyman in Pottsville, Pa., U.S.A.—Miss J. S. Hillock is a teacher in the Jameson Avenue Collegiate Institute, Toronto.—R. E. Hooper is a physician in Toronto.—G. F. Hull is a professor at Dartmouth College, N.H., U.S.A.—W. C. Hume is a commercial traveller in Muskegon, Mich., U.S.A.—E. E. Ingall is a teacher in Trenton, Ont.—F. A. Kerns is a barrister in Burlington, Ont.—R. H. Knox is a barrister in Toronto.—A. L. Laferty is a barrister in Windsor, Ont.—J. H. Lamont is a barrister in Prince Albert, N.W.T.—A. Lea is a clergyman in Japan.—G. C. Little is a Presbyterian clergyman in Corbetton, Ont.—F. A. Magee is a barrister in Ottawa, Ont.—Mrs. J. T. Luton (Miss H. L. Martin) is a teacher in Belleville, Ont.—B. W. Merrill is a Baptist clergyman in Guelph, Ont.—E. B. Merrill is taking post-graduate work at the University of Toronto.—Miss J. J. Mitchell is in Toronto.—A. Mullin is a Presbyterian clergyman in Toronto.—J. M. Murray is in the Bank of Commerce, Toronto.—T. Murray is a teacher in Owen Sound.—H. W. McClive is a barrister in St. Catharines, Ont.—D. P. McColl is a commercial traveler in Calgary, N.W.T.—G. E. McCraney is a barrister in Milton, Ont.—G. L. McDonald is a teacher in Ingersoll, Ont.—W. McDonald is a physician in Annan, Ont.—L. J. A. Macdonell is a barrister in Aguas Calientes, Mexico.—J. F. MacGillivray is a barrister at Rat Portage, Ont.—J. W. McIntosh is a physician in Manitowaning, Ont.—E. W. MacKay is a Presbyterian clergyman in Madoc, Ont.—J. G. Mackay is in Toronto.—Miss M. A. MacKenzie is at the General Hospital Training School, Boston, Mass., U.S.A.—A. E. McLaughlin is a barrister in Bowmanville, Ont.—J. A. McLean is President of the University of Idaho, Moscow, Idaho, U.S.A.—J. C. McLennan is Demonstrator of Physics in the University of Toronto.—W. McQueen is a barrister in Rossland, B.C.—W. O. McTaggart is a teachers' agent in Toronto.—R. F. Nie is an Anglican clergyman in Rapid City, Man.—J. W. Odell is a teacher in Cobourg, Ont.—W. Pakenham is in the Education Department, Toronto.—W. A. Parks is Instructor in Mineralogy and Geology in the University of Toronto.—J. C. Payne is a teacher in Dutton, Ont.—F. E. Perrin is a barrister in London, Ont.—T. Preston is a teacher in Forest, Ont.—J.

H. Ratz is a physician in New Dundee, Ont. —Mrs. W. P. Firth (Miss E. Rogers) is in Pickering, Ont. —A. S. Ross is a Presbyterian clergyman in Bearbrook, Ont. —Miss C. Ross is a teacher in Toronto. —Mrs. C. F. Hamilton (Miss C. A. Ross) is in Toronto. —D. C. Ross is a barrister in Strathroy, Ont. —A. H. Royce is a barrister in Toronto. —A. F. Rykert is a physician in Greensville, Ont. —W. J. Shaw is in Toronto. —A. Shiel is an electrician in Pittsburg, Pa., U.S.A. —F. W. Shipley is a professor in the Lewis Institute, Chicago, Ill., U.S.A. —V. A. Sinclair is a barrister in Tilsenburgh, Ont. —J. E. Skeele is a teacher in Cayuga, Ont. —F. J. Smale is analyst in the Wm. Davies Packing Co., Toronto. —T. E. A. Stanley is a teacher in Iroquois, Ont. —W. Taylor is a teacher in Chatham, Ont. —J. H. Tennant is a barrister in Toronto. —D. Thomson is fellow in the University of Chicago, Chicago, Ill., U.S.A. —J. Vining is a barrister in London, Ont. —H. I. Wales is in Aylmer, Ont. —T. A. Watson is a Presbyterian clergyman in Thamesford, Ont. —J. W. Wheaton is a journalist in Toronto. —H. E. Wilson is a teacher in Guelph, Ont. —S. C. Wood is a barrister in Toronto.

Addresses Unknown.—D. C. Brown.—J. C. Clarkc.—G. Gerrie.—E. Hamilton.—G. R. N. Head.—H. A. Howell.—R. M. Huston.—T. E. Reid.

1897.

Deceased.—Chapman Brown — William Shotwell — Robert R. Wilson.

W. J. Abbott is a medical student in Toronto. —J. W. Baird is at the University of Cornell, Ithaca, U.S.A. —G. S. Bale is in Hamilton. —Miss M. Bapty is a teacher at Havergal Hall, Toronto. —F. H. Barron is a Presbyterian clergyman in Baltimore, Md., U.S.A. —G. J. Blewett is in Oxford, England. —H. Boultsbee is a journalist in Toronto. —A. E. Boyle is a journalist on the *Globe*, Toronto. —R. R. Bradley is a law student in Toronto. —G. Bray is a barrister in Listowel, Ont. —Miss Jessie P. Brown is at the University of Pennsylvania, Philadelphia, Pa., U.S.A. —R. A. Brunt is a teacher in Oakville. —G. E. Buchanan is a law student in Toronto. —T. A. Burgess is in Ottawa, Ont. —W. T. Burns is a physician in Toronto. —H. D. Cameron is a Presbyterian clergyman in Allandale, Ont. —Miss M. C. E. Cameron is teacher of Spanish in the Lewis Institute, Chicago, Ill., U.S.A. —C. A. Campbell is a physician in Toronto. —J. J. Carrick is at Sault Ste. Marie, Ont. —M. N. Clark is at Meaford, Ont. —C. H. Clegg is a barrister

in Nome, Alaska. —G. F. Colling is a teacher in Caledonia, Ont. —C. G. Corneille is a Methodist clergyman in Toronto. —J. L. Counsell is a barrister in Hamilton, Ont. —Miss M. E. Craig is a teacher in Hamilton, Ont. —W. D. Craig is in Midland, Ont. —C. D. Creighton is in Toronto. —C. J. Currie is a teacher in Toronto. —J. W. Davidson is at Union, Ont. —W. M. Dickson is in St. Mary's, Ont. —E. C. Dingman is in the Civil Service at Ottawa. —W. J. Dobbie is a teacher in Guelph, Ont. —Miss M. O. Eastwood is in Whitby, Ont. —W. W. Edgar is in the parliamentary library, Ottawa, Ont. —H. M. E. Evans is a journalist in Winnipeg, Man. —H. W. Foley is a Methodist clergyman in Malone, Ont. —Miss F. E. Forbes is in France. —J. W. Fraser is in Embro, Ont. —B. French is a teacher in Cayuga, Ont. —A. M. Fulton is in Chesterville, Ont. —J. E. Gardner is a Methodist clergyman at Honeywood, Ont. —T. Gibson is in Ingersoll, Ont. —H. S. Gilbert is a physician in Picton, Ont. —W. E. Gilroy is a clergyman in Toronto. —Mrs. W. Shotwell (Miss F. S. Glashan) is in Ottawa. —F. W. Goodeve is at Horvng's Mills, Ont. —G. W. Goodwin is at Sault Ste. Marie, Ont. —G. W. Graham is in Toronto. —W. H. Greenwood is a journalist on the *World*, Toronto. —J. H. Hancock is in Arthur, Ont. —Miss M. Harvey is in Wyoming, Ont. —A. W. Hendrick is a teacher in Picton, Ont. —A. C. Hendrick is a physician in Frankfort, Ont. —Miss M. Hills is in London, Ont. —C. W. Holdsworth is in Lucille, Ont. —A. H. Hore is a Methodist clergyman in Valencia, Ont. —G. W. Howland is a physician in Toronto. —Mrs. A. M. Scott (Miss E. B. Howson) is in Fredericton, N.B. —Miss B. M. Hunt is a teacher in Vancouver, B.C. —J. S. Hunt is in Detroit, Mich., U.S.A. —A. J. Husband is a teacher in Brockville, Ont. —J. A. Jackson is in Toronto. —F. J. Johnston is a teacher in Richmond Hill, Ont. —R. O. Jolliffe is a teacher in Picton, Ont. —H. L. Jordan is a law student in Toronto. —G. W. Keith is a teacher in Mount Forest, Ont. —C. M. Keys is a teacher in Bishop Ridley Collego, St. Catharines, Ont. —R. N. Kyles is in Camilla, Ont. —Miss A. J. Langrill is a teacher in Orillia, Ont. —H. M. Little is at McGill University, Montreal, Quc. —Mrs. E. A. Sanford (Miss N. E. Livingstone) is in Toronto. —J. T. Luton is a teacher in Belleville, Ont. —J. S. Martin is a teacher in Port Dover, Ont. —F. G. Millar is a teacher in Williams-town, Ont. —Miss H. B. Mills is a teacher in Toronto. —V. G. Mollins is in Burgessville, Ont. —C. P. Muckle is a

teacher in Lindsay, Ont.—W. N. Munro is a law student in Toronto.—J. A. McCollum is in Grand Forks, B.C.—James McCrea is a Presbyterian clergyman in Minto, Man.—S. B. McCready is a teacher in London, Ont.—F. C. Macdonald is at Bendale, Ont.—A. D. McIntyre is a teacher in Tilsonburg, Ont.—W. A. McKinnon is a law student in Toronto.—W. A. McLaren is in Toronto.—F. O. McMahon is in Toronto.—Miss E. R. McMichael is in Toronto.—A. E. McNab is a barrister in Walkerton, Ont.—Miss E. J. McPhail is in Campbellville, Ont.—Mrs. J. R. L. Starr (Miss L. F. C. Nelles) is in Toronto.—Miss B. H. Nichols is a teacher in Harriston, Ont.—J. M. Nicol is a clergyman in Wallaceburg, Ont.—L. Norman is a teacher in Ingersoll, Ont.—J. L. O'Flynn is a barrister at Sault Ste. Marie, Ont.—P. W. O'Flynn is a barrister in Madoc, Ont.—R. B. Page is a teacher in Toronto Junction, Ont.—J. L. R. Parsons is in Toronto.—G. F. Pool is in Dundas, Ont.—T. W. Pool is a clergyman in Dundas, Ont.—C. E. Race is a teacher in Cobourg, Ont.—Miss A. T. Reed is in Toronto.—J. C. Reid is a Methodist clergyman in Merlin, Ont.—R. J. Richardson is at Varna, Ont.—P. J. Robinsou is a teacher in St. Andrew's College, Toronto.—T. W. Ruddell is a Methodist clergyman in Dufferin, Ont.—B. K. Sandwell is a journalist on the *Morning Post* Hamilton, Ont.—Miss E. E. Scott is in Brampton, Ont.—F. H. Scott is in Toronto.—W. B. Scott is in Toronto.—G. C. Sellery is at the University of Chicago, Ill., U.S.A.—F. S. Selwood is a teacher in Napanee, Ont.—Mrs. Gray (Miss F. L. Sheridan) is in Toronto.—Miss L. Sherwood is in Napanee, Ont.—W. C. Shier is a teacher in Midland, Ont.—Miss M. Sinclair is a teacher at Erin, Ont.—R. E. Spence is a Methodist clergyman at Wascana, N.W.T.—J. S. Stevenson is a Methodist clergyman at Severn Bridge, Ont.—W. K. Stewart is a teacher in Dartmouth College, Hanover, N.H., U.S.A.—L. H. Tasker is principal of the high school at Almonte, Ont.—J. T. Taylor is a Presbyterian missionary at Nee Much, India.—Miss A. E. Tennant is a teacher at Forest, Ont.—J. H. Trout is in Toronto.—A. B. Watt is a journalist in Woodstock, Ont.—F. W. O. Werry is in the Interior Department, Ottawa, Ont.—R. Wightman is a teacher in St. Mary's, Ont.—J. S. Will is a teacher in the Manitoba College, Winnipeg, Man.—A. C. Wishart is a Presbyterian clergyman at Beaverton, Ont.—W. S. Wright is a Presbyterian clergyman at Merrittin, Ont.—F. A. Young is a physician at Michipicoten Harbor, Ont.

