

ANNUAL REPORT
OF THE
GOVERNORS, PRINCIPAL AND FELLOWS
OF
MCGILL UNIVERSITY, MONTREAL
FOR THE YEAR 1900-1901

(Published by permission of His Excellency the Governor-General, Visitor of the University.)

*To His Excellency the Right Honourable Sir Gilbert
John Murray Kynynmound Elliot, Earl of Minto,
Governor-General of Canada.*

MAY IT PLEASE YOUR EXCELLENCY:—

We beg leave respectfully to submit to Your Excellency, as Visitor of the University, under its Royal Charter, the following Report for the educational year ending 31st August, 1901.

It is gratifying to be able to state that considerable progress has been made in regard to some of the matters to which we directed special attention a year ago. The need for a Chair of Economics, which we put in the forefront of our last Report, has been most opportunely supplied by private munificence—the Board of Governors having received from the Misses Dow, of Montreal, an endowment of sixty thousand dollars for the maintenance of a Chair to be called, in memory of their late uncle, the “William Dow Chair” of Political Economy. And the position of the Faculty of Arts has been still further improved by the munificence of Sir William C. Macdonald, who has provided

endowments—mainly for Botany, Chemistry, and Physics—to the extent of one hundred and sixty thousand dollars, and has thus set free, for the needs of the new curriculum, revenues which have hitherto been absorbed by these departments. As the immediate consequence of this wisely directed generosity, the Board of Governors has found itself in a position to incur additional expenditure in order to secure greater teaching efficiency in connection with such fundamental subjects as English, Modern Languages, Philosophy and Zoology; while the new Professor of Economics will also have the advantage, at the very outset of his work, of the co-operation of a Lecturer in the cognate department of Political Science.

As the Faculty of Arts is the foundation on which the whole system of the University rests, and as it is coming to be increasingly recognised as the best means of access to the professional departments of our work, it seems allowable to state at once here what seems to be the next necessity of the situation. It may be said, generally, that additions to the teaching staff are desirable in nearly every branch of study, so as to permit of a greater degree of individual attention being given to the various sections of our large junior classes, and also to enable the Faculty to develop a real scheme of post-graduate work, which is at present almost entirely neglected. But apart from this there is a definite need for new endowments in connection with two of our most important departments—Philosophy and Mathematics. It is a complete anomaly that there should exist to-day in an institution of such high standing as McGill a double Chair of Mental and Moral Philosophy, and the separation of Ethics from Logic and Psychology becomes a matter of pressing urgency. In regard to Mathematics, the opportunity should be taken at an early date of unifying the whole teaching throughout the University, probably under two full Professors who should be responsible for all mathematical work, whether in the Faculty of Arts or in that of Applied Science.

In connection with the Faculty of Arts, it is a pleasure to refer to the increasing prosperity of the Royal Victoria College for Women, which has now completed its second session. It was hardly to be expected that the aims and advantages of this institution should meet with such immediate appreciation as at once to fill it with *resident* students who have passed the matriculation examination and are pursuing a complete course of undergraduate study. But the number of such students is steadily increasing, and meanwhile the life of the College has taken its tone from the small society of those who have lived within its walls in the initial stage of its academic existence. It seemed a happy augury of what may be looked forward to with confidence as an increasingly prosperous and beneficent career, that it was in the Assembly Hall of the Royal Victoria College—selected for this purpose by Convocation—that the Honorary Degree of Doctor of Laws was most graciously accepted, not only by the Duke, but also by the Duchess of Cornwall and York, on the occasion of Their Royal Highnesses' recent visit to the University.

It was a matter of regret to all concerned that the shortness of the time at the disposal of the Royal visitors—who, after the ceremony at the Victoria College, proceeded to the new buildings of the Faculty of Medicine—did not permit of an inspection of the extension of the University Library which has been undertaken, as mentioned in our last Report, by Mrs. Peter Redpath, of the Manor House, Chislehurst, in memory of her late husband. The Librarian's yearly statement, which will be found appended, contains a detailed reference to the advantages which will be derived from this very generous gift, and all the friends of the University are most grateful to Mrs. Redpath for this mark of her continued interest in, and care for, the work which is only one of many lasting monuments of her late husband's far-sighted munificence.

Following the example of the Protestant Committee, which last year increased the subsidy annually voted for the sup-

port of the University Schools Examinations from \$200 to \$500, the Protestant School Commissioners of the City of Montreal have also increased their contribution from \$150 to \$300. This is the first year in which McGill University has had the exclusive control of these examinations, and they have been conducted during the past summer with a measure of efficiency and success never before attained to. It is a pleasure to state also that our relations with the schools of the Province were never more cordial.

The Board of Governors has to report arrangements with the Associated Board of the Royal Academy of Music and the Royal College of Music, of London, England, in virtue of which local examinations in Music will henceforth be held throughout Canada by McGill University in conjunction with the Associated Board. In order to secure greater efficiency, it is in contemplation to employ for the future more than one examiner in connection with these examinations, for the conduct of which the whole machinery of our own University School examinations will be available. No more satisfactory scheme of examinations in Music can be found anywhere than that which has been carefully developed by the Associated Board; and by connecting the work of this Board in Canada with a University which cherishes more than merely local aims, it is expected that great benefits will result to the cause of musical education throughout the Dominion. It will be fortunate, too, if this indication of our interest in the subject should lead to an extension of the work which, inside the University, is at present being conducted with so great a measure of success by the Resident Instructor in Music at the Royal Victoria College.

Reference should be made to the fact that the undergraduates of the University, acting on a suggestion contained in our last Report, have combined to form what may be called a Representative Council (the "Alma Mater Society") similar to that which exists in other Universities for the purpose of securing greater cohesion among the students of the various Faculties. It cannot be doubted that it will

be a great convenience also to the authorities of the University to be able to communicate directly with the chosen representatives of the undergraduate body when matters are under consideration affecting student interests.

The University is still without a Gymnasium worthy of the name, and the want was painfully felt by our athletes when they received on a recent occasion the representatives of athletics at Oxford and Cambridge, previous to their visit to the United States. These gentlemen will have seen much at Harvard and Yale which is still a long way from being realized at McGill. But though they came to Montreal before the session began, when comparatively few members of the University were in Montreal, we are sure they were nowhere more cordially welcomed than they were by us. The want of residential accommodation for our students—a want which is unknown at Oxford and Cambridge—must also have struck them forcibly, and we trust it may not be long before some of our wealthy citizens, who have not hitherto been approached with reference to the needs of the University, undertake to supply this want. It comes second only to a new and well equipped Gymnasium on the College Grounds. From a merely business point of view, as was stated in our last Report, it must be obvious that improved conditions of residence would mean an increase in our student constituency, and, in this way, an increase in the revenue derived from fees.

Among other pressing needs is an addition to the funds at our disposal for Fellowships to be awarded for the promotion of post-graduate work. Our Exhibitions (for undergraduates) should also be increased in value, if they are to prove attractive to candidates who may think of coming up to McGill from distant centres. It may be anticipated that competition for these Exhibitions will be further stimulated by the change of date which is to come into operation in 1903; after that date they will be competed for in June instead of in November.

If progress is to be made in the department of post-graduate research, it is indispensable that further provision should be made for the needs of the Library. Some of our Professors are severely handicapped in regard to original investigation by the fact that the Library is almost entirely destitute of the special works they require; and it is obviously impossible to expect them to attract advanced students to their laboratories or lecture-rooms so long as they cannot provide such students with the necessary materials. In some departments the need is pressing for a larger supply of the scientific journals, and above all for complete sets of the back numbers of these journals. These are every year becoming more difficult to obtain, and are rising in price. Where they are not available, no piece of research work can be published with any degree of confidence that the ground has not been already covered, and it must be obvious that a school of research cannot be built up under conditions so defective.

In any complete statement of the needs of the University, it would be impossible to omit a reference to the fact that the scale of remuneration at present in force with regard to professorial salaries is, in many cases, inadequate. The University is frequently in danger of losing its best men—men who have been carefully chosen, after a considerable expenditure of time and trouble—owing to the greater inducements which are offered elsewhere. The expense of living in the City of Montreal has greatly increased since the present scale was adopted, and those who know the circumstances will admit that it must be hard for anyone to bring up a family in Montreal with any degree of comfort or social credit on an income of less than Three Thousand Dollars. This should be aimed at henceforward as the minimum salary of all full Professorships.

Chancellor.

Principal.

October, 1901.

THE YEAR 1900-1901.

In the meetings of Convocation at the close of the session, the following degrees in Course were conferred :

Law, B.C.L.	17
Medicine, M.D.	93
Arts, B.A.	36
Arts, M.A.	4
Arts, B. Sc.	1
Arts, M. Sc.	1
Applied Science, B. Sc.	41
Applied Science, M.Sc.	10
Applied Science, D.Sc.	1
Veterinary Science, D.V.S.	3
	207

In addition to the above, James C. Fyshe, B.A., (Harvard) was admitted to the degree of B.A., "ad eundem gradum."

Seven Gold Medals were awarded to successful candidates, besides the Wicksteed Silver Medal for Physical Culture, and the British Association Medals in the Faculty of Applied Science.

Examinations for the Certificate of Associate in Arts were held in June, 1901, at 35 centres, with the following results :

Candidates for A. A. certificate	192
" passed successfully	120
" for preliminary subjects	219
" for Matriculation only	215 (40 centres)
" qualified for entrance :—	
For Medicine	15
For Arts of Medicine	60
For Applied Science	21

The total number of Students attending classes in McGill College during last session was distributed as follows :

Faculty of Law	60
" " Medicine	513
" " Arts	110 } 294
Women	184 }
Men	
" " Applied Science	254
" " Veterinary Science	16
	1,137
Deduct, repeated in different lists	30
	1,107
In McGill Normal School—	
Teachers-in-training	

In the classes of the Normal School at the close of last session Diplomas were granted by the Central Board of Examiners, including for Academies (issued to graduates in Arts of the University), and for Model Schools, the remainder being given in the Kindergarten, Elementary and Advanced Elementary Classes.

At the September Exhibition and Scholarship Examinations in Arts, 2 Scholarships and 25 Exhibitions were awarded, varying in value from \$200 to \$75.

In Applied Science the British Association Prizes and the Scott Exhibition of \$50 and other prizes were awarded.

NEW ENDOWMENTS AND DONATIONS.

The Rt. Hon. Lord Stratbcona has given \$42,500 for the maintenance during the year of the Royal Victoria College.

Sir William C. Macdonald has given, in addition to many other generous gifts, the sum of \$60,000 to endow the Chair of Chemistry held by the Directors of the Chemistry and Mining Building; \$50,000 to endow the Chair of Botany; \$20,000 to supplement the endowment of the Chairs of Physics bearing his name; \$30,000 for storage batteries, reinstallation of the electric wiring of the Physics Building, and other purposes; \$3,600 for travelling scholarships in Law; and has added to the Auxiliary Endowment Fund, which he established in 1897, the sum of \$32,500.

Mrs. Peter Redpath has given, in continuance of her late husband's annual subscription, \$1,000 yearly for the maintenance of the Peter Redpath Museum and \$500 yearly for the salary of the Museum assistant, and has also given, as in former years, \$5,000 yearly for the maintenance of the University Library.

The Misses Dow have given \$60,000 to found a chair of Political Economy, associated with the name of the late Mr. William Dow.

In consequence of the endowment of the above-mentioned Chair of Chemistry by Sir W. C. Macdonald, the David J. Greenshields endowment of that chair has, with

the consent of the representatives of the donor, been transferred to the Associate-Professorship of English Literature.

Mr. George Hague has continued the exhibition of \$125 offered regularly for many years in his name in the Faculty of Arts.

A Friend has given \$150 towards the maintenance of the Biological Table at Woods' Holl.

The following gentlemen contributed for prizes in the Faculty of Applied Science: Mr. E. B. Greenshields, \$25; Messrs. Fraser & Chalmers, \$25; Mr. J. M. McCarthy, \$20; Mr. W. A. Carlyle, \$150; Mr. C. J. Fleet, \$20; Robert Gardner, \$25; Crosby Steam Gauge & Valve Co., \$25; Canadian General Electric Co., \$400.

NEW APPOINTMENTS AND CHANGES OF APPOINTMENT.

In the Faculty of Medicine:—

J. T. Halsey, M.D., Demonstrator of Pharmacology, was appointed Lecturer in Pharmacology.

In the Faculties of Arts and Applied Science:—

H. M. Jacquays, M.A., M.Sc.; was appointed Assistant-Professor of Mechanical Engineering.

P. T. Lafleur, M.A., was appointed David J. Greenshields Associate-Professor of English Literature.

Hermann Walter, M.A., Ph.D., was appointed Lecturer in Modern Languages.

Rev. J. L. Morin, M.A., was appointed Lecturer in French.

John W. Cunliffe, M.A., D.Litt., was appointed Lecturer in English Language and Literature.

J. Stafford, B.A., Ph.D., was appointed Lecturer in Zoology.

J. W. A. Hickson, M.A., Ph.D., was appointed Tutor and Lecturer in Philosophy.

A. W. Flux, M.A., was appointed William Dow Professor of Political Economy.

S. B. Leacock, Ph.D., was appointed Lecturer in Political Science.

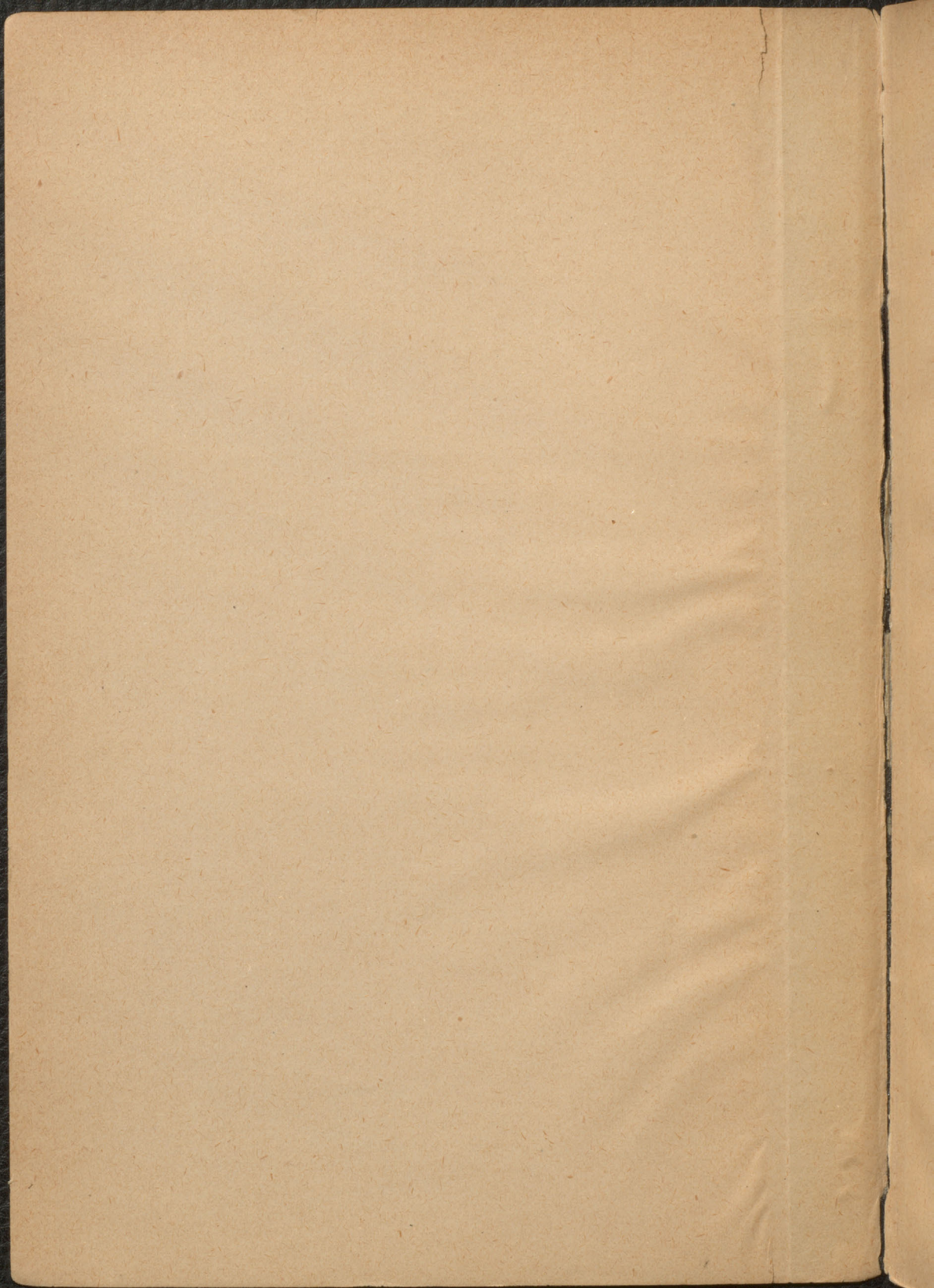
A large number of Demonstrators have also been appointed in the several Faculties.

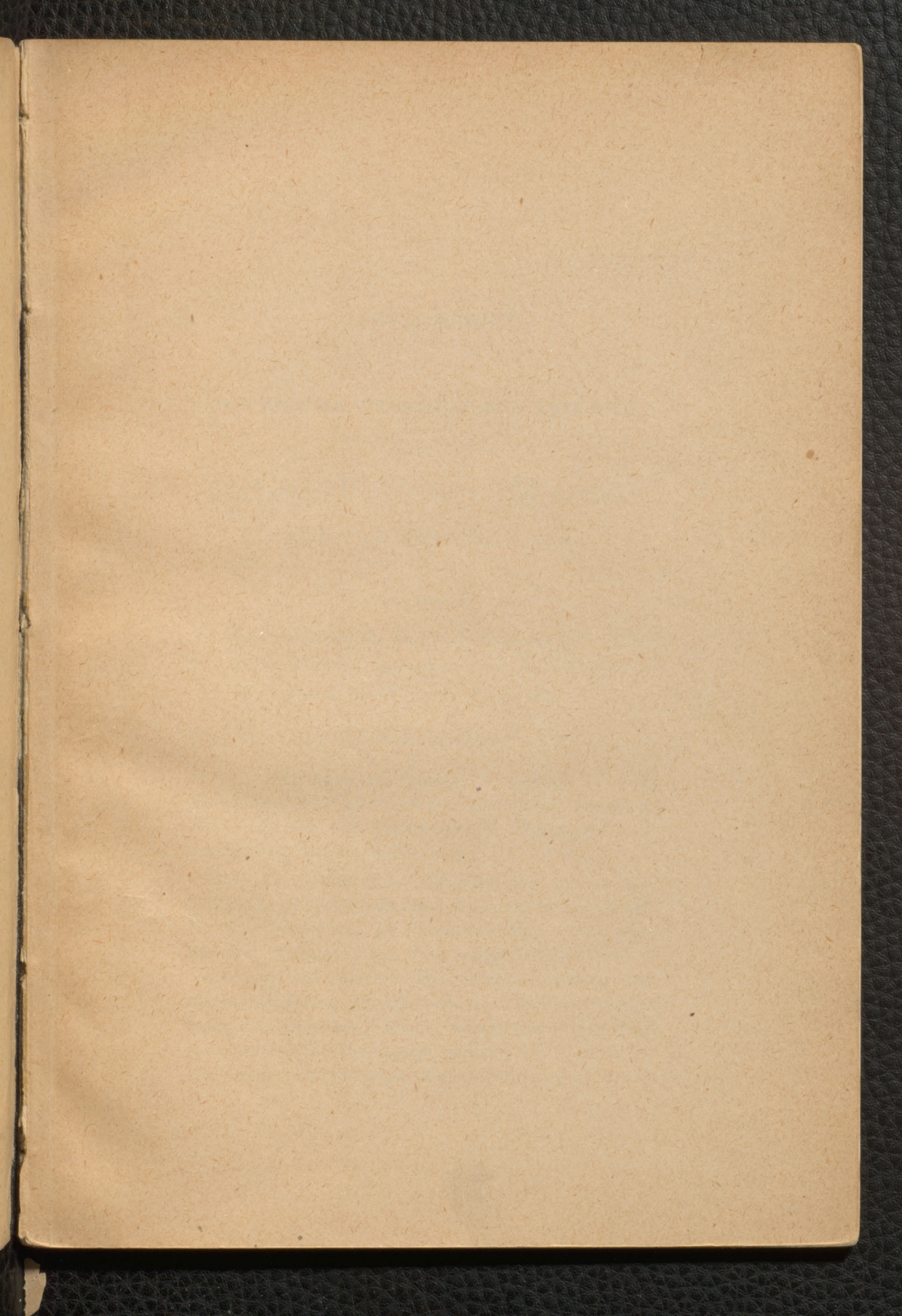
FACULTY OF LAW.

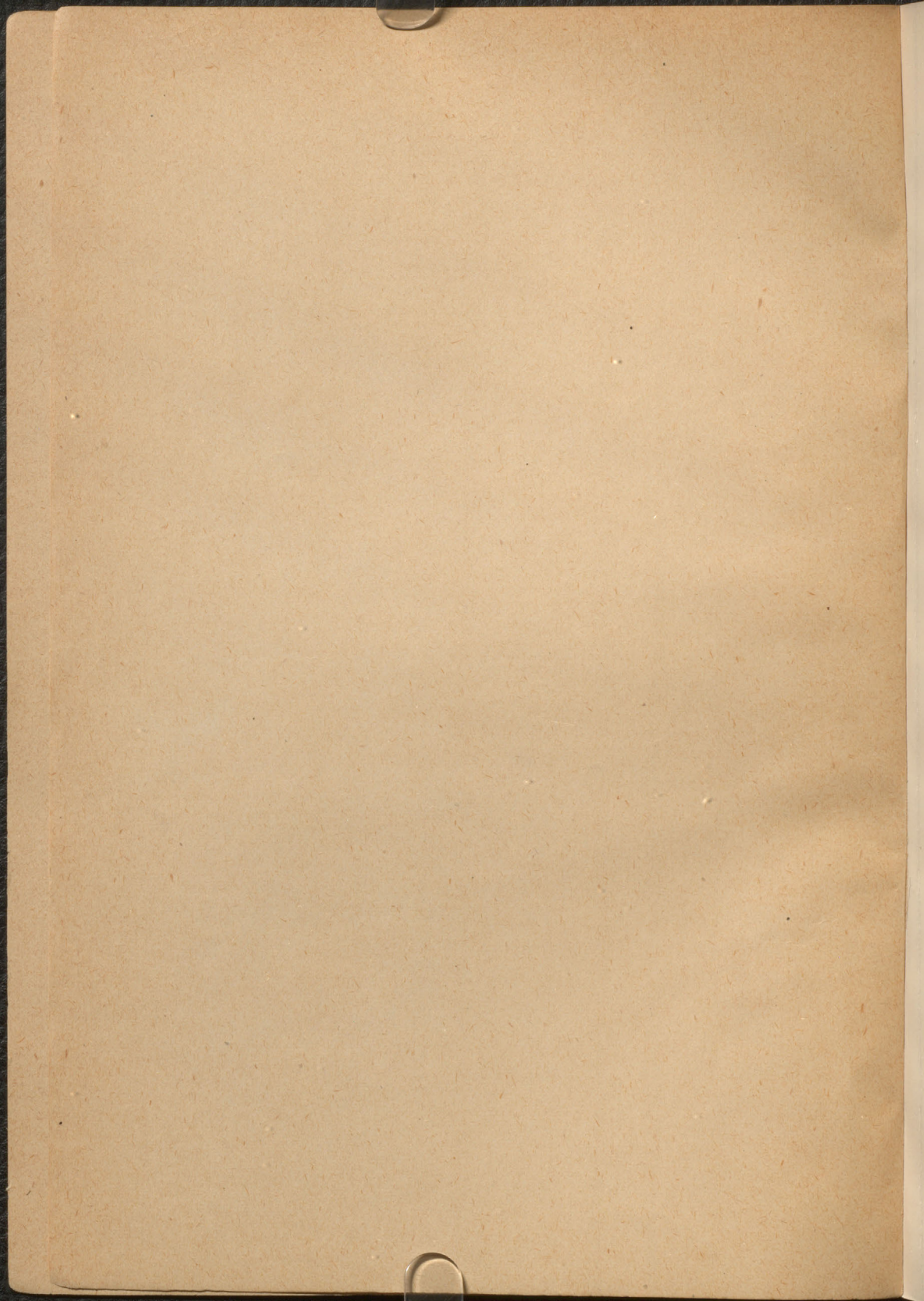
The number of students registered in this Faculty was 60, of whom 52 took the full course. In addition, two students in Arts took the class of Roman Law and six students in Arts took the class of Constitutional Law. At the end of the session Sir William C. Macdonald generously offered to provide for this year six travelling scholarships. This has enabled six of the graduates of 1901 to proceed to France, where they will spend a year in the study of the French law and of the French language. The great importance of a thorough knowledge of French for the practice of the legal profession in this Province has always been strongly emphasised by the Faculty. They believe that, even apart from the great educational value of a residence abroad, a post-graduate course in a French Faculty of Law forms the best possible supplement to the work done here. They desire to record their grateful sense of the wise liberality of Sir Wm. Macdonald.

Registrar,

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*To His Excellency the Right Honourable Sir Gilbert
John Murray Kynynmound Elliott, Earl of
Minto, Governor-General of Canada.*

MAY IT PLEASE YOUR EXCELLENCY :—

We have the honour to submit to Your Excellency, as Visitor of the University under its Royal Charter, our Report for the educational year ending 31st August, 1903.

Since the session closed, in June, two members of the Board of Governors have been removed by death, Mr. A. F. Gault and Mr. Samuel Finley. Both were devoted friends of the University, and rendered it much unselfish service. Mr. Gault's liberality was displayed, during his life-time, mainly in connection with the Diocesan College, which now holds high rank among the theological colleges affiliated to the University ; but the terms of his will remind us that he

was not forgetful also of the interests of the Faculty of Arts, on which our theological colleges so largely depend for the teaching which ought to precede their own professional courses. The late Mr. Finley was one of those who seem to find their greatest source of satisfaction in the service of others. As Honorary Treasurer and Chairman of the Finance Committee, he applied himself cheerfully to the irksome details of financial administration, and it may be doubted if the Board ever had a more useful member, or the University a more loyal supporter. The extent of his benevolence in the community which deplores his loss will probably never be known: he was as unostentatious as he was generous and large-hearted. His death is most sincerely mourned by a large circle of friends, and by the public at large; and nowhere will he be more greatly missed than at McGill.

