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THE MCGILL UNIVERSITY MAGAZINE.



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MONTREAL:
A. T. CHAPMAN.

THE
MCGILL UNIVERSITY
MAGAZINE



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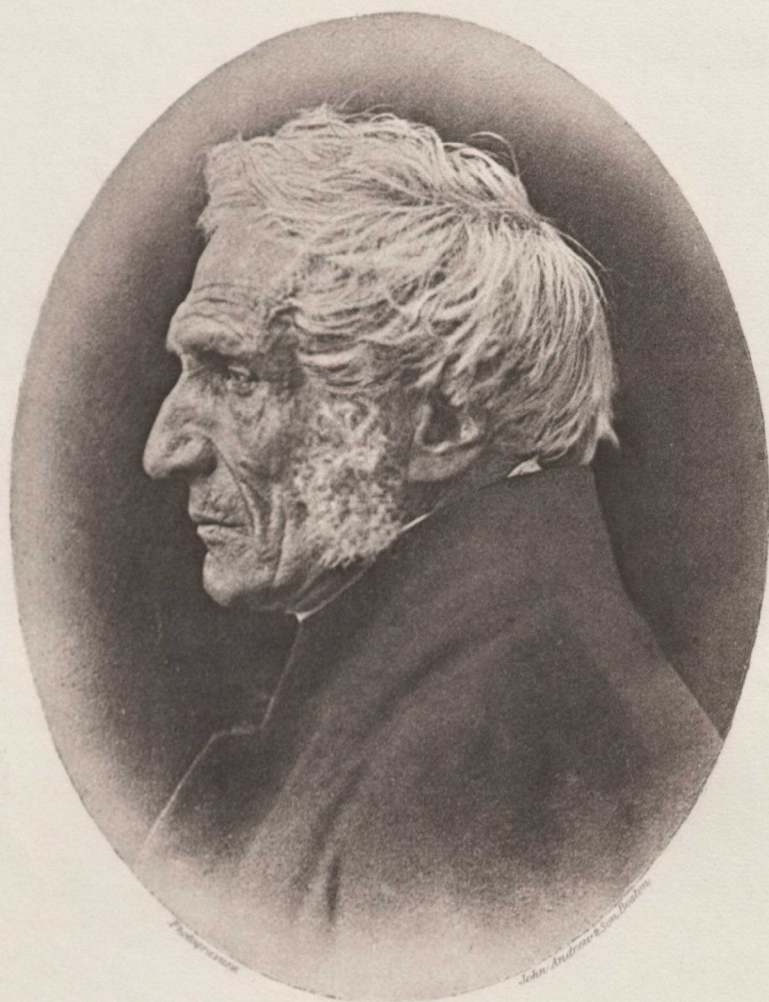
MONTREAL.

A. T. CHAPMAN

CONTENTS.

Portrait of the Rev. G. J. Mountain	<i>Frontispiece.</i>
	PAGE.
Editorial	The Editor-in-chief. 7
Rev. G. J. Mountain	C. W. Colby, '87. 21
University Arms (illustrated)	J. G. Adami. 24
September (Poem)	John E. Logan. 38
✓ The Fruits of Diplomacy	A. H. U. Colquhoun, '86. 39
Advances in Radioactivity (illustrated)	Frederick Soddy. 46
El-Azhar	Alice Fraser, '96. 64
The Trysting of Sir Hugh (Poem)	Robert Macdougall, '90. 71
The Evolution of the Habitant (Part I.)	Helen Rorke, '00. 74
Everyman: A Moral Play	Gerhard R. Lomer, '03. 96
Sursum (Poem)	Chas. E. Moyses. 104
Hasty Notes and Judgments	John McCrae. 108
Jane Austen	C. W. Colby, '87. 119
Broken (Poem)	Wydown. 129
Undergraduate Societies	130
Athletics	F. W. Tees, '01. 140
The Burial of a Chief in Angola	F. W. Read, '89. 155
Prof. W. G. Johnston (<i>In memoriam</i>)	R. J. Ruttan, 'Med., '93. 161
Notices of Graduates	169

[All articles and other literary communications should be addressed to the Editor-in-chief, 802 Sherbrooke Street, Montreal, or to the Secretary, Royal Victoria College, Montreal. Subscriptions should be sent to the Hon. Treasurer, 31 Ontario Avenue, Montreal. The next issue of The McGill University Magazine, being the second part of Vol. II., will appear on or about March 25th., 1903.]



*Rev. George Jehoshaphat Mountain,
1789 - 1863.*

First Principal of W. Gill University 1829-1835.

From a photograph now in possession of Archbishop Bond.

THE MCGILL UNIVERSITY MAGAZINE.

With the appearance of this number, The McGill University Magazine enters on the second year of publication. The objects at which it aims and the character of the constituency to which it makes a primary and distinctive appeal, have been discussed in previous editorials. Although the means of ascertaining its effectiveness hitherto are but scanty—for no reliable conclusions can be arrived at from one year's life—yet the financial outlook is satisfactory, and the letters of approval that we have received from graduates who are very widely scattered, show that the magazine is discharging its function. That well-known writers who are not connected with the University, should become contributors, is scarcely to be expected until the editorial board finds itself in a position to pay for articles. In view of the many urgent needs of the University, the suggestion to endow a magazine would, in all probability, fall on deaf ears. And yet money might be less wisely spent. There is, of course, the danger that endowment might carry with it stipulations that would tend rather to confine than extend influence. What it is desirable to place on a permanent footing is not so much the publication of a series of learned transactions as a periodical that, just avoiding the technically abstruse, comprehends in its wide range all the interests that give life to a university and at the same time keep in touch with the general movements and culture of the community. To put the matter bluntly, it would pay merely on the score of advertisement to give assured permanence to a journal that would take a leading place in the most influential serial literature the country produces. One of our correspondents who is quite alive to the importance of the question on

which we are touching, holds before us the ambition of making The McGill University Magazine a "national review." The editorial mind is instinctively ambitious, and when, in moments of exaltation, it frees itself from considerations that will presently bring it down once more to the level of ways and means, it hesitates at nothing. From the first, the idea of the editorial board has been to make the magazine broadly Canadian as well as collegiate in the hope of strengthening, with regard to educational matters more especially, feelings that lead to a deeper consciousness of nationality. Such has been the magazine hitherto, in consideration of the amount of money it would probably bring. Collegiate it must remain, but it can be raised to any level to which money can exalt it. At present we are thinking of it as it is, and asking for endowment because, while the means at our disposal have been used to the best of our ability, the assurance of having a permanent fund to fall back on, would make our course smoother and more effective. And the fund required would be comparatively trifling, as we think we could prove to any one who is longing to furnish it.

At the request of the editorial board, an article on the late discoveries in Radioactivity at the University has been written for the magazine, and it appears in this number. Some reluctance, on personal grounds that will doubtless suggest themselves to the academic mind, had to be overcome before the magazine gained its point. And then, too, the fear was expressed that the subject would not lend itself to popular treatment. Still, those who conduct the magazine have from the first entertained the idea of inserting in it, and preferably in the form of articles, some account of the research that is being carried on in the various departments of the University. The desire to obtain articles, like the desire to avoid writing them, springs in part from laziness. The ideal McGill University Magazine which may be developed from this, its present ancestor, by a process of, let us hope, unchecked evolution, and at a time, too, when gymnasiums and dining-halls have become ancient history, will no doubt manage learned matters otherwise. Busy and affable members of its large executive will pay regular visits to laboratories and sanctums—cheque-book in hand—and what they glean will have a portion of the magazine all to itself. And the magazine will contain such beautiful photogravures

and be of such varied interest and so voluminous and so very, very cheap that it will secure by far the largest circulation in the academic world. As to the editor-in-chief, he will be one of the best paid officials in the University, and will sit really in an easy-chair—we can see him now, surrounded by all the most modern appliances for communication, and saying to one, “Go!” and he goeth, and to another, “Come!” and he cometh, and to his co-editors, “Do this!” and they do it. But as yet the magazine, not possessing the gleaning faculty of its perfect successor, is forced by human limitations to remain largely inactive, and to rely on the spontaneous assistance of those who are breaking new ground in the various departments of thought and fact. Bearing as it does the name of the University, it has some justification in asking for a brief and early summary of results of work that will make the University more widely known and increase its reputation, even if they have been or are to be, sent to technical journals, in which they naturally admit of more specific and profound discussion. It is due to some such conviction that the magazine has obtained the article on Radioactivity, in which certain conclusions appear in print for the first time.

Last March the Bill to which reference was made in our April number, the Canada Medical Act, was presented to the Dominion Parliament for its second reading. Declining at the time to accept the principle of the Bill, the House consented to the second reading, and referred the measure to a Select Committee. Without following from step to step what has taken place since, it is enough to state that the Bill has become law. But it carries with it a proviso that may render it quite ineffective—everything depends on the action of the provincial Legislatures. “No province,” so the Bill reads, “shall be represented upon the Council either by appointed or elected members until the Legislature of the province has enacted in effect that registration by the Council shall be accepted as equivalent to registration for the like purpose under the laws of the province; and when *all the provinces* (the italics are ours) shall have legislated in effect as aforesaid, it shall be lawful to appoint and elect in the manner aforesaid the members of the Council.” That the refusal of one province to accept the Bill should effectually check joint action by all the others, need surprise no one who knows the atmosphere of the country—not yet a nation—in which legislation of a similar

kind is frequent. What has happened might have been foreseen long ago, when the Bill was felt to be an embarrassing thing, but at the same time one whose claims could not be thrust aside by summary procedure. The British North America Act, in virtue of which we live and move and have our being, has been in evidence from the first. On turning to the account of the debate on the second reading, as given in the Official Report, it is seen, as might be expected, to hinge mainly on the question of infringing provincial autonomy. Any such consequence was denied by the supporters of the Bill, some of whom stated that they would not advocate Dr. Roddick's cause if they thought provincial rights in danger. Whether the Bill was unconstitutional or not is a question that appeals to parliamentary lawyers, and, as might also be expected, the discussion of unconstitutionality brought forth a conflict of opinion in the House. Whether or not a doctor, a distinguished specialist, let us suppose, who is in practice in Ottawa, can cross the river Ottawa and visit a patient in the Province of Quebec without running the risk of fine or imprisonment, prescribed by the law of the province he has invaded, is a question that appeals to common sense. To argue from a provincial point of view, and say that the only way for such a man to qualify himself for practice in a neighbouring province is by passing its medical examinations, implies a condition of thought that lags woefully behind what is felt to be a just claim of the country on those who have shown themselves efficient doctors. And, further, to say nothing of the personal annoyance and expense that such a regulation entails, there is a strong probability that in the case of a mature doctor certain requirements of a general medical examination would have passed into something like oblivion. Besides, the subjects of a provincial matriculation would have to be studied again, at a time when we may generously suppose they have faded from facts into an influence. How the provincial Legislatures will deal with Dr. Roddick's Bill remains to be seen, for they have not met since it was passed by the Dominion Parliament. It is quite likely that the argument of which we have just been speaking will be heard again. In the most ethereal play ever given to the stage, the dramatist, with a touch of sagacity, makes the leader of his band of handicraftsmen momentarily sententious, as is the way of plain every-day people: "And yet, to say the truth, reason and love keep little company together now-a-days; the more the pity

that some honest neighbours will not make them friends." The words of Bottom read like a comment on the perplexity in which those who in most things exalt province above country have found themselves, and into which, it is to be hoped, this medical question will not plunge them once more.

The medical profession borders on unanimous approval of reform. One of the members of Committee is reported as saying that he believed it would be found that one thousand medical men were in favour of the Bill for every one who was opposed to it. Even if the figures were much less striking, there would be cogent reasons within the profession itself for determining to establish a new order of things. And while the main solicitude of those who favour a change is, naturally enough, the progress of the profession and the country to which they belong, it must not be forgotten that the not unimportant element of recognition elsewhere is involved in the measure. It is true that the construction put on the British General Medical Act by the supporters of the Bill was challenged in debate, but, so far as can be gathered, it does appear that a doctor who possesses the general qualification in medicine established by the Act is thereby eligible for appointments in the British Army, Navy and mercantile marine; and, what is more, finds himself medically qualified to practise in the Old Country. An early colony of the Empire has not reached as yet the level of its newest Commonwealth. A medical graduate of the Commonwealth of Australia can, simply by paying a fee, practise in the motherland, whereas a graduate of a Canadian province has to pass an examination in addition. One of the speakers in the debate on the second reading touched on this question of Canadian disability in a pointed manner. "It is not," he said, "because the standard is so very much higher in Australia than it is in Canada. I think we have as good colleges, if not better, in Canada than they have in Australia, but it is simply because of the lack of uniformity in our degrees in Canada. We cannot expect the motherland to recognize our degrees from the different provinces when we do not recognize them between the provinces in our own Dominion."

The Bill, then, seeks to reach the desired end by what amounts to inter-provincial agreement, and the more inter-provincial action for a common purpose the better. What has obviously struck many a competent and unbiased observer of Canada is the enormous waste of

time, energy and money involved in keeping provinces apart in matters that are national elsewhere. As to those persons who are remaining dissentient, it is to be hoped they will be persuaded to see the wisdom of adopting the larger view of the question. Should they persist in maintaining an exceptional attitude, and succeed in influencing any provincial legislature, the province to which it belongs will, we imagine, be regarded with consideration and treated exceptionally by some modification of the existing legislation which it will necessitate. In the meantime the address delivered by Dr. William Osler to the Canada Medical Association last September, and entitled "Chauvinism in Medicine," might with advantage be placed in the hands of honest doubters, if such really exist. The writer, it is almost superfluous to say, is a man of world-wide reputation in his own profession, and one who joins to rare medical knowledge true literary instinct and also a catholicity of view that is the outcome of wide reading in both ancient and modern literature. As might be expected, he waxes indignant when speaking of the obstacles that impede the medical profession in Canada. It would be well to enlighten the English public, curious just now regarding colonial matters, as to the true condition of affairs in Canadian professional life, and a cheap reprint of Dr. Osler's address ought to appear in England; we are convinced it would startle many Englishmen who think of colonies as free from the shackles that bind older and more conservative countries. In one place, after referring to provincial disability, Dr. Osler terms it "an outrage." "It is," he continues, "provincialism run riot. That this pestiferous condition should exist through the various provinces of this Dominion, and so many States of the Union, illustrates what I have said of the tyranny of democracy and how great enslavers of liberty its chief proclaimers may be." These are strong words, and they are perfectly justifiable.

A really valuable contribution to the literature that deals with Canadian education has just appeared in the form of a report on the Protestant School System in the Province of Quebec by John Adams, M.A., B.Sc., Professor of Education in the University of London, and formerly Principal of the U.P. Training College, Glasgow. It was owing, we believe, to private munificence that it was possible to engage Professor Adams to undertake the task of inspection, which he has performed, as the report shows, with marked ability. The matter of

his book is grouped in well-judged order, and the headings chosen for the various divisions of the subject being printed in bold type, easily catch the eye; in fact, the general appearance of the volume is distinctly attractive. Still the report is lengthy enough to warrant a table of contents and even an index. Lucid in style and comprehensive in scope, it bears witness to the keenness of the writer's observation and to his untiring energy in seeing for himself throughout a wide district not easily travelled over, the working of a system framed to meet peculiar and, in many ways, unfavourable conditions. It was fortunate for Professor Adams that Mr. Tory, who is an authority in local education and knows the Province extremely well, could accompany him as a guide.

Like most reports of its class, the report of Professor Adams is a mixture of praise and disapproval. Taken as a whole, the general opinions expressed concerning the actual teaching in the Protestant schools are more commendatory than we might have been led to believe. There are so many points touched on by the writer or suggested by him, that it would be impossible even to glance at a tithe of them within the limits of an editorial. In the last number of the magazine we dwelt on the general question of publishers and textbooks—the question of Bacon and Bungay and the schools—and we find a reference to it in the report. Under the heading "School Books," Professor Adams gives a list of grievances that he found existing, one of them being a change of books "in order to benefit the publishers." The conclusion to which he comes is that "the reference to the publishers' interest seems irrelevant." We accept the conclusion that the grievance is baseless, and are glad to find such a stable condition of affairs. Yet as we gaze at a shelf full of English Grammars and English Compositions, and reflect that some of them are memorials of the visits of irrepressible agents with educational designs on the Protestant Committee of the Council of Public Instruction, we conclude that the grievance might not have been imaginary once, whatever it may be now. A gaudy volume, which, although liberally sprinkled with inaccuracies, was once adopted and was by some hailed with delight as a "panacea," catches the eye. Next to it rests the more modest and better book which it deposed. The change from the one to the other is a thing of comparatively recent years, and fortunately another change has taken place since. There is no knowing, indeed, at what

moment an educational board may not find itself confronted with the plausibilities of an interested advocate of substitution. But the temper of those who govern the adoption of text-books appears to be sound, and it is described in the report in a passage which must be quoted. "The Committee," writes Professor Adams, "is fully alive to the importance of maintaining a certain stability in the list of authorised text-books, and there is no trace of any desire on their part to make capricious changes, or even to enforce the immediate adoption of a new book that they find it advisable to recommend. All their regulations in this connection are eminently reasonable, and are based on a full knowledge of the prevailing conditions." Such is the tribute paid to a body of men who are undertaking a task beset with difficulties of every kind and demanding the exercise of many virtues.

On turning to what Professor Adams has to say about English, we find ourselves in agreement with his general position. The main difficulty lies with the subject that goes by the dignified name of English Composition. Important as it is to give children direct knowledge of the classics of their own literature, the attainment of ability to write correct and simple English is more important still. There is only one method that will result in ability to write well, and that is practice. The didactic exposition of the principles of so-called style is undoubtedly profitable up to a certain point, and in the case of those whose footing is tolerably sure in elementary things. But the danger of falling into artificial and stilted modes of expression is a very real one when the text-book of Composition, with its puzzles and niceties, is made to do duty for practice in simple writing. The English that comes of such training is often laboriously produced—laboriously because certain stylistic phantoms are constantly flitting before the writer's mind and checking his thought—and it has also a decided tendency to become anæmic—a thing that has no glow, that has, indeed, no life. Its page is smooth, it is true, but its smoothness may be the smoothness of a stagnant pond.

The English question, like the Eastern, is always with us. In 1612 John Brinsley, the elder, the master of a school in Leicestershire that may be taken as a fair specimen of an English grammar school in those days, touches on the study of English. "There seems unto me," he says, "to be a very main want in all our grammar schools generally, or in the most of them; whereof I have heard some great learned men

to complain: That there is no care had in respect to train up scholars so that they might be able to express their minds purely and readily in our own tongue, and to increase in the practice of it as well as in the Latin or Greek; whereas our chief endeavour should be for it." It is a leap from early Stuart days to our own, and a far cry from Leicestershire to Canada. And yet not so very long ago—about ten years, to the best of our recollection—the newspapers gave a piece of information that caused a little stir for a time. An educational vacancy had to be filled in Ontario, and many of the candidates who applied for it were unable to spell correctly. Of course severe reflections on the method of teaching English in schools and colleges followed. The universities, it was said, instead of striving to remedy defects, were allowing men to take a degree without requiring from them that standard in orthography which schools, even of a low grade, ought to attain and to exact. In brief, the fault-findings and attacks converged in a demand for the teaching of more English Composition.

But the blame ought not to be attached to the wrong quarter. The teacher of English in the country school is often a victim, not an offender, for the system to which he is bound down does not give him a fair chance. No work tries patience or exhausts mental power more than the honest correction of English prose. To imagine that the female teacher in the Protestant country schools of the Province of Quebec, with her average annual salary of \$114 if she does not hold a diploma and of \$149 if she does, ought, after a hard day's work, to correct English papers, and that at frequent and regular intervals, betrays a lack of consciousness of the fitness of things. Self-sacrificing and ambitious teachers prepared to work overtime are to be found everywhere, but that is not a fact on which school systems are intended to rely. On the contrary, the just claims of the writing of English should be fully recognized, and the curriculum so modified that an approach might be made to generally satisfactory results. After all is said, the subject of elementary English composition belongs to the schools, and not, as at present, to the schools and the universities. And the universities are distinctly to blame for this condition of things. Instead of their thrusting aside a matriculant who is prepared to show thoroughness in English composition and grammar, they ought to accept him as a person qualified, so far as English is concerned, to begin his collegiate career in any Faculty. There is no objection to

having English literature in schools; indeed, no class-period could be better spent than one in which a teacher who has studied and felt some little English masterpiece, talks about it to his pupils, and makes them conscious of its beauty, power and, possibly, its bearing on life. But for a university to pass a matriculant in English on the ground that his knowledge of prescribed English authors makes good palpable defects in other English subjects, is to feed the tap-root of the evil. It may be argued, of course, that one English subject should minister to another, to which we reply that English literature is regarded as a thing standing very much by itself, with an apparatus of biography, and, above all, of notes, a knowledge of which is often distinctly responsible for weakness in English elsewhere. Like a Chaucerian poet bound to show his learning, English, now that modern things are triumphing, has to make a display. We have seen its requirements in literature covering a page, and have had to reject for bad spelling and ignorance of simple structure in English more than one person who had academically fulfilled them. It is well to make sure of provision for success in essentials before giving large rights to less trying and showy matter. Argue as we may, there is something radically wrong when we see large universities paying, each of them, a cohort of men to do little else than correct English prose. "Our chief endeavour should be for it," as Brinsley wisely and truly says, and his "our" is the "our" of the schoolmaster.

The value of Latin as an educative subject is simply and forcibly urged in the report. It is hard to say what will be the fate of Latin in the Province of Quebec, but to judge from signs of reaction in its favour in the United States, there is a shred of probability that extinction is not its destiny in the Protestant schools of this part of Canada. The crusade against classics goes on merrily, however, and an almost successful attempt to overthrow Greek has just been witnessed in one of its strongest citadels. Greek must go, and even at Oxford, where, it may be, a degree in farriery will be given some day, unless, indeed, horses have become as "useless" then as Greek is now.

There is no term more misleading than the term "new education," so frequently and, to all appearance, effectively used on platform and in leading article. It is simply a case of calling a thing by a wrong name, that is all. Education is neither new nor old nor mediæval; it is a result or set of results—independent of chronology and immut-

able. The breath of its atmosphere is felt directly by those who know what it is or are of it, and to them its signs from China to Peru are easily visible. That it can be attained by means of instruments both old and new is quite another question, which is being discussed to utter weariness. Yet one thing is clear, namely, that to attain it, instruments, whether old or new, must be used in exactly the same way.

It is suggestive to notice how satisfied the champions of the useful are to stop short of logical conclusions. There is no modern crusade of first-class magnitude against the teaching of algebra and Euclid in schools, or, if there is, we have not heard of it. If the board is to be swept logically so that only the useful may remain, then algebra and Euclid, like Greek, must go, and simply because they are quite useless in the practical affairs of every-day life, except to a comparatively small professional class. All that ordinary life calls for in the way of mathematics, so far as the vast majority of men is concerned, is a knowledge of the first four rules of arithmetic and of vulgar and decimal fractions. If a man must a borrower or a lender be, he may have to know something about interest and discount; if a capitalist, about stocks. And there the matter ends. When the student leaves school or college he leaves a large proportion of his mathematics behind him; the last examinational use of mathematics is to the majority of men its last use for life.

And yet, in the interests of education, the attempt to oust a subject like geometry should be resisted to the end. There are moments in life when a sudden consciousness of mental power leaves behind an impression never to be forgotten, becomes, as it were, a starting point of effort, and one of these is the moment when the first rider in Euclid is solved without help. In fact, certain branches of mathematics which are highly educative and yet perfectly useless, and Latin which is highly educative and distinctly useful, are instruments difficult to replace, and a thoughtful educator will reflect twice before he discards them. We anticipate the reply that some good English writers have been ignorant of Latin, to which we make the rejoinder that although some geniuses are notorious for bad spelling, it does not follow that every person whose spelling is defective is, therefore, a genius.

It could be wished that those who are constantly harping on the "useful" could be pinned down to that word absolutely, and compelled

to sketch their ideal university—a university framed according to the creed that the chief end of man is to get on in the world, and that by getting on in the world is meant a career, looking, in the words of Ruskin, to the “establishment of a double-belled door.” No literature of any kind, either ancient or modern, would be read in it as such, for literature as such is a useless thing. And no doubt across the scheme the wise man would write some such sentiment as that expressed by President Woodrow Wilson of Princeton University, when he said lately, “We must deal in college with the spirits of men, not with their fortunes.”

One aspect of provincialism has just been viewed in connection with the claims and rights of the medical profession. Others might be dwelt on for the sake of illuminating strangers by whom Canada is regarded as instinct with a spirit of democracy that avoids all the baser elements appealing to prejudice and caprice. A degree in Arts from any Canadian university of reputation might be expected to give the holder at least the right of competing for any position in the educational world of Canada to which his academic course had naturally led, whereas the actual condition of affairs is vastly different. There lies before us an official document, dated April, 1899, which comes from the Province of Ontario, and attests the feeling of provincialism with regard to a kind of education that is generally supposed to have a liberalizing influence. Graduates in Arts who have had special instruction in any branches of knowledge taught in schools, with the object of qualifying themselves for higher scholastic work, are debarred from competing for positions as teachers in Ontario unless they happen to have taken their degrees at universities situated within that Province. “In the case of the requirements for Specialists”—so the document runs—“only graduates of Ontario Universities, who have taken a regular Honor course, approved by Order-in-Council, are entitled to the non-professional standing required of Specialists.” We fail to see a glimpse of anything Canadian in that. What is to be said of reasoning which seeks to prove that a university is Canadian because it supplies a province with a large number of teachers, in contrast to McGill, which can perhaps still boast of its solitary headmaster in Ontario? Where the best educational results are to be found in Canada, we are not called on to discuss at the present moment; they are certainly not confined to Ontario. In the free play of educational

systems, that which is superior will have nothing to fear, and the ends of the country will be effectively served only when the scholastic world becomes republican by overleaping the barriers of provincialism. To this subject more space must be given in a future editorial, as it would be really a pity not to make use of some striking facts that have been brought to our notice.

There remain some important matters connected with the University about which something must be said. One is the effort now being made by the students to collect their quota of a sum necessary to build and equip a gymnasium adequate to meet all requirements for many a year to come. Their action shows a fine spirit, which has been turned to active endeavour owing partly to a long period of deferred hope, and partly to the consciousness of the healthy influence of a gymnasium on youth. What they are doing is an object-lesson that appeals to all who are interested in physical culture, and their spirit may prove to be catching.

In conclusion, there is the deeply important question of the lengthening of the session. It is premature just now to dilate on it, not that any justification for referring to it here is needed, since statements have appeared in print concerning the outcome of discussions that have already taken place. One thing must be stated, and stated emphatically. Divergent as the views expressed in the consideration of the problem have been, they have, we are convinced, arisen from the simple desire to see the University as effective as possible, and not from any less worthy motive. Professors are not given to exacting the pound of flesh. They have chosen their walk in life because they like it, and not because they are over-paid in it. To many of them the words of the poet are inapplicable:—

O fortunati mercatores! gravis annis
 Miles ait multo jam fractus membra labore.
 Contra mercator navem jactantibus Austris:
 Militia est potior.

The temper that inevitably makes an earnest professor—in other words, a professor who is worth anything—exceed what might be termed the commercial obligations of his contract, may be relied on to exist when he passes judgment on any academic matters. It is well to bear that fact in mind.

In our opinion, the main risk in lengthening the session is a falling-off in the number of students. Could that be guarded against, and at the same time the essence of all that a university means be preserved without detriment to anyone concerned, there is nothing to be said against a longer session. But the question comprehends a great deal. With it are necessarily and inextricably bound up matters of the highest possible importance when the attractiveness and resultant influence of the University are considered. The problem is how the falling-off in the number of students can be counteracted, for unless something is done to keep our classes at their present level, any step like that contemplated must be regarded as nothing short of disastrous. It is obvious that a number of inducements to students must be created, and further, that unless there is every probability that new attractions would act powerfully in drawing students to the University, no person who has the welfare of the University at heart can for a moment regard the lengthening of the session as feasible. There is scarcely any need to enumerate the attractions to which we refer, as they will of themselves occur to most of our readers. One is the foundation of halls of residence, another is the erection of a gymnasium, and yet another the increase of facilities for enabling poor and deserving students to take a university course. The last desideratum would be attainable by the establishment of a special fund. In view also of the isolated position of the University, and of the obstacles that provincial feeling in the Dominion opposes to the free play of educational influences, it is of the utmost moment that valuable exhibitions and scholarships be founded on a large scale, and such attractions supplemented by the creation of travelling fellowships. By generous action taken along the lines just indicated, McGill University would rapidly increase its strength in every Faculty, and find itself before long in an impregnable position.

REV. PRINCIPAL G. J. MOUNTAIN.

The Rev. Principal Mountain, whose portrait forms the frontispiece of the present number, must be ranked among the most eminent Canadians of his day. Not only did he excel as a scholar and preacher, but he possessed powers of action which enabled him to preside successfully over a large, half-organized diocese. Of his many titles to honourable remembrance, three may be named. He was Bishop of Montreal, first Principal of McGill and founder of Bishop's College, Lennoxville.

Dr. Mountain belonged to a distinguished family. His father, Jacob Mountain, was a close friend of Dr. Tomline, who began his career as tutor of the younger Pitt, and who, after becoming Dean of St. Paul's and Bishop of Lincoln, would have been raised to the Primacy but for the determined opposition of George III. His younger brother, Armine Mountain, became adjutant-general of the Queen's forces in India, and so far won the good opinion of Miss Edgeworth that she wrote, "If you were to cut Armine Mountain into a hundred pieces, every one of them would be a gentleman." It was through the influence of Dr. Tomline that Jacob Mountain came to this country. Pitt had already given him livings in Lincolnshire and Huntingdonshire, besides a prebend's stall in Lincoln Cathedral, when a diocese was created in Canada. Once more Dr. Tomline suggested the name of Jacob Mountain, and in 1793 he was appointed first Anglican Bishop of Quebec.