Addresses Unknown.—H. B. Bruce—J. H. Bruce—R. A. Cranston—T. Elliott—L. H. Graham—T. C. Hood—A. M. Maxwell—D. Mc Kerchar—L. J. O'Brien—H. J. Pritchard—J. N. Robertson—J. J. W. Taylor—J. E. Wallbridge—S. C. Webster—E. Wilson—R. C. Wilson—W. D. Young—G. F. Zimmerman.

PERSONALS.

Every alumnus of the University of Toronto is invited to send to the Editor items of interest for insertion in this department. News of a personal nature about any alumnus will be gladly received.

A. D. Passmore, B.A. '84, is now living in Winnipeg.

F. G. Millar, B.A. '97, is teaching in Williamstown, Ont.

Robt. King, B.A. '86, M.D. (Trin.) '93, is a physician in Newboro, Ont.

E. W. Grange, B.A. '99, is a journalist in Toronto and is on the staff of the *News*.

J. W. Baird, B.A. '97, has received an appointment at the University of Cornell, Ithaca.

W. McBride, B.A. '79, is manager of the North American Life Insurance Company, Winnipeg, Man.

Professor J. J. Mackenzie, University of Toronto Medical Faculty, has gone to Europe for the vacation.

Rev. T. F. Fotheringham, B.A. '71, M.A. '72, has received the degree of D.D. from the Presbyterian College, Halifax, N.S.

M. A. Shaw, B.A. '96, M.A., has gone to the University of Wisconsin, Madison, Wis., to accept a fellowship in Psychology.

Albert W. Ryan, M.A. (Vic.) '91, LL.B. '85, has been rector of St. Paul's Church, Duluth, Minn., for the past seven and one-half years.

Professor Lang, Director of the Chemical Department, University of Toronto, sailed for Europe on May 11th, where he will spend the summer.

E. M. Bigg, B.A. 68, M.A. '70, who has been principal of a high school in Minnesota for some years, has returned to Canada and is teaching in Vienna, Ont.

We learn that J. Lockridge, M.B. '90, who was practising in the Western States after graduation, died there suddenly some time ago and was buried at Tamworth, Ont.

M. F. Libby, B.A. '90 (Vic.), formerly English Master in the Jameson Avenue Collegiate Institute, Toronto, has been appoint-

ed Professor of Philosophy in the University of Colorado, Boulder, Col.

J. O. Smillie and G. E. McCartney, members of the graduating class in the University of Toronto Medical Faculty, have by competitive examination received appointments in the City Hospital, New York.

W. J. Moran, B.A. '91, LL.B. '92, who has been practising law in Rat Portage, Ont., since 1896, has been appointed Sheriff, District Crown Attorney and Clerk of the Peace for the District of Rainy River, Ontario.

Miss Susie Little, B.A. '99, has just returned from a six months' tour among the colleges in the Eastern Provinces of Canada in connection with Y. W. C. A. work. She visited in all thirty colleges. She has been appointed travelling secretary for next year.

The following members of the corps of engineers recently formed in connection with the University of Toronto are at present taking the course at Stanley Barracks, Toronto: Sappers, Evans, Burwash, Gzowski, Cumming, Robertson, Elwell, Steel and Post.

J. G. Little, B.A. '84, Ridgetown, Ont., writes that he has not given up teaching owing to ill health, as we stated in last issue, but is on leave of absence, and will resume his work in the Collegiate Institute in September.

W. H. P. Clement, B.A. '78, LL.B. '81, barrister, who left Toronto in 1898 to act as law officer of the Crown in the Yukon and who lately returned from the Territory, has begun the practice of his profession in Grand Forks, B.C., in partnership with J. D. Spence, B.A. '89.

G. W. Umphrey, B.A. '99, has been in attendance at Harvard University since November last. Shortly after entering he was successful in his examination for the A.B. degree, having secured class "A" in all the subjects of his course. He intends writing for the A.M. degree this spring, and is making a speciality of the Romance languages.

H. R. Fairclough, B.A. '83, M.A. '85, Ph.D. (Johns Hopkins), Professor of Classical Literature in the Leland Stanford Junior University, has published from the press of Allyn & Bacon, Boston, "P. Terenti Afri Andria." It consists of Introduction, Latin text, with stage directions, Notes, and Criti-

cal Appendix. The Introduction gives a history of Roman Comedy with its Greek antecedents, and treats of dramatic criticism, the Roman theatre and Terentian prosody. Of this part of the work Prof. Charles E. Bennett, of Cornell University, writes, "admirably conceived, and finely put. Clearly the best thing of the sort I know."

During the month of June six graduates of the University of Toronto who have completed their theological course at Wycliffe College will be ordained to the ministry of the Church of England in Canada, viz., A. F. Barr, B.A. '96, by the Lord Bishop of Toronto, to be curate at All Saints' Church, Toronto; R. A. Armstrong, B.A., by the Lord Bishop of Huron, to be in charge of the Church in Waterloo, Ont.; T. H. Cotton, B.A., and W. F. Rushbrook, B.A., by the Lord Bishop of Niagara, to the churches in Nanticoke and Erin, Ont., respectively; R. B. Patterson, B.A., by the Lord Bishop of Toronto, to be curate in St. Paul's Church, Toronto; and T. W. Savary, B.A., by the Lord Bishop of Kingston, to be curate in St. James' Church, Kingston. The last five are all members of the class of '00.

We have received a letter from Professor Lefroy explaining the steps which are being taken by the Australian universities to secure local Australian examinations for the British Civil Service, and urging that the University of Toronto should also move in the matter. There is now a single examination of a very high standard, by the results of which the members of the Indian Civil Service and the holders of the eastern cadetships are appointed by competition. Certain higher posts in the Foreign Office and the Colonial Office are filled by the same examination. This examination is held in London in August of each year. The fact that the candidates are obliged to write in London of course shuts out almost all colonial competition. A petition from all the universities in Australia and the University of New Zealand has been sent in to the Hon. Joseph Chamberlain, Secretary of State for the Colonies, asking for the establishment of local examinations.

DECEASED.

John Wanless, M.B. '61, M.D. '62, 594 Huron Street, Toronto, died last month.

Thomas Henry Little, M.B. '88, M.D. (Vic.) '88, 113 Spadina Avenue, Toronto, died April 25th in Toronto.

THE UNIVERSITY OF TORONTO MONTHLY

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THE UNIVERSITY AND STATE AID.*

BY SIR WILLIAM RALPH MEREDITH.

Chancellor of the University.

SIR WILLIAM MEREDITH, who replied to the toast of *Alma Mater*, was received with loud applause when he rose to reply. After a graceful reference to Dr. Fréchette's speech and a remark that he would avail himself of the opportunity to lay before the public the affairs of the University during the past year. He hoped ere long that by private munificence, if the State failed in its duty, they would have a hall which would be a proper place to make such statements.

"Perhaps it may not be unfitting, sir, that I should first deal with the medical faculty, of which you are the distinguished Dean. The course of that faculty during the past year has been one of continued progress. Three years ago the number of those who entered was 61, now it has reached 124. The number of students enrolled three years ago was 230, the number to-day is 340, besides 55 occasional students. So far as the attendance upon the instruction given in that faculty is concerned, there is the most gratifying evidence of the confidence that is felt in it. The department of pathology has during the past year had put at its head a gentleman who, I am sure, will bring to the discharge of his duties the highest efficiency, and will reflect credit upon the department and upon the faculty. I refer to Professor J. J. McKenzie.

* Speech at the second annual dinner of the University of Toronto Alumni Association.

One of the faculty (Professor Irving Cameron) had received the high tribute of an honorary fellowship in the Royal College of Surgeons; two graduates have received fellowships in the anatomical section of Cornell University, and another graduate had won the colonial scholarship at the University of Liverpool. It was not generally known to the public that this branch of University education was self-sustaining, but such was the case. The progress which the faculty has made renders it necessary that there shall be a much larger building provided for its accommodation, and I hope that arrangements will soon be entered into by means of which, when the School of Practical Science addition is built upon College Street, we shall have a handsome new building, well equipped for our medical faculty.

“The next to which I would devote a word or two is the youngest of our faculties—the School of Practical Science, or, as it is now called, the Faculty of Applied Science. It was felt that the University suffered, and the School of Practical Science suffered, by there being no connection between the two bodies, and therefore during the past year a statute was passed, the effect of which was to constitute the School of Practical Science, while autonomous, yet a faculty of the University. The number of students for the session just closed was 230, and I have the testimony of the distinguished Principal for the statement that no one who has gone out of that institution has failed to obtain remunerative employment in the particular department in which he graduated, and some of the gentlemen who have gone out are in possession of lucrative and important appointments. So great has been the pressure upon the present building that the students are crowded in the passages and elsewhere. The Principal has been calling the attention of the Government to this from time to time, and at last it was determined during the last session that there should be provided an addition to the present School of Practical Science, which will also provide for two departments of the University, at an expenditure of \$200,000.

“I do hope, now that the Government has determined to deal with this branch of scientific instruction, that it will rise to the occasion and not be penny-wise and pound-foolish. In these days instruction in science is essential to the growth of the nation, and if we intend to keep our place and not to fall back in the race we are bound to expend whatever is necessary for the purpose of equipping in the best up-to-date manner this faculty of Applied Science in connection with the University. I do hope, therefore, that everyone who has influence with the Government and with the members of the Legislature will press upon them the great importance of the step they are taking, and the need for dealing liberally, and in a broad, statesmanlike manner, with this question.

“I trust that our friends of Victoria University will not feel that I am passing out of my proper sphere in referring to the progress which is going on there. They have, during the past few months, availing themselves of the munificent gift of a deceased citizen, acquired a large portion of the University property lying immediately north of the

premises which they now occupy, upon which is shortly to be erected a residence for the women students of that University. I hope that it may be a great success, and that it may stimulate those who are connected with the University of Toronto and University College to see that the women students of University College are provided with similar means of being housed and boarded while they are in Toronto. The Government and Legislature of this Province deliberately adopted the policy of co-education, and I think it is a cruel thing, when they are inviting these young women who come here, who divide, if they do not succeed in doing more, the honours with the young men, if they do not provide means that they may be properly housed and cared for while in attendance here. I do not mean at the expense of the University and College, but for a reasonable charge for the service done.

“The residence for men, I am afraid, is a thing of the past. I am sorry to say it, but I fear, from my experience in the Legislature, that there is no hope that that body will ever consent to the expenditure of public moneys in the erection of a residence for men. There are not the same reasons for a residence for men as there are for a residence for women, and there is springing up here a number of societies—these Greek letter societies, which, I think, in a measure, at least, take the place of the residence feature of the University. I know that in some quarters there is a prejudice against these societies. I venture to think that that prejudice is unfounded, and, as far as my experience has gone, and I have had some knowledge, although I have not been able to enter within the arcana of these bodies, I venture to think that the influence of them is distinctly good. The Legislature during the last session made provision by which a portion of the University lands can be set apart for these bodies, and money can be loaned them for the purpose of erecting buildings upon the land, and I trust that when the trustees have to deal with the matter they will deal with it in a broad, liberal spirit.

“In the Act of last session provision was made for federation with Trinity University. Efforts have been made in the direction of that federation, and I may say to the gentlemen who are connected with Trinity that there is the best of feeling on the part of those connected with the University of Toronto to meet them in a broad and liberal spirit, and I trust that possibly before we meet again next year—as I hope we may have the pleasure of meeting—arrangements may have been perfected by which Trinity shall have been admitted into confederation in the same position as Victoria University.”

The Chancellor then referred to the financial condition of the University and of University College, saying:—

“I am one of those who agree with Mr. Willison that the Legislature missed a great opportunity in not making fuller and more ample provision for the University and University College than was done at the last session. A deputation, which, I am bound to say, aided very considerably in obtaining the measure of relief that was granted, went up from the Alumni Association. To that deputation

certain statements were made by the Prime Minister of this Province. He told them that the people were not informed upon the question, and asked them to assist in educating the people up to consent to comply with the legitimate demands which he admitted the Alumni were making upon the Province. I think the necessity for education was a little higher up, if I may be permitted to say so. I feel that the great body of the people of this Province would have been prepared to endorse, as they have endorsed the partial measure, a full and complete measure, which would put our University and College upon a sound, stable and permanent footing, and provide not only for the present, but for expansion and for the future. The people of this country, especially if you are not going to take it out of their pockets directly, are liberal, and they would, as I say, I am quite satisfied, have assented to the broader proposition."