Earlier in the year, the University was startled by the intimation of the sudden death of the Rev. D. H. MacVicar, D.D., Principal of the Presbyterian College, and for thirty-two years a member of the Corporation of the University. In the course of his long career, Dr. MacVicar rendered great service to the cause of education generally, as well as to the interests which he specially represented, and all the University bodies united in testifying to the moral earnestness, the high purpose, the strength of conviction, and withal the kindness of heart that characterized his life.

In the course of the session, the Board received the resignations of three of the senior members of the staff,—Dr. Alex. Johnson, Redpath Professor of Pure Mathematics, Dean of the Faculty of Arts, and Vice-Principal of the University; Rev. Dr. Clark Murray, Frothingham Professor of Philosophy, and Dr. Duncan McEachran, Dean of the Faculty of Comparative Medicine.

The circumstances in which the work of the last-named Faculty has been carried on during recent years—with no endowment, an insufficient staff, inadequate equipment, and a decreasing number of students—have involved much discouragement for all who have its interests at heart, and especially for Dean McEachran. Following the recent example of Harvard, and not without the same hope of reviving at some future date the operations of the Faculty on a larger scale, the Board of Governors came to the decision, after careful consultation, that its work should be discontinued for the present. In so doing, the Board took the opportunity of expressing its hearty appreciation of the devoted service the Dean had rendered to the Veterinary School during the long period of his connection with it, even to the prejudice of his other professional interests. There are many graduates of the Faculty of Comparative Medicine, scattered throughout the American continent, who would gratefully acknowledge that they owe much of their professional success to the scientific spirit which Dr. McEachran led them to throw into their work, in the days when—in that as in many other respects—his School stood second to none.

Some time after Dr. Clark Murray's resignation was intimated, the Board was enabled, by the liberality of its Chairman, Sir Wm. C. Macdonald, to institute a second Chair of Philosophy, in addition to that which Dr. Murray had held for a period of over thirty years. Perhaps no action could have more fittingly marked the general sense of loss felt by all alike at the withdrawal from active service of one of the most highly-esteemed members of the University. It was a recognition of the fact that Dr. Murray's retirement made it indispensable that some addition to the staff should be secured for the important department in which he had so long toiled, almost single-handed.

While fitting expression was given by the various University bodies to their regret for the loss of a dear and honoured colleague, perhaps none of the various resolutions conveys this feeling more adequately than that adopted by the Board of Governors itself on receiving Dr. Murray's resignation. It is here sub-joined :—

“RESOLVED that in accepting the letter of resignation received from the Rev. Dr. Clark Murray, Professor of Mental and Moral Philosophy in the University, the Board of Governors desires to convey to him its deep sense of the value of the services he has rendered the University during his thirty-one years' tenure of his present Chair.

It is within the knowledge of every member of the Board that no Professor has exerted a greater influence for good on the minds of his students, and that no member of the staff has ever been more highly respected in every section of the community. To his intimate acquaintance with all the branches pertaining to his Chair, Dr. Murray has added the gift of clear and lucid exposition of the most abstruse questions and also a personality that wins the affectionate regard of all with whom he has had to do. It is the confident expectation of the Board that as Professor Emeritus Dr. Clark Murray will continue to exercise his intellectual gifts with increased satisfaction to himself and others, now that he is released from the active work of teaching.”

The withdrawal of Dr. Johnson, Vice-Principal of the University, from the scenes where he has laboured almost without intermission for over forty years involves another break with the past, the necessity for which cannot but be regretted by every friend of the University. During the long period of his service Dr. Johnson has ever sought to maintain the highest possible standards of academic work and efficiency, and it is recognized on all sides that as a teacher he has left an enduring mark on the mathematical work of the University and of the district which it serves. And his knowledge of the most minute details of administration, together with his strong, clear guidance at University meetings, will be much missed by many. The following is the resolution adopted by the Board

of Governors on the occasion of Dr. Johnson's retirement:—

“RESOLVED, that in accepting Dr. Johnson's resignation the Board of Governors desires to place on record its high appreciation of the work done by Dr. Johnson for the University during his long period of service.

For forty-five years—many of them years in which the position of the University was not so well assured as it is to-day,—Dr. Johnson has been assiduous in the discharge of the various duties of his office, not only as professor and teacher, but also as the executive head of the Faculty of Arts. His intimate acquaintance with the regulations of the University, and the painstaking care with which he has attended to the details of administration, have always impressed the members of the various University bodies with which he has been in contact.

In parting with Dr. Johnson, the Board of Governors desires to express the hope that he will find much satisfaction and enjoyment in the pursuits and avocations to which he may now devote the leisure thus secured for him.”

Even under the shadow of these and other with drawals, signs were not wanting that the University was about to enter on an era of new and increased prosperity, especially in the Faculty of Arts. The careful work of re-organization which has occupied so much of the time and attention of this Faculty during recent years, and the higher efficiency that has been secured for its various departments of teaching, may fairly now be expected to bear fruit, and it is gratifying to be able to report that at the date of writing, the entries of students are already considerably in excess of those of last session.

The detailed statements appended to this Report will give a better idea than anything else could give of the variety of the operations conducted under the auspices of the University, and the complex nature of our academic machinery. Only a few outstanding features can be alluded to here, and these will be most fitly chosen according as they may seem most clearly to point the way of future progress.

The Faculty of Arts continues to feel the importance of the closest possible connection between itself and the Normal School, which trains the teachers of the Province. The course of study in that institution is believed to have been considerably strengthened by the addition to its staff of some of our Lecturers and Assistant Professors,—notably in such subjects as Botany, Physics and Chemistry; but the highest results will only be obtained when adequate inducements are offered to teachers in training to go forward to the University itself. The standard of efficiency throughout the Province would be greatly raised if a larger number of teachers could be carried forward from the Normal School to at least the stage marked by our Intermediate examination, and in as many cases as possible to the Arts degree. If it be objected that this would be impossible in the existing circumstances of the Province, some encouragement may be derived from the recent experience of Scotland, where thirty years ago only a few of those who were to teach in the public schools went to the University, whereas to-day large numbers are in attendance, their fees being paid by a Government grant.

Another way in which the University may help to raise the standard of efficiency in the schools throughout the country is by the rewards offered in connection with the annual competition for our Entrance Exhibitions. No greater inducements can be held out to schools which might otherwise be content to aim merely at the ordinary matriculation examination than substantial money prizes, to be awarded after competition. Unfortunately it is just here that the University is so greatly handicapped by lack of funds, and if a larger number of Entrance Exhibitions is to be provided—possibly with some preference to schools outside Montreal—a special effort will have to be made

to raise money for the purpose. It is encouraging, in this connection, to be able to report that in the Faculty of Applied Science private liberality has lately taken the direction of instituting such Exhibitions, mainly in the interests of those students who are less able to pay fees.

Since the commencement of the Summer Classes, held during May and June, the number of students has steadily increased, and this may be held to give additional point to the arguments recently addressed to the whole University in favour of some extension of the existing session in Arts and Applied Science. The view of Corporation on this important subject has been fully expressed in the valuable Report which was made public in the course of last session, setting forth both the advantages and the disadvantages involved in any such change, and the conditions which it would seem to necessitate. It may be of interest to mention here that, since this Report was drawn up, it has transpired that the Scottish Universities, on the model of which McGill was largely founded, lately appointed a Committee to deal with the same subject, and the deliverance of this Committee is expected shortly.

The success of the annual lectures delivered, on the Hyde foundation, by distinguished visitors from France has suggested the possibility of permanently establishing vacation courses at Montreal for the study of the French language and literature. There is certainly no centre on the American continent that is more favourably situated for such a purpose, and if teachers could be drawn to Montreal in large numbers to attend the courses, the result would soon be traceable in the improved teaching of French as a school subject throughout the country.

Another direction in which the university may well be desirous of breaking new ground is in con-

nection with the study of Music. At the Royal Victoria College the demand for teaching is greater than the staff can overtake ; and there is no good reason why the benefits of high-class instruction in this subject should be confined to women. The enthusiasm for music throughout the Dominion was strikingly illustrated by the success of Sir Alexander Mackenzie's recent tour ; and the growing popularity of the scheme under which local examinations in Music are now held by McGill University in conjunction with the Associated Board in London (of which Sir Alexander Mackenzie is one of the most distinguished of members) suggests that the time may soon come when the University should set itself the task of organizing a well equipped School of Music of its own. In the meantime the Board of Governors has gladly acquiesced in the suggestion made to it from London that Mr. Charles A. E. Harris, of Ottawa, to whose organizing ability the success which attended Sir A. C. Mackenzie's recent visit was so largely due, should be invited to act as Honorary Director of the Examinations in Music throughout Canada.

The most important gifts received by the University during the year covered by this Report were the establishment of a chair of Moral Philosophy by Sir William C. Macdonald, and the further endowment of the University Library to the extent of four thousand dollars annually (making in all ten thousand dollars annually) by Mrs. Redpath, of Chislehurst. On behalf of the University we beg to offer to these kind friends and generous benefactors our most grateful thanks.

The number of the Colleges affiliated to the University has received an addition by the inclusion in the scheme of the Victoria College at Victoria, British Columbia. This arrangement may be expected to still

further strengthen the connection which now exists between McGill University and the educational interests of that important province.

The business administration of the University has been rendered more efficient by the separation of the Registrarship from the office of Secretary and Bursar, and by the appointment, as Registrar, of Mr. J. A. Nicholson, formerly Principal of Westmount Academy, and a graduate of McGill.

October, 1903.

STRATHCONA, *Chancellor.*

W. PETERSON, M.A., LL.D., *Principal.*

THE YEAR 1902-1903.

The students in attendance during the past session were distributed among the Faculties as follows:—

Faculty of Law.....	40
“ “ Medicine.....	435
“ “ Arts—Women.....	152
“ “ Arts—Men.....	177
	<hr/>
“ “ Applied Science.....	286
“ “ Veterinary Science.....	20
	<hr/>
	1,110
Deduct registered in different Faculties.....	18
	<hr/>
	1,092
In McGill Normal School—	
Teachers-in-training.....	181

At the Matriculation Examination in September, 1902, 53 candidates were successful, 14 qualifying for matriculation in Arts, 11 in Medicine, and 28 in Applied Science.

Exhibition and Scholarship Examinations in Arts were held at the same time, and 6 Scholarships and 14 Exhibitions and Bursaries, ranging in value from \$62.50 to \$125, were awarded.

In Applied Science the British Association Exhibition and Prize, the Third and Second Year Mathematical Prizes, and Prizes for Summer Theses were also awarded.

At the meetings of Convocation held at the close of the different sessions, the following degrees in course were conferred:—

Law, B.C.L.....	13
Medicine, M.D.....	100
Arts, B.A.....	28
Arts, B.Sc.....	2
Arts, M.A.....	4
Arts, M.Sc.....	1
Arts, D.Sc.....	1
Applied Science, B.Sc.....	42
Applied Science, M.Sc.....	8
Applied Science, D.Sc.....	1
Veterinary Science, D.V.S.....	3
	<hr/>

In addition to these, the Degree of LL.D., *Honoris Causa*, was conferred on Sir Alexander Campbell Mackenzie, Mus. Doc., LL.D. (Glasgow), Charles E. Moyses, B.A. (London), and George R. Parkin, LL.D., C.M.G.

Seven Gold Medals were awarded, besides the Wicksteed Silver and Bronze Medals for Physical Culture, and the British Association Medals in the Faculty of Applied Science.

Examinations for the Certificate of Associate in Arts (A.A.) were held in June, 1903, at 29 different centres, with the following results:—

Number of candidates for the A. A. Certificate.....	181
“ successful.....	124
“ of candidates for Preliminary Subjects.....	200
“ successful.....	149

Examinations for Matriculation into the different Faculties of the University were also held at the same time in 53 different centres.

Following are the particulars:—

Number of candidates for full matriculation.....	198
“ successful.....	84
“ who wrote on the preliminary part only.....	129
“ successful.....	94

As a result of both examinations (A. A. and Matriculation):—

115	qualified for matriculation in Arts.
9	qualified for matriculation in Arts or Medicine.
5	qualified for matriculation in Arts or Applied Science.
12	qualified for matriculation in Arts or Medicine or Applied Science.
38	qualified for matriculation in Applied Science.
2	qualified for matriculation in Medicine.

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The first examination under the new First Year Exhibition scheme in the Faculty of Arts was held in June, 1903, in conjunction with the Matriculation

Examination, and the following Exhibitions were awarded:—Two, of the value of \$300 each, for an examination on special work ; five, of the value of \$150 each, for an examination on the matriculation subjects and additional work ; and six, of values ranging from \$100 to \$125, for an examination on the matriculation subjects alone.

NEW ENDOWMENTS AND DONATIONS

The Rt. Hon. Lord Strathcona has given \$45,000 for the maintenance during the year of the Royal Victoria College.

Sir W. C. Macdonald has given \$50,000 for the endowment of a Chair of Moral Philosophy ; \$15,000 for the Macdonald Auxiliary Fund ; \$10,000 for additional endowment of Chair of Mining ; \$7,500 as a contribution towards the deficiency in the account of the Faculty of Applied Science ; \$1,200 for fire-escapes in the Physics Building ; \$1,800 for Travelling Scholarships in the Faculty of Law ; \$500 for an Assistant to the Professor of Zoology ; \$2800 to cover the cost of granolithic sidewalks in the University Grounds ; \$300 for insulated wire connection with anemometer on the Mountain ; \$250 for the publication of investigations of the Professors of Physics ; \$500 towards the cost of erecting the Animal House.

Mrs. Peter Redpath has increased her annual donation for the maintenance of the University Library to \$10,000.

The Architects' Association of the Province of Quebec has given a Scholarship of \$150, for four years, to the Architectural Department.

Mr. R. G. Reid has given Testing Machinery, for use in the Engineering Building.

A friend resident in the United States, has renewed his donation of the sum of \$400 for a Fellowship in Electrical Engineering.

NEW APPOINTMENTS AND CHANGES OF
APPOINTMENTS.

In the Faculty of Medicine—

Thomas A. Starkey, M.B., D.P.H., M.R.C.S., was appointed Strathcona Professor of Hygiene.

J. M. Elder, M.D., was appointed Assistant Professor of Surgery and Lecturer in Clinical Surgery.

J. G. McCarthy, M.D., was appointed Assistant Professor of Anatomy.

J. T. Halsey, M.D., was appointed Assistant Professor of Pharmacology and Therapeutics.

R. A. Kerry, M.D., was appointed Lecturer in Pharmacology and Therapeutics.

S. Ridley MacKenzie, M.D., was appointed Lecturer in Clinical Medicine.

John McCrae, M.D., was appointed Lecturer in Pathology.

D. A. Shirres, M.D., was appointed Lecturer in Neuro-Pathology.

D. D. MacTaggart, B.A. Sc., M.D., was appointed Lecturer in Medico-Legal Pathology.

In the Faculty of Arts—

Alexander Johnson, M.A., LL.D., D.C.L., F.R.S.C. was appointed Vice-Principal Emeritus, and Professor Emeritus, on his retirement from the positions of Vice-Principal of the University, and Dean of the Faculty of Arts.

J. Clark Murray, LL.D., F.R.S.C., was appointed Professor Emeritus on his retirement from the Professorship of Philosophy.

C. E. Moyse, M.A., LL.D., was appointed Dean of the Faculty of Arts and Vice-Principal of the University.

James Harkness, M.A., was appointed Peter Redpath Professor of Pure Mathematics.

Rev. John McNaughton, M.A., was appointed Hiram Mills Professor of Classics.

William Caldwell, M.A., D.Sc., was appointed Macdonald Professor of Moral Philosophy.

Alfred E. Taylor, M.A., was appointed John Frothingham Professor of Philosophy.

H. M. Tory, M.A., D.Sc., was appointed Associate Professor of Mathematics.

In the Faculty of Applied Science—

Percy E. Nobbs, M. A., A. R. I. B. A., was appointed Macdonald Professor of Architecture.

W. Muir Edwards, M. Sc., was appointed Lecturer in Mathematics.

C. V. Corless, M. Sc., was appointed Lecturer in Mining Engineering.

A large number of Tutors, Fellows and Demonstrators were also appointed in the different Faculties.

FACULTY OF LAW.

The total number of students registered in the Faculty of Law for the college year ending June 30th, 1903, was 40, of whom 8 were in the First Year, 18 in the Second Year and 14 in the Third Year.

Thirteen students took the degree of B.C.L. at the annual Convocation.

The fees in the Faculty have been raised from \$53 to \$60.

Sir William Macdonald again presented three graduates with travelling scholarships, to enable them to improve their knowledge of the French language by a year's residence in France.

FACULTY OF MEDICINE.

The total number of students registered in the Faculty of Medicine, for the Session 1902-03, was made up as follows:—

First year	112
Second year.....	95
Third year.....	94
Fourth year	120
	<hr/>
	421
Graduates in attendance.....	14
	<hr/>
Total	435
Of whom there were from	
Ontario.....	138
Quebec.....	116
New Brunswick.....	49
Prince Edward Island.....	23
United States	37
West Indies.....	11
Newfoundland.....	6
Nova Scotia and Cape Breton.....	20
British Columbia.....	14
Manitoba and Northwest Territories.....	9
Ireland	1
British Guiana.....	1
Elsewhere.....	10
	<hr/>
	435

Of these students 100 fulfilled all the requirements for the degree of M.D., C.M., which was conferred upon them at the Annual Convocation, June 12th, 1903.

Of the 112 students registered in the First Year, 2 were partial students, 8 conditioned, and 15 were taking the Double Course leading to the degrees of B.A. and M.D.

In September, 1902, the Faculty recommended Dr. H. Wolferstan Thomas for the Governors' Fellowship in Pathology, rendered vacant through the resignation of Dr. Woolley, Dr. Woolley having received the important appointment of Director of the Marine Laboratory for Bacteriological Research at Manilla.

FACULTY OF ARTS.

The total number of students (men and women) in the Faculty for the Session 1902-3 was 329, of whom 183 were undergraduates.

Of the undergraduates 122 were men (in McGill College), and 61 women (in the Royal Victoria College).

These were distributed as follows :—

	McGill College	Royal Victoria College	Total
First Year.....	32	11	43
Second Year.....	43	20	63
Third Year.....	29	20	49
Fourth Year.....	18	10	28
Conditioned.....	12	6	18
Graduates.....	2	5	7
Partials.....	41	80	121
	<hr/> 177	<hr/> 152	<hr/> 329

DISTRICTS FROM WHICH STUDENTS WERE DRAWN.

MCGILL COLLEGE.

	Montreal.	P.Q.	Ont.	Marit. Prov.	B.C.	Else- where.	Total
Undergrads.							
First Year.....	18	7	3	2	..	2	32
Second Year.....	19	9	7	3	..	5	43
Third Year.....	16	3	7	2	1	..	29
Fourth Year.....	9	5	3	1	..	..	18
Total Undergrads ..	62	24	20	8	1	7	122
Conditioned.....	3	2	5	2	..	..	12
Partial.....	11	4	19	3	..	4	41
Graduates.....	1	1	—	—	—	—	2
Total, McGill.....	<hr/> 77	<hr/> 31	<hr/> 44	<hr/> 13	<hr/> 1	<hr/> 11	<hr/> 177

ROYAL VICTORIA COLLEGE

	Montreal.	P.Q.	Ont.	Marit. Prov.	B.C.	Else- where.	Total
Undergrads.							
First Year.....	5	1	2	1	..	2	11
Second Year.....	13	2	1	3	..	1	20
Third Year.....	12	1	5	2	..	..	20
Fourth Year.....	4	1	2	2	..	1	10
Total Undergrads... 34	5	5	10	8	..	4	61
Conditioned.....	5	..	..	..	..	1	6
Partial.....	66	3	4	4	..	3	80
Graduates.....	4	..	..	1	..	..	5
Total, R. V. C.....	<hr/> 109	<hr/> 8	<hr/> 14	<hr/> 13	<hr/> ..	<hr/> 8	<hr/> 152
Grand Total.....	<hr/> 186	<hr/> 39	<hr/> 58	<hr/> 26	<hr/> 1	<hr/> 19	<hr/> 329

FACULTY OF APPLIED SCIENCE.

During the Session 1902-3 the following degrees were conferred in the Faculty of Applied Science:—

In Civil Engineering (B. Sc.).....	5
In Chemistry (B.Sc.)	4
In Electrical Engineering (B.Sc.)	11
In Mechanical Engineering (B.Sc.).....	5
In Mining Engineering (B.Sc.).....	17
M.Sc.....	8
D.Sc.....	1

Exhibitions, Prizes and Scholarships were presented by Messrs. W. A. Carlyle (\$150.00; Canadian General Electric Company (\$400.00); Allis-Chalmers Company, Chicago, (\$150.00); J. Tighe (\$50.00); H. C. Stone, (\$105.00); E. B. Greenshields (\$25.00); Geo. E. Drummond (\$25.00); Crosby Steam Gage and Valve Company (\$25.00); J. M. McCarthy (\$20.00); C. J. Fleet (\$20.00).

The Students in the Faculty of Applied Science, Session 1902-03, were from the following districts:—

Year.	1st.	2nd.	3rd.	4th.	Partial.	Grad.	Total
Québec.....	47	22	14	16	9	1	109
Ontario.....	25	20	20	16	3	..	84
Nova Scotia.....	7	11	5	2	1	..	26
New Brunswick.....	3	6	2	3	..	..	14
Prince Edward Isl..	3	2	1	1	1	..	8
Newfoundland.....	1	2	1	3	..	..	7
British Columbia....	2	3	1	6	..	..	12
Manitoba.....	2	..	..	1	..	..	3
West Indies.....	1	4	..	1	..	..	6
England.....	1	1	2	..	3	..	7
British Guiana.....	1	..	..	..	..	..	1
United States.....	2	4	..	2	1	..	..
Total.....	95	75	46	51	18	1	286

A change has been made by the addition of a new course in Metallurgy. This course, which is chemical in its general scope, was created mainly because metallurgical students taking the Mining Course, were unable to spend a sufficient time in the chemical laboratories.

The course will thus be chiefly suitable for students intending to take up the chemical rather than the engineering side of metallurgy and expecting to com-

mence their metallurgical practice in the chemical laboratories of steel works, or other metallurgical establishments.

The Professor of Metallurgy regrets that it was found impossible to include more instruction in mechanical and electrical engineering, and hopes that this may sometime be effected. At present students desiring the engineering side of metallurgy will follow the Mining Course, with metallurgical options as at present.

The Summer School in Mining was held in Michigan and Central Ontario, immediately after the close of the spring examinations. The whole of the Third Year and some of the First and Second Year students of the Mining Course were in attendance. One week was spent in the study of the geology of the Marquette iron range, Michigan, with special reference to the Negaunee district. Three weeks were then given to the iron mines in the Negaunee district and to the copper mines and concentrators in the neighbourhood of Houghton, Mich. Visits were also made, en route, to the mines and smelters of the International Nickel Company in the neighbourhood of Sudbury, to the Lake Superior Power Company's plant at Sault Ste. Marie, and to the iron furnaces and charcoal plants belonging to the Cleveland-Cliffs Iron Company at Marquette,

The Surveying School for the autumn of 1903 was again held in Upper Melbourne, P.Q. There were in attendance 31 students of the Second Year, 15 students of the Third Year, 11 students of the Fourth Year and 2 graduates, making a total of 59. Owing to the large number of Second Year students at present in attendance, it seems probable that further provision will have to be made to meet the requirements of the work of the senior classes next year. After a trial of two years, it is considered that Mel-

bourne is at too great a distance from Montreal, and it is desired, if possible, to obtain a position nearer the city for next year. If arrangements could be made to obtain a permanent site for the camp, the work of the school would be greatly facilitated.

An appeal was made for bursaries for the benefit of students who require financial assistance, and it is gratifying to be able to state that the reply to this appeal was most satisfactory. The Faculty hopes than an increasing number of bursaries will be available in future years, as of course, as soon as the larger fees are levied upon the students of all four years, a much larger number of bursaries will be required to assist the same students.

Attention may be called to the large number of students now registered in the Faculty of Applied Science. The numbers have increased from 286 in 1902-03 to more than 330 in 1903-04, so that the capacity of the Engineering Building is strained to the utmost. The subdivision of the First Year mathematical class which was found necessary in 1902-03, has now been extended to other subjects and to other Years, and it is to be hoped that, in the near future, some means may be devised which will enable the Faculty to deal satisfactorily with this new condition of things.

A most important privilege has been granted to this University by the Institution of Civil Engineers (England). Official notice has been received from the Council to the effect that, in future, the B.Sc. degree in the departments of Civil, Electrical, Mechanical and Mining Engineering, will be considered as a sufficient qualification for the admission of our graduates as Associate Members of that Institution. Ours is the only University outside Great Britain to which this privilege has been granted, while in Great Britain itself, the privilege is only extended to graduates of eight universities.

AFFILIATED COLLEGES.

Stanstead Wesleyan College, which is affiliated for the first two years in Arts, has a staff of six lecturers. Seven students were in attendance during the session, all in the First Year.

Vancouver College, B.C., which is affiliated for the first two years in Arts, has a staff of seven lecturers, all of whom are university graduates. Fifteen students, 12 of whom were undergraduates, took the course in the First Year, and five undergraduates and one special student were enrolled in the Second Year.

THE MCGILL NORMAL SCHOOL.

During the session 1902-1903 there were admitted to the McGill Normal School as teachers-in-training 181 persons. At the close of the session 167 teachers-in-training received diplomas, 2 being Academy Diplomas, 42 Model School Diplomas, and the rest Kindergarten, Advanced Elementary, and Elementary Diplomas.

THEOLOGICAL COLLEGES.

The affiliated theological colleges have a large number of students, many of whom are undergraduates and graduates of the University.