At the time when his father left England, G. J. Mountain was four years of age. He received his early education in Quebec, but con-

tinued his studies in England, and took the degree of B.A. at Trinity College, Cambridge. Almost immediately afterwards he returned to Canada, and assisted his father as secretary until he was ordained priest in 1816. From this date forward the steps of his advancement were rapid. In 1817 he became rector of Quebec, and in 1821 Archdeacon of Lower Canada. Fifteen years later he was consecrated Bishop of Montreal, the ceremony being performed at Lambeth.

Dr. Mountain's connection with McGill cannot justly be called one of the main incidents of his life. The college was then in its infancy. We may even say that it had hardly begun to exist. Dr. Jacob Mountain was among the first to apprehend the importance of James McGill's bequest, and he drew up a plan for the establishment of a university, which was first approved by the Duke of Richmond and then by Lord Dalhousie. In 1821 a charter arrived at Montreal, but the founder's will was contested, and some delay ensued. However, before the end of 1823 it became necessary to take definite action. Professors must be appointed even though they did not teach, and there must be a principal even though there were no students. Under these circumstances, Archdeacon Mountain was named Honorary Professor of Divinity and Principal of McGill College.

Although Bishop Mountain, the elder, had much to do with the nomination of principal and professors, he cannot be charged with nepotism. His son, the Archdeacon, gave no lectures, but it is also true that he drew little or no salary. His sole function seems to have been the preservation of those forms which the terms of the will required. In later years he devoted much attention to the affairs of the College, but he was then acting as a governor rather than as Principal. He ceased to be the nominal head of the institution in 1835, a year before he was made coadjutor of Dr. James Stewart, Bishop of Quebec, and became thereby Bishop of Montreal.

During the *régime* of Principal Mountain, 1823-35, McGill was a medical school and nothing more. In forecasting the creation of an Arts' Faculty, the first Bishop Mountain had felt bound to project its framework "in a manner consistent with the English National Establishment." Nevertheless, he wished that students of all denominations should attend the classes, and proposed that professorships should be tenable by graduates of the Scottish universities. On these lines McGill began its course, but it was not reserved for Dr. G. J. Mountain,

the second Bishop, to organize and equip an active Faculty of Arts. He was a churchman first and a Principal of McGill only by circumstance. Still, we have reason to remember with gratitude the accident which gave our University such a man of leading for its first titular head.

Dr. G. J. Mountain lived until 1863, and during his last years occupied the Anglican See of Quebec. We shall not attempt to set forth more fully the events of his career, as this note only aims at explaining the nature of his connection with McGill. A sketch of his life, with adequate bibliography, is given in the Dictionary of National Biography, and a memoir of nearly five hundred pages, which was written by his son, the Rev. A. W. Mountain, may be found in the University Library.

C. W. COLBY.

UNIVERSITY ARMS.

Much as we of the twentieth century vaunt ourselves on our mental and moral superiority, it is more than questionable whether we have fully outgrown the manners and customs of our savage progenitors. Nay, it is good for us that we have not entirely outgrown all. Those manners and customs, quaint and eerie as many of them were (for the savage is blest with a vivid imagination), did not originate out of pure fancy. There was a basis of necessity leading to their development; and, if the same reasons, the same necessities still exist, so, in a form modified to suit the changed conditions of things, it is rational that aboriginal customs still remain with and be cherished by us.

Totems, totem-posts and tribal devices in general did not originate as a mere matter of fashion. It was necessary that members of a clan, possible enemies, and possible friends, should be distinguished and distinguishable. Once established, the distinguishing device became a rallying point, for the members of the tribe became honoured and respected as the epitome of the tribal history and achievements, actual and traditional, became—and this it seems to me was its highest use—the concrete symbol of all that was highest and best in the family or tribe, the ever-present reminder of what had been accomplished in the past, what was expected of and had to be lived up to by each individual member in the present, in order that he might sustain the family or clan traditions. Imbued with this spirit, the members of an accredited *gens* became the gentry of those parts, and surely the sentiment *Noblesse oblige* antedated by long centuries the existence of orders of nobility.

How far in this age the bearing of coat armour by the individual is deserving of encouragement, or the reverse, is a matter foreign to my present purpose. There can, however, be no question as to the advantage accruing from corporate communities, from the nation downwards, having their peculiar devices, and having worthy devices at that. And of all corporate communities, next to the nation as a whole, it is most desirable that institutions of sound learning, public schools, colleges and universities should possess them—institutions of which the developing man is a member at the time when the character is becoming moulded, and through which and in which he develops into what he is, the device becoming the symbol of all the traditions and the influences of the institution.

I happened but recently to call upon a Montreal tradesman, and with pride he pointed out to me the emblazoned shield bearing the arms of his old school across the sea. That shield immediately recalled to me the antiquity of the school in question, for it was of royal foundation, dating back to the middle of the sixteenth century, and the arms were the Tudor arms. I recognized them, for it so happened that my old college in Cambridge was also of Tudor foundation, and bore a like device. And I was immediately reminded that that school had, during Victoria's reign, given to the Church of England a great Archbishop and an even greater Bishop; to the Church of Rome, if my memory does not fail me, a great and noble-minded Cardinal, and to one of the most flourishing of English cities a long line of active and progressive merchants and public men. I knew the school merely by reputation, and that shield brought all this to my mind. What must it mean to its owner? What memories of old days, of old associations, and of old aspirations must it conjure up?

Travel through England and visit here and there the squire, the parson, the country doctor, the lawyer, the schoolmaster, the merchant, and, if he has had a public school or university education, you will more than likely encounter in study or smoking-room, or bedroom, some such shield or shields hanging on the wall. To you they may mean little; to him they are the outward and visible signs of years and associations, the memories of which are among his most valued possessions. Those arms are to him what the regimental colours are to the soldier. They recall to him ever that he was—and still is—a Wykehamist, a Carthusian or a Cheltonian, a Trinity, an Oriel, or a Jesus man. The

framed photograph of the old school or college, football team or boat crew, is deserving of honour, and is by no means to be despised, and it speaks well for your host to see it still hanging on his study or smoking-room wall. The old shield is impersonal; it does not recall just one group of old associates, but centres all memories; it breathes forth the atmosphere, if I may so express it, of all those unforgettable years; and if the heraldry be correct—such is the virtue of good heraldry—it is a pleasing badge, and does not clash with its surroundings.

The virtue of good heraldry is sadly neglected in this country. Could there be a device of more appalling atrocity than that combined zoological and botanical garden that is now officially used as the badge of the Dominion? The meanest South American Republic, miserable as is its national coat of arms, would scorn to own the thing. There is scarcely a province that has a passable, not to say appropriate, device; the majority possess what, heraldically speaking, are banalities. Of our civic coats of arms the same may be said. Montreal, for example, does not possess a coat of arms at all, but merely a meaningless or wrong-meaning floral and rectilinear device, which at most suggests that in that city English, Scotch, Irish, and Canadian-born are at cross purposes.

But what need to bother about correct heraldry on this continent? That question I have already in part answered. There is a definite use of, a definite need for, tribal and communal symbols. If so, those symbols should be both appropriate and seemly, so that the users thereof may use them with pride and not shame. Our worthy ancestors elaborated a code for the due application of the ochre, woad and other pigments with which they decorated themselves. There were common as well as tribal rules determining the orderly application of the pigments, as well as what might be taken as a totem, and the individual or the tribe which did not heed these rules was looked down upon, and could not but feel inferiority when the departure from the code was pointed out.

The same process of mind is dominant in these days. If there be rules, the outcome and evolution of centuries in which heraldic devices have been employed, why not adhere to them?

McGill College has armorial bearings, and uses them officially. It uses what are announced and what I believe to be the coat of arms of James McGill, its founder, surmounted by a crown-royal. As to the

right to bear the latter, I believe it is non-existent. But let that pass. As to the former, every McGill man knows that the coat of arms consists of three birds upon a red background. But what are the birds? Opinion seems to be painfully divided. Now we see three blackbirds or sparrows portrayed, giving the shield, to say the least, a dull every-day appearance; now—apparently from the idea that the college colours have been derived from the tinctures of the coat, or, if not so derived, that the coat must be made to conform to the colours—the birds are white and nondescript, and the arms have a washed-out look. The abortions used as decorations on the last Theatre Night, to wit, three very leggy fowls with splayed feet, zoologically most nearly approached a cross between a white Dorking hen and a tame duck. It speaks volumes for the sturdy democracy of our country that McGill has been displaying this coat of arms for now close upon seventy-five years, and, notwithstanding, not one of her professoriate or graduates has been sufficiently versed in, or influenced by, the aristocratic and *dilettante* pursuit of heraldry to rise in wrath at such parodies of what are the correct bearings.

Some years ago, being asked to design and superintend some decorations at the college, I found it necessary, for æsthetic purposes, to inquire into the heraldry of the coat, and then found that the description runs, "Gules (i.e., red), three martlets proper." I investigated further, and found that if the art of blazon of a certainty was in its prime long years before America was discovered, the herald who devised this bearing must have been a progenitor of the New England stock, for martlets are swallows without legs. Since then I have consistently recognized the propriety of banishing the legs from the arms and leaving to the fowls at most breeches of the conventional heraldic type, to indicate the place of origin of the same. But until recently, impressed with the fact that so far back as the sixties, the birds were to be found depicted in official publication as black, I have had the idea that sombre as is the effect, the bearing should be three birds of the swallow type, without legs as aforesaid, habited throughout in sable. Having once more been asked to look up the matter, I find that when we follow correct heraldry and paint the "martlets proper" properly, the coat of arms immediately becomes metamorphosed from the commonplace into something distinctly pleasing, something that we can all appreciate and be proud of. For, as already said, the heraldic martlet

is a swallow or martin, *sans* feet but not *sans culotte*, and the swallow, even when treated with a certain amount of conventional liberty, is a bird of fine proportions and graceful lines. The delicate head, the long and finely forked tail, the ends of the fine wing pinions, crossed over the back when at rest (as the bird should be indicated), all combine to make a characteristic subject, and the effect is not spoiled by representing the lower extremities each by a short tripartite projection. If painted "proper," that is to say, in the natural colours of the swallow, it is nothing less than distinguished. For the common British swallow—McGill, need I say, was a North Briton—herein differing from its American cousin, has a white breast and belly, with a black or blue-black head, beak, wings and tail. The martlet proper, therefore, is not all black or all white but black and white, with the short beak¹ and the circle around the eyes a good pure yellow. Paint it thus, and the result is most effective.² Whoever follows these directions and compares the result with the McGill bearings, as usually painted, will come to the conclusion that after all there is virtue in good heraldry, and that McGill has a coat of arms as beautiful as it is simple, and one that we need not be ashamed to bear when we meet the enemy between the goal-posts or elsewhere.

But these are not the arms we ought to bear. "Gules, three martlets proper," would be absolutely correct as the arms of McGill College; it is faulty and inadequate for McGill University. By which is meant that individual collegiate institutions of the lower order—public schools and colleges not having full university functions—have, from the Middle Ages, been permitted to assume, and have assumed, as their bearings the arms of their founders. Glance over the Oxford or the Cambridge calendar and you will find that college after college in succession bears its chief benefactor's arms. The same is true of those British public schools which had one founder. It would, for example,

¹ In a French work on heraldry, as also in an English one of the middle of last century, I found it noted that the martlet is without beak, but certainly in modern delineations of English coats of arms which I have come across, the beak is always present. I have since been informed that the beakless martlet is the French, the beaked, the British device.














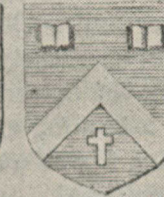

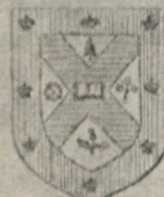
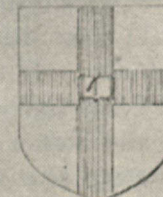
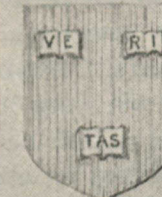
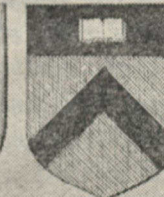
















² I find that some claim still that the birds should be sable. The crown-royal proper on argent of Toronto is poor heraldry, for it is an object mainly gold upon a background of silver. Yet the crown being depicted proper, may be just permissible. But sable in gules—pure colour on pure colour—is absolutely bad heraldry, and cannot stand.

be correct and fitting for the Royal Victoria College to assume the arms of Lord Strathcona, with or without difference to indicate that it has been permitted to use a royal title. But with a university the case is different. On the following page are sketched the arms of a series of Old World universities, together with some of such universities on this continent and elsewhere as have followed established convention in this matter.

Many of the official publications of the older European universities exhibit no coat of arms at all, but instead have for device some such subject as the Virgin and Child, St. Catherine, St. John the Baptist, and so on. Many of these devices are very complicated. I have sketched the simplest that I could find, namely, the device printed on recent official publications of the University of Pisa. I found that Pisa, however, possessed also a coat of arms, and soon the matter became clear. Not to enter too much into detail, it may be said that armorial bearings were, at first, strictly confined to those of the knightly class, and corporations, in the eleventh and twelfth centuries, appear to have had no thought of assuming arms proper.³

Notwithstanding, it was quite essential that corporate communities should have an official seal. Indeed, in England we find that a statute was promulgated in the reign of Edward the First (1307), making it compulsory that each religious house should have its common seal. The need for such at that period is obvious. It was not that the members of those communities were illiterate and could not sign their names, but, as Woodward points out, the names attached to a deed could easily be forged, whereas an elaborate seal was less easily imitated, so that fraud became more difficult. These seals, at first, in the case of dioceses and abbeys, for example, might simply bear the effigy of the Bishop or Abbot, surrounded by an appropriate inscription, or might contain the representation of some saint, or ecclesiastical or other symbols. But in due time heraldic devices were found to lend themselves so readily for these particular purposes, that first, Bishops and others at the head of communities having feudal powers, inserted their coats of arms into the seals; then they impaled or quartered with their own arms some heraldic device, indicating the community of

³ According to Mr. St. John Hope (I quote from Woodward's *Ecclesiastical Heraldry*) "the earliest seal on which a shield occurs is that of William de Luda, Bishop of Ely in 1290, who has the three crowns of the See of Ely beneath his feet."

					
OXFORD.	CAMBRIDGE.	LONDON.	VICTORIA.	EDINBURGH.	
					
GLASGOW.	ABERDEEN.	TRIN. COLL. DUBLIN.	UNIV. OF DUBLIN.	R. UNIV. OF IRELAND.	
					
SYDNEY.	U. OF NEW ZEALAND.	PUNJAB UNIV.	U. OF NEW BRUNSWICK.	TORONTO.	
					
QUEEN'S, KINGSTON.	BISHOPS.	HARVARD.	PRINCETON.	JOHNS HOPKINS.	
					
PISA (SEAL).	BOLOGNA	McGILL.	BIRMINGHAM.	A SUGGESTION.	
 OR (GOLD OR YELLOW).	 GULES (RED)	 TENNE (ORANGE OR TAWNY).	 ARGENT (SILVER OR WHITE).	 AZURE (BLUE).	 ERMINE.
 SABLE (BLACK).	 VERT (GREEN).	 ERMINES.			

which they were the head; so that it would seem that first, ecclesiastical, and later, other communities, assumed special heraldic devices for themselves.

The oldest universities possessed merely seals. During the twelfth century, for example, the oldest university of all, that of Bologna, founded in 1088, and beginning purely as what might be termed a trades-union among the students flocking to that city, had no property of its own save the common chest containing its charters and records and the corporate seal. These were kept for safety in one of the monasteries of the city. The University of Paris, which dates from the twelfth century, for long years merely possessed a seal, the main device of which (at least in 1292) was a figure of the Virgin seated with the Child at her side. Only in the fifteenth century or later, so far as I can gather, did it assume a special coat of arms, namely, that of France (*fleurs-de-lis* upon an azure ground) differenced by a hand issuing from clouds "in chief" (that is, above) and holding a closed book, all proper. Cambridge University does not seem to have had any coat of arms until 1580,⁴ using until then, for attachment to official documents, simply a seal, emblematic of its university powers, similar to the one dating, I believe, from the fifteenth century, still in use by Oxford. That Oxford seal shows a master surrounded by a group of very juvenile-looking scholars, beneath an elaborate Gothic canopy. And thus it is that some universities have either assumed at a later period a coat of arms which may or may not be included in their later seal, and now rarely use the seal, while others, like Pisa, for example, more frequently use some device from their old seal and at other times make use of their coat of arms.

There remains yet a third class of universities which have never assumed armorial bearings proper.

Of this third class continental Europe affords numerous examples. Among British institutions may be mentioned the University of St. Andrews, an institution dating back to 1411, showing a non-armorial device altogether too full of figures to be reproduced here. It shows a Gothic canopy ornamented with the coats of arms of the founders of the University, beneath which is a master or chancellor surrounded

⁴ The individual colleges of the two English universities did not, it would seem, begin to use coats of arms until the same period.

by eight scholars, overshadowed by a large cross bearing the crucified patron saint of Scotland. The University of Glasgow, also of very old standing, for it dates back to 1443, shows what might be regarded as a transition from the seal to the coat of arms proper. For that coat of arms contains the mitre with the robin on the bush, the bell and the salmon with the ring in its mouth, which formed the main devices of the old seal. Indeed, Woodward, in his authoritative work upon ecclesiastical heraldry, published eight years ago, makes the statement that the University of Glasgow possesses only a seal and no coat of arms, which would lead us to suppose that the shield is a modern assumption. Whatever are the facts of the case, it must be admitted that these traditional emblems of Glasgow's great St. Mungo and his miracles make a refreshing change from ordinary heraldic devices, even if their distribution on the field verges upon poor heraldry. The first quarter of the Aberdeen coat, with its "bough pot" and lilies, is similarly derived from the old seal of King's College and University of Old Aberdeen.

These considerations show us that from a very early date it has been optional whether a university should bear coat armour or not. Columbia University, New York, is perfectly justified, for example, in using as its device the seal assumed by it in its earlier state—in 1773—as King's College. And, as the United States is essentially democratic in constitution and does not recognize *armigeri*, it is at least questionable whether it would not be a more correct course for those universities which have been founded since the Revolution to bear, for their official devices, seals with charges of a more or less allegorical type rather than coat armour. Yet, on the other hand, the American nation soon found it necessary to acknowledge heraldry and establish a national coat of arms. In Great Britain, however, the coat of arms, with the exceptions above named, wholly superseded the seal for ordinary purposes. Seals, it is true, and highly elaborate ones at that, are still employed for official purposes and for attachment to documents of a certain order. But in publications from the University Press, upon diplomas and the more ordinary official documents, the coat of arms is taken as the official insignia.

And when we come to study these coats of arms, we find that they are drawn up to a remarkable degree in conformity with certain conventions. One has only to study the examples drawn in the accom-

panying illustration (page 30) to recognize characteristic features common to the majority. First and foremost is the employment of a book to indicate the possession of university powers. This book is present also in a very large proportion of the arms of Continental universities. It may be represented closed, as in the case of Bologna, the oldest University of all, of Cambridge, Trinity College (Dublin), Paris, Gratz in Styria, and Erfurt—this appears to indicate that it is for the student himself to open the book and seek out knowledge—or it may be represented open, as in the case of Oxford and the majority of British universities, thus suggesting that all is prepared for the student and that he has but to read in order to know. Two modern universities of the North of England, namely, Durham and Victoria, do not display it. The Durham coat is, like the University itself, by no means of the first order; that of Victoria is quite an interesting coat of arms, indicating, very happily, by the rose counterchanged red and white, that the University is connected with the counties of both York and Lancaster, and by the globe covered by bees, by the ram pendant, or golden fleece, and by the liver or cormorant (bearings taken from the insignia of the respective cities), that it is connected with Manchester, Leeds and Liverpool. Notwithstanding, it bears absolutely no indication that it is the coat of arms of a university, and it would be equally or more appropriate as the device of a club or insurance company. In short, the book, whether open or closed, must be regarded as essential to a good university coat of arms.

Next, it will be seen that certain tinctures are regarded as peculiarly appropriate. Quite the commonest is azure or blue, next would seem to come argent or white or silver; ermine is also fairly popular. Together with these are used sable or black, and gules or red. In short, a university coat of arms must be sedate. Blue, whether as a colour for stockings or as a tincture for university arms, has for long been regarded as the colour *par excellence* of advanced learning; and ermine, employed as a border for gowns and hoods, is a fitting indication of the higher branches of the learned professions, while black undoubtedly suggests the spilling of much ink. The cross, also, borne as an ordinary charge, that is to say, a simple cross extending to the borders of the shield, is not uncommon. When borne by English universities and those elsewhere connected with the Church of England, this is of the type of a St. George's Cross; in the case of Scottish and

Presbyterian universities, we find a saltire—the Cross of St. Andrew—but it obviously is not essential. Universities of a national character, State universities and those of royal foundation bear indications of this fact by displaying some portion of the charges of the national coat of arms or other State emblems. Note, for example, the lions *passant-gardant* of the Cambridge and Sydney coats, the beaver in the Toronto coat (taken from the arms of Ontario), the arms of the Baltimore family in the Johns Hopkins coat, which, at the same time, are the arms of the State of Maryland, established by that family. In this group also may be mentioned the Scotch thistle of Edinburgh, the four stars of the Southern Cross of Sydney and of the University of New Zealand, the five wavy bars, argent upon an azure ground, of the University of Punjab (indicating happily the five rivers from which the province takes its name) and the harp of the Irish universities. The three crowns-royal antique of the Oxford University are said to be the arms of St. Edmund, one of the mythical founders of the University, those arms being differenced by the addition of the book.

In yet another group we observe bearings indicative of the cities which are the seats of the universities. In this class noticeably we observe the burgh taken from the civic coat of arms of Edinburgh, the red cross on a white ground taken from the arms of the City of London in the coat of the University of London, the globe, fleece and liver in the Victoria coat, special forms of castle or fortress in the Aberdeen Trinity College and University of Dublin coats, the bordure bearing crowns-royal of the Kingston coat (which, however, may as well indicate the title of the University). The Glasgow devices are also common to the coat of arms of that city.

There are other allusive tinctures or bearings which are not so easily classified. Thus the orange of the Princeton coat clearly alludes to the old Nassau Hall, the original building of the University, erected in commemoration of King William the Third, Prince of Nassau-Orange. Aberdeen quarters the arms of the founders of King's College and Marischal College, of the two Universities, that is, of old and new Aberdeen, which were united in 1850 into the modern Aberdeen University. I am inclined to doubt if this is the best heraldry. It certainly is bad heraldry to impale or quarter the arms of a college which has no university powers with those of the university, as has been done occasionally at Toronto, when, as in the calendar for 1901, the arms of University

College are impaled with those of the University proper. This savours of heraldic incest. Only when bodies of equal rank become united into one corporation is impaling or quartering appropriate. In other cases, as exhibited in the arms of the University of Dublin and of the youngest of all the universities, namely, Birmingham, the indication of the intimate connection between the University and one of those colleges is well suggested by indicating some one of the bearings of that college or of its founder. Thus in the Birmingham coat the lion *rampant*, the victim of anterior duplicity, is taken from the coat of arms of Sir Josiah Mason,⁵ the founder, while the mermaid at her toilet was Sir Josiah's crest. Another allusive emblem to be mentioned is the celestial globe in chief of Johns Hopkins, a happy indication that everything in heaven and earth is included in their philosophy.

There remain certain university coats which must be regarded as ineffective or incomplete. Chief among these must be mentioned Canadian universities as a body. It is quite admissible for a body corporate to have a simple coat of arms, provided it is distinctive. When Oxford, Bologna and Padua chose simple coats in old days, those were quite distinctive. So is the coat of Harvard in more recent times. Now, save for the book, the arms of the University of New Brunswick have no special meaning. There should be some indication that it is a Provincial University. Those of Bishop's College might be the arms of any university anywhere, the one point distinctive being the employment of a marker in the book. This is a little suggestive of the origin of the University in connection with a religious body, and is, perhaps unfortunately, apt to remind one that the book is open at the First Lesson. The present head of that University is so excellent an historical scholar that surely he can suggest some more appropriate bearings. The diocese of Quebec has a more than passable coat, which might be called into service. Laval University exhibits such poor heraldry that I have not included it in our list. Its coat simply indicates that one has to deal with a university of four Faculties in connection with the Roman Catholic Church, and bears no allusion to its

5. As in the case of Aberdeen, it is a little doubtful whether what are the full bearings of the coat of the founder of a constituent college should be given so prominent a position, but taking the crest and converting it into a bearing of equal rank probably reduces the importance of the double-headed lions; then, again, the division of the field is not quartering proper.

connection with the Province, or with the two cities of Montreal and Quebec, or to the great ecclesiastic whose name it bears. As already remarked, our own coat of arms at McGill is simply that of the founder of the University, and might be appropriate for a college, but certainly is inappropriate to the use to which it is at present put.

From a study of these coats of arms, it is clear that certain general indications are afforded as to what would be appropriate bearings for our own University.

1. There should, in the first place, be some indication that we are a university. This should take the shape of a book, open or closed, as held preferable.

2. There should be some indication that we are McGill University, or the University of McGill College, in the shape of bearings taken from the coat of arms of James McGill or of the college he founded.

3. It would be well, for further distinction, that the coat should bear some indication of the Province in which the University is situated or of the city in which it has its seat. There may be some little doubt as to which would be the more fitting. The University, it is true, does serve the needs of the inhabitants of the Province of Quebec; it is the premier institution of its kind in the Province, and again the Royal Institution of Learning, through whose intermediation it was founded, was established, not merely for the needs of the city, but for the advancement of learning in the Province at large. On the other hand, we differ from other Canadian universities in our freedom from provincial control. It is more appropriate, for example, for the University of Toronto to indicate on its coat its intimate connection with its Province than it is for us.

Thus, on the whole, I conclude that we should rather have some bearing indicative of our connection with the city of Montreal. Unfortunately, as already stated, our city has no armorial bearings proper. Yet the very name of the city suggests an easily recognizable device, namely, a mountain, *or*, with above it, a crown-royal antique of the French type (for *Montréal* rather than "Mount Royal").

4. Lastly, it is by no means necessary that the University colours and the tinctures of its coat should coincide.

Our present coat has been placed between those of the oldest and the youngest universities, and a further sketch shows a coat suggested by the deductions above indicated. Curiously enough, I came across

these two only at the last moment, displacing other coats in order to insert them, and before seeing them, had devised my sketch. For that sketch, in its employment of azure and gules, recalls Bologna; in its inscription on the book, suggests Birmingham.

It would, I think, be advisable for the Governors to take up this matter, and that not merely from æsthetic considerations, but because, as I pointed out earlier in this article, a good university coat of arms is capable of being made a symbol that is valued and cherished by the members of a university, under-graduate and graduate alike. Not pretending to be learned in heraldry, I am prepared to find that some more effective and more appropriate device can be suggested than that sketched. It would, indeed, be worth while for the University authorities to invite suggestions and designs, and then to place those in the hands of an expert upon the subject, as for example, some official of the Heralds' College in London.

Judging from recent university charters, for instance, that of Birmingham, the right of the university to determine its own coat of arms, herein following ancient custom, is now admitted in the Old Country. The McGill charter, like that of others of the earlier Canadian universities, contains a clause simply granting to the governors the right to choose and to vary the university seal. This right our governors have never properly utilised. It is a nice point at law, which I would leave to one of my legal *confrères* to settle, whether in this matter we should be guided by antique custom or by the strict letter of the charter—whether, that is, we have the right to select a coat of arms for ourselves, or are bound to apply to the Heralds' College if we wish to possess armorial bearings in peace. It would be interesting to determine what other universities of nineteenth century foundation have elected to do.

J. G. ADAMI.

SEPTEMBER.

September! O September!
Chastened by loss and pain,
Is not thy silver stubble
Fair as the golden grain?

Fairer to me than Springtime
With wooing of birds that build,
That never may know thy glory
Of promises all fulfilled;

Sweeter than summer spangled
With flowers on every slope,
Queen of the heart of Nature,
Goal of its early hope;

Passing in robes of purple,
Far over the misty meres,—
Dead on thy lover's bosom,
Needing not mourner's tears;

September! O September!
Chastened by loss and pain,
Is not thy silver stubble
Fairer than golden grain?

JOHN E. LOGAN.

THE FRUITS OF DIPLOMACY.

Those who clamour for a set scheme of Imperial Federation seem insensible of the gradual evolution in practice of what they demand in theory. It is a slow process. To put the British constitution in the melting-pot is something Englishmen will never consent to do. They prefer to reach the desired end by a tedious but a safer method. Take, for illustration, the management and disposal of Colonial interests in negotiations with foreign nations. In days of yore Canada was the football of diplomacy. There is food for curious reflection in the fact that some of our present problems can be traced to the invincible ignorance of those who negotiated on our behalf.

Cynical persons aver that a diplomatist's success depends upon a careful study of Machiavelli, and a prudent evasion of the cardinal virtues of truth and honesty. Against the men who helped to frame the earlier treaties and conventions affecting Canada, however, the charge of lack of candour cannot rest. They were, as a rule, too candid. The field of diplomacy was not their proper sphere. Monckton Milnes, being once asked how Lord Palmerston had acquitted himself at a dinner of the Royal Literary Fund, replied, "For a man who never read a book in his life, I think he did very well." The same dubious compliment, in another sense, might fairly be paid to some of our early diplomatists. Their personal character was always above suspicion; yet, in their hands, the interests of Canada came off second best on more than one occasion.