Referring to an observation by the Premier on the subject of research work and the necessity of providing for post-graduate work, which seemed to indicate that he would be very glad to see Canadian graduates going to the University of Harvard and others, Sir William said: "I beg most respectfully, but firmly, to dissent from that position. A man owes to a community in which he lives some duties; just as a man owes to the community a duty, so the Province or nation in the community of nations owes its duty to the other nations, and one of the duties which it owes, in my judgment, is that it shall assist in promoting the intellectual, the moral, the scientific and the material advancement of the human race; and I should be ashamed of the Province of Ontario if it is to lag behind in doing its part in this great work. We boast, sir, and rightly boast, of the magnificent heritage that the people of Ontario possess, the millions of acres of land, the millions of acres under which there are the yet undeveloped mines; and I again repeat that it would be a crying shame if the people of this Province were content to say, 'We will do nothing to discharge our duty towards the promotion of the advancement of the human race, but we will take advantage merely of what our neighbours are doing.'

Proceeding, Sir William said:—

"There is another fundamental point involved in this question, to which I think I ought to refer. I took occasion at the last banquet of this Association to speak of this country as being one of the most democratic countries in the world. I believe it has the freest, the broadest democracy under the sun. We have now given the vote to every man, and I think it follows that it is our bounden duty, if we desire to preserve the country, that our democracy shall be an educated democracy. For there is no greater peril to the civilization of these days than the placing of power in the hands of an uneducated democracy." The Chancellor spoke upon this point for a moment, and went on:—

"In some quarters claims have been made for assistance from the State, sometimes *pari passu* with the University of Toronto, and some-

times even in priority to the claims of the University. I think we ought in this Province to be prepared to take a determined stand upon that question. It seems to me the rankest folly to tell men who are pointing out the condition of the State University and its needs if it is to keep pace with the advance of other universities. 'We have not money enough;' and then in the next breath say, 'We will assist a neighbouring institution, however deserving it may be, but which is not a State institution.' I have the friendliest feelings with every university. I have the friendliest feelings with the university that puts forward that view most strongly. I wish it God-speed in the good work which it is accomplishing, but I say that it has no right when the State has undertaken the establishment of a university and opened its doors to all the people in the country—I hope some day, as Mr. Willison has said, free of cost entirely. Surely it cannot be said that the State, until it is able to provide fully and completely for that State institution, is to take its moneys and divide them with other institutions that are not under State control, however deserving they may be.

"I know the difficulties of locality. I know the difficulties of a political leader. I know the difficulties when parties are close: but I venture to think that the politician who says I take my stand upon the position that we have a State system of education here we have as its foundation a University, we will maintain that University and make it efficient and equip it for its duty as it ought to be, and until that is done we will have nothing to do with any other institution. That would be recognized as a sufficient answer from the banks of the Ottawa to the banks of the Detroit River, and no defection from its following could destroy any Government that has the courage to take that position. I would not have spoken as strongly upon this subject as I have spoken did I not feel the gravity of the situation.

"The Province has done liberally in a sense, has done nobly in a sense, but it was able to do and it would have done, if it had been asked, all that was necessary, a great deal more than has been done. The Province has, as the result of the legislation, relieved the University of an expenditure upon the departments which it has taken over, of practically some \$25,000 per annum, and to that extent it has left free so much of the money for other departments and expansion in other directions; but the difficulty is that there have been from year to year deficits, we have gone behind from year to year, and had it not been for the existence of contingent funds which under previous managements had been created, there would have been a serious condition ere now. But after all has been done, after relieving the University as it has been relieved, there will be upon the transactions of this year a deficit of \$9,000 and upwards between the expenditure and the income of the University. Now, how can any Government expect that the work of this great University can be carried on efficiently with not even present needs being provided for, much less any provision for expansion? That is a grave condition of things. I do not know why it is that the public cannot be awakened to its

gravity. What are we to do? We cannot go on in this way. Are we to close the doors of the University and shut it up? Are we to limit the number of students, or are we to hand over the University as it is to somebody to manage it independent of State control? I hope none of these things will be done. I do not think that the State, having taken this responsibility upon itself, can afford to trust to any body away from Government control the enormous heritage that belongs to this University.

"What I would say with regard to that, if I may be permitted to express an opinion, is that in the Act which has been passed there are a great many improvements in the machinery of government in connection with the University. It is now placed on a more scientific basis. The academic government is left to the Senate and to the Councils of the University and College respectively. The management of the funds and dealing with the property are left to the Board of Trustees; every act of the Trustees in connection with the University before it can be given effect to must have the sanction of the Lieutenant-Governor-in-Council. I think that is right. My idea is, give the Government control over everything connected with the University; but it should be the duty and policy of the Government, so long as everything is going right, not to interfere, and to be content to have the means of interfering, and meantime to leave things to those who have been delegated to attend to them."

Sir William referred to an impression which has got abroad that the staff of the University is inefficient and that the work is not well done. He said: "I may say that I am perfectly certain that the gentleman who made the deliverance which gave rise to the discussion had no idea of suggesting anything of the kind; but it did harm, as it went abroad in the newspapers that there was inefficiency in connection with the University. I desire to say here, with a knowledge whereof I speak, that the staff of the University is an able, efficient, zealous and underpaid body of gentlemen.

"What is to be done for the future? It is difficult to answer that question. We are on the eve of a general election, and I suppose nothing can be done until that election is over. But I do trust that this Association, which has already done so much good, will continue to press upon the attention of the Government the needs of the University, and insist upon a proper measure of relief to the University being provided. There is power in the men who are graduates of this University to drive out of power any Government which will not discharge its duty to this University, and I hope what will be done when another Parliament is chosen that they will come down to the Legislature, point out the needs by it. These deficiencies ought not to be allowed to continue to exist." of the University and insist upon compliance with what is really needed

Sir William concluded by urging his hearers to do their part as individual graduates to help their *Alma Mater*, referring to the work done by the graduates of other universities. He resumed his seat amid loud applause.

AN ORIENTAL UNIVERSITY.

BY WM. MORTIMER CLARK, K.C.,

"MEN," says a Mohammedan sage, "are either learners or learned, and he who belongs to neither of these classes is a reptile, and good for naught." Learning, although not always of a kind regarded by the Western with much admiration, is highly esteemed by the Oriental. It is closely allied with faith, and the mosque and school are consequently associated. Bequests for the establishment of mosques are common, and the founding of a school in conjunction with the mosque is not infrequently included in the devise. Although such trust funds are by the law of Egypt inviolable, yet the rapacity of the irresponsible rulers of the Land of the Pharaohs has led in many instances to the diversion of the money and the closing of many of the mosque-schools of Cairo. One of these institutions has, however, survived the assaults made on its endowments, and the University-mosque of El-Azhar, the "blooming" or "splendid," still continues to flourish. It has completely eclipsed the anciently famous schools of Damascus, and is now recognized as the most important educational institution in the Mohammedan world. The old mosque was converted into a university by the Kaliph Agiz Billah in A.D. 975. During the many centuries since its foundation, it has received many large endowments, and has continued to be the hotbed of Mohammedan fanaticism. It is attended by students numbering from 7,000 to 12,000, and drawn from all countries where the faith of Islam is professed. It is undoubtedly the most unique university in the world.

Leaving the modern-looking region of the Esbekeyeh gardens, the visitor passes along the main thoroughfare of the Muski, midst its motley crowd of Orientals and Europeans. The scene is one of great animation, and the danger of being crushed against a wall by a camel laden with building material, or run down by a carriage, keeps one busily engaged in looking after his personal safety. Greasy-looking pashas loll in open phaetons, and broughams, containing the lightly-veiled ladies of some harem, accompanied by Soudanese eunuchs, pass on their shopping expeditions. These are usually preceded by runners (sais) clad in white, wearing gold-embroidered crimson jackets and carrying long staves. They shout as they run, "Out of the way, my brother!" "Take care of your legs, my sister!" or, "Look out for your back, O follower of the Prophet!" The Muski is resonant with harsh and discordant noises of all kinds. Water-sellers clink their brazen cups, and street venders of all imaginable things press their wares, at the top of their voices, on the passers-by. One is glad to escape from the din and into a short side street leading to the great university. This street is lined with booths and little shops on either side. Books and slippers are here dealt in. These

wares are somewhat incongruous, but the rare logic of the Arab Effendi explains the reason of their strange propinquity. "Books," says he, "are usually bound in red leather, and slippers are made of the same red leather; therefore, books and slippers are to be found in the same shop, and the bookseller and slipper dealer are one." Most of the books are very cheap to suit the student purse, but many beautiful MSS. are exposed for sale which are decorated with exquisite ornament, and in colours of perfect harmony. Copies of the Koran, it may be explained, are never printed. They ought to be in MS., but lithography so often deceived the faithful that its use is now winked at.

Armed with an order from the Minister of Worship admission to the sacred precincts may be grudgingly obtained. Having donned a pair of slippers over his boots, the visitor may take a rather hasty walk through the mosque, but must be careful, neither by deed, look nor word, to awaken the slumbering fires of Mohammedan fanaticism, in this the very sanctuary of Islam. The mosque itself is in the form of a great quadrangle, surrounded by rather mean-looking buildings, of one or two storeys in height. The greater part of this quadrangle is open to the heavens, but a space of about 3,600 square yards on the east or Mecca side of it is covered with a low ceiling supported by 380 pillars, among which 1,200 lanterns are suspended. A number of chambers, known as riwaks, are ranged along the other sides of the court. These riwaks are for the accommodation of students, but do not by any means give lodging to the multitude of scholars in attendance, who must seek for shelter outside the precincts. The whole premises are entirely destitute of furniture, and present a sombre and cheerless appearance. Squatting on grass mats on the alabaster pavement, in groups of from ten to fifty all over the great hall, in sunshine and in shadow, are seen the various classes. The Sheykh or professor leans against a pillar when he can get one, using the same attitude as his scholars. To "take a seat by a pillar" is equivalent to "filling a professor's chair" with us. Not a few fine-looking heads and faces are found among teachers and taught. All are alike clad in turbans and robes, the latter being black, and the former usually white, except when descent from the Prophet, or the accomplishment of the pilgrimage to Mecca, entitles the wearer to use green in his head dress. Some of the classes are composed of boys from eight to twelve years of age, while in others may be seen young and even elderly men. The instructors number from 230 to 250. Some of the professors receive no salaries, and make a meagre living by copying Korans, or by private tuition. The pupils pay no fees, but sometimes recognize the services of their teachers by gratuities. Others of the staff are paid about \$20 per month, and in some cases receive further moneys from discharging the duties of subsidiary offices about the mosques. The Sheykh of the university receives a salary of some \$9,000 and resides in a fine old palace. The revenues of the mosque from endowments do not amount to more than \$12,500, and the annual deficit is about \$5,000. The Khedival

government makes up the shortage, and thus secures some right to interfere in the administration of an institution which is an obstacle to all reform, and might prove dangerous.

On entering, the hum of thousands of voices is heard, as the students, rocking themselves to and fro, recite, in a sing-song way, passages of the Koran, which they commit to memory. Correction is not infrequently administered in Solomonic fashion, and students of somewhat mature years may be seen receiving the benefit of the tuition of the rod. Others may be found languishing in penitentiary cells. The dietary of students in residence seems to consist of coffee, boiled beans saturated with oil, and a little hard bread. The latter does duty as a spoon. The pupils share in a daily distribution of bread from the administration. The *riwaks*, of which there are seventeen, are appropriated to various nationalities, and are known by the names of the various countries represented, such as *Riwak el-Yemen* (for natives of Yemen), *Riwak el-Hinud* (for natives of India).