The details for last session are as follows:—

	Total Students.	Under- graduates.	Partial.	Grads. of the University.
Presbyterian.....	50	14	9	9
Diocesan.....	34	14	0	6
Wesleyan.....	38	4	13	2
Congregational.....	11	3	0	3
	<u>133</u>	<u>35</u>	<u>22</u>	<u>20</u>

REPORTS

THE GYMNASIUM—REPORT OF THE MEDICAL DIRECTOR OF PHYSICAL TRAINING.

TO THE CORPORATION OF MCGILL UNIVERSITY:

GENTLEMEN,—The attendance at the tri-weekly classes has been one hundred and one, but the building has been freely used at other hours for basket-ball and for general exercise by those whose lecture hours conflicted with the gymnastic classes.

The increased use of the building has made imperative the appointment of an instructor to be in continual attendance while the building is open, and I am pleased to report the appointment of Mr. W. L. Jacomb, who will also assist in the physical examinations and clerical work connected therewith.

The number of examinations keeps increasing yearly, and it could profitably be made to include the whole first year.

The greatly increased attendance due to our improved conditions has made the lack of equipment acutely felt. Perhaps the most pressing need is for at least one hundred modern well ventilated lockers.

The Gymnasium Classes in the Royal Victoria College were for the first time, last year, expanded into three divisions: for beginners, intermediates and advanced. In order to accomplish this, Miss Holmstrom gave two morning hours extra, and the attendance was fairly regular all through the session. The measurements showed a slight increase in the strength test, as well as in the lung capacity. On the whole an increase in serious interest was noted. At the end of the session there were two competitions, one for the prize offered by the Chancellor, and the other for a prize given by some lady friends of the University, in which regularity of attendance at the class work was taken into account.

The medical examinations were continued as usual, and advice given, where necessary, for the correction of defective development and for the care of the health.

The whole is respectfully submitted.

R. TAIT MCKENZIE, M.D.,

Medical Director of Physical Training.

REPORT OF THE LIBRARY COMMITTEE.

September 1, 1902, to August 31, 1903.

TO THE CORPORATION OF MCGILL UNIVERSITY:

GENTLEMEN,—Your Committee begs to report that the past year has been a prosperous one for the Library, and that progress has been made in several important matters.

Members of Corporation hardly need be reminded of the change in the composition of the Library Committee which, after much careful thought on the part of the Committee itself and of Corporation, was approved by Corporation in April last. As amended, the regulations now provide for a committee of fourteen, two of whom (the Principal and Librarian) are members *ex officio*, two are members of the governing body, while five are appointed by Faculties, and five by Corporation. Perhaps the most important step taken in this whole connection has been the representation given for the first time to the Faculty of Medicine, which will henceforth be placed on a par in this respect with the Faculties of Law and Applied Science. By this action the Corporation emphasizes the broadly university character of the Library.

As to Travelling Libraries, there has been a marked increase in the demand for the pictures which are sent to schools; the stereoscopes and slides have also been in continual request. The catalogues of the Travelling Libraries, which have hitherto been circulated in manuscript, are now being printed that they may be more freely distributed.

University papers have been issued during the year. The grant available for their publication was, however, exhausted some time before the twelve months had elapsed. The papers that actually appeared were, therefore, merely a comparatively small portion of those which had been published by the staff. Unfortunately, however, the recipients had no means of knowing that they did not represent the entire literary and scientific output of the University for a twelvemonth.

The Catalogue of the Library of Congress, to which reference was made in last year's report, has been available for consultation, but a consignment of some 40,000 cards received late in the summer has not yet been entirely placed in the trays. Hereafter, however, it is understood that the cards will be received regularly in small instalments, and we shall then be in a position both to employ the Catalogue ourselves and to make it useful to other libraries in the vicinity.

Owing to the liberality of Sir William C. Macdonald, your Committee was enabled last autumn to enlarge the Library staff—a step which, had circumstances permitted, they would gladly have taken sooner, but which became at that time imperative in view of Sir William's gift of \$20,000 for the purchase of books. Two additional trained cataloguers, an assistant for the Shelf Department and an extra boy were accordingly engaged, and with their aid the work has been carried on satisfactorily and on the whole smoothly.

Mr. Sydney B. Mitchell, who has acted as reference librarian since January 1, 1902, and Miss Mary W. Clark of the cataloguing department resigned during the year: the former to take a course of study in the New York State Library School at Albany; the latter to accept a position in the Library of Congress at Washington.

It is the pleasant duty of your Committee to record a fresh act of liberality on the part of Mrs. Peter Redpath, who early in the summer signified her intention of giving \$4,000 annually towards the maintenance of the library in addition to the sum which she had until then been contributing. This very generous deed makes Mrs. Redpath's total donation \$10,000 a year. Besides this Mrs. Redpath has presented further tracts—some 3,000 in number, bound in 282 volumes. These are issues of the 19th century, and are intended to round out and finish the collection of pamphlets of earlier date, given on former occasions.

His Grace the Duc de Loubat has augmented previous gifts by presenting a facsimile of an old Mexican pictorial MS. in the Vatican Library, (*Codex Vaticanus*, No. 3773.)

Mr. Archer M. Huntingdon, of New York, has presented twenty-three facsimiles of early Spanish imprints in his private collection.

The Trustees of the British Museum have continued sending us the supplement to their invaluable catalogue of printed books, besides many special catalogues.

The U. S. Geological Survey has very kindly completed the Library set of the Geological Atlas of the U. S.

Herr F. A. Brockhaus, of Leipzig, has presented, through the Librarian, the 1902-03 edition of his *Konversations-Lexikon*.

The Clarendon Press, on the application of Principal Peterson, has given £50 worth of its own publications, which we were allowed to select.

Lieut.-Col. Edey is presenting the "London Daily Times" for 1903.

Special thanks are also due to Mr. George Iles, Mr. Francis McLennan, the Omega Alpha Club, the Graduates' Society and the McGill College Book Club. To the King's Printer at Ottawa and to the heads of many Government Departments, both domestic and foreign, the Library is greatly indebted, as it is also to the other donors and friends who are completely enumerated in the appended list of donations.

The growth of the collections has been this year the largest yet recorded within a like period. 8,104 bound volumes have been added, and including the departmental libraries, the Library now possesses close upon 100,000 volumes (actually 99,473). By far the greater part of this increase is the result of purchases made through Sir William Macdonald's gift of \$20,000, acknowledged in last year's report, but which has proved a source of thankfulness throughout the year. Did space permit, your Committee would be glad to mention some of the many important additions which this gift has enabled the Library to ac-

quire. The difficulty and delay experienced in obtaining some of these works, and the high prices it was necessary to pay in order to secure them at all, emphasize the great importance of an adequate book fund for the Library. Every year's postponement in purchasing adds to the ultimate cost of books which will have to be obtained sooner or later, if the work of the University is to be carried on advantageously. At a moderate estimate \$50,000.00 a year might well be expended on books for this Library. It is generally acknowledged that a strong library is indispensable to thoroughly satisfactory work of an advanced nature in any department whatever, and a University which, like ours, is aiming at the highest standards in so many other respects can ill afford to rest satisfied with less than the highest standard for its library.

Your Committee has had the privilege of lending books on several occasions to sister universities, and to other institutions outside of Montreal, and on the other hand would acknowledge its indebtedness for books kindly lent by the libraries of Harvard, Toronto, Columbia, the Boston Athenaeum and by the Library of Parliament, Ottawa.

8,144 volumes have been catalogued and entered during the year.

797 old books have been re-catalogued and entered.

8,941 volumes in all.

The books in the Engineering Building have also been classified and all except the periodicals, the quartos and folios, have been labelled and listed carefully on shelf-list slips, which form the copy for the catalogue. Extra assistance was, however, secured (in Miss Archibald) in order to make the shelf lists, a special grant of \$100.00 having been made by the Governors for that purpose. A great amount of work has also been expended on arranging the maps in the general library. 1,446 volumes have been bound and 392 either bound or repaired.

CONSPECTUS OF ATTENDANCE AND CIRCULATION, SEPT. 1, 1902,
TO AUGUST 31, 1903.

1902.	Readers. Visitors.		Circulation.	
			Total.	Vols.
Sept. 1 to Oct. 4. . . .	925	113	1,038	486
Oct. 6 to Dec. 6. . . .	4,690	38	4,728	1,885
Dec. 8 to Feb. 8, 1903..	2,918	37	2,955	1,525
1903.				
Feb. 9 to April 4. . . .	3,978	64	4,042	1,786
April 6 to June 8. . . .	1,384	68	1,452	1,499
June 9 to August 31. . .	488	266	714	855
	14,383	586	14,929	8,036

ADDITIONS.

Donations	7,127	....
Donations (Trav. Lib.)	7	
Purchases	562	
Purchases (Trav. Lib.)	160	
Periodicals bound	266	
Exchanges received	22	
	<hr/>	8,144
Withdrawn as lost and subsequently returned.		4
		<hr/>
		8,148
Lost	29	
Lost (Trav. Lib.)	3	
Withdrawn	12	
	<hr/>	44
Net gain for year vols.		8,144
In Library August 31, 1902 vols.		66,339
		<hr/>
		74,473
Departmental libraries		25,000
		<hr/>
Total volumes		99,473

Respectfully submitted,

On behalf of the Committee,

C. H. GOULD,

University Librarian.

ADDITIONS TO THE LIBRARY, SEPT. 1, 1902, TO SEPT. 3, 1903.

	Volumes	
	Bound.	Unbound
Abbott, Maude E., M.D....		1
Aberdeen University.	1	
Aberdeen University Library (through P. J. Anderson)....	1	
Adams, F. D., Ph.D....	2	12
Adams, Prof. John (through McGill University, Secretary's Office)....		1
Adams, W. C....	2	
Adelaide University..	1	
Aguilar Free Library Society....		1
Alabama Geological Survey..		1
American Historical Association..	2	
American Institute of Mining Engineers..	1	1
American Railway Engineering and Maintenance of Way Association....		2
American Railway Master Mechanics Association (through Prof. Kerry)....	1	
American Society of Civil Engineers. . .	1	1
Amherst College....		1
Anderson, Tempest..		1
L'Association Geodesique Internationale.		2
Australian Institute of Mining Engineers B., E. P. (the Author)....	1	
Beaugrand, H....		3
Becelaere, Rev. F. L. van..		4
Birmingham University....	1	
Bodleian Library..	2	1
Bopp, Herr Franz..	2	
Boston Public Library..		2
Bovey, H. T., LL.D....	1	37
Bowdoin College....	1	
British and Foreign Bible Society		3
British Association for the Advancement of Science....	1	
British Columbia Department of Mines .		1
British Columbia Superintendent of Education..		1
British Museum....	14	
British School at Athens, University Membership....	2	
Brockhaus, F. A., Leipzig....	3	
Brockhaus, F. A. Leipzig (through C. H. Gould..	12	
Brooklyn Institute of Arts and Sciences .	1	
Brooklyn Public Library..		1
Brown University....	1	
Bryn Mawr College..		1
California University....		1
Canada—Department of Agriculture. . . .		1
Canada—Deputy Postmaster-General..	1	
Canada—Geological Survey..		11
Canada—King's Printer	19	12

	Volumes	
	Bound.	Unbound
Canada—Minister of the Interior.. . . .		1
Canadian Entomologist, Editor.. . . .		1
Canadian Railway Club.. . . .		1
Canadian Red Cross Society.. . . .		1
Canadian Society of Civil Engineers.. . . .	2	
Cape of Good Hope, Geological Commission.. . . .		1
Capper, S. H.. . . .	1	3
Case School of Applied Science.. . . .		1
Chausse, A.		1
Chicago University.. . . .		2
Chili, Minister of the Interior.. . . .		2
Cincinnati University		1
Cleveland Public Library.. . . .		1
Colby, C. W., Ph.D.. . . .	1	
Colorado College and Cutler Academy.. . . .		1
Colorado Scientific Society.. . . .		5
Colorado State Bureau of Mines.. . . .	1	
Columbia University.. . . .		16
Connecticut State Board of Health.. . . .	1	
Corey, D. P.. . . .	1	
Cote, Thomas, Assistant Commissioner Census of Canada.. . . .	1	
Coubertin, P. de.. . . .		1
Coussirat, Rev. D, D.D., and others. . . .		9
Cowell, Peter, Librarian Liverpool Public Library.. . . .	1	1
Desjardins, L. G., Clerk Legislative As- sembly, Quebec.. . . .	1	
Detroit, City of.. . . .	1	
Dionne, N. E.. . . .		1
Dougall, Miss Lil.. . . .	30	1
Dover Public Library.. . . .		2
Durley, R. J.. . . .	2	
Edinburgh University.. . . .	2	
Egypt, Director-General Survey Depart- ment of.. . . .		1
Electrical World and Engineer, Publishers		6
Electricity Newspaper Company.. . . .		4
England—Meteorological Council.. . . .		1
Fairbairn, Miss Helen.. . . .	6	
Faribault, E. R.. . . .		1
Finland Geological Commission.. . . .		2
Fleet, C. J., and others.. . . .	127	
Frederiks Universtet (Christiana).. . . .		3
Friend.. . . .	2	
Fuller, G. D.. . . .		1
Georgia Geological Survey.. . . .	2	
Gillow and Company (through Prof. Cap- per).. . . .	1	
Glasgow University.. . . .	2	
Godin, Mme. J. B. André (Guise).. . . .		1
Going, Miss Maud	2	1
Gould, C. H.. . . .	4	3
Graduate.. . . .	1	

Volumes
Bound. Unbound

Gregor, Leigh R., Ph.D.	2	
Hamilton Scientific Association		1
Harper, F. P.		1
Harper and Brothers, Publishers	1	
Harrington, B. J., Ph.D.	1	1
Hartford Seminary		1
Harvard University	1	
Harvard College Library	1	7
Hill, Rev. E. M.	2	
Huntington, Archer M.	9	14
Iles, George	1	11
Illinois Steel Company	2	
India—Secretary of State for	1	
Indiana Academy of Science		1
Institute of Mechanical Engineers	2	
Institution of Civil Engineers	5	1
Institution of Engineers and Shipbuilders in Scotland	1	
International Engineering Congress	1	
Iowa University		1
Iron and Steel Institute	2	
Japan—Earthquake Investigation Com- mittee		2
John Crerar Library		3
Johns Hopkins University	1	5
Johnston, Lieut.-Col. H. H.		1
King's College, London	1	
Kunz, G. F.	1	2
Laval University, Montreal		1
Laval University, Quebec		1
Leclaire, Alphonse	1	
Leland Stanford Junior University	1	
Le Rossignol, Mrs. J. E.	1	
Liverpool—Controller and Auditor	1	
Liverpool Free Public Library		1
Liverpool Medical Officer of Health	1	
Lockhart, F. A. L., M.D.		7
London Meteorological Council		1
London Society of Engineers	1	
London, University of	2	
Loubat, The Duc de		2
Macaulay, F. R.	1	
Macdonald, A.		1
Macdonald, Sir William C.	4,121	454
McGill Annual, 1904, Editorial and Busi- ness Board of	1	
McGill Applied Science Society (through Prof. Kerry)	4	4
McGill College Book Club	172	2
McGill Outlook, Managers of	1	
McGill University Graduates' Society	27	2
McGill University—Members of Board of Governors	153	110
McGill University—Secretary's Office	2	
McLellan, N.	1	

	Volumes	
	Bound.	Unbound
McLennan, Francis..	71	22
McLeod, C. H...	3	4
MacPhail, A., M.D.	6	
Madras Public Works Department	2	
Maine Bureau of Statistics..	1	
Manitoba—King's Printer..	2	
Manitoba University	1	
Massachusetts Board of Education..	1	
Massachusetts Board of Railroad Com- missioners..	1	
Massachusetts Highway Commission..	7	
Massachusetts Institute of Technology.		3
Maryland Geological Survey....	4	
Michigan College of Mines..		2
Michigan University..		1
Miller, Miss, (Princeton)..	3	
Minnesota Geological and Natural History Survey		1
Minnesota University..		2
Montpelier University..		1
Morgan, Miss H...	1	
Morin, Rev. J. L	1	
Morley, J. Forster, LL.D., Director Inter- national Council of Scientific Litera- ture..		2
Mott, Henry..	4	
Munich Royal Library..		1
National Electric Light Association....	1	
National Geographic Society...		1
Natural History Society (Montreal)..		1
Nelles, Campbell..	6	
New England Cotton Manufacturers As- sociation..	2	
Newfoundland—Colonial Secretary..	2	1
Newfoundland—King's Printer.	1	1
New Brunswick Natural History Society..		1
New Jersey Board of Health	1	
New Jersey Geological Survey..	1	
New Orleans Sewerage and Water Board..	1	
New South Wales Department of Mines..	1	
New South Wales Geological Survey....		2
New York City Board of Education..	1	
New York Commissioner of Parks...	1	
New York Public Library....		1
New York Railroad Club..		1
New York Railroad Club (through Mr. Thos. Tait and Prof. Kerry)		3
New York State Bureau of Labor Statis- tics..	3	2
New York State Engineer	2	
New York State Museum..		5
New York State University..	5	
New Zealand Institute of Mining Engi- neers..	1	1
New Zealand University..	13	
Nichol, W. Grieve, M.D...	1	1

	Volumes	
	Bound.	Unbound
Northwestern University..	1	1
Nova Scotia—King's Printer	2	1
Nova Scotia Provincial Engineer..		2
Nova Scotia Superintendent of Education.		1
Ohio Bureau of Labor Statistics..	1	
Olschki, L. S., <i>Publisher</i>	1	
Omega Alpha Club (McGill University) ..	13	
Ontario Bureau of Industries..	1	
Ontario Bureau of Mines..	1	3
Ontario Department of Agriculture..	2	
Ontario—King's Printer..	5	
Ontario Land Surveyor's Association..		1
Ontario—Minister of Education..	2	1
Ottawa Literary and Scientific Society. . .		1
Ottawa Naturalist, Publishers of...		1
Ottawa University...		5
Owens College, Manchester..	1	
Oxford University	3	
Oxford University, Clarendon Press..	65	4
Paris—Minister of Public Works..	2	23
Peabody Institute (Baltimore)..	2	
Penhallow, D. P...		6
Pennsylvania Bureau of Mines	1	
Pennsylvania Grand Lodge of Freemasons	1	
Pennsylvania University..	20	35
Pennsylvania University Zoological Laboratory (through Prof. MacBride) ..		1
Penny, E. Goff..		4
Perkins Institution..		1
Peterson, William, LL.D..		1
Philippine Information Society		2
Pope, Hon. Joseph...		1
Porter, J. B., Ph.D...	6	4
Poulton, E. B., D.Sc..	1	
Poulton, E. B., D.Sc. (through Prof. MacBride)..	1	
Pratt Institute Free Library...		1
Presbyterian College (Montreal)..		1
Prince, John Dyneley..	1	
Princeton University..	1	1
Protestant Council of Public Instruction.		1
Providence Public Library..		2
Quaritch, Bernard..		1
Quebec—King's Printer.	7	
Quebec—Superintendent of Public Instruction..		1
Queen's College and University..		2
Queensland Department of Mines		1
Queensland Geological Survey..	1	
Real Universita di Pisa...		1
Redpath, Mrs. Peter..	325	1
Regale Universita di Padova..		1
Reid, Stuart J..	1	
Rice, W., <i>Publisher</i>		1
Roddick, T. G., M.D., M.P...	13	

Volumes
Bound. Unbound

Ross, N. H., and others...	1	
Royal Arcanum (Boston)...		19
Royal Colonial Institute...	2	
Royal Dublin Society...		2
Royal Geographical Society...	1	
Royal Institute of British Architects...		1
Royal Irish Academy...		2
Royal Military College Club...		1
Royal Society of Literature of the United Kingdom...		1
Royal Society of London...	3	3
Royal University of Ireland...	2	
St. Andrews University...	3	1
School of Practical Science, Toronto...		1
Scranton Public Library...	1	
Smithsonian Institution...	8	4
Smithsonian Institution—Bureau of Ethnology...	3	
Society of Arts, London...	1	1
Sotheran, Henry & Co...	2	
South Australia—Department of Mines...		2
South Australia School of Mines...		1
South California Academy of Science...		1
Strathcona, Right Hon. Lord...	24	2
Street Railway Journal Publishing Company...		3
Sydney University...	1	
Tait, Thomas...	3	
Tasmania—Secretary for Mines...		5
Texas University Mineral Survey...		2
Théoret, C...		1
Theta Delta Chi...	1	
Thompson Company, The Edward...	4	
Thorburn, Mrs. John, Ottawa...		5
Toronto Board of Trade...		1
Toronto City Engineer (through Dr. Bovey)...	1	
Toronto University...	1	1
Trinity College, London...	1	
Trinity University, Toronto...	1	
Tulane University...		1
United States Bureau of Education...	3	
United States Bureau of Statistics...	2	1
United States Census Office...		4
United States Chief of Engineers...	3	
United States Coast and Geodetic Survey...	4	
United States Commission of Fish and Fisheries...	2	
United States Department of Agriculture...	7	
United States Department of Labor...	1	1
United States Army Engineer Department...	5	
United States Geological Survey...	14	83
United States Interstate Commerce Commission...	13	
United States Library of Congress...	2	3

	Volumes	
	Bound.	Unbound
United States National Museum.. . . .	2	3
United States Superintendent of Documents.....	15	
United States Treasury Department.... .	1	1
United States War Department...	1	
United States Weather Bureau....		1
University College (Bristol)...	1	
University College (Dundee)...		1
University College (London)	1	
University College (Nottingham)...	1	
University College of North Wales.. . . .	1	
University College of S. Wales and Monmouthshire..	1	
University Club, New York...	1	
Upsala University....		1
Vermont Board of Library Commissioners		1
Victoria University, Toronto.		1
Vienna University...		1
Walton, F. P.	2	
Washington University.		1
Welcker, Adair..		1
Wellcome Physiological Research Laboratories..	1	
West Indies Department of Agriculture (through McGill Botanical Laboratory)...		3
Western Society of Engineers.. . . .		1
Wisconsin State Historical Society.. . . .	1	
Wisconsin University...		4
Wood, H. Holton...	2	
Woodman, Dr. T. C., Brighton, Eng.... .	1	
Worcester Polytechnic Institute.. . . .		1
Worshipful Company of Pewterers, London..	2	
Wragge, Clement L..	1	
Wright & Potter Printing Company, Publishers....		1
Yale University...	1	1
Y. M. C. A. International Committee... .		1
Yorkshire College, Leeds....	1	
Zoological Society of London...		4

REPORT OF THE PETER REDPATH MUSEUM.

For the Year 1902-1903.

TO THE CORPORATION OF MCGILL UNIVERSITY:

GENTLEMEN,—Your Committee beg to report that during the year the work of the Museum has been carried on successfully, and that a number of important additions to the collections have been made. When the building was erected in 1882, it was thought by many to be far larger than was necessary; but such has been the growth of the collections that before long additional space will be urgently required. At present, too, the need of additional cases makes it impossible to display a number of important donations, the exhibition of which would increase the attractiveness and educational value of the Museum.

The most important addition to the Museum during the year is the Read collection of curios from South Equatorial West Africa, made by the late Frank W. Read and Mrs. Read, and purchased for the University by our generous Chancellor, Lord Strathcona. The collection comprises agricultural and household implements, musical instruments, articles used in travel and hunting, blacksmiths' tools, native dresses and personal ornaments, toys, skins of wild animals, etc. To properly display the collection will be a matter of considerable expense, but a contribution of \$200 for the purpose has been kindly promised by Lord Strathcona.

A donation of \$500 from a friend of the Museum has also rendered it possible to make other important additions to the collections including a cast of *Glyptodon* (a very large extinct armadillo), a series of models illustrating the development of the common jelly-fish, and a large additional series of Mexican plants, collected by Mr. C. G. Pringle. Extensive additions to the mineral collection have also been secured through the endowment generously provided for that purpose by Sir William Macdonald.

Through the kindness of Professor Knight, of Queen's University, Kingston, Dr. MacBride has obtained a number of specimens of *lepidosteus*, *amia* or bowfin and sturgeon, skeletons of which are being prepared by Mr. Judah, and will before long be placed in the Museum.

At the request of Mr. G. F. Matthew, of St. John, New Brunswick, a number of specimens of carboniferous batrachians were loaned to him for study and description, but have since been returned.

During the year the Museum Assistant has accomplished a large amount of work in relabelling the geological collection, cleaning the birds, and in relabelling and cataloguing the collection of crustacea, which is now in excellent condition.

During the past session the lecture theatre has again been used by the McGill Young Men's Christian Association on

Sunday afternoons for their annual series of addresses. The use of the room was also granted to the Omega Alpha Society for its annual play.

Your Committee are again greatly indebted to Mrs. Peter Redpath, of Chiselhurst, for her annual contribution of \$1,500, to provide for museum maintenance and the salary of the Museum Assistant.

The visitors to the Museum during the year numbered 2,500.

The whole respectfully submitted.

B. J. HARRINGTON,

On behalf of the Committee.

DONATIONS TO THE PETER REDPATH MUSEUM.

For the Year 1902-1903.

From Lord Strathcona, the Read collection of curios from South Equatorial West Africa.

From Mr. Frank Angel, six specimens of *Lingulobolus affinis*, from the Wabana formation, Great Bell Island, Newfoundland.

From B. G. Harrington, Montreal, specimen of horned grebe or hell diver (*Colymbus auritus*), from Little Metis, P.Q.

From Dr. F. D. Adams, Montreal, specimen of *Tellina nanaimoensis*, Nanaimo, B.C.

From the New York State Museum, Albany, N.Y. per Dr. F. D. Adams, two specimens of *Eurypterus lacustris*, and two of *Eurypterus remipes*, all from the Buffalo Cement Company's quarry, Buffalo, New York.

From Dr. H. M. Ami, Ottawa, specimen of maple showing encystment; specimen of *Trocholites Canadensis*, Black River formation, Montmorency River, P.Q.

From Dr. H. W. Seton-Karr, Wimbledon, England, ten specimens of stone implements from Poondi, 29 miles west of Madras, India.