There is a story that when France intervened to secure for

England's revolting colonies in America the national independence they had been unable to win for themselves, Lord North sent a secret envoy to Paris with instructions to propose the restoration of Canada to the French Crown if military aid were withheld from the insurgent forces. Whether the tale be true or not, nothing came of the mission. Canada remained British, and was thus a factor in the peace negotiations of 1783 at the close of the war. The resultant treaty drew from George III. his famous lamentation that he hoped, to use his own words, "posterity will not lay the downfall of this once respectable empire at my door." The proceedings at Paris have the flavour of *opéra-bouffe*. Richard Oswald and Benjamin Vaughan were the first agents selected to discuss a basis of peace on behalf of Great Britain. Neither had the required qualifications. Oswald, especially, was quite unfitted for the task. A Boston merchant, whose headquarters had been fixed in London for some years, he lacked diplomatic experience of any kind. He could not even speak French. His commercial interests in America, jeopardized by the continuance of war, led him to desire a peace at any price. He favoured the entire withdrawal of England from this Continent, and went so far openly as to confide this view to Franklin, the most astute of the American negotiators. Charmed with such unique benevolence in diplomacy, Franklin drew up the document known in history as the "Canada paper." England was to abandon all her North American possessions as the symbol and the seal of complete reconciliation with her revolting subjects. Reconciliation, said Franklin, "is a sweet expression." Mr. Samuel Weller would have called it "a more tenderer word" than justice. Oswald gladly consented to carry the demand to London and urge on the Ministry the wisdom of complying with its suggestions. He should, on arrival, have been lodged in the Tower. He was given the powers of a plenipotentiary, and sent back to Paris, without rebuke, to continue the negotiations, *minus* the cession of Canada. Behind him, of course, looms the ominous figure of Lord Shelburne, whose incapacity in a great crisis was due, we may charitably assume, as much to his *doctrinaire* views as to his political deception and want of patriotism. Into such hands our fate was committed at a critical period.

When the terms of this preposterous treaty were discussed in the House of Lords, the Marquis of Townshend asked, "Why should not some man from Canada, well acquainted with the country, have been

thought of for the business which Mr. Oswald was sent to negotiate?" It was a pointed enquiry. Supposing, for example, the founder of McGill University had been selected by Lord Shelburne, instead of Oswald. The letters of Mr. McGill written at this period—and some of them have been preserved—show that he possessed wide and accurate information concerning the geography, the commerce, and the future possibilities of the Canadian territories that were being signed away without knowledge of their immense value. What is more, Mr. McGill discussed with insight the advantages secured by the Americans in the boundary settlements. To Mr. Oswald the whole region was an unknown land. Franklin knew better. Either during his visit to Montreal in 1776, or subsequently, he had learned all about Canada, deriving his information, it is said, from Peter Pond, who, like Mr. McGill, was one of the merchant adventurers engaged in the fur trade. Our interests were sacrificed. Oswald's conduct throughout was that of an additional American negotiator. We lost forever a rich and boundless region south of the great lakes, in the valley of the Ohio River. The eastern boundaries were hopelessly bungled. The concession of a right in the North Atlantic fisheries left a legacy of trouble, which a century of diplomacy has failed to remove. "Had Shelburne's policy prevailed," Mr. Goldwin Smith correctly states, "there would have been no war of 1812, there would have been no fisheries question, nor Behring Sea controversy." And, he might have added, no Alaskan boundary dispute.

All these exhilarating episodes we should certainly have missed if we had abandoned the whole, instead of only a part, of our undoubted rights in 1783. You may always avoid a quarrel by cheerfully handing over all your property to your antagonist, and promising not to venture into his neighbourhood again. By the genius of Pitt and Nelson and Wellington, a new and grander empire was rebuilt upon the foundations of the old, and we may rest assured that the errors of the past will never be repeated. But Canada bears the marks inflicted by these unfaithful negotiators to this day.

After the peace Canada's foreign relations were determined in great measure by the diplomatic intercourse established between England and the United States. This was at no time satisfactory. For years England accredited no Minister to the Republic. The necessary official business was transacted through the British Consul at

New York. Finally, Mr. Hammond was sent out in 1791. He and his successors during twenty years were the uneasy victims of wrangling, misunderstanding and suspicion. In London the Washington mission got to be known as the graveyard of diplomatic reputation. There is an amusing side to the picture. New-fledged democracy tried to be as rude as possible to the British Minister. If he was of kindly temperament, like Anthony Merry, social slights were inflicted upon him and his wife; if of open mind and anxious to please, like Erskine, he was entrapped into breaches of his instructions; and if disposed to stand on his dignity, like Jackson, he was unceremoniously dismissed. The variety of fates which overtook a British Minister at Washington during this period showed much fertility of resource on the part of the new democracy. Merry's life was made miserable, as Tom Moore, the poet, who visited him, testifies. Erskine had to be recalled by his Government. Jackson was abruptly given notice to leave, and Foster, upon the outbreak of war in 1812, was handed his passports. The correspondence which passed between these harassed officials and the Governors and military commanders in Canada could effect little. What Canada thought of the treatment meted out to them may be inferred from the banquets and receptions tendered to Jackson in Montreal and Quebec after he had left the confines of the Republic and thankfully set foot once more on British soil.

As war began to threaten in 1811, the Governor-General of Canada received explicit instructions from London to make no military preparations which might give offence and hasten hostilities. The inevitable battle-ground of the quarrel was not to be ready to defend herself from invasion. However, the emergency produced resourceful and courageous men, who drove back the invaders and conquered large areas of the enemy's territory. Menace of Lower Canada was averted by the victory of De Salaberry and his brave French Canadians. In Upper Canada, Brock, with the loyalists at his back, inflicted signal defeats upon the armies in the west. When war ended the balance of advantage at sea rested with the Americans. On land they had suffered a complete rout. The United Empire Loyalists, driven twenty years before from their houses, deprived of their property, subjected to every kind of pillage and violence, now turned on the foe with the long-suppressed fury of wronged men, and took a great and glorious revenge. The crowning humiliation arrived when the British forces,

in retaliation for the burning by the Americans of Niagara and Toronto, sacked Washington in strict accordance with the rules of war. President Madison fled in one direction, while Mrs. Madison, with a frugal desire to save something from the wreck, made off in another with the silver spoons in her reticule. The general result warranted a treaty distinctly favourable to Canada. The Commissioners assembled at Ghent. Those who represented Great Britain were Lord Gambier, Henry Goulbourn and William Adams. There was no one from Canada. We gave up the conquered territory and the captured forts. There may have been policy in this. But the omission to rectify the errors committed in 1783 respecting the Maine boundary, and the failure to wipe out all claim to a share in the Atlantic fisheries, were vital defects in diplomacy. From both issues angry controversies arose later.

It is neither necessary nor profitable to follow in detail the treaties of the succeeding half century. As the years wore on, Washington became the scene of those negotiations most nearly affecting Canada. The long journey, the perplexities of each case, the absence of Canadian representation, placed an intolerable burden on those Englishmen without Colonial knowledge who were entrusted with special missions. In 1842 Lord Ashburton wrote home, "I continue to crawl about in these heats by day, and pass my nights in a sleepless fever. In short, I shall positively not outlive this affair if it is to be much prolonged." However, he survived long enough to sign a very bad treaty. The same ill-concealed weariness with the whole business was displayed by Sir Stafford Northcote (Lord Iddesleigh) in 1871, who chafed at the almost daily instructions cabled out by the Home Government. One of the cable lines had snapped, and Sir Stafford wrote to a friend, "If the other two cables get repaired before we go, Heaven help us! We shall not be able to respond to the American Commission's question, 'How do you do?' without telegraphing home for instructions, and being informed that Her Majesty's Government prefer our saying 'Pretty well' to our saying 'Not at all well.'" On this occasion (and the same thing is true of other occasions) the desire to finish and go home outweighed, even in the mind of so solid a statesman as Lord Iddesleigh, the importance of securing a good treaty. He wrote finally to his friend that "Sir John Macdonald seems to think that he has stood out long enough; certainly it has been longer than

our idea of long enough." A Canadian had at last appeared on the scene.

The old idea that Canada should figure as a football to be kicked from one to the other had cropped up again about this time. In 1869 President Grant was anxious that England should settle all outstanding differences with the United States by withdrawing her flag from this Continent. The British Minister, Sir Edward Thornton, being sounded, replied that England "did not wish to keep Canada, but could not part with it without the consent of the population." This half-hearted stand was re-inforced by a certain school of politicians in England, who openly advocated the cutting adrift of the colonies. In this condition of opinion, the Commissioners assembled at Washington in 1871, and among those representing Great Britain was Sir John Macdonald. He accepted the mission with many misgivings. "If anything goes wrong," he wrote to Sir John Rose, "I shall be made the scape-goat, at all events as far as Canada is concerned. However, I thought that after all Canada has done for me, I should not shirk the responsibility." Excepting the appearance of Sir Francis Hincks in the train of Lord Elgin in 1854, this was the first formal summons of a Canadian to act for Canada in momentous international business. The extraordinary revelations concerning this negotiation, made in Sir John Macdonald's private letters, enable us to grasp the kind of warfare which goes on at gatherings of this sort—the assertion of imaginary claims, the rapid retort by means of counter-claims, subdued threats, tactful evasion of open quarrel, hints at concession, with daily pauses that the combatants may recruit their energies. It is like the play of expert swordsmen. The published protocols give only the dry outline. Unless you are behind the scenes you know nothing. Events proved that the treaty of 1871, as it affected Canada, was a moderate success; as it affected Great Britain, in the payment of excessive damages for the Alabama claims, it was unjust and oppressive. But the heavy penalty was the price paid to avoid war, and such a war, calamitous to Great Britain, would have been disastrous to Canada.

Thirty years have passed away. In administering inter-Imperial policy there have dawned a new heaven and a new earth. The representatives of Colonial states, assisted and advised by a British Ambassador or a special envoy from London, dispose of their own international negotiations. The machinery is new and still incomplete,

but set up in the good old British way of patient experiment after exhaustive enquiry rather than of headlong plunge into constitutional change. So has England settled the most momentous affairs of state during two centuries, while foreign nations, in hot haste to reform, have poured out blood and treasure. We, who have inherited these rights and traditions, and have transplanted them to a new world, may well cultivate the spirit of sanity that acquired them.

A. H. U. COLQUHOUN.

ADVANCES IN RADIOACTIVITY.

(An account of the researches of Professor Rutherford and his co-workers at McGill University.)

An account of the recent work in Radioactivity—the most recent, and perhaps to the lay mind the most mysterious and complicated of the many bewildering advances of modern physics—is not one which would ordinarily find place in these pages. But the demand of the Editor is inexorable that The McGill University Magazine should at least attempt to reflect the scientific as well as the other branches of activity in the University. It is urged that a subject that has been so largely developed within McGill, cannot be considered beyond the scope of an article. On more general grounds, also, such an article might not be out of place. On the one hand, a growing interest is being evinced in this subject, not only by purely scientific people, but by the general public, who foresee in the new discoveries a possible factor in the future relations of science to the needs of every-day life. Already several articles have appeared in the popular and semi-popular magazines indicating this. On the other hand, the researches have led to a new and more or less fundamental view being put forward of the nature of matter, and this may possess a possible interest, apart from the strictly scientific side of the researches out of which it has arisen.

That the magazine should supply at first-hand a non-technical

description of some of these points is, however, unfortunately a demand more easily made than supplied. The justification of any new and far-reaching conception in science rests upon three distinct considerations:—

1. The number and the diversity of character of the new facts it is brought forward to explain, and the completeness with which it explains them;

2. The impossibility of explaining all or any of them in an alternative way;

3. How far it is possible to predict on the new view from the known to the unknown.

Now, the new discoveries in the subject of Radioactivity that have been made in McGill alone—and this is but a part of the first consideration—could only be properly treated, save in the briefest technical way, within the scope of a complete volume, so that it would be to court failure in the present sketch even to attempt a justification of the points of view that have been adopted. Another method must be employed.

A retiring judge, in handing over the reins of office to a young and as yet inexperienced successor, gave him this celebrated piece of advice, "Always give your conclusions; your reasons, never!" So also the readers must concede to the writer for the time being the advantage of the judge's method, and take it on trust that for the conclusions that form the subject of this sketch there are reasons—the result of solid years of experimental work, which it would take many hours to describe—which it has been impossible in many cases to more than just hint at. In return for this concession, the attempt will be made, and possibly it is a very wrong and unscientific one, to present the subject, not as a complex collection of mysteries, but as a connected whole, capable of being covered by a single new idea.

But before stating either the reasons or the conclusions, it is necessary to start with definitions. What is Radioactivity, and why should it have attracted public attention in so short a time?

Soon after Röntgen's famous discovery of the X rays, it was noticed that certain natural minerals, noticeably pitchblende, possessed the power of giving out very similar rays spontaneously. This is the property now known as Radioactivity. Like the X rays, the new rays, called after their discoverer Becquerel rays, are invisible to the eye,

but affect a photographic plate, and, more important in the present connection, make the air through which they pass a conductor of electricity. These effects are produced through screens of black paper and thin metals, which are opaque to ordinary light rays. This remarkable power of radiation has been traced to three elements, and three only of the many elements present in the minerals in question. Two of them, uranium and thorium, have long been known to chemists, but these possess the property to a very feeble degree, and they must be exposed to the photographic plate for at least a whole day to give a decided image. The third was a then undiscovered element, now called radium, which possesses the power of radiation to such an extraordinary extent that, although it exists in the mineral pitchblende in the proportion of less than one-millionth part of the whole, it yet makes that substance several times as active as pure uranium or thorium. Just as helium was discovered by means of its spectrum in the sun long before any samples of helium were in the possession of terrestrial chemists, so radium was discovered by means of its powerful radiations long before any radium had been obtained from pitchblende, or any other evidence of its presence existed.

The significance of the new discovery, however, does not depend on the fact that these bodies are spontaneously giving out rays. Phosphorescent substances do this after exposure to light, giving back the energy which they have received. It depends on the fact that their power of doing so is an inherent property of the three elements mentioned—a property, so far as we know, absolutely independent of past and present conditions—and, at the same time, a property manifested by them always to an invariable extent. This, of course, took time and experiment before it was recognized (and perhaps it is even yet not fully recognized) but Mme. Curie has the credit of having first fully appreciated the fundamental character of the new property. In consequence of her logical and brilliant deduction from this starting point, we owe to her the discovery of the new element radium, which has been consummated this year by the separation of compounds of the element in the pure state, and the determination of its atomic weight, spectrum and other properties.

New elements, especially latterly since the researches of Rayleigh and Ramsay, have been of somewhat frequent occurrence. But a new inherent property of matter has not been discovered for centuries. In

fact, only one other similar property may be said to have ever been discovered, and that is gravitation. Radioactivity embodies a conception, then, for three elements, hitherto only exemplified by gravitation, universally, for all matter. It is not possible to create radioactivity in an element not active, or to destroy it in one that is, any more than it is possible to create, alter, or destroy weight. Magnetism disappears when iron rusts; chemical properties existent in one compound are absent in another containing the same elements, or for the same element are modified, neutralized and even reversed merely by alteration of temperature. But radioactivity under all conditions appears as immutable as gravitation. These two alone of the whole gamut of material properties are the outcome of forces entirely beyond our present knowledge and control.

We therefore arrive at a very remarkable conclusion. As long as the elements thorium, uranium and radium have been in existence, that is, for all we know from the beginning of time itself, they have been spontaneously radiating out energy into surrounding space, and, for all we know, will continue to do so to the end of time. All three examples are in reality equally wonderful, the difference being of degree rather than of kind. But in the case of radium the effect is so powerful that this substance actually shines by its own light. This is due to a secondary action of the primary rays, themselves invisible, whereby phosphorescence is set up in the substance, and it is this secondary radiation which affects the eye. Like powerful X rays, the radium rays produce painful wounds when allowed to act for a short time on the skin. Without doubt, it is the most wonderful body known. It is over a million times as active as pure uranium, and the rays from an invisible speck would impress a photographic plate in a fraction of a second.

A few words as to the nature of the radiation that these bodies emit. Some of the rays at least (and in all cases the radiation is complex) are deviated out of the straight lines in which they travel by a magnet, and this behaviour is like that of the cathode-ray which Sir William Crookes obtained from his vacuum tubes nearly thirty years ago. That is, the rays consist, according to the now accepted explanation, of swarms of minute particles of matter travelling in straight lines from their source with a velocity approaching that of light, and each particle carries with it a charge of electricity. From their

minuteness and speed they are able to penetrate metals and matter, in general, which is opaque to light. A Mauser bullet piercing a quickset hedge is a fair analogy to a cathode-ray penetrating a piece of metal. No one who has seen these cathode-rays driving a windmill inside a vacuum tube, or heating a thick piece of platinum to whiteness by their impact, can fail to be impressed by the energy they possess. But if this is wonderful in a Crookes' tube, to work which large amounts of electrical power are required, consider what it means for a piece of mere matter, which works by itself, and goes on working, independent of and sublimely indifferent to, known forces, for ever and ever. What is the inexhaustible source of these manifestations of energy? Decay and death are the dominant notes in Nature. The moon is a dead world because it has long radiated its energy into space. But the internal fires which nourish a bit of radium, and make it glow with its own light, must have been at work when the earth itself was a sun, and, for all we know, will continue after many bodies, now suns, have grown cold.

Such, then, is the new property of Radioactivity, discovered by M. Becquerel, and extended by M. and Mme. Curie by their discovery and isolation of radium, and such is something of the nature of the problem to which we have to find an answer. The key to the history of its development in McGill is summed up in one word—*measurement*. Not perhaps of extreme accuracy, for pioneer work, contrary to common opinion, rarely requires it, but sure measurement, within a known small percentage of error, of effects often almost inconceivably minute. Electrical methods have been devised by Professor Rutherford, and have been steadily perfected and improved, for the exact quantitative and qualitative examination of the varied phenomena observed. The very limited amounts of radium in existence, and the difficulty of obtaining it except in minute quantity, have made this essential for progress. In every case the work has been first done for uranium and thorium, especially the latter, and this would have been impossible by the older photographic method. It is obvious that processes immediately discovered by the electrical methods, which go through a complete course of changes from start to finish in a few hours or even minutes, could not be investigated by photography, which, as we have seen, takes a day or days for each measurement. The work to be described, then, applies to uranium

and thorium, but radium, so far as it has yet been examined—and the work is now in progress—is embraced under the same general explanation.

Radioactive Emanations and Excited Activity.—The first results of the more exact methods already referred to, were the discoveries included under the above head, and as these subsequently furnished the clue to the nature of the whole phenomenon, it is necessary to go into them in detail.

Thorium and afterwards radium, but not uranium, were found not only to be emitting rays travelling like light along straight paths, but were emitting something besides—an actual material substance, behaving like a gas, and itself giving out rays. This was designated the thorium emanation.

A very common mistake must here be anticipated and prevented. It has been said that the cathode-ray consists of minute particles of matter travelling with enormous velocity and carrying an electric charge. The proof of this rests on the physical impossibility of conceiving how anything not material could be deviated by a magnet. But the proof of the material nature of the *emanation* is quite a different matter. For, unlike the cathode-ray, the emanation possesses no velocity of projection; it has motion, it is true, in virtue of which it diffuses, but this motion is the same as that possessed by any ordinary gas. Its particles are not electrically charged, and it is no more affected by an electric or magnetic force than an ordinary gas would be. Finally, the emanation does not consist of particularly minute particles, for it will not penetrate anything that is not porous to an ordinary gas. It gives out rays, it is true, but to confuse it with the rays themselves would be to mistake a cannon for a cannon ball. The emanation is, in fact, ordinary gross matter in the gaseous state, and is not to be confounded with the "Radiant Matter" (or matter in the ultra-gaseous state) which constitutes the cathode-ray.

Now, on what evidence does the material nature of the thorium emanation rest? It has never been directly perceived by any of the senses, neither have the rays which it gives out. But since these possess, in common with all such rays, the property of making the air a conductor of electricity, electrical methods were devised to investigate them. Any current of air blown over a thorium compound carries with it the emanation, and, therefore, is itself giving out rays, and conducts electricity. It

does not matter to what treatment this air is subjected. It may be carried in tubes round the room, into places where no rays or other similar influence from the original thorium could possibly penetrate, and yet it is still found to be giving out rays on its own account. It was subjected to such chemical treatment that every known gas, with the exception of the recently-discovered members of the argon family, would have been absorbed and removed, but the emanation in each case was unaffected and passed through in quite unaltered amount. It was in consequence natural that those who had not tried the experiments themselves, should have some difficulty in believing in the reality of the emanation at all. So long as it only gave rays, and had no definite chemical properties by which it could be directly recognized, the proof of its actual material existence was rather indirect. The position was somewhat similar to that which confronted Rayleigh and Ramsay in their work on argon. A *gas* without properties is a somewhat intangible body to demonstrate the existence of. But whereas it was found possible to get argon in the pure state, and to show that it possessed a definite density and a characteristic spectrum, in the case of the emanation this is impossible. The actual amounts dealt with, even under the most favourable conditions, are so infinitesimally small that all such criteria fail, and the only evidence that any new substance is present at all is in the rays which the emanation gives out. Even scientific people, it would appear, have not always appreciated this. One distinguished German has recently remarked that the emanation does not appear to be a gas, for under water the emanating substance does not produce bubbles! What need of bubbles when you have rays? What need of the eye when you can employ an electrometer? For the bubbles *might* be too small to be seen, and the eye often confuses one ray with another. But it would be impossible for a well-managed electrometer to mistake uranium rays for thorium rays, or, again, to confound the latter with those other rays given by the thorium emanation. By their rays ye shall know them. Each has its own unalterable idiosyncrasies, and the distinguishing features of the emanation are sufficiently extraordinary, as we shall see in a moment, to mark it out unmistakeably from every other kind of body that is known.

The emanation, then, is a something causing rays, given out by thorium, in too small amount to be ever directly perceived, and possess-

ing no positive chemical properties to characterize it. There seems to be no criterion left to bring its attributes under the head of ordinary gross matter. One way, however, remained. Cold, if sufficiently intense, condenses all gases almost without exception. Would it condense the emanation? The lowest temperature available at the time was about -78°C ., and when subjected to this degree of cold, the emanation passed through unchanged, as before. When the liquid-air plant was set up, a range down to -200°C . was placed within reach. The emanation was carried by means of a stream of hydrogen through a spiral tube, cooled in liquid air. Then, for the first time, the emanation failed to emerge on the other side, the hydrogen making its appearance free from the emanation. On removing the tube from the liquid air, its temperature, of course, rose, and at a definite point (about -130°C .) the whole of the condensed emanation suddenly resumed its original gaseous state, and passed on with the hydrogen stream. The radium emanation is also condensed under these conditions, and at almost the same temperature.

Further work showed that the power of thorium to give this emanation is, like its power to radiate, the result of a process which is spontaneous, and which it is not possible to control or alter to a measureable extent by known agencies. We are, therefore, face to face with the fact that thorium is continually producing a gas with the properties of the argon family (that is, chemical inertness), which condenses at about -130°C ., and which was discovered and can be detected by its power to give out rays. This process must have been going on as long as the thorium has been in existence—a long time, since it is an element found in the earth's crust—and will to all appearances continue to go on indefinitely.

But, now, consider the rays which this emanation gives out, and note the apparent difference between these and the rays from the thorium itself. The rays from the thorium emanation do not persist for ever, but grow less and less with time, just as the rays from a hot body cooling. It is true that the process of the manufacture of new emanation goes on all the time, but if any part is separated, and no fresh emanation is supplied, then at the end of the first minute the rays are only one-half as strong as at first, at the end of the second, one quarter, at the end of the third, one-eighth, and so on till after a few minutes they are inappreciable. This at least is what is to be

expected according to the law of the conservation of energy, for no substance can go on radiating for ever unchanged.

Excited Activity.—The most remarkable property of the thorium emanation remains to be told. Any bodies whatever with which the emanation comes into contact are themselves made radioactive. It is just as if they became covered with an invisible film of intensely active matter, for this can be rubbed off by sandpaper, and dissolved off in acid, and the activity then appears on the sandpaper or in the acid, respectively. The rays of this excited activity do not last, but, just as in the case of the emanation, grow less and less when the body is left to itself. The half value in this case is reached after the lapse of eleven hours, and at the end of a few days the rays are inappreciable.

The two phenomena of emanation and excited activity are not merely similar in character; they are precisely analogous to each other. The thorium is continually producing an emanation, which, being a gas, diffuses away, and the emanation in its turn is continuously producing out of itself a solid substance, which settles on surrounding objects and causes the excited activity. Lest this literal presentation of the facts should be considered too incredible, and contrary to accepted ideas, it is well to interpolate here the reason why these facts have never been noticed by chemists in the ordinary way. It is because the actual amounts involved are so extremely small that were it not for the power of emitting rays, and the very delicate methods of detecting the rays, it is certain they would have continued to escape notice. The most delicate balance in existence is at its extreme limit in dealing with quantities of one-millionth part of a gram of matter. The spectroscope is reputed to be able to detect less than one-thousandth part of this quantity in the case of certain substances. But the electrometer, which is the instrument used to measure the electrical conduction produced by the rays, and therefore the matter itself causing those rays, altogether exceeds even the spectroscope in sensitiveness. How far, mere figures would convey no idea. If 1,000 grams of thorium produced the thousandth part of a gram of emanation in a million years, the amount from one gram in one second could still be, as it actually is, easily detected by the electrometer by the rays it emits.

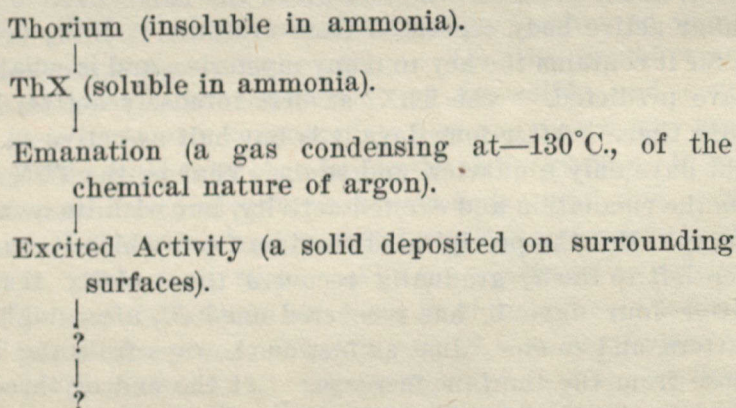
The phenomena of emanation and excited activity have been discussed at length to emphasize two points: first, the continuous produc-

tion of active matter of a new kind; secondly, the decay of the activity of the matter so produced, with time. But one further discovery was needed to make the nature of the phenomena clear.

Thorium X.—In apparent contradiction to what has been said about radioactivity being as fundamental a property of thorium as its weight itself, it was actually found to be possible to remove from thorium the greater part of its activity by a simple chemical process. This activity was not destroyed, but was got by itself, so to speak, as a minute amount of intensely active matter. If ammonia is added to a thorium salt, the thorium is precipitated, and, so obtained, is much less active than ever before observed. But if the ammoniacal solution from which the thorium has been removed, is evaporated and heated, a minute amount of matter only is left, and this contains all the activity that the thorium itself has lost. The active matter so obtained was called Thorium X, or, shortly, ThX, in conformity with the example set by Sir William Crookes, who had given the name UrX to a somewhat similar active body separated from uranium. Now, note what happens, for it contains the key to many mysteries, and is what nobody would have predicted. The ThX, at first intensely active, becomes less so with time. After four days it is but half as active as at first, after eight days only a quarter, and so on. That is, the ThX behaves exactly as the emanation and excited activity, but with its own special rate of decay. But the precipitated thorium from which it was separated, when left to itself, gradually recovers the activity that it has lost. After four days it has recovered one-half, after eight days, three-quarters, and so on. Just as fast as the rays from the ThX die down, those from the thorium increase. At the end of three weeks no rays can be detected in the ThX, while the thorium possesses its full amount, and the process apparently stops. But if subjected to the same treatment as before, a new amount of ThX can now be got from the thorium, just as active as the first amount, and the process can be repeated indefinitely. If, on the other hand, the successive processes are repeated one after the other without loss of time, no appreciable amount of ThX is got after the first amount. Wait ever so little—ten minutes or half an hour—between any two operations, and then a new amount of ThX is obtained proportional to the time waited. It is a wonderful illustration of the almost infinite divisibility of matter on the one hand, and, on the other, of the almost incredible

delicacy of the experimental resources now at the disposal of the investigator. For what happens is clear. Thorium, and also uranium and radium, are undergoing slow, spontaneous change into other substances, which for a short time after their birth, so to speak, possess the power of emitting rays. It is the continuous nature of the change which gives to radioactivity its permanence; the rays themselves are always dying down, but are always being renewed.

On this view much of the obscure in radioactivity immediately becomes clear. It was at once shown that it is ThX and not thorium which gives the emanation. For when ThX is separated from thorium the latter possesses no emanating power at first, but gradually recovers it. The ThX, so separated, at first has all the emanating power of the original substance, and this decays as the emanating power of the thorium recovers. Putting our results in the form of a genealogical table, we get a direct line of succession:—



The two queries merely represent unnamed and incompletely investigated bodies, produced by further spontaneous change, but not any other ambiguity. For it is practically certain that at least two other changes occur after the excited activity stage, although the evidence cannot be here discussed. From this point on, in fact, it is a case of giving conclusions rather than the reasons. The latter would involve a critical discussion of a mass of experimental data quite beyond the scope of this sketch, and as, moreover, some of the steps are not yet published, these in any case would have to be omitted.

We are confronted with the task of explaining by what process

a chemical element like thorium may come to be the progenitor of five new forms of matter by successive changes spontaneously and continuously. An element on accepted chemical ideas is a substance so far homogeneous that it consists of a very large number of separate parts or atoms, each of which is exactly like every other. The separate atoms form the unit in all changes till now observed, and hence atoms are generally looked on as indivisible, which is not quite the same thing. Radioactivity has introduced us to new kinds of change, so that now it is no longer possible to consider the atom as the unit. But the moment the atom also is regarded as composed of parts, each perhaps with a definite motion of its own inside the system, it is easy to see at least a possible mechanism by which an element could undergo slow spontaneous change. The best and most often quoted example in Nature of a system made up of parts in motion is, of course, a solar system. Consider a case where the masses of the planets and their periods were so adjusted that they were fated even for an instant in their existence to all come together in conjunction at the same time, so that a position of instability resulted. That system would at that instant suddenly disintegrate into smaller systems. For æons it might have remained in motion to all appearance as stable as our own solar system, but none the less its period as a single system in the universe is finite.