The university is under the control of the Sunnite faction of Mohammedanism. This body is divided into four sects, numbers of which are to be found among both pupils and professors. They are quite tolerant of each other, although their opinions are very different. The Hanbalees hold the interpretation of the Koran, which represents God, as in human form. This is the most fanatic of all, and is represented by the Wahabees of Arabia and India. The Malikees hold to all the traditions of Islam, and the Hannafees include the official classes and the liberal party. The chief *Sheykh* is always appointed from this party. The *Shafe'ees* form the moderate section of believers.

It need hardly be said that the instruction given, and the manner of conveying it, are very different from that in Western universities. Many of the *Sheykh*s are erudite, but their learning is limited to familiarity with commentaries on the Koran. They spend their time chiefly in commenting on commentators, and have no creative faculty. Students remain in the mosque from four to six years. They begin their course by studying the Arabic grammar. They then proceed to the twelve attributes of God—existence, eternity, independence, unity, omnipotence, will, omniscience, life, vision, hearing, speech, and source of being. Then follows the study of law, religious and secular, both branches being taught from the Koran alone. Logic, rhetoric, the art of poetry, the proper manner of reciting the Koran, and the correct manner of pronouncing its letters, are also taught. Everything, however, is deduced from the Koran, which is the beginning and end of all wisdom. Nothing is known of natural science, and arithmetic, geometry and algebra, formerly so assiduously cultivated, have fallen into oblivion. On finishing his course, the student receives a diploma, and in cases of special merit is presented with a robe by the *Khedive*. All attempts made by the *Khedival* government to introduce some better order of things have been strenuously resisted. The lectures last from an hour and a half to two hours, and close with the words, "So far, and may Allah give us understanding." The stu-

dents then rise and, in leaving, kiss the hand of their teacher. With the exception of a short noonday interval, the whole day is spent in attendance at classes, and after the work of the day is over, the wearied student lies down on his rug in his cheerless riwak without any change of raiment, and composes himself to sleep, until in the early morn the sonorous voice of the muezzin from one of the minarets of the Gami-el-Azhar, testifying that there is no god but God, and that Mohammed is the prophet of God, invites him to "come to prayer and to security," and assures him that "prayer is better than sleep."

GENERAL MEETING OF THE ALUMNI ASSOCIATION, JUNE 7TH.

President Dr. R. A. Reeve in the chair.

The President, in opening the meeting, said that, in view of the full report of the Executive Committee to be presented, he would only briefly refer to one or two matters not mentioned in it. The Committee *re* University Club, enlarged by direction of the special meeting of the Association held in December, had not been idle. A report of their efforts will be given later. The committee appointed to take charge of the Alumni Research Fund had made but a partial canvass. The President, as chairman, in reporting progress on its behalf, was gratified to be able to state that the response had already been such as to warrant the sub-committee in asking the present meeting to arrange for the awarding of the first of the series of scholarships. The sum received was, however, but a fraction of the amount required to establish the fund on a solid basis.

The Committee *re* Memorial Convocation Hall would ask permission to report at a later date. Various causes had conspired to retard the action of the committee.

The MONTHLY, valuable as it had proved, and necessary as it would be to the successful working of the Association, occupied such a peculiar, if not anomalous, financial position that a deficit during its first year was not a matter of great surprise. This must, however, be treated as a debt of honour.

The Endowment Fund for the Association, advocated by Vice-President Klotz, deserved careful consideration. The change of name of our *Alma Mater*, provision for which, if it be decided upon, had been made by the University Act is one of those important questions of vested rights, so to speak, and of sentiment *versus* prospective advantages of indefinite quantity, which will naturally excite great interest and much controversy. Should time permit the "ball" might be opened to-day. The President added a tribute to the important work done by the Secretary of the Association, Dr. McLennan, whose whole-souled energy had proved so valuable in many ways during the first year of its existence.

The Minutes of the last meeting were read and confirmed.

Professor Squair moved, seconded by Mr. Carl Lehmann, that the following be appointed a Nominating Committee to recommend persons for the various offices of the Alumni Association for the next year: F. F. Manly, B.A., W. H. Ballard, M.A., Miss Curzon, Professor Squair, Dr. Oldright, Professor Macallum, Hon. S.C. Biggs, Mr. Kylie and Dr. Wickett. This was carried and the committee withdrew.

The Acting Secretary read a letter of regret from Mr. Harstone, of Lindsay, and letters from Mr. Klotz, in which he urged the establishment of an Endowment Fund for the Alumni Association. Mr. Robertson moved, seconded by Professor Fletcher, that the correspondence be received, and the matter arising out of it be taken up under the order of Miscellaneous Business. Carried.

The Treasurer, Mr. Robertson, then presented his report.

RECEIPTS AND DISBURSEMENTS, JUNE 30TH, 1901.

<i>Receipts.</i>		<i>Disbursements.</i>	
Subscriptions.....	\$725 50	Salaries	\$136 50
University Grant	200 00	Travelling	57 24
Interest	1 46	Office Stationery and Supplies	105 73
		Postage and Mailing	137 48
		Typewriter.....	25 00
		Loan to MONTHLY.....	415 85
		Cash on hand.....	21 60
		" in Bank.....	27 56
	<hr/>		<hr/>
	\$926 96		\$926 96

REVENUE ACCOUNT.

Printing	\$ 74 63	Subscriptions.....	\$725 50
Salaries	136 50	University Grant	200 00
Travelling	57 24	Interest	1 46
Office Stationery and Supplies	144 58		
Postage and Mailing.....	137 48		
Surplus	376 53		
	<hr/>		<hr/>
	\$926 96		\$926 96

ASSETS AND LIABILITIES.

<i>Assets.</i>		<i>Liabilities.</i>	
Cash on hand.....	\$21 60	Accounts Payable.....	\$206 33
" in Bank.....	27 56	Surplus	376 53
UNIVERSITY OF TORONTO MONTHLY	415 85		
Office Equipment	117 85		
	<hr/>		<hr/>
	\$582 86		\$582 86

Mr. Robertson moved, seconded by Professor Baker, that the report be received and adopted. Carried.

Mr. Wilkie then read the report of the Executive Committee for the Acting Secretary.

The report first dealt with the MONTHLY, and said that probably the most important work undertaken by the Executive Committee during its

term of office was the publication of THE UNIVERSITY OF TORONTO MONTHLY, which was undertaken as a result of the instruction of a general meeting of the Alumni Association. The Executive Committee placed the management of the publication in the hands of a small Board, which divided itself into an Editorial Committee and a Business Committee. Mr. I. H. Cameron was appointed Chairman and Dr. McLennan, Secretary of the joint committee.

The first issue of the publication was in July, 1900, the second in October of the same year, and one publication monthly since that time, making in all ten issues. The preparation of the first number was undertaken entirely by the members of the Committee and the advertisements secured by them personally. Largely through the work of the Secretary, Dr. McLennan, a sufficient number of advertisements were secured to practically defray the expense of the publication of that issue. Realizing, however, that members could not devote the necessary time to work of this kind, the Editorial Committee recommended to your Executive Committee the appointment of Mr. S. J. Robertson as business manager of THE UNIVERSITY OF TORONTO MONTHLY with a salary of six hundred dollars per annum, to supervise the general management of the paper, but to refer all important matters to the Committee for approval. Rooms were then granted in the old residence for offices for the Business Manager. Under this arrangement THE UNIVERSITY OF TORONTO MONTHLY has been issued throughout the present academic year. The total issue for each number has been five thousand copies, and it has been sent to all graduates of the University whose addresses were available whether they were paying members of the Association or not. Thus it will be seen that the beginning has been made in the establishment of a University publication, which has been brought to the attention of all graduates of the University through having been sent to them for the period of one year.

As might have been anticipated, the financing of the publication has been difficult. The instructions of the Association were that the journal should be sent to all graduates whether they paid their fees to the Association or not, and it has been sent accordingly. It will be observed that there is no separate subscription list for the journal and the membership fees have been less than \$750 and have been devoted to other purposes of the Association.

The revenue, therefore, has been derived from the advertisements, and the securing of these for a new magazine, that has not yet obtained a permanent standing, was a matter of considerable difficulty. This difficulty will not exist to anything like as great a degree in the coming year. The total expenses of managing the publication to the close of the June issue, including the cost of printing, mailing and wrapping of the journal, advertising commissions, printing and office expenses and salary of Manager, etc., amount to \$2,906.06.

The total receipts from advertising and a few other minor sources amount to \$1,078.57, leaving a deficit, thus far, of \$1,827.49 against the

publication. To meet this, however, there is due on the publication of the June number \$763.20 on advertising contracts, making the net deficit \$1,064.29.

The committee realize that this is not as satisfactory a showing as might have been desired, still in view of the difficulties attending the launching of a venture of this kind without any initial capital and in view of the standing that is being won for the publication, and finally in view of the fact that none of the dollar subscriptions have been credited to the journal, the committee feel that the prospects, for wiping off this deficit in another year are good. In the meantime the members of the Editorial Committee and of the Executive Committee are responsible for the settlement of obligations incurred.

As was repeated at the last annual meeting, a sub-committee was appointed to wait on the University authorities to effect an arrangement with the Registrar's Office by which the services of the Association were to be utilized in connection with the University graduates' lists. This was duly accomplished and the Trustees of the University voted the sum of \$200 to pay the Association for the work thus undertaken. It was found that owing to the frequent removals very many addresses were unknown. This has now been largely corrected, and a card catalogue has been completed in which the names of the graduates are entered (*a*) alphabetically, (*b*) according to places of residence and (*c*) according to degrees held. This has entailed a great deal of labour and a large amount of correspondence. A very considerable proportion of the expenses of the Association in stationery and postage is chargeable to the catalogue, and the grant of the University is hardly adequate in view of this fact, irrespective of the labour involved in preparing and maintaining the catalogue.

The work of the Secretary, Dr. McLennan, in the matter of forming the local organizations in connection with the Alumni Association was reported as being very successful. It was hoped that very shortly every county in Ontario will have a local association. There are under way some provincial organizations, as in Manitoba and New Brunswick, while the formation of the British Columbia branch was announced in the October number of the MONTHLY. In all, fifteen local Associations have been formed since the organization of the Alumni Association a little over a year ago, and active support and assistance have been received from two older organizations, the Toronto University Club of Ottawa and the Wentworth County Graduates' Association. The Secretary was present at twelve of these organization meetings, and was accompanied on three occasions by President Loudon and once by Prof. A. B. Macallum.

Upon resolution of the Executive Committee, at a meeting held February 9th, a sub-committee was appointed to draw up a memorial to the Government, urging the claims of the University of Toronto for financial assistance and to take steps to have a deputation of leading

graduates and friends of the University from all over the Province wait upon the Government and present the memorial. The memorial, which is now well known to all, was drawn up and copies of it, together with other printed matter giving information about the University and its needs, were sent out to a large number of graduates. The very successful deputation which assembled and its reception by the Government you are already familiar with through the MONTHLY. The results of the University Act subsequently brought down by the Government are hardly yet apparent, but many benefits are evident;—among them increased revenues, and the prospect of the new buildings. The report also referred to the grouping of the various events of Convocation week upon one day in order to make attendance easier for members living at a distance.

On motion of Mr. Wilkie, seconded by Hon. S. C. Biggs, the report was received and adopted.

Mr. Wilkie pointed out that the showing was much better than perhaps appeared at first sight. Many of the expenses incurred by the Association this year were in the nature of an investment, and would not be made another year. The receipts from the MONTHLY would probably be larger as it became more firmly established in the public estimation.

Mr. Chisholm, Hamilton, was confident that not only would the Alumni pay their membership fees but would subscribe generously if necessary to sustain the publication.

Mr. H. A. Harper, M.A., Secretary-Treasurer of the Toronto University Club of Ottawa, strongly opposed the suggested cutting down of the mailing list of the MONTHLY to those who had paid the fee. The cutting down of the circulation would, he argued, cause a proportional reduction in the revenue from advertisements, and would strike at the very *raison d'être* of the Association, which had been called into existence to keep graduates informed with regard to what was going forward at the University, in order that they might intelligently strive to create in their several districts a public opinion favourable to the University's requirements. While he did not wish to apologize for those who had received the magazine month after month without paying the fee, he thought a membership of upwards of 700 in a constituency of 5,000 in less than a year's time was a creditable showing. As a matter of fact the branch associations, many of which had been carried on more or less as social clubs, were only gradually getting to understand the nature of the General Alumni Association and its objects, and he thought that if the actual condition of affairs were brought to the attention of the delinquents in a pointed manner, as for example, by means of a carefully worded personal letter, there would be very few who would not be glad to respond. In the meantime the Association would best serve the purpose for which it was called into existence by energetically appealing to the graduates, rather than by stifling itself by cutting off its main avenue for expansion and usefulness.