From Mr. Thomas Drummond, B.A.Sc., specimen of crystallized gold from Quesnel River, foot of Quesnel Lake, Pride of the Lake Placer Mine, Cariboo, B.C.

REPORT OF THE COMMITTEE OF MANAGEMENT OF
THE MACDONALD PHYSICS BUILDING.

Number of Students.—The number of students taking classes in the Physics Building has again increased, and is now larger than that dealt with in any other single department of the University. For the ensuing year, 1903-4, it will be 324. To provide this number with laboratory work as well as lectures (which require much preparation and adjustment of apparatus) now taxes the staff to its utmost capacity. The increase is especially noticeable in the Advanced Electrical Class of the Third Year, which now numbers 37, and as the electrical measurements this class is engaged upon call for elaborate apparatus and close supervision, it will not be possible to conduct it much longer without another demonstrator.

Changes in the Staff.—H. L. Cooke, M.A., has resigned his position as demonstrator, upon election to an 1851 exhibition with which he proceeds to Cambridge to prosecute a research at the Cavendish Laboratory.

S. J. Allen has received a Fellowship at the Johns Hopkins University, where he will be engaged upon research work.

The Committee, while regretting the loss of the services of these gentlemen, who had each several years' experience in the laboratory, considers itself fortunate to have retained them so long. Their places will be taken by:—

A. S. Eve, M.A., Pemb. Coll. Cam., (Honours in the Mathematical Tripos, and in the Natural Sciences Tripos), and

A. S. S. Lucas, B.Sc., McGill, who graduated in 1903, and has held the post of demonstrator in the Surveying School.

Donations.—Sir W. C. Macdonald presented the Laboratory with a Hampson Liquid Air Plant, costing \$1,250, which was successfully installed in October, and immediately led to important results in researches on Radio-activity. In this connection it may be noted that the theory of radio-activity now generally accepted is due to Professor Rutherford, and that very many of the facts hitherto established with regard to the properties of Thorium and Radium are the direct result of researches conducted by Professor Rutherford and Mr. Soddy during the past year.

Besides what was required in the Physics Building, Liquid Air has been supplied for researches in Medicine, in the Testing Laboratory of the Engineering Building, and in Chemistry; so that the plant has been almost continuously employed since its arrival.

Sir W. C. Macdonald has also made a special contribution towards the expense of the large number of papers published in the various scientific periodicals; and has given a special sum of \$500 for the purchase of radium. 80 milligrams (about one grain and a quarter) of this rare substance have been secured, the total existing amount being probably not much more than one gram; and this will be employed in further researches.

During the autumn of 1902, experiments were successfully conducted by Professor Rutherford and Dr. Barnes for transmitting signals by wireless telegraphy to a train running at sixty miles an hour. The Committee desire to acknowledge the great facilities offered by the Grand Trunk Railway for this purpose.

Respectfully submitted.

JOHN COX,
Director.

REPORT ON THE MACDONALD CHEMISTRY AND
MINING BUILDING.

The facilities for the study of Chemistry, Mining, Metallurgy, etc., afforded by the Macdonald Chemistry and Mining Building, continue to be taken advantage of by large numbers of students from all parts of the Dominion as well as from other countries.

At the close of the session, Mr. L. O. Howard and Mr. Charles S. Paterson, resigned their positions as demonstrators in the Chemical Department. Their services had been so faithful and so valuable that they will both be greatly missed. Their places have been filled by the appointment of Mr. J. E. A. Egleson, B.Sc., and Mr. W. Lloyd Lodge, M.A., B.Sc. Mr. W. Scott Hutchison, M.Sc., who had formerly acted as demonstrator for two sessions, has also been appointed as Research Demonstrator.

At the beginning of the session a University Chemical Society was organized and has since held fortnightly meetings in the Building. These have been well attended and have proved most helpful and stimulating to those who have taken part in them. Twelve regular meetings were held and fifteen papers read, the subjects being as follows:—

- I. Racemism and Atomic Motion. Dr. Walker.
- II. Discovery of Native Arsenic at Montreal. Mr. Evans.
A method for the determination of the Atomic Weight of Rubidium. Dr. Archibald.
- III. A Theory of Aromatic Character. Mr. Soddy.
- IV. Chemical Compounds in Alloys. Dr. Stansfield.
- V. The Measurement of Ionic Velocities in Aqueous Solution. Dr. Steele.
- VI. Rate of Reaction between Arsenious Acid and Iodine.
Mr. Roebuck.
Synthesis of Dextrose from Glycerine in Animal Organisms. Dr. Halsey.
- VII. Die Electroaffinität von Abegg u. Bodländer. Dr. Steele.
- VIII. Electrochemical Industries at Niagara Falls. Mr. Evans.
- IX. Experiments on Electrode Effects. Dr. Barnes.
- X. Influence of Impurities in Electrolysis of Sodium Chloride Solutions. Mr. Paterson.
Oxidation and Reduction Cells. Mr. McIntosh.
- XI. Formula of one of the Natural Sulphides. Dr. Harrington.
- XII. Cotton Seed Products. Dr. Harrington.

In the Department of Mining Engineering, Mr. J. F. Robertson, B.Sc., has been appointed Dawson Fellow for 1903-4, in place of Mr. C. V. Corless, M.Sc., whose term of Fellowship expired in May. Mr. Corless has, however, been appointed Senior Demonstrator to succeed Mr. H. P. De Pencier, M.Sc., who has accepted a position at Johannesburg, South Africa.

During the year a number of improvements and additions have been made in the equipment of the Mining Labora-

tories, including the renewal on modern lines of the cyanide leaching plant, which has been placed on a gallery by itself, and provided with lockers, tables, etc., to enable students to carry out the necessary chemical tests. A sturtevant Roller Jaw Crusher and a Hooper Pneumatic Jig have been purchased and put in service and a number of small electric motors have been added to the equipment to facilitate individual work. In the workshop of the Department an Elmore Cylinder has been built and a small steam stamp is being completed.

In the Metallurgical Department, Mr. E. B. Tilt, B.Sc., has been appointed Demonstrator to succeed Mr. Howells Frechette, M.Sc., who had held the post for two years. The most important addition to the laboratory comprises two tables, one for electro-metallurgical work and one for gas furnaces. The former has been provided with voltmeters, ammeters and several electric furnaces and is connected with a large adjustable resistance with a magnetic cut-out.

B. J. HARRINGTON,

*Director Macdonald
Chemistry and Mining Building.*

REPORT OF THE SUPERINTENDENT OF THE
OBSERVATORY FOR 1902-1903.

TO THE CORPORATION OF MCGILL UNIVERSITY:

GENTLEMEN,—The work of the Observatory during the past year was as follows:—

Meteorological Observations.—Daily eye readings at 7.40 a.m., 3 p.m., and 7.40 p.m. Thermograph and barograph records from Richard instruments, the traces of which were read for every second hour for the purpose of computing the daily means and diurnal curves. Wind records for direction and velocity from electrical connection with the Mount Royal Station. Morning and evening telegraphic reports to the Meteorological Office, Toronto.

Time Service.—Observations of 695 stars were made for the determination of clock errors. Time exchanges were made with the Toronto Observatory on 21 days. Standard time signals have been distributed by telegraph throughout Canada and the time ball has been dropped each day at noon during the navigation period.

Observations of soil temperatures have been recommenced in co-operation with the Macdonald Physical Laboratory, in the same position as that in which the former investigations were made, but under changed conditions as regards soil surface. The grass has now been removed over a surface 30 feet in diameter, and has been replaced by river gravel. The thermometers were examined and found to be defective, owing to the cracking of their glass coverings. The insulation was carefully corrected at all points and the glass coverings were replaced by copper tubes, under the supervision of Dr. Howard Barnes.

The observations of differences of temperature between Mount Royal and the College grounds have been in progress since June last, under the immediate charge of Dr. Barnes. The new lead-covered cable has given very satisfactory results as regards insulation. The records obtained have been highly satisfactory and contain some promise of important results.

C. H. McLEOD,

Superintendent.

RESEARCHES

In addition to the ordinary work required for carrying on the several departments in the Faculty of Applied Science, the following researches have been made:—

IN THE ENGINEERING BUILDING.

- On the back water produced by diminishing the width of a weir. Dr. H. T. Bovey.
- On the pressures produced by sand on vertical and inclined surfaces. Dr. H. T. Bovey.
- A flexible joint for securing tubes in vessels under pressure. Dr. E. G. Coker. *Phys. Review*, 1903.
- On the microscopic structure of cements. Dr. E. G. Coker.
- On a new form of testing machine for combined stresses. Dr. E. G. Coker. *Proc. R. S. C.*, 1903.
- Note on the application of Fourier's Theorem to the design of cams to effect given displacements, velocities and accelerations. Dr. E. G. Coker. *Proc. R. S. C.*, 1903.
- On the efficiency of Hindley worm-gearing. Prof. R. J. Durley.
- On the economy of performance of an engine using pre-heated compressed air. H. M. Jaquays.
- On the use of a Venturi Meter for air. Prof. R. J. Durley.
- An electric accelerometer. Dr. R. B. Owens.
- An electrical indicating transmission dynamometer. Dr. R. B. Owens.
- On the performance of a repulsion motor. Dr. R. B. Owens and L. A. Herdt.
- Tests on induction generators. L. A. Herdt.
- Current conduction in air between electrodes of different forms at high pressures, alternating and continuous. Dr. R. B. Owens. (In progress.)
- Study of mercury arc rectifier. Dr. R. B. Owens. (In progress.)
- Problems of condenser compensated single phase A. C. induction motor. Dr. R. B. Owens. (In progress.)
- Study of induction type A. C. measuring instruments. Dr. R. B. Owens. (In progress.)
- On the effect of overstrain on the expansion of metals with temperature. Dr. E. G. Coker and C. M. McKergow. (In progress.)
- On the efficiency of Girard Turbines of the radial outflow type. F. B. Brown and F. A. Mackay. (In progress.)

IN THE CHEMISTRY AND MINING BUILDING.

(Department of Chemistry and Mineralogy.)

1. Catalytic Racemisation of Amygdalin. Dr. J. Wallace Walker. Published in the "Journal of the Chemical Society."
2. On the Formula of Bornite. Dr. B. J. Harrington. Published in the "American Journal of Science."

3. Native Arsenic from Montreal. Nevil Norton Evans. Published in the "American Journal of Science."
4. Potential Differences with Saturated Solutions. Douglas McIntosh. Published in the "Journal of Physical Chemistry," May, 1903.
5. A New Form of Platinum Resistance-Thermometer, specially adapted for the continuous-flow Calorimeter. Dr. H. S. Barnes and Mr. Douglas McIntosh. Published in the "Philosophical Magazine."
6. A Lecture Experiment with an Undissociated Salt. Mr. Douglas McIntosh. Published in the "Journal of the American Chemical Society."
7. The Atomic Weight of Rubidium. Dr. E. H. Archibald. To be published shortly.
8. A Dynamical Study of the Friedel-Crafts Reaction. Dr. Steele. To appear shortly in the "Journal of the Chemical Society."
9. The Hydrates of Nickel Sulphate. Dr. Steele and Mr. F. M. G. Johnson. To appear shortly in the "Journal of the Chemical Society."

(Departments of Mining and Metallurgy.)

1. The Overheating and Burning of Steel. Dr. Stansfield and Mr. Frechette. To appear in "Journal of Iron and Steel Institute."
2. The Rate of Fall of Spheres in Still Water (concluded from last year). C. V. Corless and Robert Musgrave. About to be published.
3. The Relation of Power consumed in Crushing Rock to the Size and Surface of the Fragments produced. Dr. Porter and Mr. DePencier. About to be published in "Trans. Can. Soc. of Engineers."

The following reports by students of the Mining Department have also been published:—

1. Hydraulic Mining on Bridge River, B.C. A. S. B. Lucas.
2. Rock Drilling and Blasting. N. W. Parlee.
3. Coke-Making Plant of Dominion Coal Company. C. Rowlands.
4. Coal Mining in Cape Breton. O. Hall.
5. Certain Features of Engineering at the Dominion Collieries. E. J. Carlyle.
6. The Geology of the Boisdale Hills, Cape Breton.
6. The Geology of the Boisdale Hills, Cape Breton. S. H. Boright and C. Ross.

DEPARTMENT OF PHYSICS.

The following papers have been published during the year:—

1. Magnetic and Electric Deviation of the easily absorbed Rays from Radium. E. Rutherford, Amer. Phys. Soc., Phys. Zeit., Phil. Mag.
2. Some remarks on Radio-Activity. E. Rutherford, Phil. Mag.

3. Amount of Emanation and Helium from Radium. E. Rutherford, Nature.
4. A comparative Study of the Emanations from Radium and Thorium. E. Rutherford and F. Soddy, Phil. Mag.
5. Condensation of the Radio-Active Emanations. E. Rutherford and F. Soddy, Phil. Mag., Proc. Chem. Soc.
6. Radio-Active Change. E. Rutherford and F. Soddy, Phil. Mag.
7. The Cause and Nature of Radio-Activity. E. Rutherford and F. Soddy, Phil. Mag.
8. Radio-Activity of Uranium. E. Rutherford and F. Soddy, Phil. Mag.
9. A Penetrating Radiation from the Earth's Surface. H. L. Cooke, Phil. Mag.
10. The Radio-Activity of Snow. S. J. Allen, Phys. Rev.
11. The Effect of Heat on Excited Radio-Activity. Miss F. E. Gates, Phys. Rev.
12. Accidental Formation of Frazile Ice in a Cryophorus. J. Cox, Proc. Roy. Soc. Can.
13. The Hampson Liquid Air Plant at McGill University. J. Cox, Can. Engin.
14. The Flow of Water through Pipes. Experiments on Stream Lines and the measurement of critical velocity. H. T. Barnes and E. F. Coker, Amer. Phys. Soc.
15. Experimental Study of Some Electrode Effects. H. M. Tory and H. T. Barnes, Trans. Amer. Electrochem. Soc.
16. The Radiation Correction in Methods of Calorimetry. H. T. Barnes, Trans. Roy. Soc. Can.
17. The Resistance of a Hydrated Electrolyte and the Relation to the Density-Concentration Curve. H. T. Barnes and J. G. W. Johnson, Trans. Roy. Soc. Can.
18. A New Form of Platinum Resistance Thermometer, specially adapted for the Continuous Flow Calorimeter. H. T. Barnes, Amer. Phys. Soc. and Phil. Mag.
19. Wireless Telegraphy. H. T. Barnes.

ROYAL INSTITUTION FOR THE

Balance Sheet on

ORIGINAL ENDOWMENT AND DONATION IN LAND.			
Hon. James McGill's Bequest.....	\$	425,285	04
DONATIONS OF LANDS, BUILDINGS, APPARATUS, &c.:—			
Wm. Molson Hall and Corridors, the gift of Wm. Molson, Esq.	\$	27,500	00
McTavish Street Property, the gift of J. H. R. Molson, Esq.		42,500	00
John H. R. Molson, donation for Extension of Medical Buildings		62,153	86
Peter Redpath Museum, the gift of Peter Redpath, Esq.		100,000	00
University Library Building, the gift of Peter Redpath, Esq.		435,000	00
Observatory Property, the gift of Sir W. C. Macdonald.		70,405	12
University St. Lot, the gift of Sir W. C. Macdonald..		8,737	86
Lot above Medical College, the gift of Sir W. C. Macdonald		7,375	33
Macdonald Physics Building and Equipment, the gift of Sir W. C. Macdonald.....		248,277	57
Macdonald Chemistry and Mining Building, the gift of Sir W. C. Macdonald.....		267,321	84
Macdonald Engineering Building and Equipment, the gift of Sir W. C. Macdonald.....		476,987	12
Sir W. C. Macdonald, donation towards Building of Workshops		20,000	00
Lord Strathcona Donation		16,000	00
Lady Strathcona, donation to provide additional accommodation for Medical Faculty.....		52,346	00
Hon. Mrs. Howard, donation to provide additional accommodation for Medical Faculty.....		52,346	00
Subscriptions towards Equipment of the Macdonald Engineering Building		123,130	47
Thomas Workman Mechanical Workshops and Equipment, bequest of the late Thomas Workman.....		57,137	31
Subscriptions towards Equipment of Thos. Workman Workshops		13,150	04
Miscellaneous donations to Equipment, Books, &c.....		89,619	16
		<u>1,874,937</u>	<u>68 2,300,172 72</u>

ENDOWMENTS

MISCELLANEOUS:—

General Endowment	55,770	00
Endowment Fund of 1881.....	32,700	00
John H. R. Molson Endowment.....	100,000	00
John Frothingham Principal Fund.....	40,000	00
Dr. Geo. W. Campbell Memorial Fund for Medical Faculty	48,906	04
Leancoil Endowment Fund for Medical Faculty.....	50,000	00
Lord Strathcona Endowment of Departments of Pathology and Hygiene in Medical Faculty.....	100,000	00
Dr. Robert Craik Fund in the Medical Faculty.....	4,000	00
Mrs. (Mary) Dow Bequest, Medical Faculty.....	9,000	00
Faculty of Law Endowment	10,000	00
Faculty of Arts Endowment	4,300	00
Faculty of Applied Science Endowment.....	6,100	00
Macdonald Endowment for Maintenance of Mining and Metallurgical Departments	55,000	00
Macdonald Endowment for Maintenance of Chemical Department	135,000	00
Macdonald Endowment Fund for Faculty of Law.....	200,000	00
Macdonald Endowment for Maintenance of Engineering Building	85,000	00
Macdonald Endowment for Maintenance of the Architectural Department	10,000	00
Macdonald Endowment for Maintenance of Chemistry and Mining Building.....	225,000	00
Macdonald Endowment Fund for Maintenance of Physics Building	150,000	00
Macdonald Endowment Fund for Mineralogical Collections	12,000	00
Macdonald Auxiliary Fund Endowment.....	378,750	00

Carried forward..... \$1,711,526 04

\$2,300,172 72

ADVANCEMENT OF LEARNING.

June 30th, 1903.

IMMOVABLE PROPERTY:—

College Grounds	\$ 92,035 56	
Main Building—Centre Building, East and West Wings and Corridors, etc.....	99,722 03	
Medical Faculty Buildings.....	228,317 95	
Porter's Lodge	2,125 00	
Observatory Buildings	4,693 89	
Gymnasium	8,718 59	
Thomas Workman Mechanical Workshops.....	67,208 07	
Macdonald Engineering Building.....	157,221 18	
Macdonald Physics Building.....	146,166 97	
Macdonald Chemistry and Mining Building.....	180,747 57	
Macdonald Observatory Property.....	70,405 12	
University Library Building.....	139,661 17	
Peter Redpath Museum Building.....	100,000 00	1,297,023 10

MOVABLE PROPERTY:—

Museum Collections, etc.....	53,049 59	
Philosophical Apparatus, Main Building.....	1,568 58	
Natural Science Apparatus.....	10,657 05	
Law Fixtures and Furniture.....	816 48	
Arts do do	10,362 54	
Books in Library.....	89,005 82	
Equipment Thomas Workman Mechanical Workshops.....	23,079 23	
Equipment Macdonald Engineering Building.....	450,776 80	
do do Physics Building.....	111,412 06	
do do Chemistry and Mining Building.....	89,928 84	840,657 04 2,137,680 14

Carried forward..... \$2,137,680 14

ROYAL INSTITUTION FOR THE
Balance Sheet on

ENDOWMENTS.	Brought forward.....	\$1,711,526 04	\$2,300,172 72
MISCELLANEOUS.—Continued.			
Macdonald Endowment for Repairs to Buildings.....		15,000 00	
Thomas Workman Workshops Endowment.....		59,862 69	
Sir Donald A. Smith Endowment Fund for Donald Special Course for Women.....		120,000 00	
Philip P. Carpenter Fellowship Endowment Fund....		7,000 00	
Pension Fund Endowment in Faculties of Arts and Applied Science		150,000 00	
Graduates' Endowment Fund, Faculty of Ap. Science.		85 00	
Wm. Wood Redpath Memorial.....		1,000 00	
British Association Apparatus Fund.....		1,500 00	
Museum Endowment Fund.....		2,000 00	
Wm. Molson Library Fund.....		4,400 00	
Hon. F. W. Torrance Mental and Moral Philosophy Book Fund		1,000 00	
Hugh S. McLennan Library Endowment.....		250 00	
Faculty of Applied Science Library Endowment.....		881 05	2,074,504 78
CHAIRS.			
Peter Redpath Chair of Pure Mathematics.....		20,000 00	
Sir W. E. Logan Chair of Geology.....		20,000 00	
Molson Chair of English Language and Literature....		40,000 00	
John Frothingham Chair of Philosophy.....		40,000 00	
D. J. Greenshields Associate Chair of Eng. Literature.		40,000 00	
Gale Chair in the Faculty of Law.....		25,000 00	
Wm. Scott Chair of Civil Engineering.....		30,000 00	
Hiram Mills Chair of Classics.....		43,070 32	
Macdonald Chairs of Physics.....		120,000 00	
do Chair of Electrical Engineering.....		60,000 00	
do Chair of Mining.....		60,000 00	
do Chair of Architecture.....		50,000 00	
do Chairs of Chemistry.....		110,000 00	
do Chair of Botany.....		50,000 00	
do Chair of Moral Philosophy.....		50,000 00	
Dr. Wm. Kingsford Chair of History.....		50,000 00	
Sir William Dawson Chair of Geology.....		50,000 00	
William Dow Chair of Political Economy.....		60,000 00	
Jos. Morley Drake Chair of Physiology.....		25,000 00	
Sir Wm. Dawson Fellowship in Mining and Metallurgy		11,123 00	
Chas. Gibb Botanical Fund.....		8,200 00	962,893 32
MEDALS, SCHOLARSHIPS, &c.			
Hannah Willard Lyman Memorial Fund.....		1,074 05	
Annie McIntosh Prize.....		425 00	
Neil Stewart Prize.....		340 00	
Ann Molson Gold Medal.....		1,200 00	
Henry Chapman do		700 00	
Elizabeth Torrance do		1,000 00	
Sir W. E. Logan do		1,000 00	
Prince of Wales do		1,000 00	
Shakspeare do		1,000 00	
Sutherland do		1,000 00	
Major Hiram Mills Medal and Scholarship.....		1,500 00	
British Association Medal and Exhibition.....		2,605 00	
Jane Redpath Exhibition.....		1,667 00	
Macdonald Scholarships		25,000 00	
Barbara Scott Scholarship.....		2,000 00	
Walter Scott Exhibition.....		1,100 00	
Dr. T. Sterry Hunt Scholarship.....		4,565 70	
Charles Alexander Scholarship.....		2,000 00	
J. C. Wilson Prize (McGill Normal School).....		1,000 00	
Dr. Joseph M. Drake Prize.....		1,080 00	
Alexander MacKenzie Memorial Fund.....		9,534 05	60,790 80 3,097,688 90
PROFIT AND LOSS ACCOUNT.....			
ARREARS OF INTEREST.....			36,554 07
INTEREST INCLUDED IN COST OF MORTGAGE INVESTMENTS			1,611 41
FORECLOSED			15,954 62
CAPITALIZED REVENUE			69,187 10
ADVANCE FROM ROYAL TRUST CO.....			42,809 06
INCOME DEVOTED TO SPECIAL PURPOSES NOT YET EXPENDED..		190,281 02	
Less sums expended in advance.....		50,261 38	140,019 64
			\$5,703,997 52

15th February, 1904.

Verified,

MACINTOSH & HYDE, Auditors.

ADVANCEMENT OF LEARNING.

June 30th, 1903.

	Brought forward.....	\$2,137,680 14
INVESTMENTS IN MORTGAGES, BONDS, ETC.....		3,524,874 73
AMOUNT PAYABLE IN RESPECT OF ARREARS OF INTEREST.....		1,611 41

CASH ON DEPOSIT.....	39,831 24
	<hr/>
	\$5,703,997 52

W. VAUGHAN, *Bursar.*

*INCOME and EXPENDITURE of the ROYAL
for the year ending*

INCOME.

From Fees collected:			
University	\$ 4,592 50		
Faculty of Law.....	1,882 00		
Faculty of Arts.....	8,998 50		
Faculty of Applied Science.....	39,845 00		
Royal Victoria College.....	13,984 66		
Library	1,932 00		
Gymnasium	1,205 00		
College Grounds.....	3,099 00		
Miscellaneous	3,835 00	79,373 66	
<hr/>			
From Income received from Investments, Deposits in Bank, etc.		163,787 26	
“ Government and other Grants.....		3,575 00	
“ Donations and Subscriptions.....		82,870 04	
“ Caution Money Deposits, etc.....		2,980 00	
“ Miscellaneous Receipts		13,862 68	346,448 64
<hr/>			
Balance—deficit for year 1902-1903.....			542 19

\$346,990 83

15th February, 1904.

Verified,

MACINTOSH & HYDE, Auditors.

INSTITUTION for the ADVANCEMENT of LEARNING.
30th June, 1903.

EXPENDITURE.

For Salaries of Principal, Secretary; the Office, Library and Observa- tory Staffs; School Examiners, etc.....	\$ 27,663 07	
“ Salaries for Instruction (including Deanships).....	128,658 25	
“ Salaries of Foremen in Workshops, Mechanics, etc.....	13,960 40	
“ Salaries and Wages for Janitors, Servants, Laborers, etc.....	12,273 93	
“ Repairs and Improvements to Buildings, etc.....	10,910 25	
“ Apparatus, Machines, Tools, Equipment, etc.....	16,641 39	
“ Maintenance of Apparatus, etc.....	2,183 12	
“ Supplies and Materials.....	6,066 67	
“ Housekeeping Supplies, Royal Victoria College.....	5,404 09	
“ Furniture	873 85	
“ Lighting	2,614 88	
“ Fuel	12,628 43	
“ Printing	3,806 60	
“ Advertising	1,399 56	
“ Insurance	10,847 20	
“ Stationery and Postage	2,620 98	
“ Water	2,339 06	
“ Summer Schools	2,457 99	
“ Miscellaneous	18,592 77	
“ Scholarships, Exhibitions, Medals and Prizes.....	6,710 86	
“ Library,—for Books, etc.	16,811 61	
“ Amount paid to Faculty of Medicine, being intrest on their endowments	10,305 24	
“ Caution Money Deposits	2,875 00	
“ Annuities	3,000 00	
“ Advances and Extraordinary Expenditure.....	8,341 51	324,986 66
REVENUE CAPITALIZED		894 53
CAPITAL ACCOUNT:—Portion of unexpended balances temporarily invested.....		10,541 47
Cash on hand of unexpended Income of Special Endowments, Scholarships, etc., on 30th June, 1903.....		10,568 17

\$346,990 83

W. VAUGHAN, *Bursar*.

*CAPITAL RECEIVED and DISBURSED by the ROYAL
for the year ending*

RECEIVED.