Suppose that the thorium atom were a similar system, what would be the result? Out of the myriads of atoms that go to make a single gram of thorium, several, if not several millions, might break up every second in this way, and yet, the total number being so great, the process might go on for millions of years before all or any considerable part were changed. If, as each atom disintegrated, a ray or rays were suddenly emitted, the facts of radioactivity, as at present known, would be explained. The number that break up per second will depend only on the total number present—that is, the radioactivity is proportional only to the quantity of active element. As each atom breaks up and emits its ray, a new system remains—ThX. This, being also unstable, in turn breaks up, emits its ray, and there is left the second new system—the emanation. But whereas only an indeterminably minute fraction of the total number of thorium atoms changes in any finite time, one half of the whole ThX systems changes into the emanation in four days, one half of those left, that is, a quarter, in

the next four days, and so on. That is, the radiations, and also the power of giving an emanation, of ThX decrease geometrically with the time. The emanation in turn produces in a similar way the excited activity—the third change and the third new system—and so the process goes on to the unnamed fourth and fifth systems. This last changes—the fifth change—emits its rays, and all is at an end so far as our experimental resources are concerned. Whether or not it is the real end, sooner or later such a process as this must stop, and then the question arises what products are finally produced. To this there is at present no answer, since unless they gave out rays, that is, change further, the amount produced in the short period of human existence might well be beyond the scope of investigation by the ordinary methods of chemistry.

But mineralogy may supply a clue. In Nature this process must have been steadily proceeding over geological periods, and therefore the products of the changes are to be looked for in natural minerals which contain the radioactive elements. Unfortunately these always contain a very large number of elements, and it is impossible yet to select any in particular from among so many. But there is one exception, and that is helium. The presence of this gas—which, like argon, possesses no power of forming compounds—in naturally occurring minerals has always excited wonder. It only remains to be said that it is invariably found only in radioactive minerals to indicate at least a possible explanation.

Chemists—that is, the more speculative of them—have often pictured a process of natural evolution of the elements from some common *protyle* (the hypothetical unit of all matter) going on, as for example, in the hot stars. This is a building up from the simple to the complex, and the present train of thought leads to a similar conclusion, but one which is the exact converse—helium, the lightest atom, save one, that is known, being perhaps formed from uranium or thorium or radium, the three heaviest.

But there is another and equally important aspect of the question, so far entirely ignored. The intelligent critic who is not a specialist must always judge more by the innate probability of any view than by the way it fits experimental fact, for the latter must often remain unknown to him. His attitude possibly would be this. You have started out to explain some very wonderful phenomena—how a piece

of mere matter can go on radiating large amounts of energy for ever. The explanation that it does change, but that the change is infinitesimally small, is in reality to explain *obscurum per obscurius*. Such a criticism would forcibly illustrate the necessity, first exemplified in science by the Phlogistic controversy of the 18th century, of considering matter in two ways—not only as mass, but also as a store of energy. The point is, therefore, how a minute change of matter can produce a large change of energy. Since the quantity of matter involved in the manifestation of radioactivity is so small, the amount of energy associated with this matter must be correspondingly great, and in point of fact, compared with known types of energy, truly colossal. On the one hand, we have a change so slow that milliards of years are necessary for its consummation; on the other, a change of energy so great that it is possible to detect it at any instant over the whole period, by experiment.

By way of a suggestion as to how this may be, let us consider an easily-imagined case. Suppose the world in which we live to possess a constant uniform temperature the same as the average temperature at present, say, 15°C . Suppose also that no means of altering this temperature either artificially or naturally existed; in fact, that no other temperature than 15°C . had ever been experienced by man. What would he know of heat energy? The world would contain no less of it than at present, but heat as a form of energy would be an unknown force to him. What do we know of the internal energy of an atom? No atom has ever been changed by artificial agencies; four years ago no case had ever been observed in which atoms changed by natural agencies. Atomic energy before the discovery of radioactivity was, therefore, as unknown a force as heat energy would be in a world of uniform temperature. Chemical affinity is the name given to the internal energy of a molecule, that is, a compound of atoms, by virtue of which its parts remain together. To the affinity that maintains the parts of an atom together no name has been given, because till lately none has been required. But radioactivity necessitates the recognition of a new force occupying the same position for the atom as chemical affinity does for the molecule. It is easy to see that this new force must represent an amount of energy in the universe hitherto undreamt of. A few hundredths of a gram of radium is all that has so far been obtained, but those who have visited the Curies' laboratory

in Paris, where this material has been worked, affirm that the walls of the rooms glow visibly at night. This is a rumour, but accurate measurement of the quantities of energy radiated go to show that it is more than possible. A computation of the total atomic energy of one gram of radium has been made; that is, the energy given out before it ceases to radiate, and it may be represented by the amount that is consumed by a 16-candle-power incandescent lamp over a period of hundreds of years. There is no saying to what strange results the recognition of this enormous amount of energy associated with matter may lead in the future. A few tons, or at most a few million tons, of this element distributed through a whole sun might be sufficient to account for the maintenance of its radiating power without recourse to any meteoric or other hypothesis at all.

Thus, briefly, it has been shown how the consideration of a curious set of phenomena in a small corner, as it were, of one science has led to a view which, correct or not, has already outgrown the facts it was put forward to explain, and will call forth witnesses in the course of its trial from almost every department of natural knowledge. Its trial may safely be left to the future. For the present it is sufficient if it has been indicated that the labours of Professor Rutherford have led to the recognition of new forces and new processes. The forces, paradoxical as it sounds, that have been detected and recognized through the measurement of effects almost incredibly small, stand for quantities of energy vastly greater than any that have been before suspected. The processes are so insignificant that the wonder is perhaps that they have ever been brought within the range of the observer and his stop-watch. But over these same processes in the laboratories of Nature the stars in their cycles are acting as the timekeepers, possibly—who knows?—to produce effects which are cosmical in their scope and character.

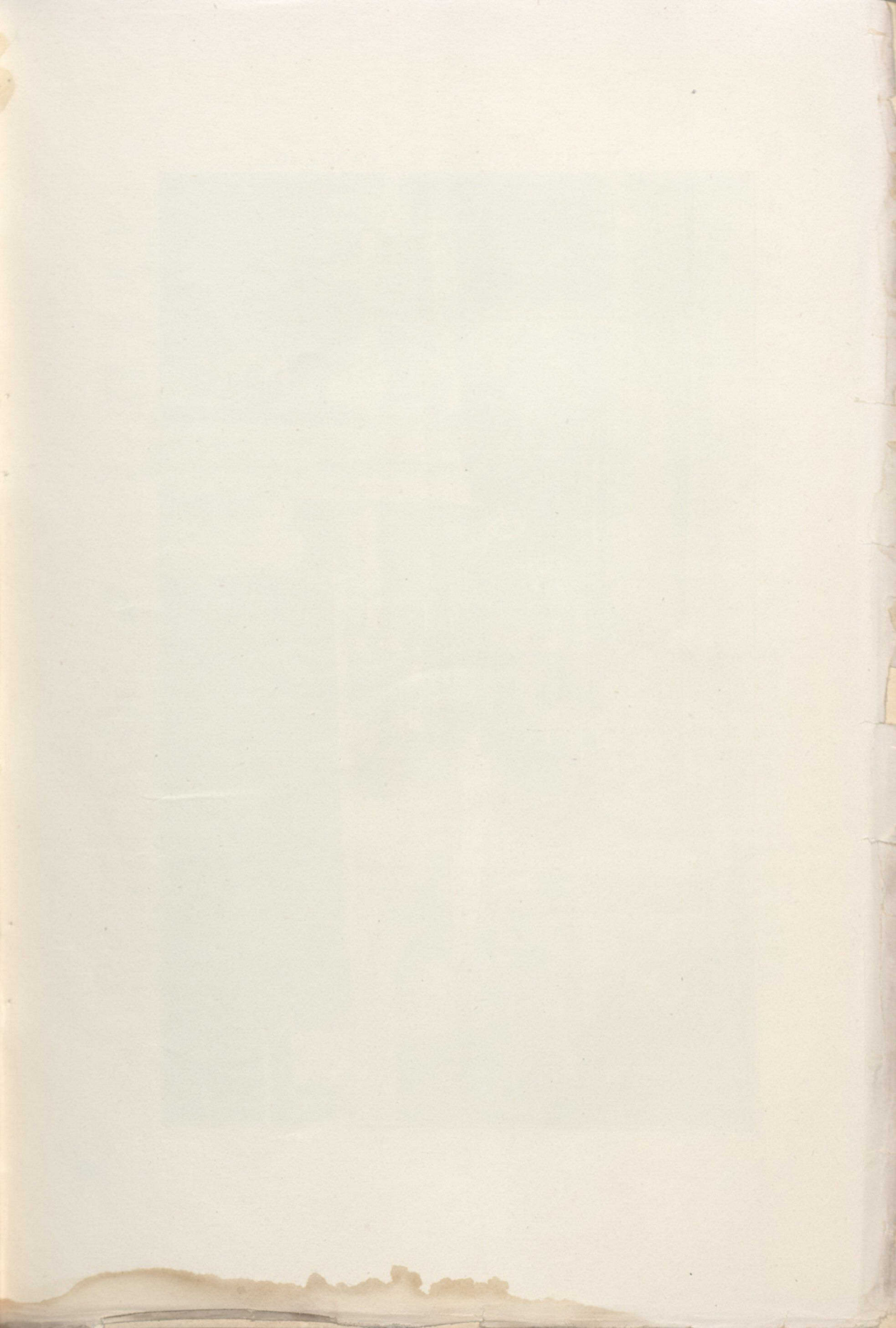
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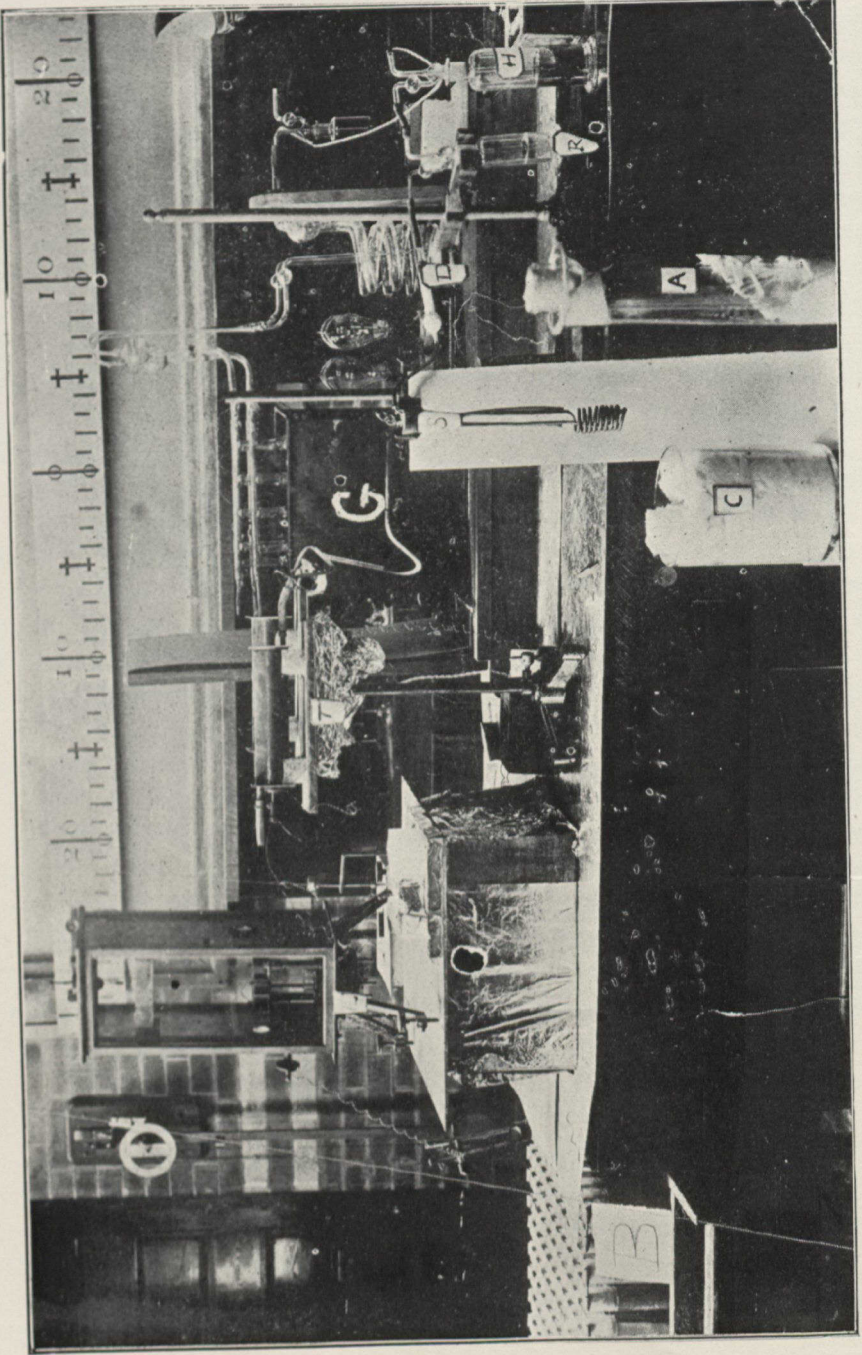
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FREDERICK SODDY.

NOTE.—The photograph on the opposite page shows the apparatus used to demonstrate the condensation of the radium emanation by intense cold, on the occasion of Professor John Cox's lecture on Liquid Air before a University audience in the Macdonald Physics Building, November 6th., 1902.

A current of hydrogen gas is produced by the electrolysis of water in the generator *G*, and bubbles through sulphuric acid in the bottle *H* on the extreme right. From there it passes on through a solution of a minute amount of radium in the bottle *R*, on through the drying tube *D* (to absorb water vapour), and thence into the copper spiral tube *S*, which can be immersed either in liquid air in the vessel *A* or in the cotton wool *C*. From there the hydrogen passes on to one of the testing vessels *T*, of which there are two, placed the one behind the other. The presence of the emanation is shown by the electrometer *E*, by the movement of a spot of light reflected from its needle on to the scale at the back. The outside of the vessel *T* is connected to the battery *B* on the extreme left. An insulated rod passes into the centre of the vessel *T*, and can be connected at will with the electrometer by the cord passing over a pulley in the ceiling, and operating the key *K*. When the spiral *S* is immersed in liquid air, no emanation passes into the vessel *T*, and the spot of light from the electrometer remains stationary. On removing the spiral from the liquid air, and plunging it into the cotton wool, its temperature rises, and after a few minutes the condensed emanation volatilizes and passes on into *T*. Its rays cause the gas therein to become a conductor of electricity, which is shown by the spot of light from the electrometer suddenly swinging along and off the scale.

F. S.

EL-AZHAR.

Egypt is the land in which it is always the unexpected that happens, and a winter in Egypt is one long sequence of surprises. They meet you on landing at Port Saïd, where a statesque individual who looks as if he ought to know no language but that of his Korân, offers in excellent English, "Fine donkey, lady! Fast donkey, to see the town! His name—God save the King!—Prince of Wales." From that moment they come thick and fast, and, at the end of three months, perhaps not one of the most cherished ideas of what Egypt should be, remains intact. And yet there is no way of coming better prepared, for your ideas are, generally speaking, those which have been the common property of the world since the day of Herodotus.

He is, for instance, responsible for the belief in that unfailing wind which blows in from the Mediterranean and carries crafts of every kind swiftly up the Nile against its stream. You rent "dhahabîyehs" provided with two sails, and are led to believe that the smaller will be the more useful under the strong wind. Accordingly, you prepare to enjoy all the long-dreamed-of luxuries of a houseboat on the Nile. There is a delay in sailing. The crew's bread has not come, or the sail is not ready, and the first day passes comfortably enough. When evening comes, the crew gather around a brasier of coals, and serenade you with the weirdest of songs and tom-tomming, while you sit on deck under the stars and watch the lights of Cairo. Then for four days you stay moored to that mud bank on the other side of the Nile, out of sight of the Pyramids, while the wind blows

strongly down the river and makes sailing impossible. On the fifth day, if it is late in the season and your fear of being caught on sand banks in the low water of the downward journey makes you brave enough to break the news to your dragoman, you make a great resolve, leave your "dhahabiyeh" with its delights, and return to Cairo. Your dragoman protests that the wind is on the very point of changing, but you may notice as you make your journey up the Nile by steamer that for twelve or fourteen successive days the wind continues to blow from the south.

This is only one of the many unexpected things you find in Egypt. Whether you remain in Cairo or go up the Nile to the Second Cataract, there are surprises in store. The Nile is not green, but a thick, muddy brown. The desert is not the flat, sandy waste of childhood's fancy. At Assuân at least, when you ride into the desert, you are surprised to find yourself among hills and rocky boulders, and often unable to see farther than a few hundred yards in any direction. On studying the history and art of Ancient Egypt, the wonder increases. We scarcely expect to find that gaiety and lightheartedness were characteristic of the subjects of Ramses II., the oppressor of the Israelites. Yet, as we approach them, we find that their *joie de vivre* was as keen as Chaucer's. On the walls of the tombs of private families at Thebes remain gaily-painted pictures, which show us how they lived. They tilled their fields, played their lutes, drank of the juice of the grape from lotus-covered vessels, and delighted in their family life. They loved life for what it brought, enjoyed it to the utmost while it lasted, and prayed fervently that they might not lose the "sign of life" but live again when this existence was past. This feeling as to the value of the present, when compared with the uncertainty of the future life, is curiously expressed on a *stèle* in the British Museum, where a woman speaks from the underworld. "Oh, my brother, my husband," she says, "cease not to drink and to eat, to be drunken, to enjoy the love of woman, to make holiday! Follow thy desire by night and by day; give care no place in thy heart! For as for Amenti, it is a land of sleep and of darkness, wherein those who are there remain. They sleep in their mummy forms; they nevermore awake to see their fellows; they behold neither their fathers nor their mothers; their heart is careless of their wife and children. On earth each tasteth of the waters of life, but I suffer thirst. . . . I desire the breeze on the

bank of the river, that it may refresh my heart in its distress. For the name of the God who ruleth here is 'Utter Death.'" The Egyptians looked forward to the next world with feelings which remind us of the mental attitude of the Greeks, and it was this uncertainty which made them throw themselves more keenly into the joys of the present. They lived human lives, full of human pleasures, and yet we are apt to think of them as mummies.

In the monuments of Egypt we are prepared to find the impressiveness of size and form, and we find as well beauty of exquisite type—a beauty of marvellous purity of line and expression, as in the fallen Colossus near Memphis, or in the face of the Ramses of the rock-hewn temple of Abu-Simbel, into which the sun shines only as it rises in the month of February. The exquisite Egyptian colourings, too, come almost unheralded. We wonder at the blue which is the glory of the doors and gateways of Medinet Habu—a pure *lapis lazuli* ground mixed with honey—and at the red, yellow and ivory tints which make the reliefs of the temple of Abydos the most beautiful in Egypt.

Herodotus announced, when he began to write of the ancient Egyptians, that he would have a great deal to say, "because there is no country that possesses so many wonders, nor any that has such a number of works which defy description. Not only is the climate different from that of the rest of the world, but the people also in most of their manners and customs exactly reverse the common practice of mankind." This remark holds true of Egypt and the Egyptians of to-day. In Cairo meet the extremes of every nation, and more languages can be heard there than have been spoken together since the building of Babel. The peculiar warmth and colour of the East, too, are spread over everything, and as you wander through the streets of tiny cage-like shops where men sell spices, incense, perfumes, turquoises and embroideries, you might be living between the covers of the Arabian Nights. And this native life of the Arab quarters is so fascinating that many people are absorbed by it, and leave Cairo without seeing the institution which makes it the most important city in the Mohammedan world. Indeed, there are few who suspect that there lies, buried in a network of streets where books are bound and sold, a university whose charters date back to 973 A.D., and whose students outnumber those of any institution in Europe or America.

Mecca is the most venerated city of Islâm, but for nearly one

thousand years Cairo has been its one great university town. There you are told positively that El-Azhar—the resplendent—is the oldest and largest university in the world. The claims of Paris, Oxford and Bologna count for nothing, since the dates of their foundations are based on legends, while the records of El-Azhar exist from the year 973. Mohammedans are proud of their great university; they shower gifts upon it. A period of study there is a necessary part of the education of every youth. He may enter at any age after four years, and may prolong his studies until he is grey-bearded. The average youth spends from three to six years at El-Azhar, and at the end of that time he receives a certificate, to which he has applied the western term, “Baccalaureatus.”

But little of the exterior of the University Mosque can be seen, for the narrow streets wind so confusedly, and the little houses have clustered closely about it. There are seven entrances, but the stranger enters by the Barbers’ Gate, where at any hour of the day students may be seen having their heads shaved and the hairs of their face plucked out. Inside the gate the visitor is provided with enormous slippers, and then he may wander and observe at will. There is a large square court open to the sky, and above it rise several graceful minarets. Three sides of the court are bordered with covered porticoes, each being assigned to students of a particular nationality. Every province of Egypt is represented, and there are, besides, students from Algeria, Morocco, Constantinople, Mecca and India. Mohammedanism presents a united front to the world, but within itself there are sects, and at El-Azhar the four most important orthodox sects—the Hambalites, Hanefites, Malekites, and Shâfeites—are to be found.

The principal, or Shêkh El-Azhar, is a person of great holiness and learning. He alone is entitled to officiate at the yearly service when the Khedive goes to pray in the mosque of Mahomet Ali at the close of the month of Ramadan. There are two hundred and twenty five masters and more than ten thousand students. The masters are not paid, but at the end of each week they receive a large number of loaves of bread, which they may sell. They find time to give private lessons, and many of them read the Korân in different mosques and so add to their earnings. The students are required to pay no fees; those who can, make yearly gifts to their masters, and help to defray the current expenses. There are no lecture rooms; classes are held

at the base of the numerous marble columns which support the roof of the interior of the mosque and the porticoes. The master sits tailor-fashion on his sheepskin rug, and about him is a semi-circle of rapt scholars. These little groups of four, six or eight may be made up of the most varied elements. A Nubian from Assuân, of the most pronounced African type, may be sitting beside a Beduin wrapped in voluminous garments of white camel's hair, while next to him may be a light-skinned Cairene, dressed in silk and speaking half a dozen languages. Rich and poor study side by side, wash at the same fountain, and five times daily turn their faces towards Mecca and pray together. The younger children are taught in groups on the marble floor of the court. They sit for hours under the burning sun, working busily with slates made of bits of old Standard Oil tins and a large-typed version of the Korân. They are remarkably industrious, but if the classes are larger, they find opportunities of escaping the master's eye and look up and smile at the visitor. Many take their lunch, a round cake of greyish bread, and spend all the day there. Throughout the mosque there is the sound of many voices studying and reciting aloud, and it is loudest where the little ones sway to-and-fro as they learn by heart portions of that most-prized of all text books, the Korân. Nine hundred loaves of bread are given away every day to the poorest students, and more than fifteen hundred scholars actually live in the mosque. During the day they study, and when night comes they coil themselves up in a corner and go to sleep. The doors are always open, and any one may enter at any time to rest or pray. It is like a small town, and the earlier one goes the better. One morning two youths, evidently two of those who have no other home, had just finished their week's washing when we arrived, and we watched them spread it out on the floor to dry. Some were mending their clothes and others were having a meal of dried dates. By nine o'clock all the classes assemble, and the work of the day is in progress. There are classes for girls of eight to ten years of age, and a special corner for the blind, who are simply taught their Korân. Occasionally an attendant sweeps as much of the floor as he can reach between the classes, with a palm branch. Boys selling fresh water and lemon juice clink their brass cups as they pass; others offer dates, bread and oranges from baskets on their heads. At any moment a student may throw down his book, wrap himself up in his

long white robes, and go to sleep under the sun which never seems too warm for an Arab. One has to pick one's way with some care because of these sleepers, and once we were saved from stepping on a man's head only by the sight of a pair of bare feet protruding from the other end of a shapeless mass of rags.

At the five fixed hours the muezzin ascends one of the minarets, and, turning his face to each of the four quarters of the city, calls the faithful to prayer with the same call one hears up and down the Nile and from every minaret in Islâm. In Cairo the noises of the city drown the muezzins' voices, unless they are near; but in a little town like Luxor, for instance, the cry is impressive. In Luxor it is particularly so, for the mosque is built on the debris covering part of the temple of Sethos and Ramses, and the weird tones which our own voices fail to produce, ring through the lotus-flower-and-bud columns across the Nile and the plain of Thebes to the two silent figures which sit guarding the fragments of the royal city of Thebes, and beyond them to the golden hills in which are the tombs of the Kings of that other Egypt of thirty-five centuries ago. "There is no God but God, and Mahomet is his prophet." At the call the unbeliever must go, for only the faithful may stay in the mosque at the hour of prayer. The students put away their books, make the required ablutions, spread out their prayer-rugs, and turn their faces to the east in prayer.

All the learning of El-Azhar begins with, and centres round, the Korân. The youngest children learn verses from it, and old men, whose green turbans proclaim that they have made at least one pilgrimage to Mecca, may be seen slowly rocking themselves to-and-fro as they chant it from a book open before them. Often in the narrow bazaar streets an old man who has armour and "anteekas" for sale sits before his shop reading his beloved book with an utter disregard for the claims of business.

Besides the Korân, which is the most important study in their list, they are taught Arabic, grammar, algebra, trigonometry, astronomy, logic, philosophy, syntax, prosody, literature, history, geography, jurisprudence, French and English. In their own land many of the Shêkhs are said to be deeply learned, but they are unprogressive and averse to innovations of any kind. It is only in very recent years that history and the languages have found a place in their lists. The

students are childishly pleased with their knowledge of French and English, and find opportunities of using each new word they learn. Sometimes they come with their books to the carriages of strangers as they drive slowly through the agglomeration of camels, donkeys and humanity in the Arab quarter, and ask in respectable French or English the meaning or pronunciation of some new word. Very often they go to the University Mosque only for recitations in the morning, and spend the afternoon studying in one of the quieter mosques. They can be seen in twos and threes in any mosque at any hour of the day, working patiently before little blackboards, their shoes beside them, with perhaps a cat asleep near by. Mohammedans are particularly fond of cats, which, as well as the vagrant and the poor student, always find a refuge in the mosque. The student has certain privileges, which often lead him to prolong his period of study. He need not do military service and his taxes are lessened; but he must walk circumspectly, and if by any chance he comes into collision with the police, he must answer for his doings to the Shêkh El-Azhar.

This University is only one of the multitude of fascinating sights which Cairo offers. It brings us into unexpected and close touch with the best side of Arab nature. Here the Arab neither poses for the stranger nor overreaches himself in the struggle for the all-potent *piastre*; within the walls of El-Azhar he is a thinker, a philosopher, and we cannot form a right judgment of what he stands for in the world unless we have watched him as he studies.

Ancient Egypt—to recall Herodotus—defies description, and it is so with modern Egypt. A winter there teaches, if nothing else, the truth of the old Arab proverb, “He who drinks once of the water of the Nile, longs forever after to return and drink of it again.”

ALICE FRASER.

THE TRYSTING OF SIR HUGH.

Sir Hugh rode forth at break of morn
To meet his faery bride;
He galloped fast, he galloped far,
And Death rode by his side.

*The bells are rung, the masses sung;
Lightly falls the sod;
We pray for all souls who rashly die:
Hear, Mary, mother of God!*

Before the castle gateway
There met him comrades three;
"The feast is set, the revellers met,
Come join our companie."

"Nay, hold me not," the knight replied,
"Drink ye to my fair ladye.
I rise from sleep a tryst to keep,"
And down the street passed he.

*The bells are rung, the masses sung;
Lightly falls the sod;
We pray for all souls who rashly die:
Hear, Mary, mother of God!*

The warder stayed him at the draw;
 "Now whither lies thy way?
 The chase is on, the hounds are gone,
 The king rides forth to-day."

"Prevent me not, Sir Warder,
 The king may hunt for me;
 My lady waits beond the gates."
 And over the bridge rode he.

*The bells are rung, the masses sung;
 Lightly falls the sod;
 We pray for all souls who rashly die:
 Hear, Mary, mother of God!*

His true love met him in the way—
 Her hair was ruddy gold—
 And as he came she called his name,
 And prayed Sir Hugh to hold.

"Light down, light down, my own true knight,
 My arms are wide for thee!"
 He spurred his steed, nor gave her heed,
 And over her heart rode he.

*The bells are rung, the masses sung;
 Lightly falls the sod;
 We pray for all souls who rashly die:
 Hear, Mary, mother of God!*

An inn lay hard beside the moor;
 Its host rose in his place:
 "Now hail, Sir Guest; an' ye need rest,
 So bide ye here a space!"

But the rider answered him never a word
 For love or courtesie;
 His rowels were red with his good steed's blood,
 And into the wild rode he.

*The bells are rung, the masses sung;
Lightly falls the sod;
We pray for all souls who rashly die:
Hear, Mary, mother of God!*

Sir Hugh rode forth at break of morn,
Nor wot who rode beside;
He kept the pace, he found the place,
And met his faery bride.

His steed roams far upon the plain;
His corse lies in the wood;
For Death and he and the elf ladye
Have made their trysting good.

*The bells are rung, the masses sung;
Lightly falls the sod;
We pray for all souls who rashly die:
Hear, Mary, mother of God!*

ROBERT MACDOUGALL.

THE EVOLUTION OF THE HABITANT.

I.