After considerable discussion it was moved by Professor Baker and

seconded by Professor Fletcher, that, with a view to providing funds for all purposes for which the Alumni Association exists, there be formed a Guarantee Fund, and that ordinary subscribers thereto be liable for a sum not to exceed , and that life subscribers be allowed to subscribe for such further sum as their generosity might prompt. Carried.

Mr. Edwards, Peterborough, said that the proposition to obtain a guarantee fund to meet the obligations of the Association simply meant that the burden assumed by the Executive Committee of financing the Association and the MONTHLY should be spread over a larger number of shoulders; that the Executive Committee should in effect be increased in numbers, so far as the question of money responsibility goes at all events. So far no one need object to the proposal. But the burden will still be there, even if there be more men to carry it. The committee a year ago, in obedience to the directions of the Association, undertook to publish a magazine, and through it to reach the scattered graduates of the University, and rouse them to activity in aid of their *Alma Mater*. The graduates were not only scattered—they were asleep, so far as the interests of the University were concerned. They had been aroused to some degree of activity about the time of confederation; they were aroused again at the time of the fire, but they had again fallen asleep, and now it was not strange that it was harder than ever to stir them up. The magazine came to the graduates, all alike, without any request for subscription on their part, and with the understanding that it would be sent to every graduate for a year whether the receiver paid for it or not. Under these circumstances it is not at all surprising that the large majority did not seriously consider the question of paying for it.

In the face of the actual position of the University and its needs, it was a wise thing and a generous thing for those who took the responsibility upon them to publish the MONTHLY free for a time. If, however, the magazine is to be published for the future it must be put upon a paying basis. And the paying basis must be reached not simply by widening the number of guarantors, but by increasing the number of actual paying subscribers. You cannot go on indefinitely issuing a magazine at the expense of a few for the benefit of the many. To make it pay you must get a large number of individual subscribers who take sufficient interest in the University and its affairs to support its magazine. The dollar of the many is better than five dollars or ten dollars of the few.

It was moved by Mr. Hagarty, and seconded by Miss Curzon, that the sum left blank in Mr. Baker's motion be a sum not to exceed five dollars.

An amendment to this, moved by Mr. Houston and seconded by Dr. Ellis, that each person be permitted to subscribe whatever sum his generosity might prompt, was carried.

On behalf of the Nominating Committee Major Manley presented the report recommending the following persons for the various offices for the year 1901-1902:—

Honorary President—President Loudon.

President—Dr. R. A. Reeve.

Vice-Presidents—L. E. Embree, M.A., Toronto; Otto J. Klotz, Esqr., Ottawa; J. H. Coyne, B.A., St. Thomas.

Secretary—J. C. McLennan, Ph.D.

Treasurer—S. J. Robertson, B.A.

Councillors—Professor Baker, M.A.; C. H. C. Wright, B.A.Sc.; Professor I. H. Cameron, M.B.; F. F. McPherson, B.A.; T. A. Russell, B.A.; G. Wilkie, B.A.; Dr. Willmott, J. A. Cooper, B.A.; T. Mulvey, B.A.; Hon. S. C. Biggs, B.A.; Dr. Mills, A. R. Bain, LL.D.; F. E. Brown, B.A.; Professor A. B. Macallum, F. F. Manley, M.A.; T. D. Delamere, B.A.; F. Phipps, Miss Lawler, M.A., and Mrs. J. R. L. Starr, B.A.

On motion of Major Manley, seconded by Dr. Ellis, the report was adopted, and the officers were declared to be unanimously elected.

Professor Squair reported on behalf of the original Club Committee, the results of whose work were presented to the Alumni Association in the December meeting, and whose report was contained in the Minutes.

On behalf of the enlarged Club Committee Mr. Wilkie reported that the difficulties in the way of establishing a club seemed almost insuperable. There were already in the city a large number of clubs, for whose support an annual fee of \$25 is found hardly adequate, and a University club could hardly charge so high a fee, nor would it have as large a body eligible for membership. A sub-committee had been appointed, which turned its attention to the provision of club chambers without the more expensive features of a club proper, and it was found that suitable quarters could be secured and maintained at an annual cost of \$1,000, which, it was thought, could be secured from two hundred members at \$5 per annum. The Club Committee, in dealing with the report of the sub-committee, reluctantly came to the conclusion that, having regard to all the circumstances, it would be difficult, if not impossible, to establish the chambers in the premises in question and to carry them on satisfactorily. The committee thought that it might be possible to make the venture succeed, but it would entail an undue amount of labour and attention upon those in charge, and that the matter had best not be pressed to an issue at the present time, but that we wait for a more favourable opportunity for carrying out the scheme.

It was moved by Mr. Houston, seconded by Professor Squair, that the report be adopted, and that the committee be continued, and instructed to keep the matter in view and to report from time to time. Carried.

The Alumni Research Scholarship Sub-Committee report was presented by Professor A. B. Macallum. The committee, after careful consideration of the question of the method of awarding the Alumni Research Scholarship, report that, in their opinion, the method of awarding the scholarship should be determined by a joint committee of the Senate and Executive of the Alumni Association. The report was received and adopted.

On motion of Mr. Coyne, seconded by Professor Fletcher, the report of the Memorial Hall Committee was deferred till the fall meeting. Carried.

It was also decided, on motion of Mr. Robertson, seconded by Professor Fletcher, that the Endowment Fund be referred to the Executive Committee, to be reported on at the first meeting in the Fall.

It was moved by Hon. S. C. Biggs, and seconded by Dr. Willmott, that the President of the Alumni Association, one month before the next annual meeting, appoint a Nominating Committee of ten, who shall strike a list of officers, to be presented at the annual meeting. Carried. The meeting then adjourned.

S. J. ROBERTSON, *Acting Secretary.*

THE GARDEN PARTY.

BY EDITH M. CURZON, B.A.

"There's room enough, and each may bring his friend."—Creech.

A MOST happy condition of affairs after the crowding and heat experienced by those assembled in the Gymnasium to witness the conferring of degrees and listen to the speeches that are, or should be, made on that occasion to bring before the public the important interests of our Provincial University.

The garden party is a pleasing feature of the day's proceedings, for it admits of a social intercourse which is informal, and, if it may be so expressed, unsustained; it gives an opportunity of greeting many friends and acquaintances, with the liberty of prolonging or abbreviating the conversation, an opportunity not afforded by a luncheon or dinner.

In the days of old Convocation Hall the audience streamed from it to the campus, attracted by the strains of a military band, and there saluted friends and congratulated those who had received their degrees. Then followed a period when we had to seek a roof far removed from our beautiful grounds, and there was nowhere to congregate and talk over the events of the afternoon. Once more we have a house of entertainment, small and inconvenient, the Gymnasium; but it is home, and our friends may be invited into the garden, not only to strains of agreeable music but to refreshments.

The garden party is an agreeable feature, which may well become an established custom, as a graceful relaxation to the more serious business of the day. The status of a university is judged by its social as well as by its academic events, and the dignity of its position in the public estimation depends upon the degree of excellence and good taste evidenced in the discharge of all its affairs.

The Quadrangle on Friday afternoon was more than usually beautiful with the freshness and verdancy of early June. The marquee for refreshments was not unpicturesque; while the brilliant robes and hoods of the dignitaries and pretty summer dresses of the ladies gave an air of brightness and animation to the usually quiet enclosure.

The philosophers of the present day and in this climate would be likely to impart but little wisdom and knowledge to their students should

they stroll about the paths or rest beneath the shade of the trees as they discourse. But they have the opportunity once a year, under the blue sky, of congratulating their disciples on the successful termination of four years' study and of wishing them God-speed as they leave the fostering care of *Alma Mater* to follow their life's career, depending on their own judgment and mettle.

This gathering makes possible also the informal introduction of those connected directly or indirectly with the University to such distinguished guests as were present on this occasion; and the absence of the strain and routine of a formal reception brings out the personality of each and cements more strongly the feeling of goodwill to the University.

Let us hope, then, for a pleasant and successful garden party for many Junes to come.

THE SECOND ANNUAL DINNER OF THE UNIVERSITY OF TORONTO ALUMNI ASSOCIATION.

BY GEO. WILKIE, B.A.

THE proceedings of Convocation Day came to a fitting conclusion with the Alumni dinner. The Gymnasium, which had served as a convocation hall in the afternoon, was quickly rearranged, and in the evening became a dining hall.

Shortly after eight o'clock, for they were punctual, the dining-room was filled with the diners. Filled, but not quite as full as it might have been. A few more might have found room—a very few might even have found chairs. The evening was most enjoyable. The weather was ideal, and robbed a dinner in June of all terror of heat. The edibles did credit to the skill of the caterer. The drinkables, while not all that some could wish, were all that could be supplied by a caterer without a license.

The diners were not arranged by years, but each sat where his will or his luck led him. And so the story-teller had a new audience, and the story and the joke of last year served again. It was most considerate of the committee, but next year, we may sit in classes; wherefore, you story-tellers, let neither memory nor invention sleep lest your wit be found wanting.

The reunion of fellow-students and class-mates revived the characteristics of their student days. The student story-teller told stories again—sometimes the same stories. The cheeky freshman still retained his assurance. Wit and song still bubbled and poured from the old fountains. There was much singing of old college songs, but not enough. "Old Grimes" received full justice, and the ladies left the dining hall to the strains of "Good-night, Ladies." A musical critic might find fault with the attack, but the audience was not critical, but appreciative. The toasts were reached early, which was fortunate, for the list was long. But the speeches were excellent, and so abundant was the wit about the tables that some even found its way into the set speeches, which is

unusual. The ladies occupied a table in the centre of the room. Their bright costumes and brighter faces lent a touch of colour to the sombre black and white of a male gathering.

Professor Hutton was merry with the Legislature, and flavoured his address with much Attic salt at its expense, as, "The Legislature was moribund, if not dead, and '*de mortuis nil nisi bonum.*'" And so it was. The speaker's wit was such as "loves to play, not wound."

The Hon. G. W. Ross was not able to be present. The Hon. Richard Harcourt, Minister of Education, had been present earlier in the evening, but had been compelled to leave in order to keep an appointment. Mr. J. S. Willison replied for "The Legislature." He said many good things, among them: "I should have responded more readily if the Legislature had responded more liberally to the demands of the University. The Legislature will never have done its duty until every child shall be entitled to attend every public educational institution without the payment of any fee."

Louis Fréchette received a particularly warm welcome. The degree of LL.D. had been conferred upon him at the convocation in the morning, and he suggested that he had been selected to propose "Alma Mater" as not the youngest graduate but the most recent of the older graduates. His remark that it would be well if we knew more of Quebec, and Quebec more of us, was received with loud and prolonged applause.

The Chancellor of the University replied, and the reply appears elsewhere in this issue. But the reader loses much that the hearer had. The force, the elocution, the impressive presence, the rare but appropriate gestures of the finished orator are lost and nothing but bare words, without colour and without tone, are left. The written words were but a part of the address which was worthy of the occasion and the speaker.

James Chisholm, of Hamilton, proposed the Alumni Association and THE UNIVERSITY MONTHLY. Mr. Chisholm represented the Wentworth County Graduates' Association. His speech was able and eloquent and well received.

John Idington, K.C., Stratford, replied with a strong plea for a greater interest of the graduates in the affairs of the University.

Professor I. H. Cameron was as bright and witty in replying for THE MONTHLY as his friends expected, which is saying much.

J. R. L. Starr proposed the "Branch Associations" in a bright and brief speech. E. B. Edwards, K.C., Peterborough, replied in a glowing speech upon the work being done and still to be done by the graduates for their *Alma Mater*.