CASH ON HAND on the 1st July, 1902.

For equipment of Chemistry and Mining Building (Sir W. C. Macdonald Donation)	\$ 15,406 80	
Less portion temporarily invested.....	7,943 02	
		7,463 78

ENDOWMENTS:—

Sir W. C. Macdonald,		
For Macdonald Chair of Electrical Engineering (additional)	\$ 10,000 00	
Macdonald Chair of Mining (additional).....	10,000 00	
do do Philosophy	50,000 00	
do Auxiliary Fund	17,500 00	
		87,500 00

BUILDINGS AND EQUIPMENT:—

Lord Strathcona Donation.....	\$ 16,000 00	
Sir W. C. Macdonald, toward erection of Animal House.	500 00	
Dr. J. G. Adami, do do	500 00	
Faculty of Medicine, do do	625 38	
Sir W. C. Macdonald, for pictures for Chemistry and Mining Building	60 93	
Bank Interest on balance of Macdonald Chemistry and Mining Building Fund.....	424 46	
		18,110 77
		105,610 77

INVESTMENTS REPAID DURING THE YEAR.....

INCOME CAPITALIZED:—

Interest on Dr. T. Sterry Hunt Scholarship.....	194 53	
Contribution from Revenue of Faculty of Arts towards erection of Animal House.....	700 00	
		894 53

REVENUE ACCOUNT:—

Portion of unexpended balances temporarily invested...		10,541 47
		10,541 47

\$323,276 00

15th February, 1904.

Verified,

MACINTOSH & HYDE, Auditors.

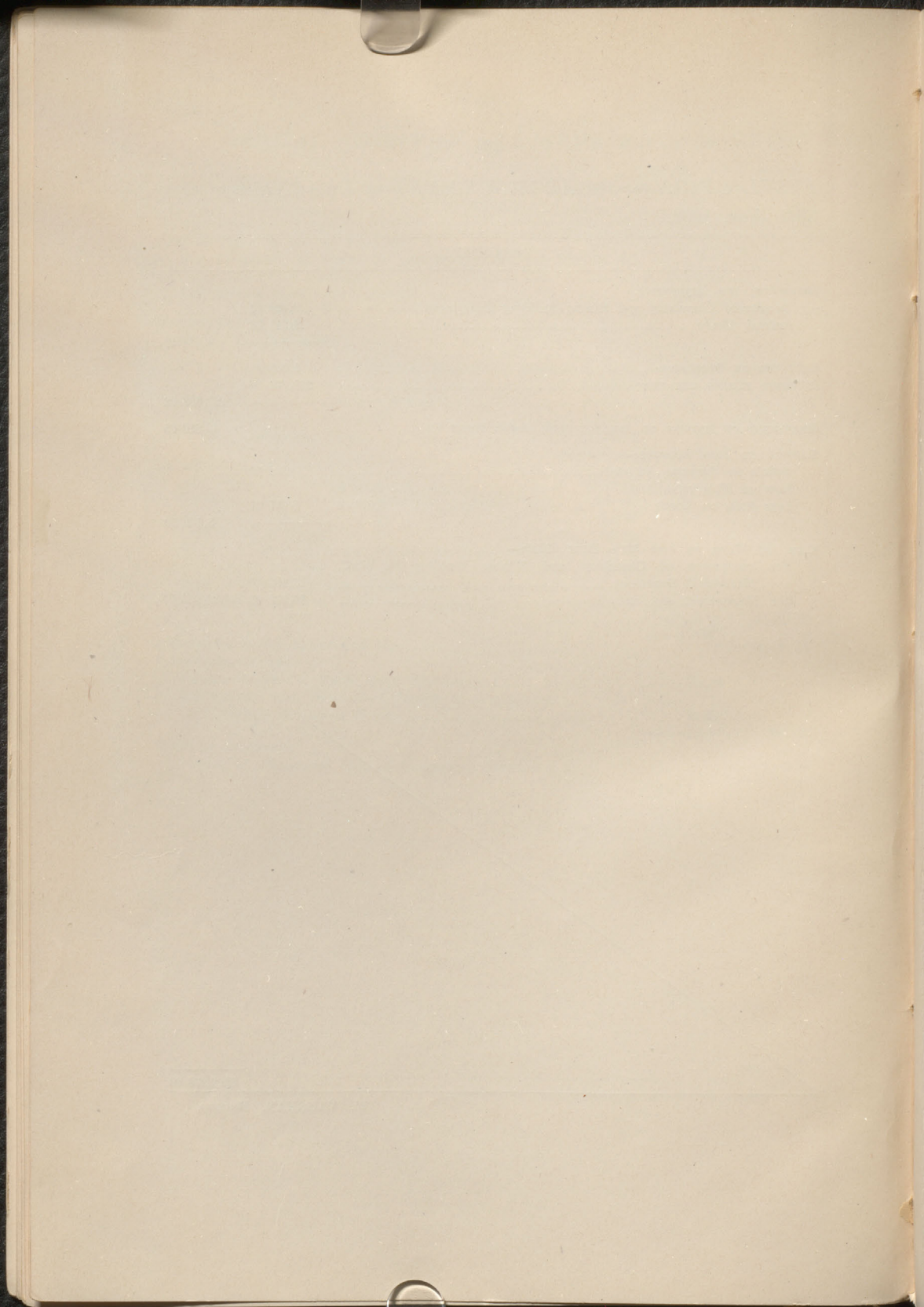
INSTITUTION for the ADVANCEMENT of LEARNING
 30th June, 1903.

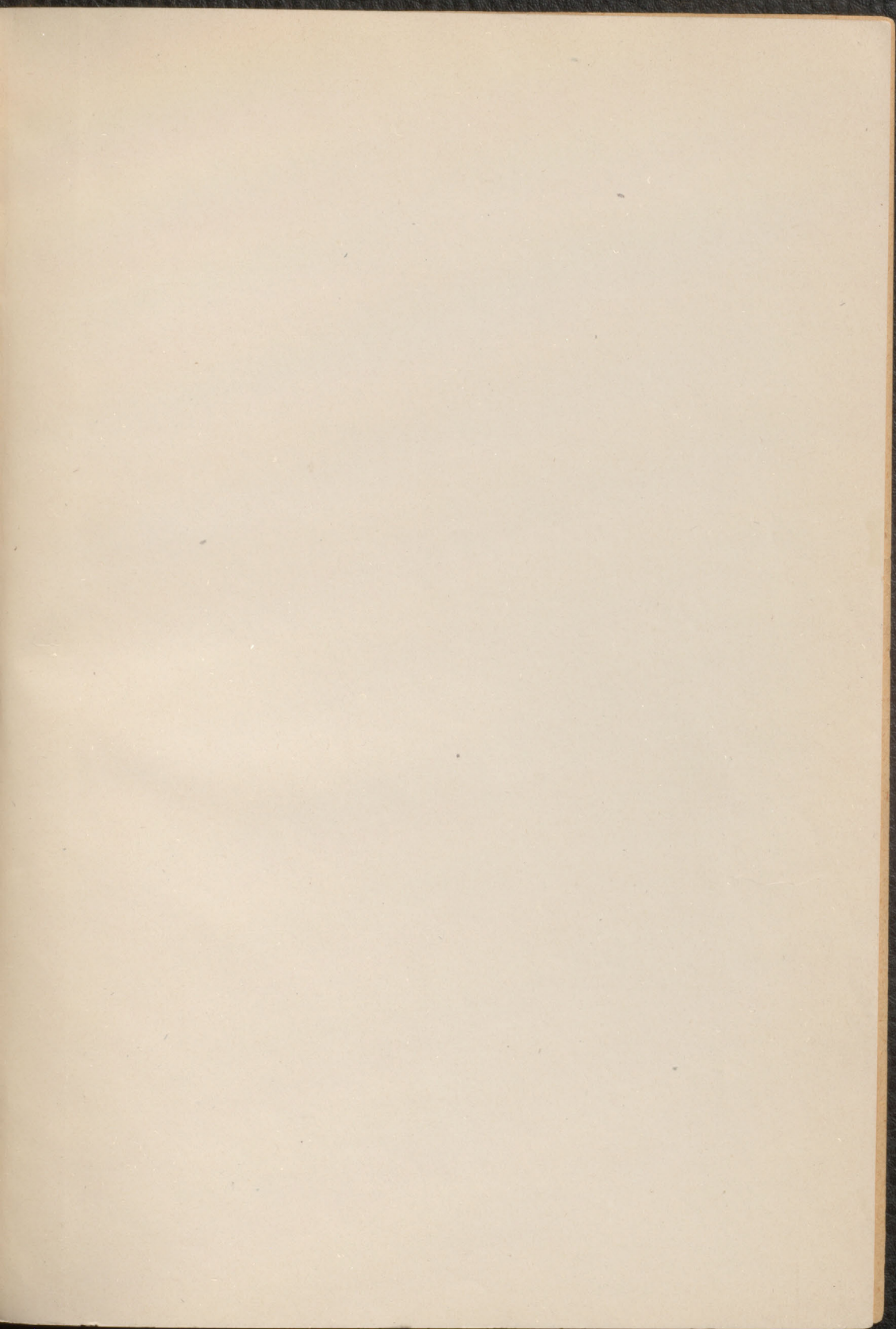
DISBURSED.

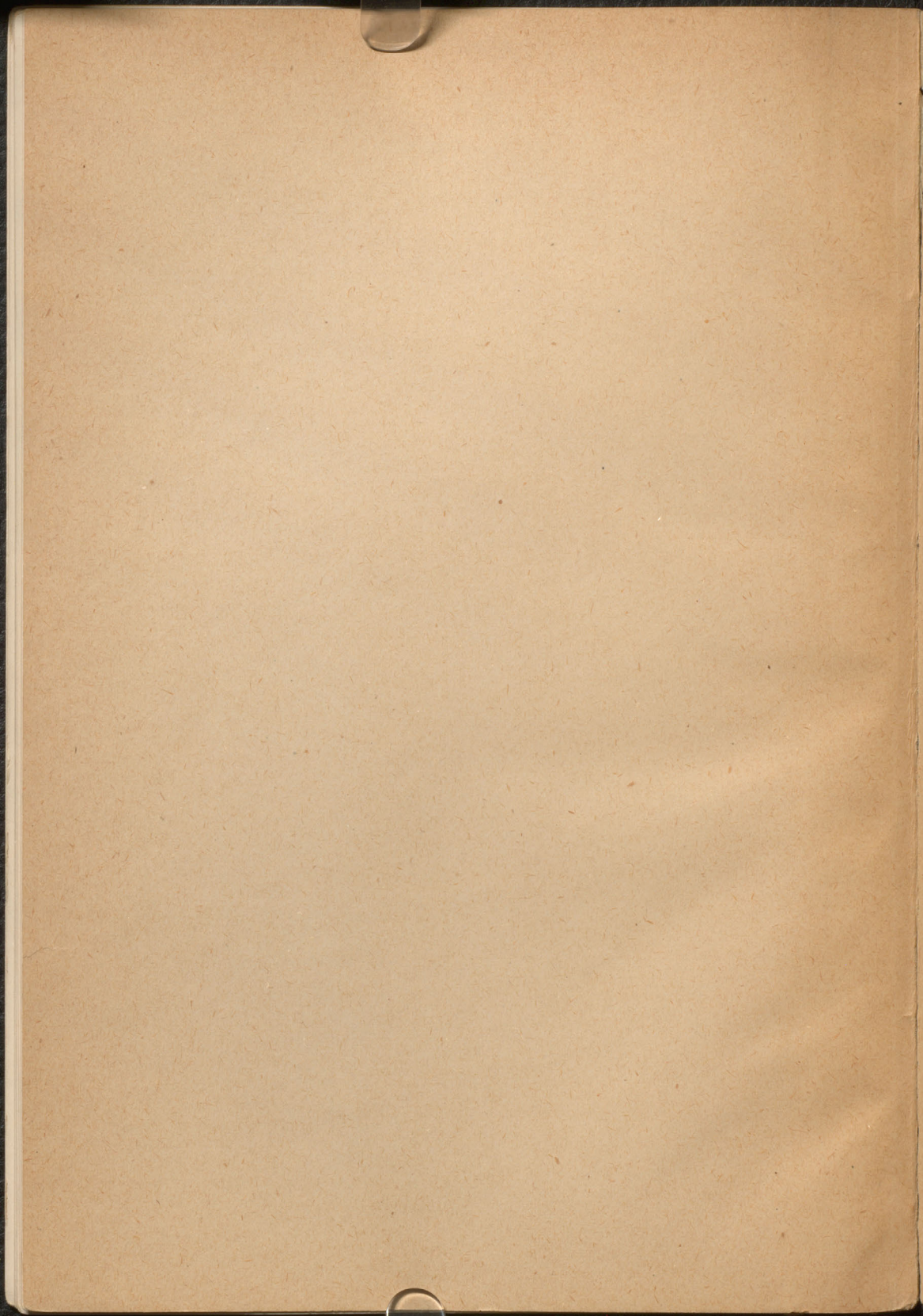
BUILDINGS AND EQUIPMENT:—		
Macdonald Chemistry and Mining Building Equipment.....	\$ 2,629 12	
Animal House	2,325 38	
		4,954 50
EXPENDED ON PROPERTIES.....	1,035 96	
INVESTED DURING THE YEAR.....	238,572 96	
		239,608 92
REPAYMENT ON ACCOUNT OF ADVANCE FROM ROYAL TRUST CO.....		40,889 95
PROFIT AND LOSS ACCOUNT:—		
Deficit in Revenue Account.....		542 19
Loss on Properties sold.....	\$ 9,563 43	
Less Gain on Bonds.....	1,546 06	8,017 37
		8,559 56
CASH ON HAND ON THE 30TH JUNE, 1903:—		
For equipment of Chemistry and Mining Building (Sir W. C. Macdonald Donation)	13,263 07	
For Investment, etc.....	16,000 00	29,263 07

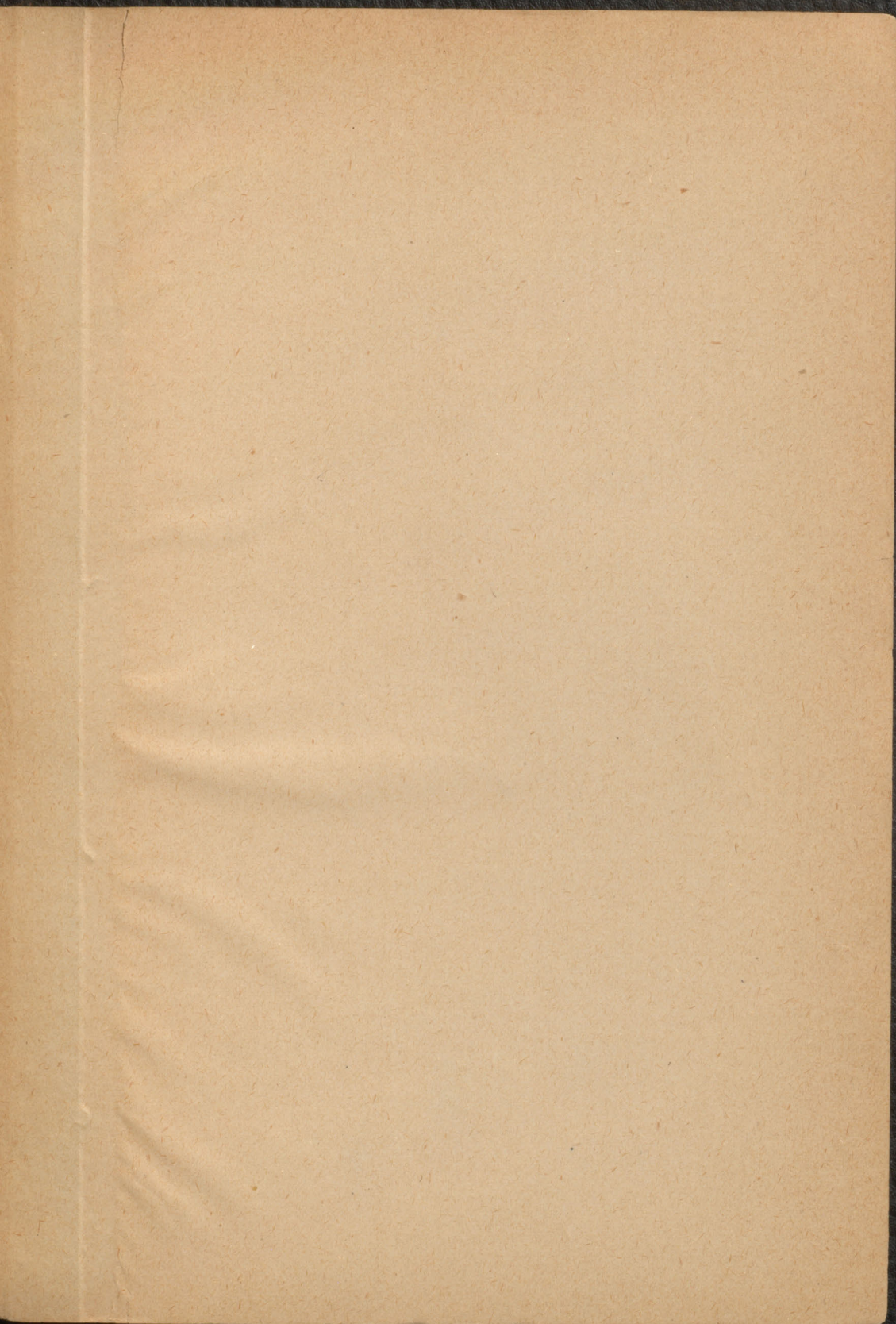
\$323,276 00

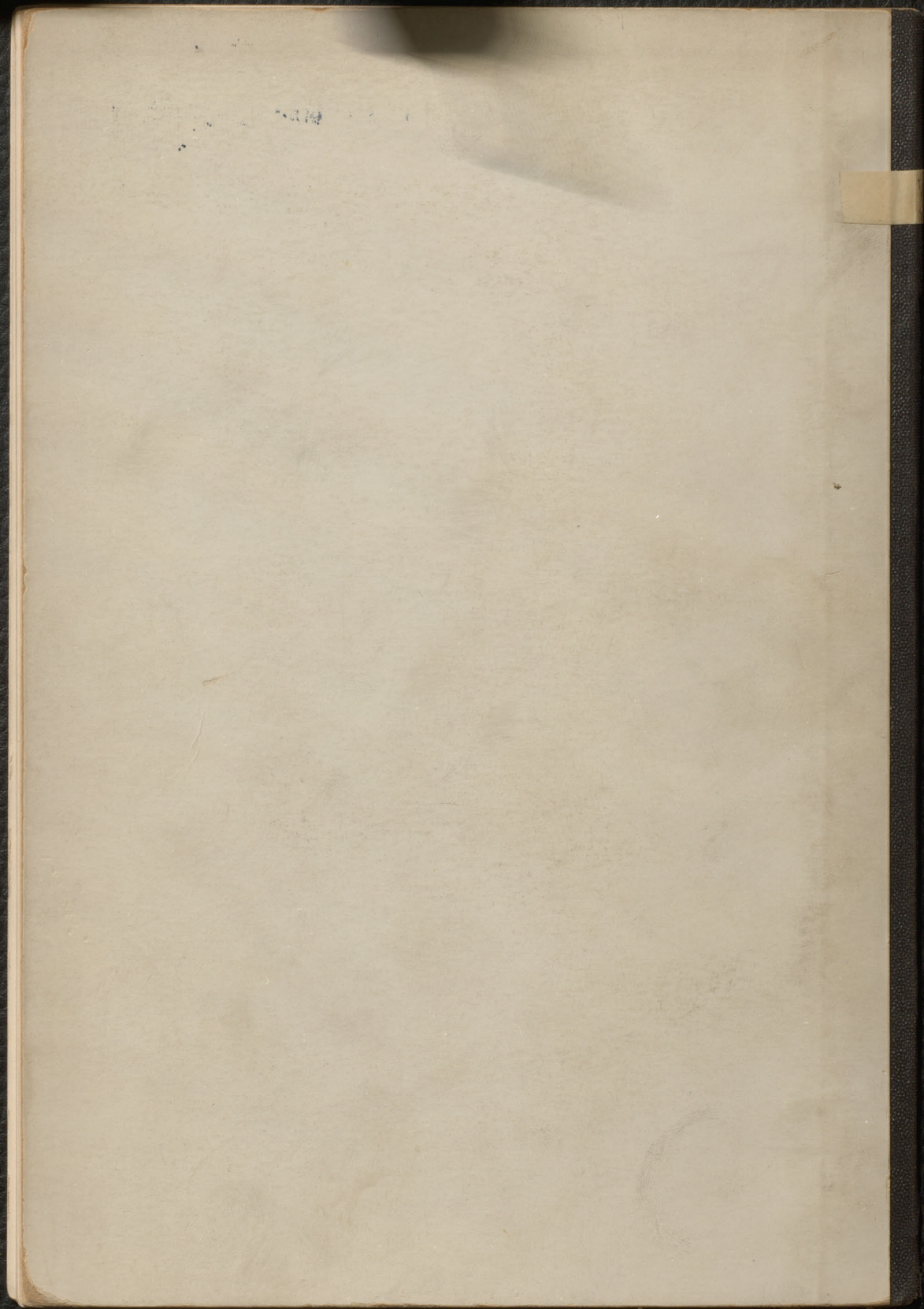
W. VAUGHAN, *Bursar.*











ANNUAL REPORT
OF THE
GOVERNORS, PRINCIPAL AND FELLOWS
OF
MCGILL UNIVERSITY,
MONTREAL,
For the year 1902-03.

MCGILL

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ANNUAL REPORT
OF THE
GOVERNORS, PRINCIPAL AND FELLOWS
OF
MCGILL UNIVERSITY, MONTREAL,
FOR THE YEAR 1902-1903

*(Published by permission of His Excellency the
Governor-General, Visitor of the University.)*

—♦♦♦—
*To His Excellency the Right Honourable Sir Gilbert
John Murray Kynynmound Elliott, Earl of
Minto, Governor-General of Canada.*

MAY IT PLEASE YOUR EXCELLENCY:—

We have the honour to submit to Your Excellency, as Visitor of the University under its Royal Charter, our Report for the educational year ending 31st August, 1903.

Since the session closed, in June, two members of the Board of Governors have been removed by death, Mr. A. F. Gault and Mr. Samuel Finley. Both were devoted friends of the University, and rendered it much unselfish service. Mr. Gault's liberality was displayed, during his life-time, mainly in connection with the Diocesan College, which now holds high rank among the theological colleges affiliated to the University; but the terms of his will remind us that he

was not forgetful also of the interests of the Faculty of Arts, on which our theological colleges so largely depend for the teaching which ought to precede their own professional courses. The late Mr. Finley was one of those who seem to find their greatest source of satisfaction in the service of others. As Honorary Treasurer and Chairman of the Finance Committee, he applied himself cheerfully to the irksome details of financial administration; and it may be doubted if the Board ever had a more useful member, or the University a more loyal supporter. The extent of his benevolence in the community which deplores his loss will probably never be known: he was as unostentatious as he was generous and large-hearted. His death is most sincerely mourned by a large circle of friends, and by the public at large; and nowhere will he be more greatly missed than at McGill.

Earlier in the year, the University was startled by the intimation of the sudden death of the Rev. D. H. MacVicar, D.D., Principal of the Presbyterian College, and for thirty-two years a member of the Corporation of the University. In the course of his long career, Dr. MacVicar rendered great service to the cause of education generally, as well as to the interests which he specially represented, and all the University bodies united in testifying to the moral earnestness, the high purpose, the strength of conviction, and withal the kindliness of heart that characterized his life.

In the course of the session, the Board received the resignations of three of the senior members of the staff,—Dr. Alex. Johnson, Redpath Professor of Pure Mathematics, Dean of the Faculty of Arts, and Vice-Principal of the University; Rev. Dr. Clark Murray, Frothingham Professor of Philosophy, and Dr. Duncan McEachran, Dean of the Faculty of Comparative Medicine.

The circumstances in which the work of the last-named Faculty has been carried on during recent years—with no endowment, an insufficient staff, inadequate equipment, and a decreasing number of students—have involved much discouragement for all who have its interests at heart, and especially for Dean McEachran. Following the recent example of Harvard, and not without the same hope of reviving at some future date the operations of the Faculty on a larger scale, the Board of Governors came to the decision, after careful consultation, that its work should be discontinued for the present. In so doing, the Board took the opportunity of expressing its hearty appreciation of the devoted service the Dean had rendered to the Veterinary School during the long period of his connection with it, even to the prejudice of his other professional interests. There are many graduates of the Faculty of Comparative Medicine, scattered throughout the American continent, who would gratefully acknowledge that they owe much of their professional success to the scientific spirit which Dr. McEachran led them to throw into their work, in the days when—in that as in many other respects—his School stood second to none.

Some time after Dr. Clark Murray's resignation was intimated, the Board was enabled, by the liberality of its Chairman, Sir Wm. C. Macdonald, to institute a second Chair of Philosophy, in addition to that which Dr. Murray had held for a period of over thirty years. Perhaps no action could have more fittingly marked the general sense of loss felt by all alike at the withdrawal from active service of one of the most highly-esteemed members of the University. It was a recognition of the fact that Dr. Murray's retirement made it indispensable that some addition to the staff should be secured for the important department in which he had so long toiled, almost single-handed.