Before the first voyage of Jacques Cartier in 1534, almost all knowledge of that part of the New World afterwards claimed by France was confined to Norman, Basque, and Breton fishermen. Though Cartier's report of the land he had visited was not altogether encouraging, it aroused the spirit of discovery. French adventurers began to dream of a passage to India and of a vast new empire, while before the eyes of devout Catholics flitted visions of the thousands of souls to be saved from eternal darkness. The commissions granted by Francis I. were influenced by the principles of religion, and were distinctly missionary in tone although the means to be employed in the pious project were certainly doubtful, as both Cartier and Roberval were empowered to ransack the prisons to complete their crews. After the unsuccessful attempt to colonize made by Roberval and Cartier (1541-1542), no effort was made to found a new France until 1598, when the Marquis de la Roche, in return for empty titles, honours, and a monopoly of the fur trade, undertook to establish the colony. This attempt, too, was without success. Not until the coming of Samuel de Champlain (1603) was there anything like a sustained effort to create a New France. Champlain secured the co-operation of the Sieur de Monts, who, upon being granted a commission to colonize Acadia, sailed for his new domains. The Sieur de Monts, too, was authorized to impress idlers and vagabonds for his crew, and to found the new colony. His company must have been of a very mixed character, for vagabond and gentleman, Catholic priest and Huguenot minister, sailed together in his command. A perusal of these commissions would naturally lead to the

conclusion that among the first settlers of New France there were many *mauvais sujets*, particularly when note is taken of the conviction of two of Roberval's men of theft,¹ of the quarrels among the followers of de Monts, and of the mutiny against Champlain. But few of these men, however, remained in the colony, so that they cannot be regarded as having had an influence upon its life.

The colonists of New France seem to have been of two classes—adventurers and peasants—the one coming for the fur trade and the other to take up land. In Acadia the settler was a singular mixture of fisherman, sailor, soldier, adventurer, artisan and farmer, who, there is reason to believe, married an Indian wife far more frequently than did his kinsman along the St. Lawrence.² He was neglected, and, having to depend chiefly upon his own resources, became an active warrior, endowed with remarkable spirit.³ Those who came to Canada and settled along its water ways, were unlike the Acadians in many important respects. With the exception of the heretical region around La Rochelle, they emigrated from every part of France and chiefly from the north-western provinces—from Normandy and the neighbourhood of Paris more particularly⁴—and seem to have been a peasantry, respectable and honest. Champlain and the Company of the Hundred Associates made their choice with severity, and no person of evil life was permitted to remain in the colony.⁵ The historian Charlevoix lived with many of the settlers, with their children

¹ Tanguay, *A travers les registres*, 1543. Jean de Nantes and Michel Gaillon were convicted of theft.

² Rameau, *Acadiens et Canadiens*, p. 24.

³ One of the most notable leaders of the Acadians was Baron de Saint Castin, who gathered about him a large following of French and Abenaki, and lived like a feudal lord surrounded by his retainers. He was able to wage war upon the English, and alone did much to hinder the progress of their power for thirty years.

⁴ "La Normandie, le Poitou, le pays d'Aunys, la Saintonge, la Bretagne, la Picardie, l'Angoumois, paraissent avoir fourni séparément plus d'émigrés qu'aucune autre province, mais la ville de Paris en a fourni à elle-même plus qu'aucune de ces provinces." (Garneau, *Histoire du Canada*, quoted by Parkman, *The Old Régime in Canada*, and by Sulte, *Histoire des Canadiens-français*.)

⁵ Garneau, *Histoire du Canada*, vol i., p. 202. Attempts made to colonize with *gens du commun*, of whom many were from prisons, failed. When Quebec was founded in 1608, the first care was to procure people, sober, frugal, religious: lovers, in short, of order and work. (Tanguay, *A travers les registres*.)

and grand-children, and found them to be a most respectable people, and Le Clercq confirms his testimony.⁶

The Company of the Hundred Associates agreed to send annually to Canada three hundred workmen of all trades, good Catholics and French by birth. Foreigners were not to be encouraged to enter the colony, and certainly no one of the pretended reformed religion. Few settlers came, however, and not until the appointment of Talon as Intendant (1665-1672) was any real impetus given to colonization. In 1665, he constantly begged for more men, until Colbert, then Minister in France, becoming alarmed, told him it was not well to depopulate France to people Canada. But at the same time he assured the Intendant that only colonists of good character would be sent to the new land.⁷ Five years later, Talon asked for more unmarried women although one hundred and fifty had been received in Canada the year before.⁸ He seems to have grown somewhat particular, for he stipulated that they should not be deformed or outwardly repulsive, but hale, strong and fit for country work, remarking that city girls made indifferent helpers.⁹ In 1668 and 1670 soldiers and officers of the disbanded Carignan-Salières regiment were encouraged to remain in the new country by large grants of land. They, too, must have wives, and Talon asked that accomplished young ladies of good family be sent to Canada to wed the officers, and peasant girls to wed the men. Parkman quotes La Hontan's lively but scandalous account of the arrival of the young women, which casts a slur upon their reputations, but Boucher on the other hand declares that the girls were of good character, though the suggestion of Talon that they should bring certificates from their parish priests or from the justices of their native villages, raises a question as to their suitability to contract marriage.¹⁰ Many of those sent to the colony were ill, or unable to work because ignorant of the requirements of a new country, and that they arrived in want of food and clothing is seen from the records of the *Conseil Souverain*.

⁶ *Etablissement de la foy* : Très-honnêtes gens ayant de la probité, de la droiture et de la religion."

⁷ Colbert à Talon, 1665. In *New York Colonial Documents*, vol. ix.

⁸ Talon à Colbert, November 10th, 1670. Ibid.

⁹ Talon à Colbert, November 10th, 1670. Ibid.

¹⁰ Talon à Colbert, November 10th, 1670. Ibid.

It is perhaps strange that whole families seldom emigrated to Canada. In 1617, to be sure, Louis Hébert brought his wife and children to Quebec.¹¹ Other families followed at intervals until 1634, when Giffard of Beauport brought over seven for his seigniorship. Up to 1669, however, comparatively few families came to New France. After this date the population increased so rapidly that in 1700 there were nearly thirteen thousand people in the colony. They were chiefly of the agricultural class, but among them were numbered workmen, clerks, scholars and mechanics. At first these settlers came as individuals interested in the fur trade, a branch of Canadian industry which was very prominent throughout the period of immigration. But it is not from the fur trader who spent only a few years in the colony that the *habitant* is descended. Rather is it from the man who came to take up land and became wood-chopper, ploughman, or soldier, as occasion required. Nor were the first-comers affected by those who followed them, for the latter soon forgot their former customs and adopted the manners and usages of those with whom they mingled. Thus the character of the Canadian population remained unchanged.

When the newcomer entered the St. Lawrence and sailed slowly along its wild and wooded banks, he could not but regard it as the one link with his home. Moreover, he recognized that from Quebec to Hochelaga it must of necessity be his only roadway, and the canoe his only vehicle. He at once, therefore, established his dwelling upon the banks of the stream, which served a double purpose, being a route of communication and a source from which, good Catholic as he was, he could draw a plentiful supply of fish. When he received land, it was in a long narrow strip running along the river bank, and when subgrants were made, this strip of land was divided into pieces with a narrow frontage on the river.

Unfortunately for the colony, the French incurred the implacable enmity of the Iroquois. In order to protect the settlers from this terrible foe a semi-military organization was devised and established

¹¹ This family was five in number—Louis Hébert, his wife, two daughters and one son. Madame Hébert was not, however, the first European woman to live in Canada. That distinction is due to Madame Colin, who arrived in 1616 with her husband, but they did not remain in Canada long.

along the Richelieu. From its junction with the St. Lawrence to a point above Chambly large grants held by seignioral tenure (*en seigneurie*) were made to officers of the Carignan regiment, and, as they in turn sub-granted to discharged soldiers, the shores of this stream became a bulwark of the colony. Along the St. Lawrence and around Montreal there was a similar organization of settlers, so that the approach by water was well guarded.¹² But between Quebec and Three Rivers the settlements were more scattered, and had little of a military character, since they were partly protected by the settlement at Montreal. Villages on these two rivers were named from seigniors, who took into their possession tracts of land varying from half a league to six leagues in length and from half a league to two leagues in depth. The seignior was usually a poor man, for his personal possessions consisted of little but his sword and the money which the king paid him for marrying a wife.¹³ If he intended to live upon the land, he found much to do. After re-allotting a portion to his tenants he had to clear the part reserved for himself, to build a seignioral mansion (often but a log hut), a fort, a chapel, and a mill. These buildings were for the comfort and convenience of the tenants (or *habitants*) to whom he granted strips of land extending far inland, and with a narrow frontage. The tenant in most cases preferred to build his house at the front of his concession, and consequently the dwellings were very near together. Being ranged in a line along the river bank, they formed a settlement or *côte*—a name which still survives. Few of the seigniors were able to build a chapel, and mass had to be said in some house in the neighbourhood by a missionary priest, who travelled along in his canoe from *côte to côte*. Most of the churches were built with funds furnished by the Seminaries of Quebec and Montreal, aided by contributions of labour and material from the parishioners. The mill was of most importance, for, if built of stone and pierced with loop-holes, it served as a block-house in case of attack, and often constituted the only

¹² Denonville suggested, in 1685, that Montreal be surrounded by settlers, so that no foe could approach unperceived. This was done later by the Sulpitians, the feudal owners of the town.

¹³ Parkman, *The Old Régime in Canada*, p. 279: "La Motte received 1,500 *livres* for marrying in the country and remaining there. To other officers who had followed or were about to follow his example, 6,000 *livres* were granted."

fort of which the settlement could boast. When royal forts were erected, there was no call for a seigniorial fort or for a fortified mill.

This settlement or *côte* fringing the river banks was very convenient, it is true, but it did not contribute to good defence, to ecclesiastical control, or to strong government. As early as 1663, M. Gaudais was sent to New France to teach the people to clear their lands and to unite their settlements.¹⁴ Talon received similar orders, and was also instructed to visit the various settlements and make a report of what he found. He promised to do what he could, but two years later he seems to have accomplished very little. He had established three villages near Quebec, however, and granted lands to the inhabitants on condition that they did as much for newcomers in three years as he had done for them. These villages had their own carpenters, shoemakers and other artisans, and were designed to protect Quebec. In 1670 he again wrote to the Minister in France, Colbert, concerning a piece of land he had bought near Quebec, which he hoped to transform into a model seignior, and by example to encourage fresh efforts on the part of the settlers. Instructions to concentrate the settlements came at times from the King and Colbert, but to obey meant the abandonment of almost all grants and clearings already made—a policy which would be wasteful and difficult to enforce. The Governor, Denonville, (1685-1692) discouraged all settlements beyond the most distant concessions, and pointed out that nothing could be done in the colony until the settlements were reconstructed. The most populous seigniories had from thirty to forty settlers; others—and these the majority—had but twelve or fifteen; many, indeed, had not more than three or four. Denonville seems to have effected some sort of union and to have built redoubts and erected palisades, for these are mentioned in a memoir concerning the state of Canada two years later. He found great difficulty in controlling the colony, because each settler maintained himself far from any neighbour in isolated and savage independence or in settlements which adjoined interminable forests.¹⁵

¹⁴ Instructions of the King to Gaudais, 1663. In *New York Colonial Documents* vol. ix.

¹⁵ Denonville au ministre (de Seignelay), January, 1690. *Ibid.* St. Paul's Bay and Rivière du Loup were two settlements mentioned in this letter. They were each about 100 leagues from Montreal, and consisted of a mere handful of settlers in the heart of the forest. These extended settlements were in the nature of outposts to entrap fur traders returning from the winter's chase.

From the beginning every inducement was offered to colonists. They were given lands which they were urged to clear, and were furnished with provisions and seed. Soldier settlers were supported for a year and given seed and grain; they were, indeed, maintained until houses and farms were prepared for their occupation. Talon thought this allowance of time insufficient, and asked that two years more be granted them. He also suggested that titles of nobility might incite them to fresh efforts.

The lands distributed to colonists were held under a feudal tenure akin to that of Europe, but with few of its privileges or prescriptions, and with none of its abuses. That tenure was brought into the New World by the Company of the Hundred Associates, which was given its new domain in perpetuity, in full ownership, justice and seigniority (*à perpétuité, en toute propriété, justice et seigneurie*), the King reserving only faith and homage (*foi et hommage*).¹⁶ This company granted some twenty-nine seigniories to merchants, officers and religious bodies upon various conditions. The first grant was made to Louis Hébert in 1623, and four years later this concession was converted into a fief of nobility (*fief noble*) by Ventadour. In 1634 the fief was conceded to Simon Le Maître, and he was the first seignior to sub-grant lands.

The grants made by this Company varied according to circumstances. For example, a concession to the Jesuits on the river St. Charles was made free from every seigniorial claim (*en franc al(l)eu*), while the seigniority of Lauzon was held as a *fief simple*. Bécancour, again, had middle and low justice only, while the grants to the Carignan officers were seigniorial with high, middle and low justice, with the right of receiving a certain proportion of the purchase money when a tenant sold his holding (*lods et ventes*) and also with the right of legal sub-letting if it were deemed advisable (*même un cens léger, s'il est jugé à propos*). No fief of dignity, or with title, seems to have been created under the Company of the Hundred Associates except Acadia, which was conceded to M. de Razali.¹⁷ Grants to re-

¹⁶ Commission to the Company of New France, 1627. Doutré et Lareau (*Histoire du Droit Canadien*), quote Sir L. H. Fontaine, who says that the Company of the Hundred Associates became proprietor of New France, and that the retention of faith and homage by the king marks the relations between himself and the grantees.

¹⁷ Few grants were made in the *haut pays* except at Fort Pontchartrain and Fort Frontenac.

ligious corporations were often made without any obligation save the recognition of the donor (*en franc almoynes*), in return for an honourable place during mass on certain days of ceremony. Many of these concessions exempted the owners from paying to their superiors a fifteenth part of the price when the land changed hands—the *quint* on mutations, as it was called. There were fiefs and grants made to those who had neither title nor seigniorial rights (*en roture*), many of which contained expressions conferring the same rights as the Company had from the King. Still, on glancing over the whole subject, we find that many fiefs were granted in full ownership (*en pleine propriété*). In the deeds which concern the granting of land in Canada it is interesting to find that allusion to some river or rivers is sometimes made.

The West India Company and Frontenac and Duchesneau, conjointly, made a number of grants, of which the clauses and conditions vary greatly. Some mention the reason for which the concession was made. It might have been granted as a reward for state services or to endow religious bodies, or to establish an outpost or fortress. Some carried rank to be ratified at some future time by the King; others had as their object the establishment of fisheries, and one related to a slate quarry.¹⁸ Some large grants were procured on the condition of dues (*à titre de cens*), and could not be sub-granted, while others were too small for sub-division, as, for instance, the Isle des Ruaux, which was given to the Jesuits, as a fief, for pasturage. The Isle aux Coudres was granted to the Seminary of Quebec on the condition that no one was to live thereon except those connected with the Seminary. In other concessions clauses were inserted that only the inhabitants of New France should obtain such lands, or that the grantees were to be persons not yet resident in New France.

At first there was a strong tendency to procure estates which were retained in the hand of the grantee and neither cleared nor sub-granted. The King, becoming aware of this in 1663, issued an edict that revoked all grants of lands still uncleared.¹⁹ Again and again

¹⁸ Dunkin, *Address on behalf of the Seigniors*, 1853, p. 8. One grant was made almost without any clauses for the establishment of a slate quarry at Anse de l'Etang, the only condition being that the grantee was to give notice to the king of mines and minerals which he might find.

¹⁹ Instructions of the King to Gaudais, 1663. In *New York Colonial Documents*, vol. ix. In this letter the *arrêt* is referred to, and a copy enclosed. The attention of M. Gaudais is particularly called to the clearing of land and the uniting of settlements as a protection against the Iroquois.

this work of clearing is urged upon the colony, and when at last provision is made for the officers of the Carignan regiment, it is stipulated that the land must be cleared within four years on pain of forfeiture. The obligation, therefore, came to fall upon the seignior, and yet there was no obligation to settle in any particular manner nor even to sub-grant at all. Even in cases where he did sub-grant, the amount of the concession is not defined.

In 1707 and 1708 Raudot, then Intendant, wrote to the Minister in France that there was great confusion between the seigniors and tenants.²⁰ The latter trusted to the seignior's honour, had no proper title, and were subject to very onerous dues (*rentes et droits*), because the seigniors would give deeds only upon conditions which the tenant must accept, however unfavorable, or take the consequences. In almost every seigniory the dues were different, each tenant paying according to the seignior's will. Raudot complained, too, that the right of the seignior to take his choice of the tenant's goods and chattels when the latter died (*le droit de retrait*) was in force, and was felt to be oppressive, and also that it was illegal under the Custom of Paris.²¹ There were certain obligations (*banalités*) which he proposed to abolish, and he suggested that seigniorial dues should be one *sou* and one capon for every *arpent*.

In 1711 the *arrêts* of Marly were promulgated. One was aimed at the seignior and the other at the tenant. By the first, seigniors who had not granted lands must do so or lose their seigniories, and, again, those who refused to grant unless they first received a cash payment, were bound to grant at a fixed rent. If an application for a grant to a tenant was refused, the Governor and Intendant, conjointly, had authority to grant such application at the rate of other lands in the seigniory. The second declared that the tenant who did not live upon his grant might be ejected by the Intendant, provided a certificate to that effect was signed by the Captain

²⁰ Raudot au ministre (Pontchartrain), November, 1707. In *New York Colonial Documents*, vol. ix.

²¹ Dunkin (*op. cit.* p. 9) points out that Raudot was wrong in his law, as the Custom of Paris does give this right as regards land *en fief*, but not as regards land *en censive*. Raudot declared the *le droit de retrait* was enforced to such an extent as to establish almost a right of pre-emption. Little notice was taken of Raudot's representations, from which we may perhaps infer that they were thought to be exaggerated.

or the *curé* of the *côte*. It is evident that most of the royal decisions were favourable to the tenant rather than to the seignior. The latter could never feel sure that he would be left in peace, for a royal edict or an Intendant's ordinance changed old conditions or made new ones. In general, therefore, the seignior was the immediate vassal of the crown, receiving his land gratuitously and rendering faith and homage for it to his sovereign or feudal superior.²² By 1711 the seignior's obligations, as recited by the King, have undergone a change. He is to render faith and homage; to pay ordinary dues; preserve oak timber for the King's service and for ship-building; report to His Majesty mines, ores and minerals on his concessions; keep hearth and home and cause his vassals to do the same; clear and cause to be cleared all conceded lands; if necessary, he is to grant space for a road; leave beaches free except for his own fishing, and if the King desires a site for a fort or other building, to grant it.

Sometimes the seignior granted to an inferior, who sub-granted in turn to the cultivator of the soil (*en censive*), though sometimes the latter held concessions directly from the crown. In such cases there were no distinctions between the highest and the lowest. From the tenant the seignior asked an annual payment in money, produce, or both (*cens et rentes*). This was very diverse in amount and in kind, but at first ridiculously small because the land was of no value to the fur-trading proprietor. At Montreal the rate was one half-*sou* and one half-pint of wheat for each *arpent*, which was somewhat higher than at Québec.²³ The usual rates were between one half-*sou* and two *sous* per *arpent*, but as the country improved this sum was, gradually, slightly increased. A grant to a tenant (*en censive*) was forty *arpents* long by four *arpents* wide, with a frontage on the river. It combined meadows, ploughed land, and forests, which gave the fire-wood and timber required by the holder. Usually the tenant paid his rent on St. Martin's day, and if he did this annually his title was perfect.

²² *Labrador Company vs. Queen*, vol. i., pp. 17 and 18. Cugnet, Belcourt, Grant, Dunn and other owners of the seigniorship of Mingan did fealty to Governor Haldimand. They assumed the position and duty of His Majesty's vassals. They appeared without sword or spurs and with heads bare. Kneeling on one knee, they made their declaration in a loud and intelligible voice, and so took the oath. Homage was done, too, when such property changed owners or when the *censitaires* were vassals of large corporations.

²³ Garneau, *Histoire du Canada*, vol. i., chap. 3.

Sometimes the seignior had recourse to the law courts to get his *cens et rentes* or to force the tenant to fulfil the conditions of the concession. There was certainly no fixed rate of *cens et rentes*, and the fact that seigniories were conceded to religious bodies for revenue makes against the notion that rates were always very low in New France. The seignior had one-twelfth of the purchase money, if a tenant sold his holding (*lods et ventes*). If the seignior sold the land, he was liable for one-fifth of the price received. This was felt very heavily, as it was a tax upon improvements.²⁴ Garneau says, however, that *lods et ventes* could not be claimed when inheritance was in a direct line.²⁵

Judicial powers were granted to the seignior, though carefully curbed and controlled. Rarely did a seignior have a prison, and in only a few cases did the lord's jurisdiction extend over heinous offences. A gallows was usually the sign of such authority. All seigniors, with the exception of Jean de la Badie, had middle and low justice, and no fewer than eight had high justice. A royal edict of 1679 regulated all appeals from the seigniorial courts, to which Garneau gives jurisdiction over all charges except insult to King and religion (*lèse-majesté divine et humaine*), false money, the carrying of arms, assassination and traitorous meetings. In all disputes between the lord of the soil and the tenant the Intendant heard and decided the cases.

The right of enforcing *le droit de banalité* was one of the privileges of the seignior. Partly from custom and partly from agreement the tenant had to grind his grain at the seignior's mill, bake his bread in the seigniorial oven, work for his feudal lord one, two or more days in the year, and give one fish out of every eleven for the privilege of fishing in the river before his farm. The seignior had the exclusive right of hunting and fishing upon his estate, and any one who desired to enjoy the privilege must procure permission. The *Conseil Souverain* registered, in 1676, an Ordinance forbidding hunting over sown ground and the breaking or tearing down of fences on pain of

²⁴ Parkman, *The Old Régime in Canada*, p. 312.

²⁵ Garneau, *Histoire du Canada*, vol. i., pp. 158-160: "Mais lorsque le fief passait aux mains d'un héritier collatéral cet héritier était soumis au droit de relief, c'est-à-dire au paiement de la valeur d'une année de son revenu : il n'était rien dû, si le fief descendait en ligne directe."

fine. This points to the fact that the rights and privileges of the tenant were not always respected. Few of these obligations were enforced regularly; that of the seigniorial oven seems not to have been imposed. Raudot, however, mentions the inconvenience of the obligatory oven, while Parkman says it was used as a means of extortion.²⁶ Then, too, there were *corvées* which required men and animals to work on certain days, both unfed by the seignior, and the men unpaid. But the Intendant Hocquart decided that this work should not be done during the harvest, and Intendant Begon permitted commutation at a rate of forty *sous* per day.

What were called "banal" mills were important in Canada. At first mills were very expensive, and were built slowly. The tolls were so little that they were insufficient for the miller's wages, which had been fixed at one-fourteenth of the grain ground. A royal *arrêt*, dated 1686, ordered banal mills to be erected within one year. If the seignior could not or did not build a mill, the tenants could exercise the right for themselves.²⁷ If the flour were not good, the mill must be repaired. Complaints were made that a stone was used for a weight, and the use of stamped weights was ordered. Sometimes the obligation to use the seigniorial mill was not mentioned in the deeds, but it was decided that the tenant must submit to this seigniorial right whether it were specified or not. All mills—whether water-mills or wind-mills—were banal mills if built by the seignior, and they must be situated in a locality easy of access either by canoe or roadway. By a decision of the *Conseil Souverain* a tenant need not wait longer than twice twenty-four hours for the mill to grind his grain. Before 1732 there were no fanning mills in Canada, but about that date the King sent several to be used in the chief seigniories, and then the toll was taken from the cleaned grain. In Canada the *droit de banalité* affected all kinds of grain consumed by the tenants, and if were any bought elsewhere and brought home unground the toll could be collected.

²⁶ Munro (*Le droit de banalité during the French Régime in Canada*), in *Report of American Hist. Assoc.*, 1899, vol. 1., p. 207, points out that there was but one *four banal* in Canada—that of Amiot of Vincelette; still, the obligation was inserted in many deeds. Bibaud quotes Cugnet as saying that it is doubtful if the Canadian seigniors had this right at all, as there were no *fours banaux* in Canada.

²⁷ Munro, *op. cit.* This *arrêt* was not allowed to become a dead letter. Within a few months after its publication, the Intendant showed that he was in earnest by pronouncing the forfeiture of the right in the case of the seignior of "Mille Isles."

When Montcalm came to Canada, he observed that the colonist was far better off than the peasant in France. The seigniors had fewer privileges and the tenants were more independent, nor did the same gap exist between the two classes. As a rule, they lived in harmony, and the seignior shared the rough everyday life of his vassal. A custom such as the planting of the maypole before the seignior's house on certain days could only exist where relations were most amicable. Though the pages of the *arrêts* of the *Conseil Souverain* contain many decisions in law-suits between seignior and tenant, arising from bad faith in payments, damages, losses and many other trivial causes, yet the novelist De Gaspé is held to have presented a fair picture of the social life of the seignior in his work, "*Les Anciens Canadiens*."

One important difference between the ownership of land in Canada and in Europe was that in New France mere ownership did not confer nobility. In Canada the King was the source of all honour. Many of the seigniories were originally granted to common people, and in the course of time others passed into the hands of men who had risen from the ranks, for a seignior could be bought and sold, and there was nothing to prevent a wealthy fur trader from buying one if he chose. In 1667 there were but four noble families in Canada. Young nobles had, indeed, accompanied Tracy to the New World, but life in the backwoods had no charm for them, and they returned to France. The Canadian aristocracy comprised, therefore, the officers of the Carignan regiment and those who held special patents of nobility, granted to a few prominent colonists.²⁸ Talon and Tracy asked for nine such patents. Succeeding Governors and Intendants made similar requests. Money, too, could purchase advancement, and soon all Canada became infatuated with the aristocratic idea.²⁹ Those who could not obtain the title of *gentilhomme* pretended to have it. The Intendant Meules said that everyone in Canada called himself esquire, and ended with thinking himself a gentleman. Denonville wrote to the minister that many families of gentlemen, who were very

²⁸ Colonists who had given evidence of their loyalty were sometimes rewarded. For example, the seignior of Longueuil was made a Baron. After a long description of his seignior and the building and the work thereon, the document recited his expenses, labour and fidelity to the state. The buildings and improvements were said to have cost about 60,000 *livres*. "His seignior is one of the most important in the colony, therefore we create him Baron...." Dated January 27th., 1700. Heriot's Travels.

²⁹ Faillon, *La Vie de Mlle. le Ber*, p. 325. Jacques le Ber was made a *gentilhomme* at a cost of 6,000 *livres*.

worthy persons, suffered extreme want, not having even bread, and he asked charity for them. Duchesneau (1675-1682) wrote that the owners of seigniories lived like country gentlemen, and spent their time in hunting and fishing. They required, he said, more than the tenants, and, as they did not farm, they took to trade and got into debt, causing very great trouble and distress in the colony. The nobles, he continues, are rascals, and to increase their body is to multiply the number of loafers (*fainéans*). A new country requires workers, which apparently the nobles were not. It is evident that the sons of councillors were but little more industrious, for in 1687 Denonville speaks very emphatically about the sons of the nobles generally, stating that if something is not done to help them live, they will become bandits or go over to the English.³⁰ Thereupon the King granted an alms of one hundred crowns to each family. No more noble titles were to be granted, but six commissions in the *Gardes de la Marine* were sent for the sons of gentlemen only. The King ordered that the sons of nobles or of persons living as nobles were to be enrolled into companies, each man to be paid eight *sous* per day for those who conducted themselves properly, and six *sous* per day for the others. Then, too, the nobles were permitted to trade without losing caste—a privilege they had already taken as a right, though they limited their commercial enterprises to the fur trade. Not all the seigniors, however, were reduced to such an evil plight, for some of them learned how to live in the new country. They remained on their lands, and as the population increased won some return from the soil. They were poor but not wretched, and were ignorant of books, but they never forgot that they were gentlemen, even when they toiled to improve their estates, for they were hardy and healthy, and knew that the lands which they were reclaiming would be owned by their descendants to a distant day.

When the scheme for the colonization of New France was set on foot it was given a religious aspect, and for a few years there seemed reason to suppose that religious toleration would prevail. In Acadia the pioneers were Huguenots, though Roman Catholics were among the settlers, and there came to be quite a number of Huguenots at

³⁰ From a summary of the correspondence between Denonville and de Seignelay, it is clear that the disorders in the woods had become so great that some action must be taken. Denonville had issued regulations and orders against disorderly persons without effect, and the plight of the colony was daily becoming desperate.

Quebec.³¹ But the Jesuits were all-powerful at the French Court, and did not approve of heretical colonists, nor did the two parties live in harmony in the New World. Disputes and bickerings arose until the question was settled by the exclusion of Protestants from New France.³² After 1632 the colony was to be purely Catholic.

The Recollets had entered Canada about 1615, but, finding the field too vast, invited the Jesuits to assist them, and with the coming of the Jesuits in 1625, a new era in the religious life of the colony may be said to have commenced. In 1629, when the English captured Quebec, both the Jesuits and Recollets were sent back to France, but with the restoration of the colony to the French crown, the Jesuits alone returned. The Recollets were not permitted to rejoin them for many years. Under the sway of the Jesuits, Quebec became half monastic, half military. The best life of the colony might almost be said to centre in convents, religious schools and hospitals, for Quebec had these before it had a population. Such amusements as there were, assumed a religious air,³³ and only the fur traders or the *coureurs de bois* were beyond the pale of ecclesiastical control. Soldier and citizen alike entered into the service of the church.

The priests went to their work among the Algonquins, the Hurons and later the Iroquois. Of all their missions, that to the Hurons was the most promising, but when this tribe was almost exterminated by the Iroquois the high hopes of the Jesuits died. There were other tribes to teach, other missions could be established, vast regions waited to be explored, and numberless heathen to be converted—but Canada was no longer a mission, it was a colony. In 1654 new church establishments were erected, a college was begun and a mission at Sillery founded. The priests received many large grants of lands, and gained a firm footing in New France. A

³¹ Faillon, *Histoire de la Colonie Française*, vol. i., pp. 220-221. The Huguenots gave some little trouble in New France, for they sang their hymns and psalms publicly in spite of prohibitions. The Jesuits complained that the heretics became more powerful and were dominant in New France. A number came to Quebec with Kirke, but evidently the greater number of Protestants quitted the colony upon the return of the French.