Professor F. Ramsay Wright, proposing the Graduating Class, made a punning allusion to the conferring of a degree upon a "Fréchette." The pun required annotation for some of the elders, who did not know that "freshette" is the feminine of freshman.

B. A. Cohoe responded for the graduating class in Medicine and E. J. Kylie for the graduating class in Arts.

The following gentlemen, whose names were also on the toast list, wrote regretting that they were unable to be present: W. B. Northrup, B.A., M.P., Belleville; T. Macbeth, B.A., K.C., London; John Henderson, M.A., St. Catharines; Judge D. Chisholm, LL.B., Berlin.

Among others present at the dinner were:

F. J. Smale, B.A. '92; Jas. Mavor; Wm. Davidson, B.A. '66; Lieut.-Col. Mason; R. R. Wright, M.A. '78; R. A. Reeve, B.A. '62, M.D. '89; Louis Fréchette, LL.D. '01; John Idington, LL.B. '64; I. H. Cameron, M.B. '74; A. R. Bain, B.A. '58; P. H. Bryce, B.A. '76, M.D. '88; A. P. Addison, B.A. '96; P. W. H. McKeown, B.A. '87; W. J. O. Malloch, B.A. '91; R. A. Thompson, B.A. '85; Henry A. Harper, B.A. '95; W. L. T. Addison, B.A. '92, M.B. '95; J. R. L. Starr, B.A. '87; E. B. Edwards, B.A. '70; Geo. Kennedy, B.A. '57; J. W. Flavelle; Julius Rossin, B.A., '64; Sir W. R. Meredith, LL.B. '72; Charles Moss, '00; J. S. Willison; John Miller, B.A. '72; S. C. Biggs, B.A. '72; J. F. McCurdy; John A. Amyot, M.B. '91; F. N. G. Starr, M.B. '89; A. C. McKay, B.A. '85; R. F. McWilliams, B.A. '96; S. M. Wickett, B.A. '94; Fred F. Manley, B.A. '74; Alfred Baker, B.A. '69; W. Lash Miller, B.A. '87; R. J. Gibson, B.A. '89; O. Mowat Biggar, B.A. '98; M. C. Cameron, B.A. '99; J. Fletcher, B.A. '72; J. Galbraith, B.A. '68; John A. Paterson, B.A. '66; S. E. Woods, B.A. '94; F. B. Kenrick, B.A. '94; Pelham Edgar, B.A. '92; J. Price-Brown, M.B. '68; F. A. Reesor, B.A. '67; W. H. Ellis, B.A. '67; Wm. Houston, B.A. '72; Mrs. Squair; Miss Jessie Forrest, B.A. '01; Miss Guest, B.A. '99; Miss Curzon, B.A. '89; Miss M. Hunter, B.A. '98; Miss Creighton, B.A. '00; Miss McBain, B.A. '99; Miss A. W. Patterson, B.A. '99; Miss Gertrude Lawler, B.A. '90; Miss Luxi Hamilton, B.A. '94; S. Casey Wood, Jr., B.A. '92; Alex. Smith, B.A. '89; H. J. Crawford, B.A. '88; R. H. Coats, B.A. '96; A. R. Clute, B.A. '96; W. W. Edgar, B.A. '97; Geo. Wilkie, B.A. '88; W. A. Parks, B.A. '92; J. H. Tennant, B.A. '92; G. S. Henry, B.A. '96, J. S. McLean, B.A. '96; F. H. Scott, B.A. '97; W. A. McKinnon, B.A. '97; G. G. Nasmith, B.A. '00; J. R. S. Scott, B.A. '00; C. R. Fitzgerald, B.A. '00; E. J. Kylie, B.A. '01; F. J. Buller, B.A. '01; W. D. Ferris, M.B. '98; S. E. Bolton, B.A. '98; A. E. McFarlane, B.A. '98; Harold Fisher, B.A. '99; G. F. McFarland, '02; B. K. Sandwell, B.A. '97; W. J. Greig, M.D. '82; Prof. J. G. Hume, B.A. '87; J. T. Jackson, B.A. '87; J. S. Plaskett, B.A. '99; A. Primrose, B.A. '89; F. Erickson Brown, B.A. '00; L. E. Jones, B.A. '00; Geo. R. Pirie, B.A. '01; E. F. Burton, B.A. '01; W. T. Comber, B.A. '01; J. Hunter, '75; B. A. Cohoe, B.A. '98; R. H. Rowland, B.A. '98; W. Harvey McNairn, '99; Albert H. Abbot, B.A. '95; C. D. Creighton, B.A. '97; H. L. Jordan, B.A. '97; Geo. B. Wiltsie, B.A. '82; R. L. Johnston, B.A. '87; John A. Ferguson, B.A. '87; W. S. Ormiston, B.A. '83; G. R. Anderson, B.A. '93; W. G. Anglin, '83; A. B. Macallum, B.A. '80; James Ballantyne, B.A. '80; D. R. Keys, B.A. '78; James Chisholm, B.A. '79; W. Lehmann, M.B. '79; Maurice Hutton, M.A. '81; J. Squair, B.A. '83; William Cook, B.A. '80; Thomas H. Smyth, B.A. '75; A. G. F. Lawrence, B.A. '81; W. Geo. Eakins, B.A. '76; L. E. Embree, B.A. '75; H. W. Mickle, B.A. '82.

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FRIDAY, JUNE 7, 1901.

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THE HALLS OF ALMA MATER.*

BY J. CLELAND HAMILTON, M.A., LL.D.

This fair June day, from far and near,
All greet the halls we hold most dear ;
Where erst we climbed Parnassus' hill,
And slaked our thirst at Isthmian rill,
Penelope in every tower,
Satyr and faun in every bower,
When young was *Alma Mater*.

Ἀπαμείβομενος εσθή—
Full many a Grecian sang his lay,
Achilles sulks his tent within,
Brave Hector leads the Trojan din,
Horace we scan, the wars in Gaul
And Carthage, read with good McCaul†
In halls of *Alma Mater*.

By parasang and stadion
We journey on with Xenophon,
Through Asia's plain in proud array ;
Then comes the fratricidal fray ;
The leaders fall, the stricken bands
Now seek, through floods, o'er Median sands,
The sea—their *Alma Mater*.

Here Croft displayed alchemic arts,
Cherry his logarithms and charts,
Wilson his rich historic lore,
And Young, with master spirit, bore
Our minds the world within to scan,
And learn the Godlike part of man,
In halls of *Alma Mater*.‡

Genial and loved yet wise were these,
As "tyrants of the Chersonese" ;
Their will our law, their cherished aim
To show the path that leads to fame,
To broadly think as Plato thought,
To bravely fight as Cato fought,
O dulcis *Alma Mater* !

And when arose the clarion call,
How quickly from each college hall,
With gun and sword begirt, were seen
Her sons arrayed to serve the Queen !
At Limeridge and on Erie's shore
The foul invader back they bore,
Brave sons of *Alma Mater*.

O tempora ! O mores all !
 No longer, under beeches tall,
 Do fauns and satyrs grim converse,
 But nymphs, sweet hisping Browning's verse,
 X-rays, microbes, conchology—
 Each modern ism and ology,
 Now grace our *Alma Mater*.

Aeón and primal molecule
 Are weighed with scientific rule ;
 Fair *Canadensé Eozoön*,
 With blue-green algæ decked, is shown,
 And oft the Soph completes his term
 A wise Kiplingii blastoderm §
 In halls of *Alma Mater*.

"How out of time the song you sing !"
 Says Portia, gown'd—with jewel'd ring,
 "Nymphs, satyrs, fauns and epic lays
 Are themes for wet vacation days ;
 E'en from your old blind poet learn, ||
 And cease our modern arts to spurn
 In halls of *Alma Mater*.

"On Vulcan's shield, which Thetis bore
 To her sad son by Ilión's shore,
 Were grav'd, beside Mars' bloody strife,
 The lowing herd, the ways of life ;
 Jove's mystic works, the starry vault ;
 Of these to know were scarce a fault
 In halls of *Alma Mater*.

"The unseen powers of air are caught ;
 Titian and Nereid now are taught,
 At Mary's flood, Niagara's gorge,
 To turn the wheel and fan the forge.
 Culture and science, hand in hand,
 Hail victory won o'er sea and land
 From halls of *Alma Mater*.

* Republished from the *Anglo-American Magazine*, June, 1901.

† Rev. John McCaul, LL.D., President and Professor of Classics.

‡ Dr. Henry Croft, Professor of Chemistry ; Dr. J. B. Cherriman, Professor of Mathematics ; Sir Daniel Wilson, LL.D., Professor of History and English Literature, and President after Dr. McCaul ; Dr. George Paxton Young, Professor of Philosophy.

§ *Vide* "Plain Tales from the Hills."

|| *Vide* *Iliad*, Lib. XVIII.

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NEWS FROM THE CLASSES.

The personal news is compiled from information furnished by the Secretary of the University of Toronto Alumni Association, and by the Secretaries of local organizations, and from other reliable sources. The value of this department might be greatly enhanced if University of Toronto men everywhere would contribute to it. The correction of any errors will be gratefully received by the Secretary of the Alumni Association.

1878.

S. S. Bates, B.A., is a Baptist clergyman in Toronto.—A. J. Bell, B.A., is a professor in Victoria University, Toronto.—G. W. Beynon, B.A., is in Portage la Prairie, Man.—Conrad Bitzer, B.A., is a barrister in Berlin, Ont.—J. H. M. Campbell, B.A., is a lumber merchant in Toronto.—W. H. P. Clement, B.A., is a barrister in Grand Forks, B.C.—J. L. Cox, B.A., is a master in Harbord Collegiate Institute, Toronto.—R. B. Cummings, B.A., is in New York.—J. H. Farnier, B.A., is a professor in McMaster University, Toronto.—J. Farquharson, B.A., is a Presbyterian clergyman in Pilot Mound, Man.—F. E.

Hayter, B.A., is in the Auditor-General's Department, Ottawa.—D. R. Keys, B.A., is lecturer in English at the University of Toronto.—J. Morgan, B.A., is a master in the High School at Walkerton, Ont.—P. A. McEwen, B.A., is a Baptist clergyman in Berlin, Ont.—M. McGregor, B.A., is a Presbyterian clergyman and journalist in Toronto.—H. Nason, B.A., is a barrister in Winnipeg, Man.—T. A. O'Rourke, B.A., is a barrister in Trenton, Ont.—J. Russell, B.A., is manager of the Winnipeg General Trusts Company, Winnipeg, Man.—S. C. Smoke, B.A., is a barrister in Toronto.—D. Stalker, B.A., is a Presbyterian clergyman in Calumet, Mich., U.S.—J. A. Turnbull, B.A., is a Presbyterian clergyman in Toronto.—R. Ramsay Wright, B.A., *ad eundem*, is Professor of Biology in the University of Toronto.

Deceased.—S. J. Duff, B.A.—W. Fitzsimmons, B.A.—D. McColl, B.A.—E. R. C. Proctor, B.A.

Addresses Unknown.—J. E. Pollock, B.A.—J. W. Russell, B.A.—J. S. Smith, B.A.—J. P. Wilson, B.A.

1888.

Deceased.—Newton Kent, B.A.—R. B. Potts, B.A.—J. A. Sparling, B.A.—T. B. P. Stewart, B.A.