While fitting expression was given by the various University bodies to their regret for the loss of a dear and honoured colleague, perhaps none of the various resolutions conveys this feeling more adequately than that adopted by the Board of Governors itself on receiving Dr. Murray's resignation. It is here subjoined :—

“RESOLVED that in accepting the letter of resignation received from the Rev. Dr. Clark Murray, Professor of Mental and Moral Philosophy in the University, the Board of Governors desires to convey to him its deep sense of the value of the services he has rendered the University during his thirty-one years' tenure of his present Chair.

It is within the knowledge of every member of the Board that no Professor has exerted a greater influence for good on the minds of his students, and that no member of the staff has ever been more highly respected in every section of the community. To his intimate acquaintance with all the branches pertaining to his Chair, Dr. Murray has added the gift of clear and lucid exposition of the most abstruse questions and also a personality that wins the affectionate regard of all with whom he has had to do. It is the confident expectation of the Board that as Professor Emeritus Dr. Clark Murray will continue to exercise his intellectual gifts with increased satisfaction to himself and others, now that he is released from the active work of teaching.”

The withdrawal of Dr. Johnson, Vice-Principal of the University, from the scenes where he has laboured almost without intermission for over forty years involves another break with the past, the necessity for which cannot but be regretted by every friend of the University. During the long period of his service Dr. Johnson has ever sought to maintain the highest possible standards of academic work and efficiency, and it is recognized on all sides that as a teacher he has left an enduring mark on the mathematical work of the University and of the district which it serves. And his knowledge of the most minute details of administration, together with his strong, clear guidance at University meetings, will be much missed by many. The following is the resolution adopted by the Board

of Governors on the occasion of Dr. Johnson's retirement:—

“RESOLVED, that in accepting Dr. Johnson's resignation the Board of Governors desires to place on record its high appreciation of the work done by Dr. Johnson for the University during his long period of service.

For forty-five years—many of them years in which the position of the University was not so well assured as it is to-day,—Dr. Johnson has been assiduous in the discharge of the various duties of his office, not only as professor and teacher, but also as the executive head of the Faculty of Arts. His intimate acquaintance with the regulations of the University, and the painstaking care with which he has attended to the details of administration, have always impressed the members of the various University bodies with which he has been in contact.

In parting with Dr. Johnson, the Board of Governors desires to express the hope that he will find much satisfaction and enjoyment in the pursuits and avocations to which he may now devote the leisure thus secured for him.”

Even under the shadow of these and other withdrawals, signs were not wanting that the University was about to enter on an era of new and increased prosperity, especially in the Faculty of Arts. The careful work of re-organization which has occupied so much of the time and attention of this Faculty during recent years, and the higher efficiency that has been secured for its various departments of teaching, may fairly now be expected to bear fruit, and it is gratifying to be able to report that at the date of writing, the entries of students are already considerably in excess of those of last session.

The detailed statements appended to this Report will give a better idea than anything else could give of the variety of the operations conducted under the auspices of the University, and the complex nature of our academic machinery. Only a few outstanding features can be alluded to here, and these will be most fitly chosen according as they may seem most clearly to point the way of future progress.

The Faculty of Arts continues to feel the importance of the closest possible connection between itself and the Normal School, which trains the teachers of the Province. The course of study in that institution is believed to have been considerably strengthened by the addition to its staff of some of our Lecturers and Assistant Professors,—notably in such subjects as Botany, Physics and Chemistry ; but the highest results will only be obtained when adequate inducements are offered to teachers in training to go forward to the University itself. The standard of efficiency throughout the Province would be greatly raised if a larger number of teachers could be carried forward from the Normal School to at least the stage marked by our Intermediate examination, and in as many cases as possible to the Arts degree. If it be objected that this would be impossible in the existing circumstances of the Province, some encouragement may be derived from the recent experience of Scotland, where thirty years ago only a few of those who were to teach in the public schools went to the University, whereas to-day large numbers are in attendance, their fees being paid by a Government grant.

Another way in which the University may help to raise the standard of efficiency in the schools throughout the country is by the rewards offered in connection with the annual competition for our Entrance Exhibitions. No greater inducements can be held out to schools which might otherwise be content to aim merely at the ordinary matriculation examination than substantial money prizes, to be awarded after competition. Unfortunately it is just here that the University is so greatly handicapped by lack of funds, and if a larger number of Entrance Exhibitions is to be provided—possibly with some preference to schools outside Montreal—a special effort will have to be made

to raise money for the purpose. It is encouraging, in this connection, to be able to report that in the Faculty of Applied Science private liberality has lately taken the direction of instituting such Exhibitions, mainly in the interests of those students who are less able to pay fees.

Since the commencement of the Summer Classes, held during May and June, the number of students has steadily increased, and this may be held to give additional point to the arguments recently addressed to the whole University in favour of some extension of the existing session in Arts and Applied Science. The view of Corporation on this important subject has been fully expressed in the valuable Report which was made public in the course of last session, setting forth both the advantages and the disadvantages involved in any such change, and the conditions which it would seem to necessitate. It may be of interest to mention here that, since this Report was drawn up, it has transpired that the Scottish Universities, on the model of which McGill was largely founded, lately appointed a Committee to deal with the same subject, and the deliverance of this Committee is expected shortly.

The success of the annual lectures delivered, on the Hyde foundation, by distinguished visitors from France has suggested the possibility of permanently establishing vacation courses at Montreal for the study of the French language and literature. There is certainly no centre on the American continent that is more favourably situated for such a purpose, and if teachers could be drawn to Montreal in large numbers to attend the courses, the result would soon be traceable in the improved teaching of French as a school subject throughout the country.

Another direction in which the university may well be desirous of breaking new ground is in con-

nection with the study of Music. At the Royal Victoria College the demand for teaching is greater than the staff can overtake ; and there is no good reason why the benefits of high-class instruction in this subject should be confined to women. The enthusiasm for music throughout the Dominion was strikingly illustrated by the success of Sir Alexander Mackenzie's recent tour ; and the growing popularity of the scheme under which local examinations in Music are now held by McGill University in conjunction with the Associated Board in London (of which Sir Alexander Mackenzie is one of the most distinguished of members) suggests that the time may soon come when the University should set itself the task of organizing a well equipped School of Music of its own. In the meantime the Board of Governors has gladly acquiesced in the suggestion made to it from London that Mr. Charles A. E. Harris, of Ottawa, to whose organizing ability the success which attended Sir A. C. Mackenzie's recent visit was so largely due, should be invited to act as Honorary Director of the Examinations in Music throughout Canada.

The most important gifts received by the University during the year covered by this Report were the establishment of a chair of Moral Philosophy by Sir William C. Macdonald, and the further endowment of the University Library to the extent of four thousand dollars annually (making in all ten thousand dollars annually) by Mrs. Redpath, of Chislehurst. On behalf of the University we beg to offer to these kind friends and generous benefactors our most grateful thanks.

The number of the Colleges affiliated to the University has received an addition by the inclusion in the scheme of the Victoria College at Victoria, British Columbia. This arrangement may be expected to still

further strengthen the connection which now exists between McGill University and the educational interests of that important province.

The business administration of the University has been rendered more efficient by the separation of the Registrarship from the office of Secretary and Bursar, and by the appointment, as Registrar, of Mr. J. A. Nicholson, formerly Principal of Westmount Academy, and a graduate of McGill.

October, 1903.

STRATHCONA, *Chancellor.*

W. PETERSON, M.A., LL.D., *Principal.*

THE YEAR 1902-1903.

The students in attendance during the past session were distributed among the Faculties as follows:—

Faculty of Law.....	40
“ “ Medicine.....	435
“ “ Arts—Women.....	152
“ “ Arts—Men.....	177
	<hr/>
“ “ Applied Science.....	329
“ “ Veterinary Science.....	286
	20
	<hr/>
	1,110
Deduct registered in different Faculties.....	18
	<hr/>
	1,092
In McGill Normal School—	
Teachers-in-training.....	181

At the Matriculation Examination in September, 1902, 53 candidates were successful, 14 qualifying for matriculation in Arts, 11 in Medicine, and 28 in Applied Science.

Exhibition and Scholarship Examinations in Arts were held at the same time, and 6 Scholarships and 14 Exhibitions and Bursaries, ranging in value from \$62.50 to \$125, were awarded.

In Applied Science the British Association Exhibition and Prize, the Third and Second Year Mathematical Prizes, and Prizes for Summer Theses were also awarded.

At the meetings of Convocation held at the close of the different sessions, the following degrees in course were conferred:—

Law, B.C.L.....	13
Medicine, M.D.....	100
Arts, B.A.....	28
Arts, B.Sc.....	2
Arts, M.A.....	4
Arts, M.Sc.....	1
Arts, D.Sc.....	1
Applied Science, B.Sc.....	42
Applied Science, M.Sc.....	8
Applied Science, D.Sc.....	1
Veterinary Science, D.V.S.....	3

In addition to these, the Degree of LL.D., Honoris Causa, was conferred on Sir Alexander Campbell Mackenzie, Mus. Doc., LL.D. (Glasgow), Charles E. Moyse, B.A. (London), and George R. Parkin, LL.D., C.M.G.

Seven Gold Medals were awarded, besides the Wicksteed Silver and Bronze Medals for Physical Culture, and the British Association Medals in the Faculty of Applied Science.

Examinations for the Certificate of Associate in Arts (A.A.) were held in June, 1903, at 29 different centres, with the following results:—

Number of candidates for the A. A. Certificate	181
“ successful.....	124
“ of candidates for Preliminary Subjects.....	200
“ successful	149

Examinations for Matriculation into the different Faculties of the University were also held at the same time in 53 different centres.

Following are the particulars:—

Number of candidates for full matriculation.....	198
“ successful	84
“ who wrote on the preliminary part only.....	129
“ successful	94

As a result of both examinations (A. A. and Matriculation):—

115	qualified for matriculation in Arts.
9	qualified for matriculation in Arts or Medicine.
5	qualified for matriculation in Arts or Applied Science.
12	qualified for matriculation in Arts or Medicine or Applied Science.
38	qualified for matriculation in Applied Science.
2	qualified for matriculation in Medicine.

181

The first examination under the new First Year Exhibition scheme in the Faculty of Arts was held in June, 1903, in conjunction with the Matriculation

Examination, and the following Exhibitions were awarded:—Two, of the value of \$300 each, for an examination on special work; five, of the value of \$150 each, for an examination on the matriculation subjects and additional work; and six, of values ranging from \$100 to \$125, for an examination on the matriculation subjects alone.

NEW ENDOWMENTS AND DONATIONS

The Rt. Hon. Lord Strathcona has given \$45,000 for the maintenance during the year of the Royal Victoria College.

Sir W. C. Macdonald has given \$50,000 for the endowment of a Chair of Moral Philosophy; \$15,000 for the Macdonald Auxiliary Fund; \$10,000 for additional endowment of Chair of Mining; \$7,500 as a contribution towards the deficiency in the account of the Faculty of Applied Science; \$1,200 for fire-escapes in the Physics Building; \$1,800 for Travelling Scholarships in the Faculty of Law; \$500 for an Assistant to the Professor of Zoology; \$2800 to cover the cost of granolithic sidewalks in the University Grounds; \$300 for insulated wire connection with anemometer on the Mountain; \$250 for the publication of investigations of the Professors of Physics; \$500 towards the cost of erecting the Animal House.

Mrs. Peter Redpath has increased her annual donation for the maintenance of the University Library to \$10,000.

The Architects' Association of the Province of Quebec has given a Scholarship of \$150, for four years, to the Architectural Department.

Mr. R. G. Reid has given Testing Machinery, for use in the Engineering Building.

A friend resident in the United States, has renewed his donation of the sum of \$400 for a Fellowship in Electrical Engineering.

NEW APPOINTMENTS AND CHANGES OF
APPOINTMENTS.*In the Faculty of Medicine—*

Thomas A. Starkey, M.B., D.P.H., M.R.C.S., was appointed Strathcona Professor of Hygiene.

J. M. Elder, M.D., was appointed Assistant Professor of Surgery and Lecturer in Clinical Surgery.

J. G. McCarthy, M.D., was appointed Assistant Professor of Anatomy.

J. T. Halsey, M.D., was appointed Assistant Professor of Pharmacology and Therapeutics.

R. A. Kerry, M.D., was appointed Lecturer in Pharmacology and Therapeutics.

S. Ridley MacKenzie, M.D., was appointed Lecturer in Clinical Medicine.

John McCrae, M.D., was appointed Lecturer in Pathology.

D. A. Shirres, M.D., was appointed Lecturer in Neuro-Pathology.

D. D. MacTaggart, B.A. Sc., M.D., was appointed Lecturer in Medico-Legal Pathology.

In the Faculty of Arts—

Alexander Johnson, M.A., LL.D., D.C.L., F.R.S.C. was appointed Vice-Principal Emeritus, and Professor Emeritus, on his retirement from the positions of Vice-Principal of the University, and Dean of the Faculty of Arts.

J. Clark Murray, LL.D., F.R.S.C., was appointed Professor Emeritus on his retirement from the Professorship of Philosophy.

C. E. Moyse, M.A., LL.D., was appointed Dean of the Faculty of Arts and Vice-Principal of the University.

James Harkness, M.A., was appointed Peter Redpath Professor of Pure Mathematics.

Rev. John McNaughton, M.A., was appointed Hiram Mills Professor of Classics.

William Caldwell, M.A., D.Sc., was appointed Macdonald Professor of Moral Philosophy.

Alfred E. Taylor, M.A., was appointed John Frothingham Professor of Philosophy.

H. M. Tory, M.A., D.Sc., was appointed Associate Professor of Mathematics.

In the Faculty of Applied Science—

Percy E. Nobbs, M. A., A. R. I. B. A., was appointed Macdonald Professor of Architecture.

W. Muir Edwards, M. Sc., was appointed Lecturer in Mathematics.

C. V. Corless, M. Sc., was appointed Lecturer in Mining Engineering.

A large number of Tutors, Fellows and Demonstrators were also appointed in the different Faculties.

FACULTY OF LAW.

The total number of students registered in the Faculty of Law for the college year ending June 30th, 1903, was 40, of whom 8 were in the First Year, 18 in the Second Year and 14 in the Third Year.

Thirteen students took the degree of B.C.L. at the annual Convocation.

The fees in the Faculty have been raised from \$53 to \$60.

Sir William Macdonald again presented three graduates with travelling scholarships, to enable them to improve their knowledge of the French language by a year's residence in France.

FACULTY OF MEDICINE.

The total number of students registered in the Faculty of Medicine, for the Session 1902-03, was made up as follows:—

First year	112
Second year	95
Third year	94
Fourth year	120
	<hr/>
Graduates in attendance	421
	<hr/>
Total	435
Of whom there were from	
Ontario	138
Quebec	116
New Brunswick	49
Prince Edward Island	23
United States	37
West Indies	11
Newfoundland	6
Nova Scotia and Cape Breton	20
British Columbia	14
Manitoba and Northwest Territories	9
Ireland	1
British Guiana	1
Elsewhere	10
	<hr/>
	435

Of these students 100 fulfilled all the requirements for the degree of M.D., C.M., which was conferred upon them at the Annual Convocation, June 12th, 1903.

Of the 112 students registered in the First Year, 2 were partial students, 8 conditioned, and 15 were taking the Double Course leading to the degrees of B.A. and M.D.

In September, 1902, the Faculty recommended Dr. H. Wolferstan Thomas for the Governors' Fellowship in Pathology, rendered vacant through the resignation of Dr. Woolley, Dr. Woolley having received the important appointment of Director of the Marine Laboratory for Bacteriological Research at Manilla.

FACULTY OF ARTS.

The total number of students (men and women) in the Faculty for the Session 1902-3 was 329, of whom 183 were undergraduates.

Of the undergraduates 122 were men (in McGill College), and 61 women (in the Royal Victoria College).

These were distributed as follows :—

	McGill College	Royal Victoria College	Total
First Year.....	32	11	43
Second Year.....	43	20	63
Third Year.....	29	20	49
Fourth Year.....	18	10	28
Conditioned.....	12	6	18
Graduates.....	2	5	7
Partials.....	41	80	121
	<hr/>	<hr/>	<hr/>
	177	152	329

DISTRICTS FROM WHICH STUDENTS WERE DRAWN.

MCGILL COLLEGE.

	Montreal.	P.Q.	Ont.	Marit. Prov.	B.C.	Else- where.	Total
Undergrads.							
First Year.....	18	7	3	2	..	2	32
Second Year.....	19	9	7	3	..	5	43
Third Year.....	16	3	7	2	1	..	29
Fourth Year.....	9	5	3	1	..	..	18
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total Undergrads ..	62	24	20	8	1	7	122
Conditioned.....	3	2	5	2	..	..	12
Partial.....	11	4	19	3	..	4	41
Graduates.....	1	1	—	—	—	—	2
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total, McGill.....	77	31	44	13	1	11	177

ROYAL VICTORIA COLLEGE

	Montreal.	P.Q.	Ont.	Marit. Prov.	B.C.	Else- where.	Total
Undergrads.							
First Year.....	5	1	2	1	..	2	11
Second Year.....	13	2	1	3	..	1	20
Third Year.....	12	1	5	2	..	..	20
Fourth Year.....	4	1	2	2	..	1	10
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total Undergrads...	34	5	10	8	..	4	61
Conditioned.....	5	..	..	..	..	1	6
Partial.....	66	3	4	4	..	3	80
Graduates.....	4	..	..	1	..	..	5
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total, R. V. C.....	109	8	14	13	..	8	152
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Grand Total.....	186	39	58	26	1	19	329

FACULTY OF APPLIED SCIENCE.

During the Session 1902-3 the following degrees were conferred in the Faculty of Applied Science:—

In Civil Engineering (B.Sc.).....	5
In Chemistry (B.Sc.).....	4
In Electrical Engineering (B.Sc.).....	11
In Mechanical Engineering (B.Sc.).....	5
In Mining Engineering (B.Sc.).....	17
M.Sc.....	8
D.Sc.....	1

Exhibitions, Prizes and Scholarships were presented by Messrs. W. A. Carlyle (\$150.00; Canadian General Electric Company (\$400.00); Allis-Chalmers Company, Chicago, (\$150.00); J. Tighe (\$50.00); H. C. Stone, (\$105.00); E. B. Greenshields (\$25.00); Geo. E. Drummond (\$25.00); Crosby Steam Gage and Valve Company (\$25.00); J. M. McCarthy (\$20.00); C. J. Fleet (\$20.00).

The Students in the Faculty of Applied Science, Session 1902-03, were from the following districts:—

Year.	1st.	2nd.	3rd.	4th.	Partial.	Grad.	Total
Quebec.....	47	22	14	16	9	1	109
Ontario.....	25	20	20	16	3	..	84
Nova Scotia.....	7	11	5	2	1	..	26
New Brunswick.....	3	6	2	3	..	..	14
Prince Edward Isl..	3	2	1	1	1	..	8
Newfoundland.....	1	2	1	3	..	..	7
British Columbia....	2	3	1	6	..	..	12
Manitoba.....	2	..	..	1	..	..	3
West Indies.....	1	4	..	1	..	..	6
England.....	1	1	2	..	3	..	7
British Guiana.....	1	..	..	..	..	..	1
United States.....	2	4	..	2	1	..	..
Total.....	95	75	46	51	18	1	286

A change has been made by the addition of a new course in Metallurgy. This course, which is chemical in its general scope, was created mainly because metallurgical students taking the Mining Course, were unable to spend a sufficient time in the chemical laboratories.

The course will thus be chiefly suitable for students intending to take up the chemical rather than the engineering side of metallurgy and expecting to com-

mence their metallurgical practice in the chemical laboratories of steel works, or other metallurgical establishments.

The Professor of Metallurgy regrets that it was found impossible to include more instruction in mechanical and electrical engineering, and hopes that this may sometime be effected. At present students desiring the engineering side of metallurgy will follow the Mining Course, with metallurgical options as at present.

The Summer School in Mining was held in Michigan and Central Ontario, immediately after the close of the spring examinations. The whole of the Third Year and some of the First and Second Year students of the Mining Course were in attendance. One week was spent in the study of the geology of the Marquette iron range, Michigan, with special reference to the Negaunee district. Three weeks were then given to the iron mines in the Negaunee district and to the copper mines and concentrators in the neighbourhood of Houghton, Mich. Visits were also made, en route, to the mines and smelters of the International Nickel Company in the neighbourhood of Sudbury, to the Lake Superior Power Company's plant at Sault Ste. Marie, and to the iron furnaces and charcoal plants belonging to the Cleveland-Cliffs Iron Company at Marquette,

The Surveying School for the autumn of 1903 was again held in Upper Melbourne, P.Q. There were in attendance 31 students of the Second Year, 15 students of the Third Year, 11 students of the Fourth Year and 2 graduates, making a total of 59. Owing to the large number of Second Year students at present in attendance, it seems probable that further provision will have to be made to meet the requirements of the work of the senior classes next year. After a trial of two years, it is considered that Mel-

bourne is at too great a distance from Montreal, and it is desired, if possible, to obtain a position nearer the city for next year. If arrangements could be made to obtain a permanent site for the camp, the work of the school would be greatly facilitated.

An appeal was made for bursaries for the benefit of students who require financial assistance, and it is gratifying to be able to state that the reply to this appeal was most satisfactory. The Faculty hopes than an increasing number of bursaries will be available in future years, as of course, as soon as the larger fees are levied upon the students of all four years, a much larger number of bursaries will be required to assist the same students.

Attention may be called to the large number of students now registered in the Faculty of Applied Science. The numbers have increased from 286 in 1902-03 to more than 330 in 1903-04, so that the capacity of the Engineering Building is strained to the utmost. The subdivision of the First Year mathematical class which was found necessary in 1902-03, has now been extended to other subjects and to other Years, and it is to be hoped that, in the near future, some means may be devised which will enable the Faculty to deal satisfactorily with this new condition of things.

A most important privilege has been granted to this University by the Institution of Civil Engineers (England). Official notice has been received from the Council to the effect that, in future, the B.Sc. degree in the departments of Civil, Electrical, Mechanical and Mining Engineering, will be considered as a sufficient qualification for the admission of our graduates as Associate Members of that Institution. Ours is the only University outside Great Britain to which this privilege has been granted, while in Great Britain itself, the privilege is only extended to graduates of eight universities.

AFFILIATED COLLEGES.

Stanstead Wesleyan College, which is affiliated for the first two years in Arts, has a staff of six lecturers. Seven students were in attendance during the session, all in the First Year.

Vancouver College, B.C., which is affiliated for the first two years in Arts, has a staff of seven lecturers, all of whom are university graduates. Fifteen students, 12 of whom were undergraduates, took the course in the First Year, and five undergraduates and one special student were enrolled in the Second Year.

THE MCGILL NORMAL SCHOOL.

During the session 1902-1903 there were admitted to the McGill Normal School as teachers-in-training 181 persons. At the close of the session 167 teachers-in-training received diplomas, 2 being Academy Diplomas, 42 Model School Diplomas, and the rest Kindergarten, Advanced Elementary, and Elementary Diplomas.

THEOLOGICAL COLLEGES.

The affiliated theological colleges have a large number of students, many of whom are undergraduates and graduates of the University.

The details for last session are as follows :—

	Total Students.	Under- graduates.	Partial.	Grads. of the University.
Presbyterian.....	50	14	9	9
Diocesan.....	34	14	0	6
Wesleyan.....	38	4	13	2
Congregational.....	11	3	0	3
	<hr/> 133	<hr/> 35	<hr/> 22	<hr/> 20

REPORTS

THE GYMNASIUM—REPORT OF THE MEDICAL DIRECTOR OF PHYSICAL TRAINING.

TO THE CORPORATION OF MCGILL UNIVERSITY:

GENTLEMEN,—The attendance at the tri-weekly classes has been one hundred and one, but the building has been freely used at other hours for basket-ball and for general exercise by those whose lecture hours conflicted with the gymnastic classes.

The increased use of the building has made imperative the appointment of an instructor to be in continual attendance while the building is open, and I am pleased to report the appointment of Mr. W. L. Jacomb, who will also assist in the physical examinations and clerical work connected therewith.

The number of examinations keeps increasing yearly, and it could profitably be made to include the whole first year.

The greatly increased attendance due to our improved conditions has made the lack of equipment acutely felt. Perhaps the most pressing need is for at least one hundred modern well ventilated lockers.

The Gymnasium Classes in the Royal Victoria College were for the first time, last year, expanded into three divisions: for beginners, intermediates and advanced. In order to accomplish this, Miss Holmstrom gave two morning hours extra, and the attendance was fairly regular all through the session. The measurements showed a slight increase in the strength test, as well as in the lung capacity. On the whole an increase in serious interest was noted. At the end of the session there were two competitions, one for the prize offered by the Chancellor, and the other for a prize given by some lady friends of the University, in which regularity of attendance at the class work was taken into account.

The medical examinations were continued as usual, and advice given, where necessary, for the correction of defective development and for the care of the health.

The whole is respectfully submitted.

R. TAIT MCKENZIE, M.D.,

Medical Director of Physical Training.

REPORT OF THE LIBRARY COMMITTEE.

September 1, 1902, to August 31, 1903.

TO THE CORPORATION OF MCGILL UNIVERSITY:

GENTLEMEN,—Your Committee begs to report that the past year has been a prosperous one for the Library, and that progress has been made in several important matters.

Members of Corporation hardly need be reminded of the change in the composition of the Library Committee which, after much careful thought on the part of the Committee itself and of Corporation, was approved by Corporation in April last. As amended, the regulations now provide for a committee of fourteen, two of whom (the Principal and Librarian) are members *ex officio*, two are members of the governing body, while five are appointed by Faculties, and five by Corporation. Perhaps the most important step taken in this whole connection has been the representation given for the first time to the Faculty of Medicine, which will henceforth be placed on a par in this respect with the Faculties of Law and Applied Science. By this action the Corporation emphasizes the broadly university character of the Library.

As to Travelling Libraries, there has been a marked increase in the demand for the pictures which are sent to schools; the stereoscopes and slides have also been in continual request. The catalogues of the Travelling Libraries, which have hitherto been circulated in manuscript, are now being printed that they may be more freely distributed.