³² Charter of the Company of New France, 1627.

³³ Faillon, *op. cit.*, vol. i., pp. 291-292. A long description is given of a show of fireworks as an amusement to the citizens, in honour of St. Joseph, who had been chosen as a patron saint of New France. The Governor presided, and placed before the colonists an edifying example of piety.

company of pious enthusiasts, under the leadership of Maisonneuve, founded Montreal in 1642, as an advanced outpost of the missionary life of the colony. Though seventy-five thousand *livres* had been expended by this band of missionaries, no attempt was made to exact a return. Nor would the company permit any of its members to engage in the fur trade for themselves.³⁴ The Jesuits did not receive the newcomers cordially, and advised Maisonneuve against coming to Montreal. The Sulpitians, however, were interested in the enterprise, and in 1657 the latter order became owners of the town and mission.³⁵ In 1659 Montreal contained about forty houses, a fort and a massive stone wind-mill. The inhabitants consisted of one hundred and sixty men, besides women and children. They lived a very pious life and looked not to wordly gain. The Ordinances of Maisonneuve forbade the sale of liquor to the Indians, and commanded a severe punishment for blasphemy. High play and debt received equally severe penalties.³⁶ The town or mission stood in a very exposed position on the frontier of the colony, and it was not long before the Iroquois attacked it. They came in numbers or prowled about outside the walls for days, even weeks, in order to attack the French. The colonists could only live by constant watchfulness. Working, fasting, praying, the scanty band fought its foe, feeling that this was a true crusade against the powers of evil. When the Indian attacks ceased for a space, jealousy and rivalry between Montreal and Quebec sprang into life, and grew rapidly.

Ecclesiastical affairs now began to assume an aspect which demanded the control of a Bishop, and the Sulpitians were bent upon the election of one who favoured them. But the Jesuits had controlled the Canadian Church since 1625, and felt that precedence should be recognized. It was essential to them that they should have a Bishop whose views were in harmony with their own, and thus they chose for their nominee François-Xavier de Laval-Montmorency, Abbé de Montigny, a churchman who was zealous but not fanatical, and who

³⁴ Dollier de Casson, *Histoire de Montréal*, 1641-1642.

³⁵ Olier, one of the promoters of the founding of Montreal, was the founder of the *Séminaire de Saint-Sulpice*. In this way there was a connection between the missionary colonists and the Sulpitians, and when they were invited to become the feudal owners of the island in 1657, they willingly consented.

³⁶ *Ordinances de Maisonneuve*, July, 1658, and January, 1659.

was at one with them in his devotion to the Holy See.³⁷ From this choice sprang the quarrel between Sulpitian and Jesuit, for the Sulpitians supported their nominee, Queylus, against Laval, who was silently supported by the Jesuits. The latter was victorious, and with his assumption of undivided control began the warfare of church and state in New France.

No doubt the Jesuits were the most able and best educated men in New France. They had controlled the colony spiritually and temporally, and the early Governors had supported the missions, being deeply imbued with the spirit of the church. The policy of Argenson (1658-1661) was radically different. The first quarrel between him and Laval arose over the question of precedence in church ceremonies and the relative position of church seats, matters trivial in themselves but really important, affecting as they did the position of the state with reference to the church. Laval secured a partial triumph, and Argenson was recalled. His successor, Avaugour (1661-1663), wished to be friendly with Laval and the Jesuits, but again the quarrel broke out—this time over the brandy question. Previous to the arrival of the new Governor, Laval had demanded and obtained the punishment of death against those who sold spirits to the Indians. Avaugour found this decree in force upon his arrival, and though the decree was repugnant to him personally, he permitted the punishment to take place in order to conciliate the Jesuits. It was not long before the inconsistency of the churchmen so annoyed the Governor that he annulled the decree. The greatest disorder ensued, and Laval, almost in despair, went to France and procured the Governor's recall. The next Governor, De Mezy (1663-1665), was really selected by Laval, who thought he could

³⁷ Laval came to New France 1659 as the representative of the Archbishop of Rouen, within whose jurisdiction Canada was. From the return of the Jesuits in 1632, the church was a dominant force in the colony. This state of affairs was seen and ably grasped by Laval upon his arrival. He did not receive the position and title of Bishop until 1674.

³⁸ The Abbé Queylus was the nominee for Bishop of the Sulpitian order, and he was acknowledged at first by the Archbishop of Rouen as his Vicar-General in Canada. The Jesuits, strong at court and in Canada, were able to make use of royal authority, and procured the nomination of Laval. In the quarrel and schism which ensued in Canada, Laval could depend upon this strong support at court, and he eventually compelled Queylus to leave the colony.

be easily influenced and would carry out the will of the church. Perceiving this, however, the Governor rebelled against ecclesiastical interference, and he, too, was recalled.

Thus far the church had been successful, and though the court recognized that in these cases the church had encroached upon the state, the officials were instructed to appear friendly with Laval, but to watch the Jesuits closely.³⁹ Nor was it long before reports of clerical interference began to be made, particularly when Frontenac went to the colony as Governor (1689-1698). He accused the Jesuits of thinking more of beaver skins than of the Indians. He declared that their missions were mockeries, that they abused the confessional, interfered in family matters and caused great confusion. This accusation seems to have resulted in an ordinance which forbade ecclesiastical bodies to trade in furs.⁴⁰

Another accusation against the Jesuits was that they desired to keep the Canadian Church under their own control, and that to do so they excluded the Recollets. In 1760 the King ordered the return of the Recollet Fathers, but they came back almost on sufferance. The Bishop refused to permit them to perform parochial duties without special permission. Their work was hindered by rules and regulations so rigorous that there was not more freedom than if they lived among heretics.⁴¹ Laval, it was said, chose to permit a part of his people to live without spiritual help rather than to send a Recollet to them. The *curés*, too, had charge of districts so large that mass could be

³⁹ Royal Instructions to Tracy, 1663, wherein mention is made of the trade of the Indians with the Dutch for brandy. The argument is, that since the church would not permit this traffic in Canada, the Indians went from one evil to another—from drink to heresy. The church forgets this. In 1665 Talon received similar instructions, and he reported that the savages were not well taught. Courcelles also reported upon the condition of affairs, and found that the Jesuits exceeded their authority.

⁴⁰ A Royal Ordinance, April 15th., 1676, commanded that no one having ecclesiastical or secular dignity, nor any religious community, should be permitted to trade in furs, for the sake of example.

⁴¹ Margry, *Mémoires et Documents*, vol. ii., pp. 18-21. The Bishop of Quebec declared the Recollets were not to exert any influence upon the people of the country. They were to live within their houses, to pray, chant and live a monastic life. Their convent was placed far from Quebec. The Bishop frequently discriminated against them. If a Recollet was permitted by the Bishop to celebrate mass, he must get permission from the *curé* also. The Recollets were afraid to confess in church, because, if recognized, the confessor was treated as a rebel and the penitent as a rascal, and both were persecuted.

celebrated there only once in six weeks, and this was so favourable to the retention of ecclesiastical control that Laval constantly evaded carrying out the King's instructions to localize the *curés*. The Canadian priests lived a severe life indeed, and set an example of piety and heroic endurance, though all the colonists did not profit from it.⁴²

It is also curious to note how the temporal power came readily to the assistance of the spiritual. For instance, if a man ate meat during Lent without permission, he was punished by the law of the land. Regulations against blasphemy could be enforced only by the civil authorities. Drunkenness, irreverence towards God and the King, violation of fast days, were some of the misdemeanours for which the punishment decreed by the church must be carried out by the state.⁴³ Also calling at a tavern during divine service on a holy day or a Sunday was an act calling for special punishment. The clerical party kept the manners and the pleasures of the colonists under its control as long as possible. It made rules as to marriages and baptisms, as to the adornment of the person and other matters pertaining to the trivial things of everyday life. Frontenac encouraged balls and theatricals to the horror of churchmen, but as a rule the pleasures of the young town were very simple. It was only natural that a colony so deeply imbued with religious sentiments should leave its impress upon its inhabitants, even when the missionary period was left behind and a royal province created. Kalm, a Swedish botanist, who travelled through North America between 1745 and 1750, noted the extremely pious life of the people, and compared them with their neighbours, the English and Dutch, much to the credit of the former.⁴⁴

⁴² Faillon, *op. cit.*, vol. i., pp. 275 and 276. The Governor, gentlemen, citizens, soldiers and servants alike yielded to pious influences. Many who had lived negligently in France, changed their mode of life in the new country. But all the colonists did not follow this good example.

⁴³ Faillon, *op. cit.*, vol. i., pp. 293 and 294. Any public infraction of the ecclesiastical laws was punished by the civil authority. Faillon cites several instances of punishments for blasphemy, drunkenness and the like. In *La Vie de Mlle. le Ber*, p. 310, Faillon describes the action taken by M. le Ber when he heard a servant swearing. The servant was denounced before the magistrate and punished.

⁴⁴ Kalm, *Travels in North America*, vol. iii., pp. 43 and 44. The French in their colonies spend much more time in prayer and external worship than do the English and the Dutch in the British colonies. The French have prayers every night and morning on board their ships, and on Sundays they pray more than commonly. They say grace at meals regularly, and every one says prayers in private as soon as he gets up. At Fort St. Frederic all the soldiers assembled together for morning and evening prayers, most of them in Latin, which, he adds, the greater part of the people do not understand.

All education was in the hands of the church. There was neither a rival religion nor a population differing in origin to contend with, and the system of education instituted was not interfered with. At Quebec Laval established a Seminary for priests and another for boys, both French and Indian. About 1668 a sort of farm school was founded for the teaching of trades. These schools were supported by tithes, or by the sale of Laval's private property in New France and by the contributions of his supporters and admirers. The Jesuits had their own resources, chiefly derived from the large grants of lands and sums of money from the King. The Sulpitians, too, had their own sources of revenue, and were enabled to establish schools also. A memoir, dated 1740, makes it clear that such education as could be obtained at Quebec was slight indeed. The pupils scarcely knew how to read and write, and were ignorant of history and geography. At Montreal the case was even worse, for, though the children attended the schools of Saint Sulpice and of the Frères Charron, "they learn only grammar." The girls were taught by the Ursuline nuns, and seem to have received, relatively speaking, rather more education than did the boys. Ferland thinks the Canadian children of the pioneer period had ability, memory and intelligence, but that they "were content with little knowledge." They did not make a steady effort, due, perhaps, to the natural levity of their character and to circumstances. He considers that they excelled in trades and handicrafts, but the constant demand for skilled workmen somewhat contradicts this statement. The ignorance of the people may be inferred from the fact that a man was refused as godfather because of his gross ignorance manifested when questioned in the shorter catechism. And yet such education as there was, centred largely in religious instruction.

The Bishop had an official position which entitled him to judge causes between ecclesiastics, and four sorts of causes among the laity. Of the latter, one was the invalidity of marriage, a source of frequent trouble and confusion, particularly during the period of the Acadian exodus. Another was heresy, with which neither the first Bishops, nor, indeed, any of the early churchmen had trouble, for though heretical meetings were forbidden, after 1632 there were few if any heretics, except a few of the New England captives, most of whom speedily became Catholics. Simony and *dîmes au péritoire* fell within his province, but apparently such cases were never brought before his notice.

The colonists were not free from the superstitions of the times, and supernatural visitants and visions, witches and witchcraft played their part in the life of the less adventurous *habitants*.⁴⁵ The records of the *Conseil Souverain* make mention of an accusation of sorcery against Catherine Grenier, a widow. In the dearth of evidence, the decision was postponed from time to time, and finally the case was allowed to drop. The tales of mysterious communications, apparitions and miracles were for the most part religious or served a religious turn. Thus the earthquake of 1663, which occurred during the period of the quarrel between Bishop and Governor regarding the sale of brandy, was regarded by the church as a warning from God to the wicked colony. It was not an earthquake, but a manifestation of the displeasure of the Divine Being.

In the absence of physicians and surgeons, of whom there were very few in New France, the hospital nuns proved to be a great blessing. They cared for the sick and wounded, and fought disease and distress with heroic courage. The physicians who did come to the colony were poorly paid. Sarrazin, afterwards very well known from his botanical studies, received an annual income, but took no fees from his patients⁴⁶

To literature and the fine arts New France contributed little. Throughout the early period the struggle for existence absorbed all efforts. The bare necessities of life could be procured only with great difficulty, and there was no time to look for luxuries. Apart from this, the church held the direction of such affairs in its grasp, and all the energies of the clergy were directed towards the conversion of the heathen and towards a censorship of life and morals. Pictures, books, rich vestments and altar plate found their way to the colony, but these were for purposes the church could understand. During the last age of the old *régime* (1720-1760) Quebec became a miniature Versailles and Montreal endeavoured to outshine her rival in wealth and magnificence. Sulte, in a paper before the Royal Society,⁴⁷ argues that

⁴⁵ Very early in the history of the colony, the *ceusitaires* repudiated the name of vassal or *ceusitaire*, preferring to be called *habitants*.

⁴⁶ *Conseil Souverain*. Sarrazin, the only doctor of the king in New France received 600 *livres* per year, and no fees from patients. This entry is dated June 19th., 1701.

⁴⁷ *Proceedings of the Royal Society of Canada*, 1896. A Study of the Historical and Miscellaneous Literature of Quebec, 1760-1784.

there were only about 60,000 books in New France at the time of the conquest, and that education and literary development did not receive any impetus until after 1760. Even printing, long in use in the New England colonies, was slow to reach New France.⁴⁸ Acadia established a printing press and published a newspaper about 1752, but only after it had become a British possession.⁴⁹ At no time, therefore, did the conditions of life seem favourable to the pursuit of *belles-lettres*. The colonists looked to France for assistance, for guidance and for protection. It was to the court of Louis XIV. and his grandson that they turned for the pleasures, the luxuries and the social distinctions which they coveted. But those things which develop taste and culture were not afforded them, nor did an intellectual impulse spring up within the colony.

HELEN RORKE.

⁴⁸ Gagnon, *Essai de Bibliographie Canadienne*. The general impression is, says M. Gagnon, that printing was not established until 1764 at Quebec. He contends, however, that some printing had been done in Canada in 1759. He mentions two *mandements* of Bishop Pontbriand as having been printed in that year, one at Quebec, the other at Montreal.

⁴⁹ The Editor of the *Dominion Register and Review* has seen a copy of this newspaper, "The Gazette," dated 1752.

EVERYMAN: A MORAL PLAY.

It is somewhat strange in these days, when the theatre is always striving after something new, that we should find one London playhouse content to revive the traditions of the past. We might perhaps think that one of the old morality plays that enthralled the townsmen of Tudor days would hardly hold the attention of a modern audience. Yet this judgment is not borne out by facts, in spite of the more obstrusive attractions of the Metropolis, when strangers thronged its streets and the air was filled with preparations for the Coronation.

The Elizabethan Stage Society, under whose direction this old morality play is being revived, perhaps considered that it would be an anachronism to make use of modern methods of advertising, for a handful of men bearing placards, and a few miniature posters scattered here and there, were all that told the public of this attraction at the Imperial Theatre. Yet, even in London, one does occasionally find time to read an advertisement, though it be borne by one of those so-called "sandwich men." It was this that led the writer to make his way one July afternoon across St. James' Park to the little theatre that stands almost in the shadow of Westminster Abbey.

It is perhaps difficult in these days, when the church and the theatre are looked upon by many as irreconcilable, to realize the part that the theatre played in the moral life of man during the fifteenth and sixteenth centuries. Quick to realize that the acceptable and forcible presentation of a truth is a guarantee to its retention in the memory, the church initiated that form of spectacular and dramatic representation which later, after passing through various more or less

distinct phases of evolution, was to result in the development, along distinct lines, of the two great elements—the comic and the serious—which were in the beginning inseparably fused, even in pieces of a profoundly religious character.

“Everyman” belongs to the group of earlier English moralities, dating from about the reigns of Henry VI. and VII., though some place it as early as the reign of Edward IV. We know positively that it was printed before 1531, and that it belongs to the group which includes such moralities as “The Castle of Perseverance,” “Nature,” “The World and the Child,” and “Hycke-scorner,” which were followed in the reign of Edward VI. by “Lusty Juventus.” The title given in Hazlitt’s Dodsley is as follows:—

Here begynneth a treatyse how the
hye fader of heven sendeth dethe
to somon euery creature to
come and gyve a counte
of their lyves in this
worlde and is in ma-
ner of a morall
playe.

Then, on the title-page from which this is taken, there follow some rather gruesome woodcuts representing the chief characters. “Everyman” is one of the very best of the plays that have come down to us from that period, and, strange to say, was one of the most popular at a time when the standard of morality was not so refined as it is at the present day, and, either as realized in life or expressed in literature, was such as to render a play of this character the exception.

“Everyman” is a dramatic sermon, based upon the parable of the rich man—“This night thy soul shall be required of thee”—and is followed out in the spirit of Ecclesiastes.

The story is simple, and is effectively told in verse. Like all the plays of those early times, greater stress was laid upon the importance of acting, while scenic effects were used only as supplementary, and were as simple as possible in character. In this we see a continuation of the Greek tradition. In fact, all the so-called “unities” are preserved by this play, impressing upon us the fact that it is connected with the classic drama, not only in range of subject, but also in form.

The length of the action corresponds to the time taken in its representation on the stage; the action itself is essentially one, and Everyman is on the stage from beginning to end, with the exception of one brief interval, when he retires to receive the sacrament and the last rites of the church. The scene, too, remains unchanged. Simple, almost bare, in its furnishing, the stage consists of three platforms at different levels, though it is to the middle one that the main action is confined. The highest platform is at the back of the stage, and at the opening of the play it is hidden behind a curtain of tapestry. Both sides of the stage are also occupied by Gothic niches, somewhat resembling the tombs of the period, with the upper recesses curtained off.

As was customary, the representation begins with a monologue by the Messenger, in which he says:—

“I pray you all give your audience,
 And hear this matter with reverence
 * * * *
 For ye shall hear, how our Heaven King
 Calleth Everyman to a general reckoning:
 Give audience, and hear what he doth say.”

At this point the play opens with the drawing aside of the tapestry, disclosing the third platform, with God seated on His throne. He is somewhat conventionally represented as an old man with a gray beard, and attended by an angel, a monk and a nun. After summarizing, in a short and dignified monologue, his mercy towards mankind, whose degeneracy causes him sore displeasure, He summons Death, his “mighty messenger.”

A prolonged trumpet blast sounds, and when it has died away a fantastic figure, got up after the style of Holbein’s celebrated “Dance of Death,” appears and learns his errand:

“Go thou to Everyman,
 And show him in my name
 A pilgrimage he must on him take,
 Which he in no wise may escape;
 And that he bring with him a sure reckoning
 Without delay or any tarrying.”

Another blast of the trumpet, and Death departs to "cruelly out-search both great and small," while the curtain hides from view Adonai the Almighty.

Everyman now saunters gaily in, clad in a picturesque garb, and playing idly on a stringed instrument; but his careless gaiety quickly changes to consternation when Death appears and announces that he has to make a long journey, and bring with him his reckoning, in which is written the record of his life with all his deeds, both the few good and the many bad.

"O Death, thou comest, when I had thee least in mind!"

he says; and tries in vain by offering gold to gain a brief respite. But Death cares naught for gold, or silver, or riches; so that Everyman, seeing that all his efforts avail nothing, cries out in anguish:

"O Gracious God, in the high seat celestial,
Have mercy on me in this most need,
Shall I have no company from this vale terrestrial
Of mine acquaintance,¹ that way me to lead?"

Death bids him take with him any that are willing to go, and, telling him to make ready his departure, leaves him overwhelmed with his misfortune.

Just then Fellowship, attired like the other characters, after the manner of the Italians of the fifteenth and sixteenth centuries, happens to pass by, and, catching sight of Everyman, asks him why he looks "so piteously." He professes to be willing to help his friend in any way possible, "For," as he says,

"he that will say and nothing do,
Is not worthy with good company to go."

But when he learns that Everyman is bent upon a journey from which he will never return, he exclaims in alarm,

¹ Acquaintance.

“ Now, in good faith, I will not that way;
 But, and thou will murder, or any man kill,
 In that I will help thee with a good will.”

In the same way Everyman is deserted by Kindred with a heartlessness that is almost cynical. Driven nearly to despair, he bethinks himself of his goods. Hereupon the niche on the left of the stage is uncurtained, and reveals Goods, an uncouth figure in Eastern garb, squatting on a divan, with piles of gold before him, and bags of gold and books of accounts on either side. It is to this strange figure, looking for all the world like one of the merchants of Baghdad in the Arabian Nights, that Everyman determines to make an appeal in the hope

“ That money maketh all right that is wrong.”

But here again he is baffled, and, instead of finding his Goods ready to help him on his journey, Everyman learns, on the contrary, that he has from the beginning been his enemy, striving to corrupt and destroy him, and now remaining behind in the world to work his base schemes on other luckless men.

Deserted by Fellowship, by Kindred, and by his Goods, Everyman has recourse, in his despair, to his Good Deeds. The curtain of the other niche is drawn aside at this point, and shows Good Deeds, a pale-faced nun, bound back to earth. On her rests Everyman's last hope,

“ But, alas! she is so weak,
 That she can nother go nor speak.”

She does, however, promise him the assistance of her sister, Knowledge, a majestic figure, robed in purple, and by her advice Everyman implores the aid of Confession:

“ O glorious fountain, that all uncleanness doth clarify,
 Wash from me the spots of vices unclean,
 That on me no sin may be seen;
 I come with Knowledge for my redemption,
 Redempt with heart and full contrition.”

Confession, clad in the robes of a Dominican monk, then imposes penance, which Everyman performs upon the stage—a touch of realism—and then goes off for a moment to receive the sacrament, while Good Deeds and Knowledge converse about the advantages of a holy and efficient priesthood.

Everyman's invocation at this point is worth quoting, not only from its literary merit, but because it marks a climax of impassioned expression of emotion:—

“O Eternal God, O heavenly figure,
 O way of rightwiseness, O goodly vision,
 Which descended down in a virgin pure,
 Because he would Everyman redeem,
 Which Adam forfeited by his disobedience,
 O blessed Godhead, elect and high Divine,
 Forgive me my grievous offence;
 Here I cry thee mercy in this presence:
 O ghostly treasure, O ransomer and redeemer!
 Of all the world hope and conduyter,
 Mirror of joy, foundation of mercy,
 Which enlumineth heaven and earth thereby,
 Hear my clamorous complaint, though it late be,
 Receive my prayers of thy benignity,
 Though I be a sinner most abominable.”

At this point the tapestry at the back of the stage is again drawn aside, disclosing the rather gruesome spectacle of an empty grave, and now as Everyman dies, he is deserted in turn by his former companions—Beauty, Strength, Discretion and his Five Wits. So weak now that he can scarcely stand, though rejoicing in his salvation, Everyman is helped into his grave by Knowledge and Good Deeds, who stay by him till the end.

Once more the mournful trumpet sounds; Death appears in the distance, and Everyman, with his last breath, murmurs,

“*In manus tuas, of might most,
 For ever commendo spiritum meum.*”

As was customary, the play ends with a monologue by the Doctor or Messenger, who sums up the play and points the moral, showing its practical application to his hearers.

Such is the story of the play—simple, direct, impressive. There is one fact significant of the psychological effect of the play which is worthy of note, as it pays a high tribute to the sincerity and ability of the players, and that is, that during the whole performance not once was there the least demonstration of applause. Subdued throughout in action and in scenery, the whole play might be designated as a symphony in a minor key. The plot, as critics have remarked, is simple and strong, and is in harmony with the earnestness and reality of the theme. Its interest for the audience was almost guaranteed by the universality of its scope, which is such as to engage the attention, if not the sympathy, of every one who saw it.

To many modern spectators, accustomed to the modern drama, the allegorical form of the play may perhaps seem somewhat tedious, but it must be borne in mind that the character of the modern drama is the result of many influences, among which the most prominent are that humanistic spirit of regarding the world which has characterized the last three centuries, and that extraordinary development which has made itself so evident in art and science during the same period. This importance which allegory and personification attained in the fourteenth and fifteenth centuries in European literature is accounted for as being a natural and essential step in the intellectual development of mankind. This psychological phenomenon finds its material realization in the various realms of art—in literature, from the *Roman de la Rose* to the *Divina Commedia* of Dante, in Giotto's frescoes, and in the sculpture of Orcagna. It was manifested also in Germany, while in England we are familiar with it in the "Vision of Piers the Plowman." In the drama it developed from the gradual tendency to lay more and more stress upon one or other of the personages of the earlier Miracle Play, and consequently to arouse increased interest in them. It is in this separation and generalization of conventional characters that we get the first representation of real dramatic types of character, and of this there are numerous examples in "Everyman."

But equally important with the existence of natural and distinctive types, is the necessity of scope for the action, not of those passions

which are individual, localized and perhaps *bizarre* in character, but for the dramatic presentation of these feelings which spring from the foundations of men's daily life, giving us that "touch of Nature that makes the whole world kin."

In "Everyman" this element of dramatic passion is present in a marked degree. A cursory glance through the text as it remains to us will not, however, bring this home to the majority of readers. The play must be seen before its effect can be appreciated, or even realized, in a moderate degree. In cold print the allegory is obtrusive, and our imagination does not seem able to free itself from that bondage. Everyman becomes Every Man, and in that brief moment his connotation disappears—he becomes indefinite, general, bookish.

Yet, on the stage, there is scarcely a more real or more living character than Everyman in the hands of a competent actor. He is no longer the epitome of the human race, but a living man; no general type, but an individual; and it is only afterwards that reason asserts that the sufferings of Everyman are typical of mankind, and that the whole play is an allegory. Yet it all seems so real at the time that one is tempted to think that it is perhaps a comparative lack of imaginative power in the modern mind that renders the allegorical *genre* uninteresting to so many.

The half-light and sombre accessories of the stage are intensified by the deep shadows, and as the gay accents of Everyman's mirthful companions die away and are succeeded by the solemn and measured tones of Knowledge and Confession, we forget that we are at the theatre, forget that these mediæval men and women will in an hour's time be walking the same streets of London with us, forget where we are, and who we are. Everyman has our sympathy. When the mournful blast of the trumpet sounds for the last time, an involuntary shudder passes through us, and when Everyman descends into the grave, the effect is of an intensity and a realism that are perhaps never surpassed by a scene of equal simplicity.

GERHARD R. LOMER.

SURSUM.

Hush, vex me not! The soul
 Makes her own creed,
Borne to an unseen goal
 Whate'er impede,
A shrine she keepeth whole,
 Though the heart bleed.

The lingering shades of night
 Now melt away,
And, see, the blind grows white
 With dawning day,
And soon shall ruddy light
 Flood sky and spray.

Come, wheel my chair again
 The window near;
What murmur in my brain
 Grows yet more clear
That 'mid the pulse of pain
 I could not hear?

Its tones are those of earth,
 Solemn nor strange—
His voice? Doth then new birth
 Bring naught of change,
Of human speech no dearth
 Where spirits range?

Surely he prayeth low
 To God for me;
Methinks the words—but so
 'Tis God's decree
That mortals may not know
 What words they be.

And like the dying hymn
 Of minster choir
That floats through spaces dim
 High and yet higher
And joins the cherubim
 Ere it expire,

I hear an antiphone
 From lips unseen
Take up his accents lone
 That come between—
'Tis gone—perchance its tone
 Hath never been.

Go, part the curtains free,
 The blind upraise;
Once more I fain would see
 The city ways
We wandered, I and he,
 In bygone days.

Silent o'er lea and lawn
 The low mist lies;
Up through the grey of dawn
 The steeples rise,
And pierce the red flush drawn
 In eastern skies.

There on the hillside climbs
 The straggling street;
And there the grove of limes
 Beside the wheat,
Where oft in summer times
 I led his feet.

The fitful gusts would blow,
Cleaving the grain,
And flash of poppies show
A crimson vein,
Then vanish in the glow
Of gold again.

And gazing on the field
In mute surprise,
As if God had revealed
To infant eyes
A sudden glory sealed
To old and wise,

My darling stands; and then
From that high land
We come down through the glen
And by the strand
And on through hum of men
Hand laid in hand.

O fickle life! O frail!
Thy transient hour
Biddeth that man prevail
With human power,
Nor lose in grief and wail
Thy passing dower.

Once more I see a rout
Of school-boys play,
And hear the victor shout
Rise from the fray—
And borne in triumph out
He moves away.

My dying eyes scarce mark
Yon school-house there;
Oft late into the dark
I've climbed the stair,
And seen his taper's spark
Above the glare.

Once more the garlands hung,
 The happy eyes,
 The song of welcome sung,
 The play's disguise,
 The generous cheers outflung,
 The crowning prize!

Ah me, for him my choice
 Should be the same—
 'Tis well ambition's voice
 Men cannot tame,
 Bidding them weep, rejoice,
 Nor sink to shame.

O college walls that soar
 Beside the wave,
 Your peace and ancient lore
 A child, he'd crave—
 Never can ye restore
 What once I gave!

Yours are the little room,
 The roaring gale,
 The flickering light, the gloom,
 The lashing hail,
 The final hour of doom,
 The features pale.

His head he bade me lift,
 Half in a dream,
 Flung through the moving drift
 He watched the beam,
 And pointing to the rift,
 Passed in the gleam.

I hear him praying low
 To God for me;
 At last God's peace I know,
 From earth soon free....
 I fall asleep....I go
 With him to be.

CHAS. E. MOYSE.

HASTY NOTES AND JUDGMENTS.

“Travels do not much hurt me, were it not for the charges, which are exceedingly great.”—*Montaigne*.