B. M. Aikins, B.A., is a barrister in Indianapolis, Ind., U.S.—E. F. Blake, B.A., is a barrister in Toronto.—H. C. Boulton, B.A., is a barrister in Toronto.—G. Boyd, B.A., is a physician in Toronto.—J. R. S. Boyd, B.A., is a clergyman, Wycliffe College.—Wm. A. Bradley, B.A., is a clergyman in Berlin, Ont.—N. P. Buckingham, B.A., is a barrister in Boissevain, Man.—W. E. Burritt, B.A., is a barrister in Dawson City.—Henrietta Charles, B.A., is a teacher in Toronto Junction, Ont.—Wm. Clinie, B.A., is an editor in Listowel, Ont.—L. J. Cornwell, B.A., is a teacher in Meaford, Ont.—H. J. Crawford, B.A., is a teacher in Jameson Avenue Collegiate Institute, Toronto.—G. Cross, B.A., is a clergyman in Aylmer, Ont.—J. N. Dales, B.A., is a teacher in Kingston, Ont.—G. F. Downes, B.A., is a barrister in Palmerston, Ont.—Ida G. Eastwood, B.A., is a teacher in Toronto Junction, Ont.—J. W. Edgar, B.A., is a physician in Hamilton, Ont.—S. J. Farmer, B.A., is a clergyman in Perth, Ont.—J. S. Gale, B.A., is a missionary in Seoul, Korea.—Ella Gardiner, B.A., is a teacher in Albert College, Belleville, Ont.—T. A. Gibson, B.A., is a barrister, 43 Adelaide St., Toronto.—J. A. Giffin, B.A., is

a teacher in St. Catharines, Ont.—C. H. Glassford, B.A., is a barrister, 63 Yonge St., Toronto.—E. A. Hardy, B.A., is a teacher in Lindsay, Ont.—J. G. Harkness, B.A., is a barrister in Cornwall, Ont.—T. M. Higgins, B.A., is a barrister, 140 Yonge St., Toronto.—J. D. Graham, B.A., is in Pasadena, Cal.—R. Harkness, B.A., is in Tweed, Ont.—T. M. Harrison, B.A., is in St. Mary's, Ont.—E. L. Hill, B.A., is a teacher in Guelph, Ont.—W. H. Hodges, B.A., is a barrister, 2 Toronto St., Toronto.—F. B. Hodgins, B.A., is a clergyman in Detroit.—E. S. Hogarth, B.A., is a teacher in Hamilton, Ont.—F. A. Hough, B.A., is a barrister at Amherstburg, Ont.—J. P. Hubbard, B.A., is a physician in Forest, Ont.—E. L. Hunt, B.A., is a clergyman in Washington, D.C.—J. H. Hunter, B.A., is a clergyman in Coaticooke, Que.—W. F. Hull, B.A., is in Winnipeg, Man.—E. C. Jeffrey, B.A., is a lecturer in the University of Toronto.—J. Jeffries, B.A., is a teacher in Peterborough, Ont.—Alice Jones, B.A., is living in Toronto.—J. E. Jones, B.A., is a barrister in Toronto.—S. King, B.A., is a barrister in Toronto.—A. A. Knox, B.A., is a teacher in Chatham, Ont.—W. A. Lampert, B.A., is a barrister in Toronto.—Mary Lennox, B.A., is a teacher in Vancouver, B.C.—W. A. Leys, B.A., is a barrister in Port Arthur, Ont.—E. Lyon, B.A., is editor of the *Buffalo Express*, Buffalo, N.Y.—W. H. Metzler, B.A., is a professor in Syracuse University.—A. W. Mildren, B.A., is a teacher in Cornwall, Ont.—J. O. Miller, B.A., is a clergyman in St. Catharines.—W. Montgomery, B.A., is a teacher in Petrolea, Ont.—S. A. Morgan, B.A., is a teacher in Hamilton, Ont.—W. Morrin, B.A., is a clergyman in Port Colborne, Ont.—E. Mortimer, B.A., is a barrister in Toronto.—H. A. McCullough, B.A., is a physician in Brampton, Ont.—W. J. McDonald, B.A., is a barrister, 63 Yonge St., Toronto.—J. McGowan, B.A., is a teacher in Toronto.—R. McKay, B.A., is a barrister in Toronto.—W. M. McKay, B.A., is a barrister in Dawson City, Yukon.—A. J. L. Mackenzie, B.A., is a physician in London, Ont.—H. McLaren, B.A., is a physician in Ottawa.—J. W. Macmillan, B.A., is a Presbyterian clergyman in Lindsay, Ont.—W. B. Nicol, B.A., is a barrister in Sydney, Australia.—A. H. O'Brien, B.A., is a barrister in Ottawa.—R. D. Overholt, B.A., is in Auburn, Neb.—E. A. Pearson, B.A., is a Methodist clergyman in Aurora, Ont.—W. Prendergast, B.A., is a school inspector in Toronto, Ont.—S. J. Radcliffe, B.A., is a teacher in London, Ont.—G. H. Reed, B.A., is a teacher in Markham, Ont.—C. E. Saunders, B.A., is a teacher of music in

Ottawa.—S. J. Saunders, B.A., is a professor in Syracuse University, Utica, N.Y.—T. C. Somerville, B.A., is in Ottawa.

—S. D. Schulyz, B.A., is a barrister in Vancouver, B.C.—E. C. Senkler, B.A., is gold commissioner at Dawson City.—L. E. Skey, B.A., is an Anglican clergyman in Merriton, Ont.—F. J. Steen, B.A., is an Anglican clergyman in Montreal.—F. H. Sufel, B.A., is in West Superior, Wis.—M. P. Talling, B.A., is a Presbyterian clergyman, 148 Berkeley St., Toronto.—G. Waldron, B.A., is a barrister in Toronto.—R. Watt, B.A., is in Corwhin, Ont.—J. Waugh, B.A., is a school inspector in Whitby, Ont.—W. L. Wickett, B.A., is a barrister in St. Thomas, Ont.—G. Wilkie, B.A., is a barrister in Toronto.—J. G. Witon, B.A., is a teacher in Walkerton, Ont.

Address Unknown.—J. W. Kerr, B.A.

1898.

J. H. Alexander, B.A., is in Brampton, Ont.—C. D. Allin, B.A., is in Sandhurst, Ont.—Miss E. Allin, B.A., is a teacher in Glencoe, Ont.—A. W. Anderson, B.A., is in Toronto.—E. F. Armstrong, B.A., is a Methodist clergyman in Windsor, Ont.—Miss A. E. Ashwell, B.A., is a teacher in Kincardine, Ont.—C. Auld, B.A., is a teacher in Tilsonburg, Ont.—G. H. Balls, B.A., is a teacher in Wardsville, Ont.—T. F. Battle, B.A., is in Toronto.—H. R. Bean, B.A., is in Galveston, Ind., U.S.A.—E. W. Beatty, B.A., is in Toronto.—Miss M. H. Beatty, B.A., is in Toronto.—George Black, B.A., is a teacher in the State Normal School, Cheney, W.T., U.S.A.—O. M. Biggar, B.A., is a law student in Toronto.—S. E. Bolton, B.A., is a law student in Toronto.—Miss E. Bowes, B.A., is a teacher in Warton, Ont.—W. G. Browne, B.A., is in the Canadian Bank of Commerce, New York, U.S.A.—T. L. Buckton, B.A., is a teacher in Phoenix, B.C.—Miss A. Burbank, B.A., is in Hamilton, Ont.—A. M. Burnham, B.A., is a teacher in Lucan, Ont.—F. C. Carman, B.A., is a journalist in Toronto.—C. M. Carson, B.A., is in the Chemical Department, University of Toronto.—J. O. Carss, B.A., is a law student in Smith's Falls, Ont.—W. B. C. Caswell, B.A., is in Grimsby, Ont.—R. M. Chase, B.A., is a teacher in Prescott, Ont.—G. M. Clark, B.A., is a law student in Toronto.—R. J. Clark, B.A., is in Toronto.—F. A. Cleland, B.A., is in Meaford, Ont.—B. A. Cohoe, B.A., is in Toronto.—T. A. Colough, B.A., is a law student in Toronto.—G. Cooper, B.A., is a teacher in the Collegiate Institute, Goderich, Ont.—Mrs. R. M. Bennett, B.A. (Miss M. C. Cooper),

is in Grenfell, N.W.T.—Miss C. C. Crane, B.A., is in Toronto.—R. W. Craw, B.A., is a Presbyterian clergyman in Columbia, B.C.—C. T. Currelley, B.A., is a Methodist clergyman in Toronto.—J. H. Davidson, B.A., is a teacher in Bath, Ont.—Miss A. J. C. Dawson, B.A., is in London, Eng.—H. J. Dawson, B.A., is a lecturer in the Royal Military College, Kingston, Ont.—Mrs. J. J. Carrick, B.A. (Miss M. J. Day), is in Sault Ste. Marie, Ont.—Miss F. E. Deacon, B.A., is in Milton, Ont.—Miss E. E. Deroche, B.A., is teaching in Napanee, Ont.—W. J. Elder, B.A., is a teacher in Arthur, Ont.—J. H. Faull, B.A., is taking post graduate work at the University of Toronto.—Miss M. H. A. Fife, B.A., is teaching in Peterborough, Ont.—Miss E. G. Flavelle, B.A., is in Lindsay, Ont.—C. M. Fraser, B.A., is teaching in Collingwood, Ont.—B. Gahan, B.A., is in London, Ont. Miss E. M. Gibbs, B.A., is in Port Arthur, Ont.—Miss v. Gilfillan, B.A., is General Secretary of the Y.W.C.A., Hamilton, Ont.—Miss M. M. Graham, B.A., is in Toronto.—R. H. Greer, B.A., is in Toronto.—H. W. Gundy, B.A., is teaching in the Jarvis Street Collegiate Institute, Toronto.—J. M. Gunn, B.A., is in London, Ont.—F. C. Harper, B.A., is at Knox College, Toronto.—Miss M. A. Harvey, B.A., is teaching in Alma Ladies' College, St. Thomas, Ont.—Miss A. K. Healy, B.A., is teaching in Brooklyn, N.Y.—Miss E. M. Henry, B.A., is teaching in Lanark, Ont.—H. P. Hill, B.A., is in Ottawa, Ont.—Miss E. M. Hinch, B.A., is in Carman, Man.—N. E. Hinch, B.A., is teaching in Kingston, Ont.—J. W. Hobbs, B.A., is in London, Ont.—J. R. Howitt, B.A., is a law student in Toronto.—A. W. Hunter, B.A., is a law student in Toronto.—Miss G. H. Hunter, B.A., is in Toronto.—Miss M. E. Hunter, B.A., is in Toronto.—Miss A. Hurlburt, B.A., is in Mitchell, Ont.—Miss M. Hutton, B.A., is in Forest, Ont.—A. M. Irwin, B.A., is in Tyrone, Ont.—E. E. Irwin, B.A., is in Markdale, Ont.—A. E. I. Jackson, B.A., is in the 4th Street Bank, Philadelphia, Pa., U.S.A.—J. A. Jackson, B.A., is in Perth, Ont.—Miss R. A. Jackson, B.A., is in Toronto.—Miss H. Johnston, B.A., is teaching in Peekskill, N.Y.—C. G. Jones, B.A., is in Paris, Ont.—Mrs. W. R. P. Parker, B.A. (Miss I. M. Kerr), is in Toronto.—Miss F. E. Kirkwood, B.A., is teaching in Seaforth, Ont.—V. Kitto, B.A., is in Brampton, Ont.—T. Laidlaw, B.A., is in Mayfield, Ont.—Miss N. J. Lamont, B.A., is in Chesley, Ont.—J. H. Lemon, B.A., is in Toronto.—Miss M. Lick, B.A., is in Oshawa, Ont.—W. D. Love, B.A., is in Aguascalientes,