University papers have been issued during the year. The grant available for their publication was, however, exhausted some time before the twelve months had elapsed. The papers that actually appeared were, therefore, merely a comparatively small portion of those which had been published by the staff. Unfortunately, however, the recipients had no means of knowing that they did not represent the entire literary and scientific output of the University for a twelvemonth.

The Catalogue of the Library of Congress, to which reference was made in last year's report, has been available for consultation, but a consignment of some 40,000 cards received late in the summer has not yet been entirely placed in the trays. Hereafter, however, it is understood that the cards will be received regularly in small instalments, and we shall then be in a position both to employ the Catalogue ourselves and to make it useful to other libraries in the vicinity.

Owing to the liberality of Sir William C. Macdonald, your Committee was enabled last autumn to enlarge the Library staff—a step which, had circumstances permitted, they would gladly have taken sooner, but which became at that time imperative in view of Sir William's gift of \$20,000 for the purchase of books. Two additional trained cataloguers, an assistant for the Shelf Department and an extra boy were accordingly engaged, and with their aid the work has been carried on satisfactorily and on the whole smoothly.

Mr. Sydney B. Mitchell, who has acted as reference librarian since January 1, 1902, and Miss Mary W. Clark of the cataloguing department resigned during the year: the former to take a course of study in the New York State Library School at Albany; the latter to accept a position in the Library of Congress at Washington.

It is the pleasant duty of your Committee to record a fresh act of liberality on the part of Mrs. Peter Redpath, who early in the summer signified her intention of giving \$4,000 annually towards the maintenance of the library in addition to the sum which she had until then been contributing. This very generous deed makes Mrs. Redpath's total donation \$10,000 a year. Besides this Mrs. Redpath has presented further tracts—some 3,000 in number, bound in 282 volumes. These are issues of the 19th century, and are intended to round out and finish the collection of pamphlets of earlier date, given on former occasions.

His Grace the Duc de Loubat has augmented previous gifts by presenting a facsimile of an old Mexican pictorial MS. in the Vatican Library, (*Codex Vaticanus, No. 3773.*)

Mr. Archer M. Huntingdon, of New York, has presented twenty-three facsimiles of early Spanish imprints in his private collection.

The Trustees of the British Museum have continued sending us the supplement to their invaluable catalogue of printed books, besides many special catalogues.

The U. S. Geological Survey has very kindly completed the Library set of the Geological Atlas of the U. S.

Herr F. A. Brockhaus, of Leipzig, has presented, through the Librarian, the 1902-03 edition of his *Konversations-Lexikon*.

The Clarendon Press, on the application of Principal Peterson, has given £50 worth of its own publications, which we were allowed to select.

Lieut.-Col. Edye is presenting the "London Daily Times" for 1903.

Special thanks are also due to Mr. George Iles, Mr. Francis McLennan, the Omega Alpha Club, the Graduates' Society and the McGill College Book Club. To the King's Printer at Ottawa and to the heads of many Government Departments, both domestic and foreign, the Library is greatly indebted, as it is also to the other donors and friends who are completely enumerated in the appended list of donations.

The growth of the collections has been this year the largest yet recorded within a like period. 8,104 bound volumes have been added, and including the departmental libraries, the Library now possesses close upon 100,000 volumes (actually 99,473). By far the greater part of this increase is the result of purchases made through Sir William Macdonald's gift of \$20,000, acknowledged in last year's report, but which has proved a source of thankfulness throughout the year. Did space permit, your Committee would be glad to mention some of the many important additions which this gift has enabled the Library to ac-

quire. The difficulty and delay experienced in obtaining some of these works, and the high prices it was necessary to pay in order to secure them at all, emphasize the great importance of an adequate book fund for the Library. Every year's postponement in purchasing adds to the ultimate cost of books which will have to be obtained sooner or later, if the work of the University is to be carried on advantageously. At a moderate estimate \$50,000.00 a year might well be expended on books for this Library. It is generally acknowledged that a strong library is indispensable to thoroughly satisfactory work of an advanced nature in any department whatever, and a University which, like ours, is aiming at the highest standards in so many other respects can ill afford to rest satisfied with less than the highest standard for its library.

Your Committee has had the privilege of lending books on several occasions to sister universities, and to other institutions outside of Montreal, and on the other hand would acknowledge its indebtedness for books kindly lent by the libraries of Harvard, Toronto, Columbia, the Boston Athenæum and by the Library of Parliament, Ottawa.

8,144 volumes have been catalogued and entered during the year.

797 old books have been re-catalogued and entered.

8,941 volumes in all.

The books in the Engineering Building have also been classified and all except the periodicals, the quartos and folios, have been labelled and listed carefully on shelf-list slips, which form the copy for the catalogue. Extra assistance was, however, secured (in Miss Archibald) in order to make the shelf lists, a special grant of \$100.00 having been made by the Governors for that purpose. A great amount of work has also been expended on arranging the maps in the general library. 1,446 volumes have been bound and 392 either bound or repaired.

CONSPECTUS OF ATTENDANCE AND CIRCULATION, SEPT. 1, 1902,
TO AUGUST 31, 1903.

1902.	Readers. Visitors.		Circulation.	
			Total.	Vols.
Sept. 1 to Oct. 4.	925	113	1,038	486
Oct. 6 to Dec. 6.	4,690	38	4,728	1,885
Dec. 6 to Feb. 8, 1903.	2,918	37	2,955	1,525
1903.				
Feb. 9 to April 4.	3,978	64	4,042	1,786
April 6 to June 8.	1,384	68	1,452	1,499
June 9 to August 31.	488	266	714	855
	14,383	586	14,929	8,036

ADDITIONS.

Donations	7,127	....
Donations (Trav. Lib.)	7	
Purchases	562	
Purchases (Trav. Lib.)	160	
Periodicals bound	266	
Exchanges received	22	
	<hr/>	8,144
Withdrawn as lost and subsequently returned.		4
		<hr/>
		8,148
Lost	29	
Lost (Trav. Lib.)	3	
Withdrawn	12	
	<hr/>	44
Net gain for year vols.	8,104	
In Library August 31, 1902 vols.	66,369	
		<hr/>
		74,473
Departmental libraries	25,000	
		<hr/>
Total volumes		99,473

Respectfully submitted,

On behalf of the Committee,

C. H. GOULD,
University Librarian.

ADDITIONS TO THE LIBRARY, SEPT. 1, 1902, TO SEPT. 3, 1903.

	Volumes	
	Bound.	Unbound
Abbott, Maude E., M.D....		1
Aberdeen University.	1	
Aberdeen University Library (through P. J. Anderson)....	1	
Adams, F. D., Ph.D....	2	12
Adams, Prof. John (through McGill University, Secretary's Office)....		1
Adams, W. C....	2	
Adelaide University..	1	
Agular Free Library Society....		1
Alabama Geological Survey..		1
American Historical Association....	2	
American Institute of Mining Engineers..	1	1
American Railway Engineering and Maintenance of Way Association...		2
American Railway Master Mechanics Association (through Prof. Kerry)....	1	
American Society of Civil Engineers.	1	1
Amherst College....		1
Anderson, Tempest..		1
L'Association Geodesique Internationale..		2
Australian Institute of Mining Engineers. B., E. P. (the Author)....	1	1
Beaugrand, H....		3
Becelaere, Rev. F. L. van....		4
Birmingham University....	1	
Bodleian Library..	2	1
Bopp, Herr Franz..	2	
Boston Public Library..		2
Bovey, H. T., LL.D....	1	37
Bowdoin College....	1	
British and Foreign Bible Society		3
British Association for the Advancement of Science....	1	
British Columbia Department of Mines ..		1
British Columbia Superintendent of Education..		1
British Museum....	14	
British School at Athens, University Membership....	2	
Brockhaus, F. A., Leipzig....	3	
Brockhaus, F. A. Leipzig (through C. H. Gould)	12	
Brooklyn Institute of Arts and Sciences ..	1	
Brooklyn Public Library..		1
Brown University....	1	
Bryn Mawr College..		1
California University....		1
Canada—Department of Agriculture.		1
Canada—Deputy Postmaster-General..	1	
Canada—Geological Survey..		11
Canada—King's Printer	19	12

	Volumes	
	Bound.	Unbound
Canada—Minister of the Interior.. . . .		1
Canadian Entomologist, Editor.. . . .		1
Canadian Railway Club...		1
Canadian Red Cross Society...		1
Canadian Society of Civil Engineers... . .	2	
Cape of Good Hope, Geological Commission...		1
Capper, S. H..	1	3
Case School of Applied Science...		1
Chausse, A		1
Chicago University..		2
Chili, Minister of the Interior.. . . .		2
Cincinnati University		1
Cleveland Public Library..		1
Colby, C. W., Ph.D...	1	
Colorado College and Cutler Academy.. . .		1
Colorado Scientific Society..		3
Colorado State Bureau of Mines.. . . .	1	
Columbia University..		16
Connecticut State Board of Health.. . . .	1	
Corey, D. P..	1	
Cote, Thomas, Assistant Commissioner Census of Canada...	1	
Coubertin, P. de...		1
Coussirat, Rev. D., D.D., and others. . . .		9
Cowell, Peter, Librarian Liverpool Public Library..	1	1
Desjardins, L. G., Clerk Legislative As- sembly, Quebec..	1	
Detroit, City of...	1	
Dionne, N. E..		1
Dougall, Miss Lily...	30	1
Dover Public Library..		2
Durley, R. J..	2	
Edinburgh University..	2	
Egypt, Director-General Survey Depart- ment of...		1
Electrical World and Engineer, Publishers		6
Electricity Newspaper Company.. . . .		4
England—Meteorological Council.. . . .		1
Fairbairn, Miss Helen..	6	
Faribault, E. R..		1
Finland Geological Commission.. . . .		2
Fleet, C. J., and others...	127	
Frederiks Universitet (Christiana)... . .		3
Friend..	2	
Fuller, G. D...		1
Georgia Geological Survey...	2	
Gillow and Company (through Prof. Cap- per)...	1	
Glasgow University..	2	
Godin, Mme. J. B. André (Guise)... . . .		1
Going, Miss Maud.	2	1
Gould, C. H..	4	3
Graduate..	1	

	Volumes	
	Bound.	Unbound
Gregor, Leigh R., Ph.D....	2	
Hamilton Scientific Association...		1
Harper, F. P.		1
Harper and Brothers, Publishers...	1	
Harrington, B. J., Ph.D....	1	1
Hartford Seminary...		1
Harvard University...	1	
Harvard College Library...	1	7
Hill, Rev. E. M.	2	
Huntington, Archer M.	9	14
Iles, George..	1	11
Illinois Steel Company...	2	
India—Secretary of State for...	1	
Indiana Academy of Science....		1
Institute of Mechanical Engineers...	2	
Institution of Civil Engineers...	5	1
Institution of Engineers and Shipbuilders in Scotland...	1	
International Engineering Congress...	1	
Iowa University...		1
Iron and Steel Institute...	2	
Japan—Earthquake Investigation Com- mittee...		2
John Crerar Library.		3
Johns Hopkins University...	1	5
Johnston, Lieut.-Col. H. H.		1
King's College, London...	1	
Kunz, G. F.	1	2
Laval University, Montreal...		1
Laval University, Quebec...		1
Leclair, Alphonse...	1	
Leland Stanford Junior University...	1	
Le Rossignol, Mrs. J. E.	1	
Liverpool—Controller and Auditor	1	
Liverpool Free Public Library...		1
Liverpool Medical Officer of Health...	1	
Lockhart, F. A. L., M.D.		7
London Meteorological Council....		1
London Society of Engineers	1	
London, University of..	2	
Loubat, The Duc de..		2
Macaulay, F. R.	1	
Macdonald, A.		1
Macdonald, Sir William C.	4,121	454
McGill Annual, 1904, Editorial and Busi- ness Board of..	1	
McGill Applied Science Society (through Prof. Kerry)	4	4
McGill College Book Club...	172	2
McGill Outlook, Managers of	1	
McGill University Graduates' Society...	27	2
McGill University—Members of Board of Governors..	153	110
McGill University—Secretary's Office...	2	
McLellan, N.	1	

	Volumes	
	Bound.	Unbound
McLennan, Francis..	71	22
McLeod, C. H.	3	4
MacPhail, A., M.D.	6	
Madras Public Works Department	2	
Maine Bureau of Statistics..	1	
Manitoba—King's Printer..	2	
Manitoba University	1	
Massachusetts Board of Education..	1	
Massachusetts Board of Railroad Com- missioners..	1	
Massachusetts Highway Commission..	7	
Massachusetts Institute of Technology.		3
Maryland Geological Survey..	4	
Michigan College of Mines..		2
Michigan University..		1
Miller, Miss, (Princeton)..	3	
Minnesota Geological and Natural History Survey		1
Minnesota University..		2
Montpellier University..		1
Morgan, Miss H.	1	
Morin, Rev. J. L.	1	
Morley, J. Forster, LL.D., Director Inter- national Council of Scientific Litera- ture..		2
Mott, Henry..	4	
Munich Royal Library..		1
National Electric Light Association..	1	
National Geographic Society..		1
Natural History Society (Montreal)..		1
Nelles, Campbell..	6	
New England Cotton Manufacturers As- sociation..	2	
Newfoundland—Colonial Secretary..	2	1
Newfoundland—King's Printer.	1	1
New Brunswick Natural History Society..		1
New Jersey Board of Health	1	
New Jersey Geological Survey..	1	
New Orleans Sewerage and Water Board..	1	
New South Wales Department of Mines..	1	
New South Wales Geological Survey..		2
New York City Board of Education..	1	
New York Commissioner of Parks..	1	
New York Public Library..		1
New York Railroad Club..		1
New York Railroad Club (through Mr. Thos. Tait and Prof. Kerry)		3
New York State Bureau of Labor Statis- tics..	3	2
New York State Engineer	2	
New York State Museum..		5
New York State University..	5	
New Zealand Institute of Mining Engi- neers..	1	1
New Zealand University..	13	
Nichol, W. Grieve, M.D.	1	1

	Volumes	
	Bound.	Unbound
Northwestern University..	1	1
Nova Scotia—King's Printer	2	1
Nova Scotia Provincial Engineer.. . . .		2
Nova Scotia Superintendent of Education.		1
Ohio Bureau of Labor Statistics.. . . .	1	
Olschki, L. S., <i>Publisher</i>	1	
Omega Alpha Club (McGill University) ..	13	
Ontario Bureau of Industries..	1	
Ontario Bureau of Mines..	1	3
Ontario Department of Agriculture.. . . .	2	
Ontario—King's Printer..	5	
Ontario Land Surveyor's Association.. . .		1
Ontario—Minister of Education..	2	1
Ottawa Literary and Scientific Society. . .		1
Ottawa Naturalist, Publishers of.... . .		1
Ottawa University...		5
Owens College, Manchester..	1	
Oxford University	3	
Oxford University, Clarendon Press.. . . .	65	4
Paris—Minister of Public Works..	2	23
Peabody Institute (Baltimore)..	2	
Penhallow, D. P...		6
Pennsylvania Bureau of Mines	1	
Pennsylvania Grand Lodge of Freemasons	1	
Pennsylvania University..	20	35
Pennsylvania University Zoological Laboratory (through Prof. MacBride) ..		1
Penny, E. Goff..		4
Perkins Institution..		1
Peterson, William, LL.D..		1
Philippine Information Society		2
Pope, Hon. Joseph...		1
Porter, J. B., Ph.D...	6	4
Poulton, E. B., D.Sc..	1	
Poulton, E. B., D.Sc. (through Prof. MacBride)..	1	
Pratt Institute Free Library...		1
Presbyterian College (Montreal)..		1
Prince, John Dyneley..	1	
Princeton University..	1	1
Protestant Council of Public Instruction.		1
Providence Public Library..		2
Quaritch, Bernard..		1
Quebec—King's Printer.	7	
Quebec—Superintendent of Public Instruction..		1
Queen's College and University..		2
Queensland Department of Mines		1
Queensland Geological Survey..	1	
Real Universita di Pisa...		1
Redpath, Mrs. Peter..	325	1
Regale Universita di Padova..		1
Reid, Stuart J..	1	
Rice, W., <i>Publisher</i>		1
Roddick, T. G., M.D., M.P...	13	

	Volumes	
	Bound.	Unbound
Ross, N. H., and others...	1	
Royal Arcanum (Boston)...		19
Royal Colonial Institute...	2	
Royal Dublin Society...		2
Royal Geographical Society...	1	
Royal Institute of British Architects...		1
Royal Irish Academy...		2
Royal Military College Club...		1
Royal Society of Literature of the United Kingdom...		1
Royal Society of London...	3	3
Royal University of Ireland...	2	
St. Andrews University...	3	1
School of Practical Science, Toronto...		1
Scranton Public Library...	1	
Smithsonian Institution...	8	4
Smithsonian Institution—Bureau of Ethnology...	3	
Society of Arts, London...	1	1
Sotheran, Henry & Co...	2	
South Australia—Department of Mines...		2
South Australia School of Mines...		1
South California Academy of Science...		1
Strathcona, Right Hon. Lord...	24	2
Street Railway Journal Publishing Company...		3
Sydney University...	1	
Tait, Thomas...	3	
Tasmania—Secretary for Mines...		5
Texas University Mineral Survey...		2
Théoret, C...		1
Theta Delta Chi...	1	
Thompson Company, The Edward...	4	
Thorburn, Mrs. John, Ottawa...		5
Toronto Board of Trade...		1
Toronto City Engineer (through Dr. Bovey)...	1	
Toronto University...	1	1
Trinity College, London...	1	
Trinity University, Toronto...	1	
Tulane University...		1
United States Bureau of Education...	3	
United States Bureau of Statistics...	2	1
United States Census Office...		4
United States Chief of Engineers...	3	
United States Coast and Geodetic Survey...	4	
United States Commission of Fish and Fisheries...	2	
United States Department of Agriculture...	7	
United States Department of Labor...	1	1
United States Army Engineer Department...		5
United States Geological Survey...	14	83
United States Interstate Commerce Commission...	13	
United States Library of Congress...	2	3

	Volumes	
	Bound.	Unbound
United States National Museum.. . . .	2	3
United States Superintendent of Documents.....	15	
United States Treasury Department.... .	1	1
United States War Department...	1	
United States Weather Bureau....		1
University College (Bristol)...	1	
University College (Dundee)...		1
University College (London)	1	
University College (Nottingham)...	1	
University College of North Wales.. . . .	1	
University College of S. Wales and Monmouthshire..	1	
University Club, New York..	1	
Upsala University....		1
Vermont Board of Library Commissioners		1
Victoria University, Toronto.		1
Vienna University...		1
Walton, F. P.	2	
Washington University.		1
Welcker, Adair..		1
Wellcome Physiological Research Laboratories..	1	
West Indies Department of Agriculture (through McGill Botanical Laboratory)...		3
Western Society of Engineers..		1
Wisconsin State Historical Society.. . . .	1	
Wisconsin University...		4
Wood, H. Holton...	2	
Woodman, Dr. T. C., Brighton, Eng.... .	1	
Worcester Polytechnic Institute.. . . .		1
Worshipful Company of Pewterers, London..	2	
Wragge, Clement L.	1	
Wright & Potter Printing Company, Publishers....		1
Yale University...	1	1
Y. M. C. A. International Committee.. . .		1
Yorkshire College, Leeds....	1	
Zoological Society of London...		4

REPORT OF THE PETER REDPATH MUSEUM.

For the Year 1902-1903.

TO THE CORPORATION OF MCGILL UNIVERSITY:

GENTLEMEN,—Your Committee beg to report that during the year the work of the Museum has been carried on successfully, and that a number of important additions to the collections have been made. When the building was erected in 1882, it was thought by many to be far larger than was necessary; but such has been the growth of the collections that before long additional space will be urgently required. At present, too, the need of additional cases makes it impossible to display a number of important donations, the exhibition of which would increase the attractiveness and educational value of the Museum.

The most important addition to the Museum during the year is the Read collection of curios from South Equatorial West Africa, made by the late Frank W. Read and Mrs. Read, and purchased for the University by our generous Chancellor, Lord Strathcona. The collection comprises agricultural and household implements, musical instruments, articles used in travel and hunting, blacksmiths' tools, native dresses and personal ornaments, toys, skins of wild animals, etc. To properly display the collection will be a matter of considerable expense, but a contribution of \$200 for the purpose has been kindly promised by Lord Strathcona.

A donation of \$500 from a friend of the Museum has also rendered it possible to make other important additions to the collections, including a cast of *Glyptodon* (a very large extinct armadillo), a series of models illustrating the development of the common jelly-fish, and a large additional series of Mexican plants, collected by Mr. C. G. Pringle. Extensive additions to the mineral collection have also been secured through the endowment generously provided for that purpose by Sir William Macdonald.

Through the kindness of Professor Knight, of Queen's University, Kingston, Dr. MacBride has obtained a number of specimens of *lepidosteus*, *amia* or bowfin and sturgeon, skeletons of which are being prepared by Mr. Judah, and will before long be placed in the Museum.

At the request of Mr. G. F. Matthew, of St. John, New Brunswick, a number of specimens of carboniferous batrachians were loaned to him for study and description, but have since been returned.

During the year the Museum Assistant has accomplished a large amount of work in relabelling the geological collection, cleaning the birds, and in relabelling and cataloguing the collection of crustacea, which is now in excellent condition.

During the past session the lecture theatre has again been used by the McGill Young Men's Christian Association on

Sunday afternoons for their annual series of addresses. The use of the room was also granted to the Omega Alpha Society for its annual play.

Your Committee are again greatly indebted to Mrs. Peter Redpath, of Chiselhurst, for her annual contribution of \$1,500, to provide for museum maintenance and the salary of the Museum Assistant.

The visitors to the Museum during the year numbered 2,500.

The whole respectfully submitted.

B. J. HARRINGTON,

On behalf of the Committee.

DONATIONS TO THE PETER REDPATH MUSEUM.

For the Year 1902-1903.

- From Lord Strathcona, the Read collection of curios from South Equatorial West Africa.
- From Mr. Frank Angel, six specimens of *Lingulobolus affinis*, from the Wabana formation, Great Bell Island, Newfoundland.
- From B. G. Harrington, Montreal, specimen of horned grebe or hell diver (*Colymbus auritus*), from Little Metis, P.Q.
- From Dr. F. D. Adams, Montreal, specimen of *Tellina nanaimoensis*, Nanaimo, B.C.
- From the New York State Museum, Albany, N.Y. per Dr. F. D. Adams, two specimens of *Eurypterus lacustris*, and two of *Eurypterus remipes*, all from the Buffalo Cement Company's quarry, Buffalo, New York.
- From Dr. H. M. Ami, Ottawa, specimen of maple showing encystment; specimen of *Trocholites Canadensis*, Black River formation, Montmorency River, P.Q.
- From Dr. H. W. Seton-Karr, Wimbledon, England, ten specimens of stone implements from Poondi, 29 miles west of Madras, India.
- From Mr. Thomas Drummond, B.A.Sc., specimen of crystallized gold from Quesnel River, foot of Quesnel Lake, Pride of the Lake Placer Mine, Cariboo, B.C.

REPORT OF THE COMMITTEE OF MANAGEMENT OF
THE MACDONALD PHYSICS BUILDING.

Number of Students.—The number of students taking classes in the Physics Building has again increased, and is now larger than that dealt with in any other single department of the University. For the ensuing year, 1903-4, it will be 324. To provide this number with laboratory work as well as lectures (which require much preparation and adjustment of apparatus) now taxes the staff to its utmost capacity. The increase is especially noticeable in the Advanced Electrical Class of the Third Year, which now numbers 37, and as the electrical measurements this class is engaged upon call for elaborate apparatus and close supervision, it will not be possible to conduct it much longer without another demonstrator.

Changes in the Staff.—H. L. Cooke, M.A., has resigned his position as demonstrator, upon election to an 1851 exhibition with which he proceeds to Cambridge to prosecute a research at the Cavendish Laboratory.

S. J. Allen has received a Fellowship at the Johns Hopkins University, where he will be engaged upon research work.

The Committee, while regretting the loss of the services of these gentlemen, who had each several years' experience in the laboratory, considers itself fortunate to have retained them so long. Their places will be taken by:—

A. S. Eve, M.A., Pemb. Coll. Cam., (Honours in the Mathematical Tripos, and in the Natural Sciences Tripos), and

A. S. S. Lucas, B.Sc., McGill, who graduated in 1903, and has held the post of demonstrator in the Surveying School.

Donations.—Sir W. C. Macdonald presented the Laboratory with a Hampson Liquid Air Plant, costing \$1,250, which was successfully installed in October, and immediately led to important results in researches on Radio-activity. In this connection it may be noted that the theory of radio-activity now generally accepted is due to Professor Rutherford, and that very many of the facts hitherto established with regard to the properties of Thorium and Radium are the direct result of researches conducted by Professor Rutherford and Mr. Soddy during the past year.

Besides what was required in the Physics Building, Liquid Air has been supplied for researches in Medicine, in the Testing Laboratory of the Engineering Building, and in Chemistry; so that the plant has been almost continuously employed since its arrival.

Sir W. C. Macdonald has also made a special contribution towards the expense of the large number of papers published in the various scientific periodicals; and has given a special sum of \$500 for the purchase of radium. 80 milligrams (about one grain and a quarter) of this rare substance have been secured, the total existing amount being probably not much more than one gram; and this will be employed in further researches.

During the autumn of 1902, experiments were successfully conducted by Professor Rutherford and Dr. Barnes for transmitting signals by wireless telegraphy to a train running at sixty miles an hour. The Committee desire to acknowledge the great facilities offered by the Grand Trunk Railway for this purpose.

Respectfully submitted.

JOHN COX,

Director.

REPORT ON THE MACDONALD CHEMISTRY AND
MINING BUILDING.

The facilities for the study of Chemistry, Mining, Metallurgy, etc., afforded by the Macdonald Chemistry and Mining Building, continue to be taken advantage of by large numbers of students from all parts of the Dominion as well as from other countries.

At the close of the session, Mr. L. O. Howard and Mr. Charles S. Paterson, resigned their positions as demonstrators in the Chemical Department. Their services had been so faithful and so valuable that they will both be greatly missed. Their places have been filled by the appointment of Mr. J. E. A. Egleson, B.Sc., and Mr. W. Lloyd Lodge, M.A., B.Sc. Mr. W. Scott Hutchison, M.Sc., who had formerly acted as demonstrator for two sessions, has also been appointed as Research Demonstrator.