New York to Naples!—To be strictly conventional, the good ship *Phœnicia* worked out into a gale off Sandy Hook, the wind (90 miles an hour, N.Y. Weather Bureau) screeching through the rigging. To be strictly truthful, it would not have hurt the good ship if the wind could have blown through her at 290 miles an hour, if it could have blown off the smell that 2,000 Hamburg emigrants had left, three days before. Further, the wind can blow 90 miles an hour in certain directions, and not make a very heavy sea; and, so far as I know, the captain did not say that it was the worst he had ever seen. Gentle reader, have we not heard that old lie about the captain many times? It is possible that even Charon says these things to the passengers who pay two *oboli* and who sit nearest him.

There are twelve of us on board whose native speech is English, and the majority of the passengers form a pilgrimage (not at all in sack-cloth and ashes) from Mexico to Rome, composed of a dozen affable-looking priests and a few Spanish laymen and women. The Mexican habits of costume are picturesque, but unsuited for sea-sick weather. From careful observation, it may be concluded that the neatest wear for those who do not care to spend much time upon the ceremony of dressing is a tight-fitting tailor-made gown and a rubber bathing cap. The mantilla is most effective, when not worn.

A little Italian is travelling to Sicily, ostensibly for his health.

The true inwardness of his life he discloses to me after the deck has cleared at night, though why I have to be his confidant I cannot imagine; it was not that I was sympathetic. He loved her, and she loved him; they were to be married in a few days. She had bought her clothes. His family objected, gave him \$400, telegraphed her that he was going away, destination unknown. "I will write to her to say that I will not marry her. I am sorry, too. I hope she will not kill herself!" Many comments arose in my mind, but I suppressed them all. To do him the justice of his intentions, he added, "I am sorry I took the money from my family!" It *did* occur to me to refer him to the later history of Judas, but one hates to throw away good advice.

One beautiful evening we came in sight of Gibraltar. It looked so natural, an American remarked, that one expected to see "Prudential Life" written across the face of it. In sight at the same time, on the south side, are the snowy hills of Morocco. As we passed, the huge rock stood out against a glorious sunset, prodigal of scarlet and gold, and perched on the topmost part of the rock, not far from the fluttering little patch that represented the Union Jack, stood a gun, with its long nose defiantly tilted up into the air, easily distinguishable against the bright sky. In these historic waters, where Britain has had her say among the history makers, it was fitting that we should meet coming up dead ahead a cruiser, which some of the Americans pronounced an American; but the black hull and the yellow funnel, with that peculiar dull red below the water line, told a different story, that was confirmed by the little white ensign that fluttered up in response to the Phœnicia's flag. She looked ideally clean and smart as she swept by, two of her three stacks pouring smoke, her nose pointed for England.

The first glimpse of glorious Naples! Framed in a port hole, I saw spread out before me the rusty side-plates of a Sunderland collier and a few square yards of dock stonework. But once on deck the Bay of Naples is—(see *Journeys through Italy*, p. 280).

The horse leech may have three daughters, but she has many sons, and among the first are the Italians of the street. "Give, give!" It begins when one steps on the boat to go ashore, and it ceases when one crosses the frontier, only to reappear there in another guise. Italy is so cheap a country in which to travel that a whole day of petty extortions makes one not so poor in pocket as in kindness of heart; but

if dishonesty jeopardize the soul, then is spiritual welfare in Italy sold for rather less, per yard, than block pavement. I have seen the ticket agent at an Italian station keep back from the change of the successive purchasers one or two *soldi* each; so paltry is such a thing that it becomes comical.

A jaunt in Italy becomes a pure pleasure if one can separate himself from beggars, from baggage and from a strenuous conscience. The last-named drives the victim to see things he would not otherwise, and prevents his seeing things he would gladly see, and has for its hall mark "two stars in Baedeker." That excellent book, as everyone who has used it knows, is a treasure to the traveller, but it has a method of designating everything that one should not miss by "two stars." If the "two star" habit get its fatal clutch upon you, it were better to go straight home. As you approach an otherwise beautiful town, you are made aware that there is a something which you must see, an obsession which is waiting for you, and the feeling becomes most irksome. If you are bravely neglectful, and once or twice go past the very door which hides the treasure, it will soon happen that the "two stars" have lost their dominion over you, and afterwards you may go and see the treasures, not because you ought to but because you choose. I take it that the chief charm of Italy lies in its oddities—the thousand and one things that catch the eye as you walk, which you recognize as different from your experience. As Tommy says, "No, thank you, I don't care for any; we get them at home," so we of older growth reject the familiar, and desire to see things that are unfamiliar. The oranges that hang over the walls are less beautiful but more novel than the dog roses of the English hedgerows. The blue of the Bay of Naples is not a whit more wonderful than the grey haze of a Canadian autumn. But these things please us inordinately until they lose their novelty. Italy is a wonderful country by reason of its art and its history, and these are the things we are apt to magnify to a fictitious value as they apply to ourselves. We do not put copies upon our walls of Raphael or Da Vinci, but of Sargent and—save the mark!—C. D. Gibson. To us the tomb of Nelson is more an object of reverence (and rightly enough) than the Colosseum. It is not a sign of degeneracy that our likes are as they are. If we live long enough and become sufficiently well educated in the broad sense, we may acquire the tastes we do not possess natur-

ally, not to displace, but to supplement. Then we may be able to value Italian art for its value to us; until then, we do well to remember that it is the mark of ignorance to deny the excellence that we cannot understand.

If you have to see Naples and die, arrange your demise that it may occur subsequently to a visit to Pompeii. As we waited at the station on our journey thither we noticed a soldier standing by the train with a girl weeping on his shoulder. The strong hand of the service was parting these fond lovers, and despatching the man to a southern city—as effectual a separation as if it were to another continent. The girl turns away sorrowfully, and the soldier's downcast expression changes to one of placid contentment. "She is mistaken," he says, with a grin, "she thinks I am going to Taranto, but I am going only to Sorrento." Sweet variations on that old theme!

Pompeii is a place of peace. It is a walled-in city, shaved off ten feet from the ground, the houses left open to the sky, and save for its guardians absolutely deserted. Scrupulously clean and weather-washed, the streets and courtyards paved with stone, the rooms carpeted by short grass, the walls topped by verdure, with an occasional poppy, the blue sky above it and smoking Vesuvius just over the walls there—Pompeii sits now, as it sat in 79 A.D., save that the whiteness of its walls hints at purification, physical and moral, that it has undergone. Scarcely one third of the city is as yet excavated, and work is continually carried on with the revenue derived from the small charge made upon visitors. In a beautiful evening, dusty and fragrant, we drove to Castellamare, its lights twinkling against the high hills behind it, where we found an inn which would have deceived Don Quixote himself, so huge were its proportions and so excellent its accommodations. Everybody drives from Castellamare to Sorrento along the shores of the bay, and everybody, for once, does a wise thing. Those winding smooth roads, olive groves on one side, the sea on the other, stone walls, villages, villas, orange and lemon trees—the whole thing recalls something Moorish, or Spanish, or Arabian—really it does not matter which, but something out of a book.

From Naples by the fastest train in Italy, flying at actually 60 miles an hour, around fearsome curves, with light rolling-stock, one comes at last to the broad reaches of the Campagna, and catches glimpses of the long row of arches of the ancient aqueduct. Rome is

—well, Rome is just Rome (see Guide-book). Thence we journey northward to Florence, over the flat plains of Emilia by lagoon and marsh to Venice. At close quarters Venice gives the impression of an insecure base, and as one threads the smaller canals, a sagged corner of a house or a submerged doorstep hints at further sinkings in the future; but each thinks, no doubt, that it will last his life time. St. Mark's will always be associated in my mind with the irreverent remark of an American: "It's a beautiful building, but it looks too much like the Midway Plaisance." Criticism can go no further. The glory of Venice, but not its charm, has departed. Upon one of the grandest palaces of the Grand Canal, its bygone builder, in the humility of pride, has graved on each side of the massive doorway "Non nobis, Domine." Could he pass to-day he would doubtless find that his modest disclaimer has brought its effect, for others have long since entered upon the fruits of his labour, and shops, fish stalls and produce-gondolas raise their plebeian odours at his very doors. The gondola of the brougham class, the barge of the dray variety, the huckster's waggon-gondola, the gondola for hire, the hearse-gondola, the furniture-moving van are all here upon keels instead of wheels, and there is not a horse in Venice. The whole city seems to sit there and ask itself, "Why am I here?" And the answer is not forthcoming. When it becomes necessary to prop up the city a ward at a time, it will be a difficult matter; in the meantime, one can enjoy it and not trouble about its future.

From Venice over to Trieste, less beautiful but more business-like, is an interesting journey, especially the last few miles, where the road lies on the top of a cliff overlooking the Adriatic, with villas and vineyards lying below upon the shore. Northward, again, from Trieste by Steinbrück and Gratz, the road leads over the Semmering, the hills snow-topped and the valleys a mass of verdure. A succession of mountain and defile, pine forests and rocky plateaus, tunnels, viaducts, castles and ruins of castles follow so quickly that, once passed, the memory holds only a composite picture, and the railway emerges upon the hills overlooking the great rolling plains of Austria, and by a few hours' run Vienna is reached.

In the words of that most graphic of writers, whose every sentence is a poem, "Thence he advances certain stadia, certain parasangs to Prague, a great and wealthy city of the Bohemians." Most people know something about Prague; firstly, that it has something to do with

a witch; secondly, that there was a battle there—or was it a piece of music?

Prague is an ancient-modern city of several hundred thousand, that has seen its share of war, and has seven times opened its gates to a conquering army. Here belongs the Wallenstein family, here centred the strife of the Thirty Years' War, here died grim, old Schwerin, and here was the battle-ground of Protestantism and Catholicism. Prague to-day is intensely Catholic, and by force of numbers is becoming, as fast as she can, anti-Germanic. To a casual onlooker the Bohemian is crowding out the German. "I have seen," says my friend, the old German doctor, "the Prussian army march into Prague, and (he raises a prophetic forefinger) perhaps it will happen again!"

The Moldau rolls muddily through the centre of the city, and supplies water, which is good, as the Kentucky colonel remarked, "for navigation purposes." Be warned! It is not to drink. "I had a cousin," said my friend the doctor, "who went swimming in the Moldau." A long pause leads me to wonder if I have already reached the striking fact of his recital, but it is merely the pause of decency. "He got a mouthful of the water as he was swimming, and died of typhoid fever!" The astute mind will draw two morals. From a traffic standpoint the Moldau is interesting, not only by reason of its rafts of poles (they can scarcely be called timber) but also for a collection of the most antiquated steamboats that can be found afloat. One of these, about the size of a harbour dredge, bears upon its wheelhouse an inscription which states that it is not allowed to carry more than 890 persons.

Lying close to the banks of the river is the old Jewish city, where the houses are crowded together until the roofs almost meet across the lanes. As might be predicted, the Jews have for the most part become so prosperous that they have been able to leave these precincts, the slums of the city, to their Christian brethren. In the midst of these crowded lanes lies the walled-in cemetery of the Jews, long since disused, where stand gravestones so thickly set that there is scarcely room to move between them. The inscriptions are all in Hebrew, and each bears at its head the distinctive tribal symbol, the waterpot or the uplifted hand. Looking out upon this "Court of Peace" (a phrase in which our German brethren have beaten us) are the windows of the Jewish hospital, and but a step away is perhaps the oldest synagogue

in Europe. "Do not remove the hat," says the janitor, as one enters, "it is not necessary!" No, my prosaic friend, it is not necessary, but it is decent. The walls are pierced by embrasures, through which the women were permitted to look, and against the centre pillars are bundles of guidons presented to the Jews for their bravery against the Swedes in the seventeenth century. Should it seem strange to think of the Jews as a fighting race, one would do well to consult the Old Testament! An atmosphere of unshaken curtains pervades the place, and the air is cavernous and damp.

The most ancient part of this thousand-year-old city is the Karls-Brücke, which has stood since 1360. It is decorated by thirty statues, chief of which is that of Holy John of Nepomuk, formerly plain Friar John, the Queen's confessor, who, upon his refusing to divulge to the King the secrets of the confessional, had his tongue torn out and was thrown from the bridge. As his body floated down the river by night, stars were seen to hover over it, and this, being hailed as a sign, led to his canonization, and, indirectly, to his appearance in many public squares in the city, invariably with the stars. Despite the manner of his death, he is a patron saint of Austrian sailors. His annual feast day is an occasion of strange ceremony, for pilgrims thirty or forty thousand in number visit the city. Early in the afternoon preceding the festival the Karls-Brücke is thronged, and those who are first, take up their quarters for the night upon the bridge, where they sleep upon the pavements. One evening is set apart for a display of fireworks, and among the illuminated barges which floated down the river as part of the spectacle, was one, which, I was told, was an advertisement. Perhaps I was misinformed, but it would strike the reverent mind rather unpleasantly to see amidst the banners of a religious procession, one setting forth the merits of somebody's pills. It would not be much stranger than one may see upon the museum of Bohemia, a magnificent building, where panels of stone bear the names of the country's great men. Side by side are the names of a local politician and John Huss. Quite as incongruous is one group in the Sieges-Allee in Berlin, where a fat Kurfürst stands upon the pedestal and hides the modest bust of Martin Luther. This spirit, we were so foolish as to suppose, was the monopoly of our own continent.

Upon the highest hill towers the fine cathedral of St. Vitus (whether the deity of Terpsichorean fame or not, I know not), equalled

in antiquity by the Teynkirche of the old town, where lies buried Tycho Brahe, the astronomer. Facing the latter, across a roughly-paved square, is the Rathhaus, which contains the celebrated clock, whose multiple faces, covered by signs of the Zodiac and other cabalistic figures, beggar description. No modern clockmaker has been able to read the riddle of its mechanism, and it goes in a disjointed haphazard way. The times at which it strikes its erratic hours are announced on a placard close by. At the hours of striking a window opens, a cock flaps his wings, and the puppet figures of the apostles march around and disappear in another small window.

There are several very old hospitals, of which the quaintest is that of the Brotherhood of Pity—stone floors, cold, stony passages, huge grey-walled wards, where quiet monks in brown gown and hood attend to the wants of the not very joyful patients. The mortuary, ideally mediæval, is a stone chamber lit by stained glass Gothic windows, curtains along one wall, an inclined platform whereon lie the bodies covered by black cloth. At each head stands a large slab of slate, with a skull and crossbones painted in oils, surmounted by the letters R.I.P. Carelessly scrawled below is the name of the temporary occupant, and over all a red lamp, burning before a large crucifix, sheds its rays down to struggle with the faint daylight.

One of the most interesting things in the history of Prague is the fondness of the national sport, "defenestration," which consisted in throwing one's neighbours out of the window, preferably those of the upper stories. At various times in the troublous history of Prague this punishment has been meted out to offenders against the prevailing government, and, in at least two places, monuments mark the spots where the victims have fallen. A splash of red paint on the pavement would be effective, but it has evidently been overlooked.

Leaving the Prague-Dresden line at the busy industrial town of Aussig, and bearing westward, one reaches a little health resort, called Teplitz-Schönau, which is presumably a fair model of all the inland health resorts, where one bathes in the hot natural springs, listens to orchestra concerts in the public squares several times daily (the earliest at 7 a.m.), picks up as much of his neighbour's business as he dare, and as much of his own health as he can. Circulated among the visitors, a weekly list announces the names and particulars of each day's arrivals, and as one sees daily the same faces, it becomes an unconscious

missing-word puzzle to determine who is who. Here, daily in the last midsummer one might see the venerable Virchow being wheeled about in his chair, his sallow face and slight form scarcely suggesting the powers, mental and physical, which placed him at the head of German scientists. This leads me to remark that it is especially unsafe to draw conclusions from outward appearances in a foreign country. In the words of a modern sage, "You cannot tell from the look of a frog how far he can jump!" To one who is accustomed to draw conclusions from American surroundings it is rather baffling to stand in the midst of a hundred men and not be able to judge from their demeanour or dress whether they are lawyers or shopkeepers, physicians or commercial travellers. By stature, one can say that the children are children; were it not so, they seem often old men. In the Thiergarten in Berlin as I sat reading, two small urchins of nine and seven came and sat by my side and ostentatiously opened their books. In the course of conversation, after we had gravely laughed at the errors of the younger, dissected and laid bare by the elder, I mentioned that in my country the boys did not go to school on Saturday. "Oh, but we have Sunday free." I ignored the allusion, and remarked that our happy youth also had Sunday. "Would you not like to have no school on Saturday and Sunday?" I queried. "No," the elder answered, and in reply to my wondering question, he added, "One can learn so much more." Presently he returned to his game of ball, and when he threw to his playmate, he threw with a straight arm, like a girl; but he must have had a well-stuffed little head. Ten years hence he will be very like thousands of students of his country, a man in learning and a boy in most other ways. Contrasted with the Anglo-Saxon of his age, the Saxon student is very young in all but years, and very non-athletic. Despite the widespread custom of duelling, skill with the sword is of the rarest. Association football is gaining favour, and a brighter day seems to be dawning wherein a student will not be taught his play as he is taught his lessons. As we criticise, it must be remembered that we are all provincial, but the Anglo-Saxon instinct of travel is emancipating us more rapidly than them; even to the casual and careless observer the excellence of German system is obvious, but wisdom forbids one to say so. There is no one more thoroughly imbued with the sense of Germany's national greatness than her own people, and the calm assurance of superiority is often exasperating. Nowhere can one find

fuller-blown provincialism than in Germany. Far be it from us to crow, for in truth we are not far behind them. When a hundred thousand coal miners strike we feel the world shaking: "If the frost chance to nip the vines about my village, my priest doth presently argue that the wrath of God hangs over our head, and threateneth all mankind, and judgeth that the Pippe is already falne upon the Canibals." It is a healthful and improving thought that if the continent of America were to fall under water to-day there is scarcely an inhabitant of Asia who would on that account miss his breakfast to-morrow.

Apart, however, from the Germans' self-satisfaction, the fact remains that the atmosphere of Germany is not entirely pleasant to one of British sympathies. The general courtliness which is more characteristic of their race than of ours, forbids a personal exhibition of any such feeling, but the newspapers, the theatres, the passing word all indicate the enmity of the nations. Yet one does well to remember that it is a strange story that has not two sides.

Among the notable places of Germany there is none that repays more fully a visit than Potsdam, especially the tomb of Frederick the Great. Here, in the Garrison Church, a plain building hung profusely with French flags, one steps behind the pulpit to a door beneath the organ, and enters a small stone-paved room of the severest simplicity, where upon the stone floor lie two coffins. To the left an oblong box, without ornament of any sort, contains the body of Frederick I., and to the right, in the hexagonal coffin of conventional shape, also without any ornament or mark, are the remains of Prussia's greatest warrior-monarch. Around the walls hang a few memorial wreaths, placed by royalty or by the regiments of the household troops. The simplicity of the man seems to mark his tomb even after the lapse of a century.

A flying trip across Hanover, into the flat, low sand hills of Holland, the marshes and the windmills, the country of artists and farmer-sailors, ends at Amsterdam. The guide-books do not lay sufficient stress upon the charmingly untidy little streets and canals that constitute a kind of little Venice in the outlying north-eastern part of the city. There are quiet by-lanes, where fat barges unload straw-packed crockery, where market gardens flourish on the fore-decks of pug-nosed rafts, and where the well-fed cat sits in the sun on the roof of the deck-house. If you choose to wander around aimlessly, you may light upon a public square of considerable size, where laid out on

the pavement are forty or fifty second-hand stocks of all sorts, laid down in the morning and removed at night. Each vendor occupies a space about fifteen feet square, and spreads his wares upon the flagstones. Side by side are old iron pipes, brass work of all kinds, stoves, periodicals of thirty years ago, garden produce, clothes, harness. Here in the midst of a crowd of fully ten onlookers a man is trying on a pair of old boots—can one imagine a greater degree of restfulness than where a man can stand by and be interested in the buying of a pair of old boots? Incidentally there are museums, parks and public buildings in Amsterdam.

For a charming half day I mooned around Delft, sat in the sunshine on the edge of the canal, kicked my reflective heels, watching the barges and the windmills and the green fields, watched two companies of soldiers doing company-firing under the eye of a small colonel, whose boots were much too wide for his legs, peered through the windows of the old church where sleeps one of those old masters of the sea (De Ruyter or Van Tromp, I forget which), and walked back to the Hague by a beautiful canal road. Then, lest I should think the Dutch an idle people, read the expense-account of the nation in its eternal battle with the sea. If they no longer rule the sea, neither does the sea rule them.

From the busy, modern Rotterdam we run out, in a beautiful moonlit night, to the Hook, where the big channel boats lie waiting, the well-raked buff and black funnels stretching up into the darkness above the glare of the electric light, and the Union Jack trailing from the stern. The officer on the bridge shouts an order in English, and the purser who collects the tickets has a Scotch accent. Verily, mine own people!

JOHN McCRAE.

JANE AUSTEN.

One feels sure that Miss Austen would have been amused at some of the things which have lately been said in laud of her. She was able to feel the keenest interest in her work without taking herself over-seriously. She had too much sound sense to be carried away with the compliments which were meat and drink to Miss Burney. Hear the vain little author of "Evelina," after Sheridan had been whispering flatteries in her ear! "To be sure," as Mrs. Thrale says, "if folks are to be spoilt there is nothing in the world so pleasant as spoiling. But I was never so much astonished, and seldom have been so much delighted, as by this attack of Mr. Sheridan. Afterward, he took my father aside, and formally repeated his opinion that I should write for the stage, and his desire to see my play, . . . with encomiums, the most flattering of 'Evelina.' And now, my dear Susie, if I should attempt the stage, I think I may be fairly acquitted of presumption, and, however, I may fail, that I was strongly pressed to try by Mrs. Thrale and by Mr. Sheridan, the most successful and powerful of all living dramatic authors, will abundantly excuse my temerity." Sheridan might have trained his sweet blarney upon Jane Austen for a long time before she would have written a passage like that. The pen that traced the character of Sir Walter Elliot would hardly have lent itself to the service of a peacock vanity. Canning, in the keenest of epigrams, contrasts "the erect, the manly foe," with the "candid friend." In criticising Miss Austen, one starts with the conviction that she would have dreaded the candid friend less than the blind and

blatant admirers. How deftly, for instance, she turns Mr. Elton's "continual raptures" and stupid praise of Emma's painting to gentle ridicule. And, speaking playfully, she narrows her own limits to the "little bit (two inches wide) of ivory on which I work with so fine a brush as produces little effect after much labour."

I am often reminded, in reading "Pride and Prejudice" or "Mansfield Park," of Ben Jonson's elegy on Sir Henry Morison,

"It is not growing like a tree
In bulk, doth make man better be."

Miss Austen indeed wrote little, when judged by the standard of Scott or Trollope, but that is not the special point. It is the line, "In small proportions we just beauties see," which goes to the root of the matter. The strongest impression one gathers from all the novels of this group is that their compass is very restricted. For aught we can tell from internal evidence, Miss Austen might have written a hundred stories without stepping outside her little charmed circle of the squirearchy. While she has a Shakesperean faculty of entering into the life of her characters, she takes care that these characters shall be the ones she understands. So far is there from being any trace in her pages of the host of Shakespeare's men and women, that she may be said to stand at the other pole from him in the range of her subjects. Rural England is her theme, but even here with close limitation to a single class. Her heroes and heroines, together with their families, are, in the main, of comfortable means, with a fixed income flowing from the ownership of land. These are the people she knows, and she is content to describe them to the exclusion of all others. "Little but good," is the rule of her literary conduct. Thus the first question arising from the study of her novels involves the difference in kind between her genius and her *dramatis personæ*. The one is perfectly flexible, perfectly easy; the others are fixed to the point of rigidity. She treats a narrow group of persons, linked by the same social status and the same general occupations, in a way which makes them truly artistic, and gives them a perennial freshness. One may object that Mr. Darcy and Mrs. Bennet can only by a stretch of language be placed in the same class. The answer is that it makes no difference whether

he was proud or she vulgar. They were on visiting terms, and neither of them was contaminated by the smirch of trade.

Miss Austen does not fly so high as the Lord Lieutenant of the county, but she has fixed for us the lesser gentry of her time like flies in amber. Despite all that laws of entail can do, the society she describes has passed away for ever. One would shrink from supporting the view that genius depends altogether on economic conditions. Still, the following facts are worth notice. "Pride and Prejudice" was begun in 1796, and "Northanger Abbey" two years later. In 1801 wheat rose to the price of 120 shillings the quarter, that is, the Winchester quarter of eight bushels. While this was an exceptionally high figure, the rate ranged from 86 to 100 shillings during the whole period of the Napoleonic wars. Those were halcyon days which English landholders will never see again. Faint echoes of the great struggle reach the ears of Miss Austen's readers, who are apt, however, to pass over what they imply. These rumours of war mean that, for the present, at least, agricultural prosperity is founded on the comfortable basis of wheat at 13s. a bushel. No wonder that Mr. Darcy had an income of £10,000 and Mr. Rushworth of £12,000. In the same year that Miss Austen sat down to begin her first novel, the leaders of the Whig aristocracy, under the Duke of Portland, joined the Tories, and during the next generation artisans and small tradesfolk were out of count. Legislation protected the landed interest through thick and thin. Miss Austen's lords, baronets, knights and gentlemen had their heyday. It was grossly their own fault if they ever came to financial grief. The turf or deep play could alone impoverish men who reaped such a golden harvest.

One is grateful for the glimpses of English country life which the novelists give us, from Squire Western's day to the Bassetshire cycle of Trollope, and the Wessex cycle of Hardy. In many respects, Miss Austen stands midway between Fielding and George Eliot. By the end of the last century rural society had dropped a good deal of the Stuart and early Hanoverian grossness, while Reform Bill searchings of heart had not yet begun. Set side by side any typical novel of Miss Austen with "Felix Holt." The reader will recollect the introduction to this latter tale. The passenger on the box seat of the coach passes through a land which is no longer all hedgerows and meads. Dirt is in sight and also dissent. "In these midland districts the traveller

passed rapidly from one phase of English life to another; after looking down on a village dingy with coal-dust, noisy with the shaking of looms, he might skirt a parish all of fields, high hedges and deep-rutted lanes; after the coach had rattled over the pavement of a manufacturing town, the scene of riots and trades-union meetings, it would take him in another ten minutes into a rural region, where the neighbourhood of the town was only felt in the advantages of a near market for corn, cheese and hay, and where men with a considerable banking account were accustomed to say that 'they never meddled with politics themselves.' The busy scenes of the shuttle and the wheel, of the roaring furnace, of the shaft and the pulley, seemed to make but crowded nests in the midst of the large-spaced, slow-moving life of homesteads and far-away cottages and oak-sheltered parks." Miss Austen's England lacked such diversity as this. In the interval between Catholic Emancipation and the Repeal of the Corn Laws a great transformation scene took place. Most people who read Miss Austen deem her to be slow and monotonous, because she reflects the incidents of a tame and quiet life. She presents scenes which are, to use a familiar phrase of Matthew Arnold, "unravaged by the fierce, intellectual life of our century." That, surely, is no loss to us, and the people who moved amid those scenes she has fixed in unfading colours.

The status of the novel writer in Miss Austen's day was very different from what it is now. Respectable people might read a moralist in fiction, like Richardson, but young ladies were no more expected to touch the ordinary novel than they are at present expected to indulge in *entrées* at dinner parties. In "The Rivals" Lydia Languish is represented as smuggling the forbidden fruit into her lodgings at Bath, and fiction in general was under the same taboo which Browning places upon "the scrofulous French novel," in the "Soliloquy in a Spanish Cloister." Miss Austen had strong convictions on this subject. She felt that the stigma was unjust, and should be removed. Sometimes in jest and sometimes seriously she places the graceful art so dear to her over against such standard subjects as history and *belles-lettres*. Thus, in "Northanger Abbey," she makes a digression from the main course of her narrative to vindicate her craft. "Although," she says, "our productions have afforded more extensive and unaffected pleasure than those of any other literary corporation in the world, no species of composition has been so much decried. While the abilities

of the nine-hundredth abridger of the History of England, or of the man who collects and publishes in a volume some dozen lines of Milton, Pope and Prior, with a paper from "The Spectator," and a chapter from Sterne, are eulogized by a thousand pens, there seems almost a general wish of decrying the capacity and undervaluing the labour of the novelist, and of slighting the performances which have only genius, wit and taste to recommend them." Though these are not words of heat, they show clearly enough that Miss Austen was in dead earnest about her profession. She had something more than invention, sprightliness and range of observation. She was a true artist with a strong sense of symmetry and an unusual power of self-criticism. One likes especially to connect her with the drama. The subjects with which she was familiar were not fitted for the stage, and she kept herself closely tethered to the types she knew. But her characters express themselves so much through conversation, that they create a dramatic atmosphere, and move in it. Her situations are never trying to the nerves, and the action is extended over too long a period of time to comply with the first of the dramatic unities. But it says much for the novelist's directness that one should think of comparing her with a playwright at all. Miss Austen belongs to the small class of English writers who go to the point at once, after the French fashion. Compare "Pride and Prejudice" with almost any one of the Waverley Novels, say, "Anne of Geierstein," or "Woodstock." I profess myself to be a devoted admirer of Scott, and yet the flood of his verbiage can become oppressive. Miss Austen's rapidity of pace and excision of flourishes are sure proof of the pains she took, and of her even-balanced common sense.

Jane Austen's chief charm is her freshness, her frankness and her zest in life. No one was ever less *blasé*. Too many novelists give one the impression that they are out of order, and need a tonic, or, perhaps, a change of scene. She, on the contrary, seems to be well both in body and mind. She is the last person at whose head one would hurl that passage from "The Two Voices,"

'Tis life, whereof our nerves are scant,
Oh life, not death, for which we pant;
More life, and fuller, that I want.