Mexico.—Miss E. Lynde, B.A., is in Madoc, Ont.—W. M. Martin, B.A., is teaching in Exeter, Ont.—Mrs. R. W. Angus, B.A. (Miss M. L. Menhennick), is in Toronto.—R. N. Merritt, B.A., is teaching in Norwood, Ont.—R. H. Mode, B.A., is at McMaster Hall, Toronto.—A. H. Montgomery, B.A., is in Brantford, Ont.—Miss L. Montgomery, B.A., is in Toronto.—J. G. Muir, B.A., is in Swansea, Ont.—Miss E. W. Muirhead, B.A., is in Toronto.—Miss K. L. Mullins, B.A., is teaching in New York.—H. Munroe, B.A., is in Woodstock, Ont.—G. M. Murray, B.A., is at Sault Ste. Marie, Ont.—D. E. McCracken, B.A., is in St. Mary's, Ont.—C. S. Macdonald, B.A., is in Toronto.—Miss H. S. Grant Macdonald, B.A., is teaching at Bishop Strachan's School, Toronto.—Mrs. S. J. McLean, B.A. (Miss H. B. McDougall), is in Fayetteville, Ark.—A. E. McFarlane, B.A., is a journalist in New York.—A. McGregor, B.A., is a law student in Toronto.—J. M. McKinley, B.A., is teaching in Parkhill, Ont.—J. C. MacMurchy, B.A., is in Toronto.—H. H. Naraway, B.A., is in Vancouver, B.C.—G. W. K. Noble, B.A., is in Toronto.—Miss M. I. Northway, B.A., is at Bryn Mawr, Pa.—H. L. Partridge, B.A., is in Crown Hill, Ont.—Miss J. M. Pearce, B.A., is teaching in Caldwell, N.J., U.S.—R. J. M. Perkins, B.A., is at Ridley Hall, Cambridge University, England.—J. D. Richardson, B.A., is a Methodist clergyman at Drumbo, Ont.—L. F. Robertson, B.A., is in Stratford, Ont.—D. A. Ross, B.A., is superintendent of Sailor Mine, Camp McKinney, B.C.—Miss B. Rosentstadt, B.A., is in Hamilton, Ont.—Miss M. C. Rowell, B.A., is teaching in St. Thomas, Ont.—Miss H. Rumball, B.A., is in Toronto.—P. W. Saunders, B.A., is a medical student in Toronto.—J. T. Shottwell, B.A., is a lecturer in Columbia University, New York.—N. R. D. Sinclair, B.A., is in Whitby, Ont.—Miss M. H. Skinner, B.A., is in Toronto.—W. E. A. Slaght, B.A., is in Toronto.—Miss M. M. Slater, B.A., is at Niagara Falls, Ont.—A. W. Smith, B.A., is teaching at Kemptville, Ont.—A. B. Steer, B.A., is teaching in Markham, Ont.—R. Stoddart, B.A., is teaching in Listowel, Ont.—Miss M. M. Stovel, B.A., is a journalist in Detroit, Mich.—Miss E. G. Swanzey, B.A., is in Regina, N.W.T.—S. T. Tucker, B.A., is a Methodist clergyman in Toronto.—G. L. Wager, B.A., is teaching in Uxbridge, Ont.—Miss F. M. Webb, B.A., is teaching in New York.—D. B. White, B.A., is teaching in Iroquois, Ont.—Miss G. A. Wilson, B.A., is in Whitevale, Ont.—J. A. Wil-

son, B.A., is in Mildmay, Ont.—Miss W. Wilson, B.A., is in Toronto.—F. D. Woodworth, B.A., is on the *Mail and Empire*, Toronto.

Deceased.—Miss E. M. D. Moore, B.A.

Addresses Unknown.—W. F. Carpenter, B.A.—W. D. Caskey, B.A.—A. T. Cushing, B.A.—F. A. Danard, B.A.—A. E. Fisher, B.A.—V. J. Gilpin, B.A.—A. J. Goodall, B.A.—W. F. Hansford, B.A.—M. M. Hawkins, B.A.—J. V. Henderson, B.A.—W. H. C. Leech, B.A.—E. G. Moore, B.A.—M. D. McKichan, B.A.—A. M. Nicholson, B.A.—G. C. F. Pringle, B.A.—D. N. Reid, B.A.—R. H. Rowland, B.A.—M. W. Shepherd, B.A.—J. W. Sifton, B.A.—W. G. Smeaton, B.A.—J. T. A. Smithson, B.A.—J. J. Sparling, B.A.—J. M. Stevens, B.A.—G. F. Swinnerton, B.A.—F. W. Thompson, B.A.—M. J. Wilson, B.A.

PERSONALS.

Every alumnus of the University of Toronto is invited to send to the Editor items of interest for insertion in this department. News of a personal nature about any alumnus will be gladly received.

Wm. Sanderson, B.A., '85, is editor of the *Economist*, Toronto.

Prof. H. J. Cody, B.A., '89, of Wycliffe College, is spending the summer in Europe.

R. J. MacAlpine, B.A. '99, is assistant to the Rev. Dr. McMullen, of Knox Church, Woodstock.

F. Sanderson, Esq., B.A. '87, M.A. '88, is an actuary in the Canada Life Assurance Company, Toronto.

Rev. R. M. Hamilton, B.A. '87, has removed to Weston and was inducted into his new charge on May 30th.

Professor A. B. Macallum has been appointed associate-editor of the *English Journal of Physiology* (Cambridge).

Miss E. R. Laird, B.A., '96, has recently received the degree of Ph.D. from the University of Bryn Mawr, Penn.

Rev. R. W. Craw, B.A. '98, one of this year's graduates from Knox College, has been stationed at Columbia, B.C.

C. J. McCabe, B.A., '82, barrister, Toronto, has been appointed clerk of the Surrogate at Osgoode Hall in the place of the late Hon. A. S. Hardy, LL.D.

B. A. Cohoe, M.B., '01, and A. H. Montgomery, M.B., '01, have been appointed assistants in the Department of Anatomy of Cornell University.

D. D. Moshier, B.A. '96, B.Paed. '01, has just been appointed Public School Inspector for West Lambton.

Miss J. W. Carter, B.A. '91, M.A. '94, of the Elora High School, has been appointed teacher of French and German in the Galt Collegiate Institute.

Rev. D. C. Hossack, B.A. '83 (Vic.), LL.B. '88, has resumed the practice of law, and has joined the firm which will be known as Hossack, Dods & Grant.

F. W. Shipley, B.A., '92, lately Professor of Latin in the Lewis Institute, Chicago, has been appointed to a similar position in the Washington University, St. Louis, Mo.

President Loudon received the degree of LL.D. from the University of Glasgow while attending the celebration of the ninth jubilee of that famous seat of learning early this month.

L. F. Robertson, B.A., '98, has completed his medical course at McGill, taking the Clemesha prize for clinical therapeutics, standing third in his final year, and first in medicine.

G. H. Locke, B.A., '93, who has been instructor in pedagogy at the University of Chicago, has been appointed Assistant Professor of Pedagogy. Mr. Locke is also editor of the *School Review*, Chicago.

S. J. McLean, B.A. '94, Ph.D., Professor of Economics in the University of Arkansas, is spending the summer in Ontario, and will, during his visit, continue his study of the transportation problem by examining into transportation conditions in Canada.

Miss H. E. Wigg, B.A., who at the recent examinations in the University ranked first (equal) in first-class honours in mathematics of the fourth year, has been offered a scholarship in mathematics of the value of \$300 at Bryn Mawr.

W. L. M. King, B.A. '95, LL.B. '96, Deputy Minister of Labour, attended the nineteenth annual convention of the Association of Officials of Labour Bureaus held at St. Louis and was elected Vice-President of the Association.

At the recent session of the Royal Society of Canada held in Ottawa President Loudon was elected President of the Society for 1901-2, and Professor A. B. Macallum was elected a member. The next session of the Society will be held in Toronto.

E. N. Coutts, M.B., '00, who has held the "George Brown Memorial Scholarship" in the University of Toronto Medical Faculty

since graduation, has obtained the Colonial Fellowship in Pathology in connection with University College, Liverpool, England.

Rev. W. A. Bradley, B.A. '88, of Berlin, Secretary of the Waterloo County Alumni Association, has gone to Europe. Previous to his departure the congregation of St. Andrew's, Berlin, presented Mr. Bradley with an address accompanied by a well-filled purse.

M. A. Buchanan, who stood at the head of the graduating class at the University of Toronto in modern languages this year, has been offered a fellowship in Romance languages in Chicago University. He is spending the summer vacation in France and Italy, but will return in the autumn to continue his studies in Chicago.

Julius Rossin, B.A. '64, who is this year visiting his native place, having been absent from Toronto since graduation, during which time he has been a resident of Hamburg, Germany, was a much welcomed visitor at Convocation and at the Alumni dinner. Mr. Rossin is the founder of the Julius Rossin Scholarship in Modern Languages.

As an incentive for our Alumni in behalf of our *Alma Mater*, we quote from *Science*, May 17: "The Alumni of Columbia University are making efforts to collect \$400,000 for a hall for the college. It is hoped that the building may be erected by the time of the celebration of the 150th anniversary of the founding of the university in 1904."

A reunion of the graduates in medicine of the University of Toronto of the class of '92 was held at the Albany Club, Toronto, June 19th. The following members of the class sat down to dinner:—Drs. G. H. Bowles, Woodhill, Ont.; J. H. G. Youell, Aylmer, Ont.; T. H. Middlebro, Owen Sound; Wm. Crawford, Hamilton, J. J. Harper, Alliston, Ont.; F. A. Rosebrugh, Hamilton; H. Gear, Erin, Ont.; Archie Montgomery, Chicago; S. H. McCoy, St. Catharines; Wm. Chambers, Oakwood; J. H. C. Evans, Stroud; Frank Forrest, Uxbridge; L. H. Campbell, Bradford; P. McG. Brown, Camlachie; W. P. Thomson, Toronto; C. C. Richardson, Aurora; Herbert A. Bruce, Toronto. The following officers were elected:—Dr. Herbert A. Bruce, President, and Dr. S. H. McCoy, Secretary. The gathering was so successful that it was arranged to hold another three years hence.

MARRIAGES.

At Alliston, on June 4th, 1901, Miss Helen Burnett was married to W. J. Hill, D.D.S., of Alliston, Ont.

At Picton, June 5th, 1901, William G. Jaffray, son of Robert Jaffray, Esq., Toronto, was married to Miss Ethelwyn L. Gillespie, B.A. '96.

At Toronto, June 22nd, by Rev. Wm. H. Hincks, LL.B. '89, Walter Leisenring, of Irwin, P.A., to Miss Winnifred Wilson, B.A. '98.

In the Metropolitan Church, Toronto, June 5th, Frank Delmar Woodworth, B.A. '98, of the *Mail and Empire* staff, was married to Miss Mercy Corinth Morrison, of Toronto.

At Toronto, Tuesday, June 25th, by Rev. R. Douglas Fraser, M.A. '71, Edward Charles Jeffrey, B.A. '88, Lecturer in the University of Toronto, to Miss Jennette Atwater Street, B.A. '95.

On June 12th, by the Rev. Alex MacMillan, of St. Enoch's Church, Toronto, Rev. Thos. H. Rogers, B.A. '87, East Toronto, was married to Miss Sarah A., only daughter of the late Rev. James Adams.

H. Wm. Miller, M.B. '95, pathologist at the State hospital in Taunton, Mass., and son of C. J. Miller, of Orillia, was married in Park street Congregational Church, Boston, on June 18th, to Miss Gertrude Beatrice Wright.

On June 1st, by Rev. George Ferguson, Henry F. Cook, B.A. '99, Assistant Inspector of Public Schools of Norfolk County,

was married to Miss Ida R. Haddock, of Mount Elgin, Oxford County, graduate of Grace Hospital, Detroit.

On June 12th, by the Rev. Dr. McMullen, assisted by R. J. McAlpine, M.A., Bertha, eldest daughter of R. R. Fulton, Esq., Woodstock, Ont., was married to Alfred Hall, B.A. '95, M.A. '96, LL.B. '96, B.C.L., of Osgoode Hall and the British Columbia bar.

On 12th June, 1901, by the Rev. Prof. E. R. Doxsee, B.A., B.D., brother of the bridegroom, Miss Carolyn Lenore Irwin, only daughter of Jared Irwin, Esq., Newmarket, was married to William Morley Doxsee, B.A. '92, mathematical master of Perth Collegiate Institute, son of Rev. A. Doxsee, Belleville.

DEATHS.

Spence—At Manchester, Ontario, on May 30th, Frances Spence, B.A., '95, youngest daughter of Wm. Spence.

Mackay—At Tamsui, Formosa, on June 1st, 1901, the Rev. George Leslie Mackay, missionary of the Presbyterian Church in Canada, in the 58th year of his age.

Hardy—At the Toronto General Hospital, on Thursday, June 13th, 1901, at 10 p.m., the Honourable Arthur Sturgis Hardy, K.C., LL.D., '97, late Attorney-General and Premier of the Province of Ontario, in his 64th year.

The word "Paid" on the wrapper of this magazine shows that the receiver's membership fee to the Alumni Association for the year ending June, 1901, has been paid. Unpaid fees may be sent to S. J. Robertson, Acting Secretary, Dean's House, University of Toronto.