At the beginning of the session a University Chemical Society was organized and has since held fortnightly meetings in the Building. These have been well attended and have proved most helpful and stimulating to those who have taken part in them. Twelve regular meetings were held and fifteen papers read, the subjects being as follows:—

- I. Racemism and Atomic Motion. Dr. Walker.
- II. Discovery of Native Arsenic at Montreal. Mr. Evans.
A method for the determination of the Atomic Weight of Rubidium. Dr. Archibald.
- III. A Theory of Aromatic Character. Mr. Soddy.
- IV. Chemical Compounds in Alloys. Dr. Stansfield.
- V. The Measurement of Ionic Velocities in Aqueous Solution. Dr. Steele.
- VI. Rate of Reaction between Arsenious Acid and Iodine. Mr. Roebuck.
Synthesis of Dextrose from Glycerine in Animal Organisms. Dr. Halsey.
- VII. Die Electroaffinität von Abegg u. Bodländer. Dr. Steele.
- VIII. Electrochemical Industries at Niagara Falls. Mr. Evans.
- IX. Experiments on Electrode Effects. Dr. Barnes.
- X. Influence of Impurities in Electrolysis of Sodium Chloride Solutions. Mr. Paterson.
Oxidation and Reduction Cells. Mr. McIntosh.
- XI. Formula of one of the Natural Sulphides. Dr. Harrington.
- XII. Cotton Seed Products. Dr. Harrington.

In the Department of Mining Engineering, Mr. J. F. Robertson, B.Sc., has been appointed Dawson Fellow for 1903-4, in place of Mr. C. V. Corless, M.Sc., whose term of Fellowship expired in May. Mr. Corless has, however, been appointed Senior Demonstrator to succeed Mr. H. P. De Pencier, M.Sc., who has accepted a position at Johannesburg, South Africa.

During the year a number of improvements and additions have been made in the equipment of the Mining Labora-

ories, including the renewal on modern lines of the cyanide leaching plant, which has been placed on a gallery by itself, and provided with lockers, tables, etc., to enable students to carry out the necessary chemical tests. A sturtevant Roller Jaw Crusher and a Hooper Pneumatic Jig have been purchased and put in service and a number of small electric motors have been added to the equipment to facilitate individual work. In the workshop of the Department an Elmore Cylinder has been built and a small steam stamp is being completed.

In the Metallurgical Department, Mr. E. B. Tilt, B.Sc., has been appointed Demonstrator to succeed Mr. Howells Frechette, M.Sc., who had held the post for two years. The most important addition to the laboratory comprises two tables, one for electro-metallurgical work and one for gas furnaces. The former has been provided with voltmeters, ammeters and several electric furnaces and is connected with a large adjustable resistance with a magnetic cut-out.

B. J. HARRINGTON,

*Director Macdonald
Chemistry and Mining Building.*

REPORT OF THE SUPERINTENDENT OF THE
OBSERVATORY FOR 1902-1903.

* TO THE CORPORATION OF MCGILL UNIVERSITY:

GENTLEMEN,—The work of the Observatory during the past year was as follows:—

Meteorological Observations.—Daily eye readings at 7.40 a.m., 3 p.m., and 7.40 p.m. Thermograph and barograph records from Richard instruments, the traces of which were read for every second hour for the purpose of computing the daily means and diurnal curves. Wind records for direction and velocity from electrical connection with the Mount Royal Station. Morning and evening telegraphic reports to the Meteorological Office, Toronto.

Time Service.—Observations of 695 stars were made for the determination of clock errors. Time exchanges were made with the Toronto Observatory on 21 days. Standard time signals have been distributed by telegraph throughout Canada and the time ball has been dropped each day at noon during the navigation period.

Observations of soil temperatures have been recommenced in co-operation with the Macdonald Physical Laboratory, in the same position as that in which the former investigations were made, but under changed conditions as regards soil surface. The grass has now been removed over a surface 30 feet in diameter, and has been replaced by river gravel. The thermometers were examined and found to be defective, owing to the cracking of their glass coverings. The insulation was carefully corrected at all points and the glass coverings were replaced by copper tubes, under the supervision of Dr. Howard Barnes.

The observations of differences of temperature between Mount Royal and the College grounds have been in progress since June last, under the immediate charge of Dr. Barnes. The new lead-covered cable has given very satisfactory results as regards insulation. The records obtained have been highly satisfactory and contain some promise of important results.

C. H. McLEOD,

Superintendent.

RESEARCHES

In addition to the ordinary work required for carrying on the several departments in the Faculty of Applied Science, the following researches have been made:—

IN THE ENGINEERING BUILDING.

- On the back water produced by diminishing the width of a weir. Dr. H. T. Bovey.
- On the pressures produced by sand on vertical and inclined surfaces. Dr. H. T. Bovey.
- A flexible joint for securing tubes in vessels under pressure. Dr. E. G. Coker. *Phys. Review*, 1903.
- On the microscopic structure of cements. Dr. E. G. Coker.
- On a new form of testing machine for combined stresses. Dr. E. G. Coker. *Proc. R. S. C.*, 1903.
- Note on the application of Fourier's Theorem to the design of cams to effect given displacements, velocities and accelerations. Dr. E. G. Coker. *Proc. R. S. C.*, 1903.
- On the efficiency of Hindley worm-gearing. Prof. R. J. Durley.
- On the economy of performance of an engine using pre-heated compressed air. H. M. Jaquays.
- On the use of a Venturi Meter for air. Prof. R. J. Durley.
- An electric accelerometer. Dr. R. B. Owens.
- An electrical indicating transmission dynamometer. Dr. R. B. Owens.
- On the performance of a repulsion motor. Dr. R. B. Owens and L. A. Herdt.
- Tests on induction generators. L. A. Herdt.
- Current conduction in air between electrodes of different forms at high pressures, alternating and continuous. Dr. R. B. Owens. (In progress.)
- Study of mercury arc rectifier. Dr. R. B. Owens. (In progress.)
- Problems of condenser compensated single phase A. C. induction motor. Dr. R. B. Owens. (In progress.)
- Study of induction type A. C. measuring instruments. Dr. R. B. Owens. (In progress.)
- On the effect of overstrain on the expansion of metals with temperature. Dr. E. G. Coker and C. M. McKergow. (In progress.)
- On the efficiency of Girard Turbines of the radial outflow type. F. B. Brown and F. A. Mackay. (In progress.)

IN THE CHEMISTRY AND MINING BUILDING.

(Department of Chemistry and Mineralogy.)

1. Catalytic Racemisation of Amygdalin. Dr. J. Wallace Walker. Published in the "Journal of the Chemical Society."
2. On the Formula of Bornite. Dr. B. J. Harrington. Published in the "American Journal of Science."

3. Native Arsenic from Montreal. Nevil Norton Evans. Published in the "American Journal of Science."
4. Potential Differences with Saturated Solutions. Douglas McIntosh. Published in the "Journal of Physical Chemistry," May, 1903.
5. A New Form of Platinum Resistance-Thermometer, specially adapted for the continuous-flow Calorimeter. Dr. H. S. Barnes and Mr. Douglas McIntosh. Published in the "Philosophical Magazine."
6. A Lecture Experiment with an Undissociated Salt. Mr. Douglas McIntosh. Published in the "Journal of the American Chemical Society."
7. The Atomic Weight of Rubidium. Dr. E. H. Archibald. To be published shortly.
8. A Dynamical Study of the Friedel-Crafts Reaction. Dr. Steele. To appear shortly in the "Journal of the Chemical Society."
9. The Hydrates of Nickel Sulphate. Dr. Steele and Mr. F. M. G. Johnson. To appear shortly in the "Journal of the Chemical Society."

(Departments of Mining and Metallurgy.)

1. The Overheating and Burning of Steel. Dr. Stansfield and Mr. Frechette. To appear in "Journal of Iron and Steel Institute."
2. The Rate of Fall of Spheres in Still Water (concluded from last year). C. V. Corless and Robert Musgrave. About to be published.
3. The Relation of Power consumed in Crushing Rock to the Size and Surface of the Fragments produced. Dr. Porter and Mr. DePencier. About to be published in "Trans. Can. Soc. of Engineers."

The following reports by students of the Mining Department have also been published:—

1. Hydraulic Mining on Bridge River, B.C. A. S. B. Lucas.
2. Rock Drilling and Blasting. N. W. Parlee.
3. Coke-Making Plant of Dominion Coal Company. C. Rowlands.
4. Coal Mining in Cape Breton. O. Hall.
5. Certain Features of Engineering at the Dominion Collieries. E. J. Carlyle.
6. The Geology of the Boisdale Hills, Cape Breton.
6. The Geology of the Boisdale Hills, Cape Breton. S. H. Boright and C. Ross.

DEPARTMENT OF PHYSICS.

The following papers have been published during the year:—

1. Magnetic and Electric Deviation of the easily absorbed Rays from Radium. E. Rutherford, Amer. Phys. Soc., Phys. Zeit., Phil. Mag.
2. Some remarks on Radio-Activity. E. Rutherford, Phil. Mag.

3. Amount of Emanation and Helium from Radium. E. Rutherford, *Nature*.
4. A comparative Study of the Emanations from Radium and Thorium. E. Rutherford and F. Soddy, *Phil. Mag.*
5. Condensation of the Radio-Active Emanations. E. Rutherford and F. Soddy, *Phil. Mag., Proc. Chem. Soc.*
6. Radio-Active Change. E. Rutherford and F. Soddy, *Phil. Mag.*
7. The Cause and Nature of Radio-Activity. E. Rutherford and F. Soddy, *Phil. Mag.*
8. Radio-Activity of Uranium. E. Rutherford and F. Soddy, *Phil. Mag.*
9. A Penetrating Radiation from the Earth's Surface. H. L. Cooke, *Phil. Mag.*
10. The Radio-Activity of Snow. S. J. Allen, *Phys. Rev.*
11. The Effect of Heat on Excited Radio-Activity. Miss F. E. Gates, *Phys. Rev.*
12. Accidental Formation of Frazil Ice in a Cryophorus. J. Cox, *Proc. Roy. Soc. Can.*
13. The Hampson Liquid Air Plant at McGill University. J. Cox, *Can. Engin.*
14. The Flow of Water through Pipes. Experiments on Stream Lines and the measurement of critical velocity. H. T. Barnes and E. F. Coker, *Amer. Phys. Soc.*
15. Experimental Study of Some Electrode Effects. H. M. Tory and H. T. Barnes, *Trans. Amer. Electrochem. Soc.*
16. The Radiation Correction in Methods of Calorimetry. H. T. Barnes, *Trans. Roy. Soc. Can.*
17. The Resistance of a Hydrated Electrolyte and the Relation to the Density-Concentration Curve. H. T. Barnes and J. G. W. Johnson, *Trans. Roy. Soc. Can.*
18. A New Form of Platinum Resistance Thermometer, specially adapted for the Continuous Flow Calorimeter. H. T. Barnes, *Amer. Phys. Soc. and Phil. Mag.*
19. Wireless Telegraphy. H. T. Barnes.

ROYAL INSTITUTION FOR THE
Balance Sheet on

ORIGINAL ENDOWMENT AND DONATION IN LAND.			
Hon. James McGill's Bequest.....		\$ 425,235 04	
DONATIONS OF LANDS, BUILDINGS, APPARATUS, &c.:-			
Wm. Molson Hall and Corridors, the gift of Wm. Molson, Esq.	27,500 00		
McTavish Street Property, the gift of J. H. R. Molson, Esq.	42,500 00		
John H. R. Molson, donation for Extension of Medical Buildings	62,153 86		
Peter Redpath Museum, the gift of Peter Redpath, Esq.	100,000 00		
University Library Building, the gift of Peter Redpath, Esq.	435,000 00		
Observatory Property, the gift of Sir W. C. Macdonald.	70,405 12		
University St. Lot, the gift of Sir W. C. Macdonald.	8,737 86		
Lot above Medical College, the gift of Sir W. C. Macdonald	7,375 33		
Macdonald Physics Building and Equipment, the gift of Sir W. C. Macdonald.	248,277 57		
Macdonald Chemistry and Mining Building, the gift of Sir W. C. Macdonald.	267,321 84		
Macdonald Engineering Building and Equipment, the gift of Sir W. C. Macdonald.	476,937 12		
Sir W. C. Macdonald, donation towards Building of Workshops	20,000 00		
Lord Strathcona Donation	16,000 00		
Lady Strathcona, donation to provide additional accommodation for Medical Faculty.....	52,346 00		
Hon. Mrs. Howard, donation to provide additional accommodation for Medical Faculty.....	52,346 00		
Subscriptions towards Equipment of the Macdonald Engineering Building	128,130 47		
Thomas Workman Mechanical Workshops and Equipment, bequest of the late Thomas Workman.	57,137 31		
Subscriptions towards Equipment of Thos. Workman Workshops	13,150 04		
Miscellaneous donations to Equipment, Books, &c.....	89,619 16		
		1,874,937 68	2,300,172 72

ENDOWMENTS

MISCELLANEOUS:-	
General Endowment	55,770 00
Endowment Fund of 1881.....	32,700 00
John H. R. Molson Endowment.....	100,000 00
John Frothingham Principal Fund.....	40,000 00
Dr. Geo. W. Campbell Memorial Fund for Medical Faculty	48,906 04
Leancoil Endowment Fund for Medical Faculty.....	50,000 00
Lord Strathcona Endowment of Departments of Pathology and Hygiene in Medical Faculty.....	100,000 00
Dr. Robert Craik Fund in the Medical Faculty.....	4,000 00
Mrs. (Mary) Dow Bequest, Medical Faculty.....	9,000 00
Faculty of Law Endowment	10,000 00
Faculty of Arts Endowment	4,300 00
Faculty of Applied Science Endowment.....	6,100 00
Macdonald Endowment for Maintenance of Mining and Metallurgical Departments	55,000 00
Macdonald Endowment for Maintenance of Chemical Department	135,000 00
Macdonald Endowment Fund for Faculty of Law.....	200,000 00
Macdonald Endowment for Maintenance of Engineering Building	85,000 00
Macdonald Endowment for Maintenance of the Architectural Department	10,000 00
Macdonald Endowment for Maintenance of Chemistry and Mining Building.....	225,000 00
Macdonald Endowment Fund for Maintenance of Physics Building	150,000 00
Macdonald Endowment Fund for Mineralogical Collections	12,000 00
Macdonald Auxiliary Fund Endowment.....	378,750 00

Carried forward..... \$1,711,526 04

\$2,300,172 72

ADVANCEMENT OF LEARNING.

June 30th, 1903.

IMMOVABLE PROPERTY:—

College Grounds	\$ 92,035 56		
Main Building—Centre Building, East and West Wings and Corridors, etc.....	99,722 03		
Medical Faculty Buildings.....	228,317 95		
Porter's Lodge	2,125 00		
Observatory Buildings	4,693 89		
Gymnasium	8,718 59		
Thomas Workman Mechanical Workshops.....	67,208 07		
Macdonald Engineering Building.....	157,221 18		
Macdonald Physics Building.....	146,166 97		
Macdonald Chemistry and Mining Building.....	180,747 57		
Macdonald Observatory Property.....	70,405 12		
University Library Building.....	139,661 17		
Peter Redpath Museum Building.....	100,000 00	1,297,023 10	

MOVABLE PROPERTY:—

Museum Collections, etc.....	53,049 59		
Philosophical Apparatus, Main Building.....	1,568 58		
Natural Science Apparatus.....	10,657 05		
Law Fixtures and Furniture.....	816 48		
Arts do do	10,362 54		
Books in Library.....	89,005 82		
Equipment Thomas Workman Mechanical Workshops.....	23,079 28		
Equipment Macdonald Engineering Building.....	450,776 80		
do do Physics Building.....	111,412 06		
do do Chemistry and Mining Building.....	89,928 84	840,657 04	2,137,680 14

Carried forward..... \$2,137,680 14

ROYAL INSTITUTION FOR THE
Balance Sheet on

ENDOWMENTS.	Brought forward,.....	\$1,711,526 04		\$2,300,172 72
MISCELLANEOUS.— <i>Continued.</i>				
Macdonald Endowment for Repairs to Buildings.....		15,000 00		
Thomas Workman Workshops Endowment.....		59,862 69		
Sir Donald A. Smith Endowment Fund for Donalds Special Course for Women.....		120,000 00		
Philip P. Carpenter Fellowship Endowment Fund....		7,000 00		
Pension Fund Endowment in Faculties of Arts and Applied Science		150,000 00		
Graduates' Endowment Fund, Faculty of Ap. Science.		85 00		
Wm. Wood Redpath Memorial.....		1,000 00		
British Association Apparatus Fund.....		1,500 00		
Museum Endowment Fund.....		2,000 00		
Wm. Molson Library Fund.....		4,400 00		
Hon. F. W. Torrance Mental and Moral Philosophy Book Fund		1,000 00		
Hugh S. McLennan Library Endowment.....		250 00		
Faculty of Applied Science Library Endowment.....		881 05	2,074,504 78	
CHAIRS.				
Peter Redpath Chair of Pure Mathematics.....		20,000 00		
Sir W. E. Logan Chair of Geology.....		20,000 00		
Molson Chair of English Language and Literature...		40,000 00		
John Frothingham Chair of Philosophy.....		40,000 00		
D. J. Greenshields Associate Chair of Eng. Literature.		40,000 00		
Gale Chair in the Faculty of Law.....		25,000 00		
Wm. Scott Chair of Civil Engineering.....		30,000 00		
Hiram Mills Chair of Classics.....		43,078 32		
Macdonald Chairs of Physics.....		120,000 00		
do Chair of Electrical Engineering.....		60,000 00		
do Chair of Mining.....		60,000 00		
do Chair of Architecture.....		50,000 00		
do Chairs of Chemistry.....		110,000 00		
do Chair of Botany.....		50,000 00		
do Chair of Moral Philosophy.....		50,000 00		
Dr. Wm. Kingsford Chair of History.....		50,000 00		
Sir William Dawson Chair of Geology.....		50,000 00		
William Dow Chair of Political Economy.....		60,000 00		
Jos. Morley Drake Chair of Physiology.....		25,000 00		
Sir Wm. Dawson Fellowship in Mining and Metallurgy		11,123 00		
Chas. Gibb Botanical Fund.....		8,200 00	962,893 32	
MEDALS, SCHOLARSHIPS, &C.				
Hannah Willard Lyman Memorial Fund.....		1,074 05		
Annie McIntosh Prize.....		425 00		
Neil Stewart Prize.....		340 00		
Ann Molson Gold Medal.....		1,200 00		
Henry Chapman do		700 00		
Elizabeth Torrance do		1,000 00		
Sir W. E. Logan do		1,000 00		
Prince of Wales do		1,000 00		
Shakspeare do		1,000 00		
Sutherland do		1,000 00		
Major Hiram Mills Medal and Scholarship.....		1,500 00		
British Association Medal and Exhibition.....		2,605 00		
Jane Redpath Exhibition.....		1,667 00		
Macdonald Scholarships		25,000 00		
Barbara Scott Scholarship.....		2,000 00		
Walter Scott Exhibition.....		1,100 00		
Dr. T. Sterry Hunt Scholarship.....		4,565 70		
Charles Alexander Scholarship.....		2,000 00		
J. C. Wilson Prize (McGill Normal School).....		1,000 00		
Dr. Joseph M. Drake Prize.....		1,080 00		
Alexander MacKenzie Memorial Fund.....		9,534 05	60,790 80	3,097,688 90
PROFIT AND LOSS ACCOUNT.....				
ARREARS OF INTEREST.....				36,554 07
INTEREST INCLUDED IN COST OF MORTGAGE INVESTMENTS				1,611 41
FORECLOSED				
CAPITALIZED REVENUE				15,954 62
ADVANCE FROM ROYAL TRUST CO.....				69,187 10
INCOME DEVOTED TO SPECIAL PURPOSES NOT YET EXPENDED..				42,809 06
Less sums expended in advance.....			190,281 02	
			50,261 88	140,019 64
				\$5,703,997 52

15th February, 1904.

Verified,

MACINTOSH & HYDE, Auditors.

ADVANCEMENT OF LEARNING.

June 30th, 1903.

	Brought forward.....	\$2,137,680 14
INVESTMENTS IN MORTGAGES, BONDS, ETC.....		3,524,874 73
AMOUNT PAYABLE IN RESPECT OF ARREARS OF INTEREST.....		1,611 41

	39,831 24
CASH ON DEPOSIT.....	\$5,703,997 52

W. VAUGHAN, *Bursar.*

*INCOME and EXPENDITURE of the ROYAL
for the year ending*

INCOME.

From Fees collected:			
University	\$ 4,592 50		
Faculty of Law.....	1,882 00		
Faculty of Arts.....	8,998 50		
Faculty of Applied Science.....	39,845 00		
Royal Victoria College.....	13,984 66		
Library	1,932 00		
Gymnasium	1,205 00		
College Grounds.....	3,099 00		
Miscellaneous	3,835 00	79,373 66	
<hr/>			
From Income received from Investments, Deposits in Bank, etc.		163,787 26	
“ Government and other Grants.....		3,575 00	
“ Donations and Subscriptions.....		82,870 04	
“ Caution Money Deposits, etc.....		2,980 00	
“ Miscellaneous Receipts		13,862 68	346,448 64
<hr/>			
Balance—deficit for year 1902-1903.....			542 19

\$346,990 83

15th February, 1904.

Verified,

MACINTOSH & HYDE, Auditors.

INSTITUTION for the ADVANCEMENT of LEARNING.
30th June, 1903.

EXPENDITURE.

For Salaries of Principal, Secretary; the Office, Library and Observa- tory Staffs; School Examiners, etc.....	\$ 27,663 07	
“ Salaries for Instruction (including Deanships).....	128,658 25	
“ Salaries of Foremen in Workshops, Mechanics, etc.....	13,960 40	
“ Salaries and Wages for Janitors, Servants, Laborers, etc.....	12,273 93	
“ Repairs and Improvements to Buildings, etc.....	10,910 25	
“ Apparatus, Machines, Tools, Equipment, etc.....	16,641 39	
“ Maintenance of Apparatus, etc.....	2,183 12	
“ Supplies and Materials.....	6,066 67	
“ Housekeeping Supplies, Royal Victoria College.....	5,404 09	
“ Furniture	873 85	
“ Lighting	2,614 83	
“ Fuel	12,628 43	
“ Printing	3,806 60	
“ Advertising	1,399 56	
“ Insurance	10,847 20	
“ Stationery and Postage	2,620 98	
“ Water	2,339 06	
“ Summer Schools	2,457 99	
“ Miscellaneous	13,592 77	
“ Scholarships, Exhibitions, Medals and Prizes.....	6,710 86	
“ Library,—for Books, etc.	16,811 61	
“ Amount paid to Faculty of Medicine, being int-re-t on their endowments	10,305 24	
“ Caution Money Deposits	2,875 00	
“ Annuities	3,000 00	
“ Advances and Extraordinary Expenditure.....	8,341 51	324,986 66
REVENUE CAPITALIZED		894 53
CAPITAL ACCOUNT:—Portion of unexpended balances temporarily invested.....		10,541 47
Cash on hand of unexpended income of Special Endowments, Scholarships, etc., on 30th June, 1903.....		10,568 17

 \$316,990 53

 W. VAUGHAN, *Bursar*

*CAPITAL RECEIVED and DISBURSED by the ROYAL
for the year ending*

RECEIVED.

CASH ON HAND on the 1st July, 1902.			
For equipment of Chemistry and Mining Building (Sir W. C. Macdonald Donation)	\$	15,406 80	
Less portion temporarily invested.....		7,943 02	
		7,463 78	7,463 78
ENDOWMENTS:—			
Sir W. C. Macdonald,			
For Macdonald Chair of Electrical Engineering (additional)	\$	10,000 00	
Macdonald Chair of Mining (additional).....		10,000 00	
do do Philosophy		50,000 00	
do Auxiliary Fund		17,500 00	
		87,500 00	
BUILDINGS AND EQUIPMENT:—			
Lord Strathcona Donation.....	\$	16,000 00	
Sir W. C. Macdonald, toward erection of Animal House.		500 00	
Dr. J. G. Adami, do do		500 00	
Faculty of Medicine, do do		625 38	
Sir W. C. Macdonald, for pictures for Chemistry and Mining Building		60 93	
Bank Interest on balance of Macdonald Chemistry and Mining Building Fund.....		424 46	
		18,110 77	105,610 77
INVESTMENTS REPAID DURING THE YEAR.....			198,765 45
INCOME CAPITALIZED:—			
Interest on Dr. T. Sterry Hunt Scholarship.....		194 53	
Contribution from Revenue of Faculty of Arts towards erection of Animal House.....		700 00	
		894 53	
REVENUE ACCOUNT:—			
Portion of unexpended balances temporarily invested...			10,541 47

\$323,276 00

15th February, 1904.

Verified,

MACINTOSH & HYDE, Auditors.

INSTITUTION for the ADVANCEMENT of LEARNING
 30th June, 1903.

DISBURSED.

BUILDINGS AND EQUIPMENT:—		
Macdonald Chemistry and Mining Building Equipment.....	\$ 2,629 12	
Animal House	2,325 38	
		4,954 50
EXPENDED ON PROPERTIES.....	1,085 96	
INVESTED DURING THE YEAR.....	238,572 96	
		239,608 92
REPAYMENT ON ACCOUNT OF ADVANCE FROM ROYAL TRUST CO.....		40,889 95
PROFIT AND LOSS ACCOUNT:—		
Deficit in Revenue Account.....	542 19	
Loss on Properties sold.....\$ 9,563 43		
Less Gain on Bonds..... 1,546 06	8,017 37	
		8,559 56
CASH ON HAND ON THE 30TH JUNE, 1903:—		
For equipment of Chemistry and Mining Building (Sir W. C. Macdonald Donation)	13,263 07	
For Investment, etc.....	16,000 00	29,263 07

 \$323,276 00
W. VAUGHAN, *Bursar.*