How admirable are those who can be clear sighted without showing either pride or bitterness! Miss Austen saw people's faults with piercing clearness, but she was catholic enough to see their virtues too, and she escaped the danger so imminent to one of her power in the use of sarcasm, of being supercilious. She delighted in human beings, and they meant more to her than merely the raw material for her stories. She had strong sympathy for them as what is styled, in the fine old English expression, even Christians, that is, fellow creatures of the same faith and failings. Compared with her interest in men and women, her love of nature is so little striking that by some it may be overlooked. She was not a "gusher" of the Rousseau school. She looked upon the outer world more after the fashion of the poet Gray. Wordsworth, five years her senior, was already striving to connect Nature with Man. Miss Austen may have admired the Lyrical Ballads of 1798 and his other poems. She certainly shows small sign of any disposition to accept what he regarded as his philosophical system. Nature, with her, however beautiful, is still objective. Scenery, moonlight and flowers are to be admired, loved. No wealth of fine phrases, no metaphysics were required to vindicate claims so obviously strong. Fanny Price, who bears strong features of resemblance to the typical German *Backfisch*, can sometimes wax Wordsworthian in the midst of her tears or the lacerations of her tender heart. After the Miss Bertrams have outgrown the school room, she is allowed to take possession and treat it as her own. She places on the lower panes of a window three transparencies—the one of Tintern Abbey, the second of a cave in Italy, and the third of a moonlight lake in Cumberland. In one place, we see her standing with Edmund at a window, and looking out upon a moon-lit lawn. His eyes soon turned like hers towards the scene without, where all that was solemn and soothing and lovely appeared in the brilliancy of an unclouded night, and the contrast of the deep shade of the woods. Fanny spoke her feelings. "Here's harmony," said she, "here's repose? Here's what may leave all painting and all music behind, and what poetry only can attempt to describe. Here's what may tranquillize every care, and lift the heart to rapture. When I look out on such a night as this, I feel as if there could be neither wickedness nor sorrow in the world; and there would certainly be less of both if the sublimity of Nature were more attended to, and people

were carried more out of themselves by contemplating such a scene." Fanny has learned to spell Nature with a capital *n*. Had she lived a generation or so later, and come under the influence of "Childe Harold," "The Scottish Chiefs," and the "Sonnets from the Portuguese," her wild romanticism would have run to shocking lengths. As it is, she is far from being Miss Austen's sample woman. Her health is so weak that the shortest walk fatigues her. Elizabeth Bennet and Catherine Morland, much more representative girls, instead of exclaiming about moonlight which is seen through a pane of glass, dash about vigorously, and gain from contact with Nature a fund of animal spirits. Elizabeth takes pleasure in marching through three miles of dirty lane. Catherine, when Henry Tilney recommends fresh air to ladies, says that she is not now to learn its value. I must cite a little of the conversation between them to show Miss Austen's love of flowers and the healthiness of her outlook. "What beautiful hyacinths!" exclaims Catherine; "I have just learnt to love a hyacinth." "And how might you learn? By accident or argument?" "Your sister taught me; I cannot tell how. Mrs. Allen used to take pains, year after year, to make me like them; but I never could till I saw them the other day in Milsom street. I am naturally indifferent about flowers." "But now you love a hyacinth. So much the better. You have gained a new source of enjoyment, and it is well to have as many holds upon happiness as possible. Besides, a taste for flowers is always desirable in your sex, as a means of getting you out of doors and tempting you to more frequent exercise than you would otherwise take; and, though the love of a hyacinth may be rather domestic, who can tell, the sentiment once raised, but you may in time come to love a rose?" "But I do not want any such pursuit to get me out of doors. The pleasure of walking and breathing fresh air is enough for me, and in fine weather I am out more than half my time." The single phrase, "It is well to have as many holds upon happiness as possible," throws a flood of light upon Miss Austen's character. It puts *ennui* out of the question. Catherine Morland, when the weather is fine, stays out of doors more than in the house. Yet depend upon it, were she mewed up by stress weather, she would not be bored. Lord Falkland was wont to remark, "I pity unlearned gentlemen on a rainy day." Miss Austen's heroines were very well able to amuse themselves, for they had the love of Nature when weather was fine, and the use of their wits to fall back upon when it was dull.

There is also another matter to be touched on, the important question of plot. The opening sentence of Miss Austen's first and best novel runs as follows: "It is a truth universally acknowledged that a single man in possession of a good fortune must be in want of a wife." Here with her usual precision, she thrusts to the heart of the matter at once. Owing to causes already discussed, her young men always have Fortunatus's ten pieces of gold in their pockets. Rarely it happens that, other things equal, marriage need be deferred on account of poverty. Anne Elliot and Captain Wentworth are forced to wait, but the rule is otherwise. Mr. Collins, after dilating on the snugness of his income, says to Elizabeth Bennet, "I shall hope to lead you to the altar ere long." And although his suit failed of success, we feel certain, on opening one of Miss Austen's books, that somebody will be led to the altar ere long. Thus, short time elapses between Mr. Collins's defeat and his triumph in securing the hand of Miss Lucas. Elizabeth herself receives short shrift from Mr. Darcy; Jane arranges a highly eligible match with Bingley; and although Lydia's marriage to Wickham falls short of the others in point of wisdom, it yields to none of them in celerity. Four weddings in a first attempt might appear to be excessive, were it not for the fact that marriage is Miss Austen's *pièce de résistance*. No matrimonial bureau in Germany was ever more astute and practical in the arrangement of matches than are her fathers, mothers, and even young people themselves. In Naples at the present time, when paterfamilias has a number of marriageable daughters, he takes a box at San Carlo, and while the endless recitative of the Italian opera is being trilled through, courtships are regularly conducted by the young gallants who make a round of the theatre from night to night. Miss Austen's machinery, though simple, is more elaborate than this. She furnishes a series of dinners, dances, rambles in country lanes, and, once in a while, a distant excursion. Feelings of fondness or aversion progress steadily, and nature more often than not has her own way, despite the best laid schemes of ambitious relatives. The author, without being a heavy moralist, does more by playful raillery to discountenance such plotting than she would have done by taking a tone of invective. The very first budget of family correspondence in the English language, the Paston letters, is full of huckstering about wedlock. Miss Austen seems to have little liking for these long-established *mariages de con-*

venance. Perhaps, instead of saying that marriage is her staple article, it would be better to say that love is her theme, and that she exalts it by exposing false views of marriage. Lady Catherine de Burgh's plans come to grief; so do those of General Tilney; Mrs. Bennet's daughters succeed in spite of their mother; and meddling is very notably decried in the case of Emma's interference between Harriet Smith and Robert Martin.

Of almost equal moment with Miss Austen's treatment of marriage is her treatment of clergymen, a subject over which, however, I must pass without more than casual mention. A charge of cynicism has been brought against her for the so-called flippant manner in which she handles subjects like matrimony and the church. One could combat such an accusation with some warmth, for cynical she certainly is not. She has the unusual virtue of being alert and incisive without leaving a sting. What she exalts more than any other quality is consideration; and consideration not so much for the feelings of the strong as for the foibles of the weak. She is able to suffer fools gladly when their follies spring from defect of ability, but only then. The folly which has its root in self-conceit is made ridiculous. Miss Austen is thoroughly happy when she can put some addle-pated and arrogant ninny in the stocks:

"Be kind to babes and beasts and birds;
Hearts may be hard though lips are coral;
And angry words are angry words:
And that's the moral."

Miss Austen would have applauded this sentiment of Calverley with all her might.

Once in a while a piece of work is executed so well that no one can pretend to find a necessity for doing it over again. Who, for instance, after Mr. Bryce, could think of writing a short monograph of the Holy Roman Empire, or, after Sir Henry Yule, of editing Marco Polo. Likewise with Miss Austen's novels. Within their scope they are complete. It is a literary miracle that a slip of a girl should at a bound have reached such perfection, such finish. Those who have most appreciated and loved her have been members of her own guild, or widely-read and highly-trained critics. The novelists admire her

because they have proved the difficulties she overcame, and know how great they are. The critics have found that she will stand comparison with the best. In writing to congratulate Macaulay, Jeffrey asked him where he had picked up that style. This question might with fuller force have been put to Miss Austen, for after a hundred years her manner of expression is still above cavil. Macaulay's trick of antithesis is far less fetching now than it used to be. Miss Austen's style is independent of fashion. Her clear and rapid sentences are invested with perpetual youth. Even her little grammatical vagaries enhance her piquancy. They may be likened to the charm which a slight tilt of the nose often gives a pretty face. Tennyson, as it appears from his recent life, used to rally Browning on the obscurity and uncouthness of his style, urging that a small boat of delicate lines has a much better chance of sailing a long distance down the stream of time than a huge raft. One usually regards attempts to discount a given author's literary immortality as sheer waste of time, but there is some plausibility in guessing that Miss Austen, by virtue of style and symmetry, will outlive Dickens.

This reference to symmetry leads one to contrast Miss Austen with the banal novelist, whose plot is a thing of shreds and patches. How often do we find a dozen people sent about their business in the last chapter of a novel, merely to get rid of them now that they have ceased to have value as supernumeraries! With Miss Austen the plot is an organism; each figure is clearly articulated; the lines converge. The piece is not dragged out beyond the end of the action, nor does poverty of invention require a tragical *dénouement*.

Miss Austen, herself remote in type from the "elegant female," combines feminine delicacy with a considerable degree of broad-mindedness. None of the terms "strong-minded," "emancipated," "new woman," express exactly what is meant. Assuming, as she doubtless did, that a work of fiction should be a true reflex of life in its varied phases, she grappled with more than one of the painful vicissitudes which arise. In such cases, she is at her best, frank without boldness, and delicate without prudery.

If Miss Austen were seriously to be put on trial before us, her barrister would not, I am sure, ask for a change of venue. He would be content with showing the merits of her cause, and, possibly, with resorting to the old Saxon method of proving good character by com-

purgation. It will be remembered that, according to the legal system of our forefathers, one man's oath was better than another's; a thegn's testimony would outweigh that of a hundred churls. In this case, one would be able to subpoena literary thegns from Sir Walter Scott to Goldwin Smith. Miss Austen may be caviar to the general, but, though this will sound like mutual admiration, she is in high favour with the saving remnant. The reverse of Goldsmith's line on Burke, "Who, born for a universe, narrowed his mind," holds good of her. She was not born for a universe. She does not sweep the gamut of human passion; but she has so mastered a narrow subject as to be of universal interest. She lies buried in Winchester Cathedral, a place redolent with the memory of bishops and kings. Mr. Freeman's enthusiasm for our Saxon past notwithstanding, most of us when we go to this ancient town, will not devote our first thoughts to Ethelwulf or Athlestan. Indeed, unless as weather experts, we pay chief attention to the legends of St. Swithin, or, as educational experts, to the noble school of Wykeham, we shall think first and last of the delight we owe to the author of "Pride and Prejudice."

C. W. COLBY.

BROKEN.

I had a vase as light as air.
 Of fair Venetian glass,
 I sought to make it hold
 A weight of beaten gold,
 'Tis broken now, alas!

I had a friendship, sweet and rare,
 Ah, Phyllis, where art thou?
 I sought, in friendship's name,
 What Love alone might claim,
 Alas, 'tis broken now!

WYDOWN.

UNDERGRADUATE SOCIETIES.

THE UNDERGRADUATES' LITERARY SOCIETY.

September 26th., 1902.—A meeting of the executive of the Literary Society was held on September 26th., 1902, in the McGill Library.

Several important changes in the constitution and procedure of the society were discussed, the most important being the change of date of the meetings from Friday to Saturday evening. This change was brought about by the great difficulty felt in past years by those who belonged to other societies which met on the same evening.

Another change approved of was the postponement of the business portion of the meetings until the regular programme had been completed. The executive also approved of a proposal to join with the Y.M.C.A.'s social Saturday evening, it being felt that it would be to the advantage of both institutions.

It was decided to apply for leave to hold the meetings of the society in the Law Lecture Room instead of the Old Chemistry Room, where the meetings have been previously held. The nature of the weekly programme was also a subject of discussion, and it was decided to broaden the entertainment as much as possible, so as to make the society more truly literary and less a debating society than it has been in the past. The meeting was well attended, and the outlook seemed bright for a successful year.

The first meeting of the Literary Society for the session of 1902-03 was held on Friday evening, October 3rd., in the Law Lecture Room. This room is decidedly superior, both in light and comfort, to that previously used in the Arts' Building. The chair was occupied by the

President, who prefaced the proceedings by an introduction. The first speaker on the programme was Mr. Mitchell, who gave a humorous selection, which gave much amusement to the audience. The rest of the programme consisted of impromptu speeches, the method of procedure being as follows:—To each person present was submitted a piece of paper, on which he wrote what he considered a fitting topic. These were collected, mixed up, and one picked out indiscriminately from the bunch was given to any volunteer who wished to speak. He was to confine his remarks to the subject matter on the paper, and was given three minutes in which to treat his subject.

This arrangement afforded a medium for making a start in extemporaneous speaking, and on this occasion it proved both pleasant and profitable, some of the speeches on woman suffrage, Chinese feet, and the coal strike being particularly ludicrous. After these subjects had been exhausted, the business portion of the meeting was taken up. There were two important matters to attend to. In the first place, it was proposed to change the place of meeting from the Old Chemistry Room to the room in which the society was then assembled, and, secondly, to change the day of meeting from Friday to Saturday. Both of these changes were approved of by the meeting. Then came the election of officers, there being two positions vacant owing to the absence from the University of those appointed last year. The election resulted as follows:—Secretary, Mr. Couture; Member of Executive, Mr. De Witt. The meeting was then adjourned, and the members proceeded to the Y.M.C.A., where the more material portion of the programme was awaiting them.

October 11th.—A meeting of the Undergraduates' Literary Society was held on October 11th., in the Law Room, President Williams in the chair. The minutes of the previous meetings were read and confirmed. The first number on the programme was a reading by Mr. Wallace, the subject being "A Selection from David Copperfield."

After the reading came the debate: "Resolved, that compulsory arbitration should be employed in settling all disputes between capital and labour."

The speakers were Messrs. Ogilvie and Davidson for the affirmative, and Rubinowitz and Edwards for the negative. The debate was very warmly contested, the speakers on both sides showing a good

knowledge of their subject, and ability to use that knowledge to the best advantage.

After the debate had been concluded, a vote was called for, which resulted in a tie. Mr. Mitchell, who had consented to act as critic, then addressed the meeting. After assuring the speakers that the remarks he was about to make were intended in the very best spirit, he proceeded to point out the weak parts of the speeches, and to suggest the best modes of remedying them. Among other things he advised the speakers not to begin their remarks by an apology. If they had not prepared their speeches, the audience would become aware of the fact without being informed. The speakers appeared to enjoy the criticism as much as the rest of the meeting, and on its conclusion moved a vote of thanks to the critic. The business part of the meeting followed. The secretary announced that the Faculty of Arts had voted \$15 toward defraying the expenses of the Inter-University Debating League, and it was resolved to instruct the Secretary to send the Undergraduate Society of that Faculty a letter of thanks. The meeting then adjourned.

October 18th.—A meeting of the Undergraduates' Literary Society was held in its usual room at 8 p.m., President Williams in the chair. The minutes of the previous meeting were read and confirmed. The first number on the programme was an essay by Mr. Johnson on "Some Model Commonwealths." The essay showed careful preparation, and was listened to with great attention. Then followed the debate: "Resolved, that hunting with hounds should be abolished." Mr. De Witt led for the affirmative. He dwelt chiefly on the cruelty of that mode of hunting, and the injury which it inflicted on crops, farms, etc. Mr. Couture, who led for the negative, contented himself for the most part with showing the weakness of his opponent's arguments. Mr. McMillan was the second speaker on the affirmative. Although it was his first appearance before the society, he spoke very clearly, and in a very pleasing manner. Mr. McNaughton, who was to have spoken on the side of the negative, failed to make his appearance, and Mr. Harper Lindley consented to take his place. The two leaders then summed up, and the question was put to the meeting, which decided that the affirmative had carried its point.

The President then criticised the speakers, dwelling especially on the lack of preparation which was in evidence in all the speeches.

During the business portion of the meeting, a suggestion was made that it would be well to extend an invitation to the different theological societies. The motion was carried, and the meeting then adjourned.

October 25th.—A meeting of the Undergraduates' Literary Society was held in the Law Room, on the above date, at 8 p.m. The minutes of the previous meeting were read and confirmed. The programme consisted of a reading by Mr. Drew, and the usual debate. The reading was taken from "The Habitant," and both delivery and accent were very good. The debate read: "Resolved, that the admission of women into business and professional life is advisable." Mr McGougan pleaded for the affirmative. He pointed out that women already occupy professional and business positions, and pleaded that these at least they should be permitted to keep. Mr. Adams upheld the negative, holding that it would lower women to have them enter such walks of life. The next speaker on the side of the affirmative was Mr. Mathieu, who argued for the admission of women into business life, on the ground that they could better train their children if they themselves had a wider experience. Mr. Wallace followed for the negative. Mr. Cousins was the next speaker for the affirmative. He in turn gave place to Mr. Carr. The decision was rendered by a vote of the meeting, the negative being victorious. Mr. Couture then gave a very interesting critique. Before the adjournment of the meeting, a committee was appointed to choose the two speakers who would represent McGill in the approaching debate with 'Varsity. The committee consisted of the President, Vice-President and Secretary. The meeting then adjourned.

October 28th.—A meeting of the executive of the Undergraduates' Literary Society was held in the basement of the McGill Library for the purpose of selecting speakers to represent McGill in the approaching debate with 'Varsity. Mr. Davidson and Mr. Johnson—both of Arts '03—were unanimously chosen. The meeting then broke up.

November 1st.—The Undergraduates' Literary Society held its usual meeting on the above date, President Williams in the chair. The minutes of the previous meeting were read and confirmed. The programme of the evening began with a reading by Mr. Davidson on the subject of "Cats." The reading was humorous in character, and was much appreciated. The debate read:

“Resolved, that current fiction should not be admitted into public libraries.” Mr. Mitchell opened for the affirmative. He began by defining the term public library. Continuing, the speaker pointed out that, owing to advertisement and prejudice, it was impossible to form a correct estimate of current fiction, and therefore impossible to separate the good from the bad in selecting for library use. The leader for the negative was Mr. McNaughton, who affirmed that, as the public supported the library, the public should have the right of choosing what class of literature should be upon the shelves, and further, that from the criticisms which appeared from time to time, it was quite possible to determine what books were worth reading and what were not. The second speaker for the affirmative was Mr. McKenzie, while Mr. De Witt upheld the side of the negative.

The debate was thrown open, and Mr. Couture and Mr. Rabinowitz spoke for the affirmative and negative respectively. The question was put to the meeting, and the vote was in favour of the negative. Mr. McGougan then delivered a criticism.

In the business portion of the meeting the resignation of Mr. Jenkins as Reporter was tendered and accepted. The meeting then adjourned.

THE DELTA SIGMA SOCIETY.

The Delta Sigma has now had a place in the college life of the women students of McGill for over fourteen years, and has already at its back a goodly store of history to serve as credentials, if need there be of such, and to encourage to yet greater things in the future. Compared with the first year of its existence, when the attendance averaged twelve, it seems to have made great strides forward, but when we consider how different are the conditions now—the greatly larger number from which to draw for membership, increased help from our loving guardian, the Undergraduates' Society, perfect liberty to discuss whatever subjects may appear wise and proper to the committee—it may perhaps be doubted whether we are accomplishing more than our simple duty, doing more than just holding our own. What have we done to deserve the luxuries which we accept so quietly? In those bygone days everyone of the twelve worked conscientiously. It is doubtful if the fifty odd active members of to-day accomplish more in

the course of the year, or reap more lasting benefit than did those twelve.

Shall we be content with manifesting merely life enough to keep from forfeiting our present favours? That is not the spirit which is abroad in the R.V.C. "*Nitere porro*" is no idle decoration on our portals; it is being lived out every day in every other branch of college activity. If we also are not pressing forward continually, we are working along lines of great resistance. Indeed, it would be impossible, under present conditions, not to make some progress, but the question is—Are we striving intelligently, do we know exactly what we want to effect, and are we choosing the best means of effecting it?

Our aims are defined by the need in college life of something more than lectures, something to stand by the side of the Y.W.C.A. and the Athletic Club, something to train us a little in those habits of clear thinking and plain speaking, which are supposed to descend somehow on every girl who is entitled to wear a gown, something to connect us with the outside world, something to bring us all together on common ground.

This social aim has given rise to perhaps our greatest difficulty, that is, the reconciliation of the doctrine of universal sisterhood with a working membership. The society has had its seasons of refreshment, when one or the other of these was in the ascendant, and again its periods of mediocrity, when each was striving for first place. There is no reason why both these aims should not exist, but on terms of equality they practically cannot, beautiful as is the theory.

Now, there are in existence among us other organizations which consider the social side; there are none which do anything approaching the work proper of the Delta Sigma. Conclusion—the society should stick to its primary aims—encouragement of interest in questions of the day, extension of general reading, and training in logical and ready expression of ideas.

If these are carefully worked out, then, always provided that the doors are left open, good fellowship will not be slow to make a permanent home in the midst of us. Moreover, it is the best kind of good fellowship which comes to us in this way, unconsciously, just because we have worked together, failed together and succeeded together. The days when the Common Room is thronged may seem to many the days of prosperity, but such a golden age brought about by catering to a

desire for amusement and pleasure alone, would be worse far than utter extinction, for it would mean falseness to our ideals and the support of a most outrageous sham. We are not a Glee Club nor a Mutual Entertainment Club; if we try to be a Literary Society worthy of the R.V.C., we shall find plenty of work ready to our hand.

As we get deeper into college we realize more and more that it cannot possibly do for us all that we dreamed it could. We thought that we would be picked up like bits of plastic clay, turned round on the wheel of college life a certain number of times and in certain ways, according as we ourselves directed, and then, lo! the vase of the shape we admire most, the woman we would like to be. The awakening is so gradual, and so many pleasant realities are there to slip into the place occupied by our dream, that the pain develops into a dull ache, of which we are conscious only when we have time to think of it. But the dream was soft and round, and the reality is all sharp corners. It needs something to round it out, by filling in the differences. The Delta Sigma alone could not do this, but, along with its sister societies and with the help of many indefinable influences, it aims to do its part, and not the humblest, in the great university world.

September 29th., 1902.—The opening meeting of the Delta Sigma was held on Monday, September 26th., in the Common Room. The constitution was read by the Secretary. The President then gave an address, in which she spoke of the foundation and object of the society, as well as defining the duty of each student to the Delta Sigma and all other societies in college. After the reading of "The Model Undergraduate" by Miss Griffin, the meeting was adjourned.

October 6th.—Regular meeting. The minutes of last meeting were read and approved. Miss Constance Griffin was elected to the office of Assistant Secretary-Treasurer. Readings were then given from Milton's "Areopagitica" and Ruskin's "Sesame and Lilies," all of which referred to the choice and use of books.

October 13th.—Regular meeting. The subject appointed was Norse Myths and Legends. Miss Macleod, '04, read a number of legends, and Miss Massy, '06, read an account of the popular belief about the origin of Norway and such *fêtes* as Christmas.

October 20th.—Regular meeting. The first debate of the year was the Senior-Junior. The question was: "Resolved, that combination is more adapted to promote the virtue and happiness of mankind than

competition." Miss Wales and Miss Belyea, '03, spoke for the affirmative, Miss Wilson and Miss Dickson, '04, for the negative. Miss Wales gave a very clear and forcible argument for combination, morally and economically. Miss Wilson spoke of the value of competition as regards the progress and civilization of the world, and also of the disastrous effects of trades-unions and trusts. Miss Belyea, in reply, showed how progress was assisted by combination in the introduction of machinery, and in the intricate modern railway system. Miss Dickson, in very comprehensive language, contrasted the effects of combination and of competition in literature and upon man intellectually. Finally, Miss Wales gave a brief but concise summing-up. Miss Oakeley and Miss Dover, who very kindly acted as judges, decided that the debate had been won by the affirmative. Miss Oakeley spoke in praise of the matter and style of the debate, and expressed a desire to hear many more of an equally high order. After a very hearty vote of thanks had been moved and tendered to the judges, the meeting adjourned.

November 3rd.—The annual lecture was delivered before the Delta Sigma Society and its friends by Professor Moyses. The subject was Tennyson. The lecturer traced through the poet's works one or two striking features, such as his firm belief in the immortality of love, and his consummate skill as an artistic poet. Miss Dickson moved a vote of thanks, which was enthusiastically carried, and tendered the lecturer by the President in a few appreciative words. Tea was then served in the dining-room.

November 17th.—The regular meeting was held at five o'clock in the Common Room. Miss Constance Griffin read a short paper on the friendship of Matthew Arnold and Clough, and Miss Sharp one on Carlyle and Irving. There was then an impromptu debate on the question: "Resolved, that the suppression of circulating libraries would lead to a better appreciation of the value of books." Miss Grace Griffin and Miss Freeze upheld the affirmative, and Miss Mackenzie and Miss Draper the negative. There was some general discussion, and a popular vote taken in the absence of the judges, who were Miss Wilson and Miss Idler. They finally gave their decision for the negative, which was also the decision of the meeting. The meeting then adjourned.

THE HISTORICAL CLUB.

Founded in 1897 by Dr. Colby, the Historical Club is one of the oldest and most prosperous societies of the University. Its aims have constantly been not only to study phases of history which an ordinary history course cannot touch upon, but to develop in its members some knowledge of contemporary history, and to arouse and invite original opinions in the way of discussion upon the subjects treated. Hence the meetings are of great value, for every member must contribute during the year one thesis of a sustained character, and has the privilege of hearing and taking part in the discussion of any or all of the papers.

During the last session attention was directed to the study of the East—its peoples and politics. This year a series of essays has been outlined, to cover the history of America from the Incas and Mound-builders to the Revolution, the Civil War, the U.E. Loyalists, and Lord Durham's "Report."

The officers for the present year are:—President, Mr. G. C. Couture; Vice-President, Mr. Edgar Parkins; Secretary, Mr. Walter S. Johnson; Treasurer, Mr. Talbot Papineau; Committee, Dr. Colby, G. R. Lomer, and G. Campbell.

October 9th.—The first regular meeting this year was held on October 9th. A paper on the "Incas of Peru," prepared by Mr. J. De Witt, B.A., and read by Mr. Clement Munn, B.A., was thoroughly appreciated. Mr. De Witt traced in an interesting manner the life, customs and religious rites of this ancient civilization.

Mr. W. S. Johnson then read a paper on "The Mound-builders," in which he discussed the possible origin of these people, outlining the various theories of the peopling of America, and drawing attention to the skill of the Mound-builders as strategists as evidenced by their fortifications. He pointed out that there may have been a prevalent religion, that they were agricultural people, and referred to their skill as makers of pottery. Interesting photographs, illustrating the essay, were passed round. After considerable discussion of the paper, the meeting adjourned.

October 23rd.—A meeting of the Historical Club was held on October 23rd. President Couture presided. The first paper, delivered by Mr. Mackenzie, dealt with the Risings of 1809-10 in South America.

Mr. Lomer then discussed the career and character of Bolivar, drawing attention to his great energy and his skill as a soldier and statesman. Mr. Lomer referred to the want of appreciation at first shown by his countrymen of Bolivar's work, and his subsequent glorification as a national hero. The essays aroused a lively discussion, after which the meeting adjourned.

ATHLETICS.

In no previous year has McGill enjoyed a greater measure of success in her athletic activities. The officers of the various clubs began their effective work in the spring term, and returned from their holidays with new ideas and fresh enthusiasm. Prospects were bright for a successful autumn season. The teams started work early, and things went with a swing, and a swing that carried things before it. It has been a crucial year for the Athletic Association. There was little anxiety about the inter-class competition in the year of its introduction, when the novelty of the move lent it interest. The real test of such a change must come in the subsequent year. The test did come, and has only served to establish the system on a more solid basis.

An illustrated lecture on "Training and Competing," given by Dr. Tait McKenzie in September, helped in no small measure to get matters under way. The suggestion, voiced at this time by President Carlyle, that a training table be instituted, found favour, and the majority of the track team took advantage of the opportunity presented, and temporarily forsook their boarding-houses.

At this very representative meeting plans for the securing of an up-to-date gymnasium were launched. The campaign decided upon was that, on the strength of the student body pledging to raise a fair amount, an appeal be made to the alumni. The project, so far as it depends on the students, is going to succeed. How the graduates will receive the matter remains to be seen.

Of small subscriptions, a very great number will be required to provide the necessary funds. It is greatly to be hoped, and is perhaps within the range of possibility, that a number of our graduates, who, thanks to their university training, have met with a full measure of success, may see fit to help on the project with very generous gifts.

The resources of the undergraduates are limited, but at the time of going to press, while the canvas is very incomplete, they have pledged very nearly a thousand dollars. It is within reason to expect that when the building is provided, the undergraduate body will be able to suitably equip it.

The undertaking is an ambitious one, and richly deserves success.

ROYAL VICTORIA COLLEGE ATHLETIC CLUB.

For some time the need of this Club has been felt; it had been found difficult to keep the various clubs together without some such organization. Last year (1901-1902) the Club was organized, but, owing to its being already late in the season, it was much handicapped, especially with regard to basket-ball. Two outside matches were arranged, however, which resulted in one victory and one defeat.

The Club was much more successful with its hockey, and several inter-class matches were played. The graduating year did much to encourage hockey by presenting a silver trophy for inter-class competition.

1902-1903 was begun under somewhat more favourable circumstances, the officers for the year having been elected at the end of the previous session:—President, E. L. McLeod, '03; Vice-President, A. Dickson, '04; Secretary-Treasurer, M. Pearson, '05; Committee, M. E. Gilmour, '05; M. A. Massy, '06; A. G. Griffin, '03, Captain of the basket-ball team. Each year has its own basket-ball team, and from these year teams a college team is chosen to play in outside matches. It is hoped that there will be sufficient interest shown in basket-ball to warrant a trophy, to be competed for by the different years.

Hockey will be organized upon the same plan of class teams, with one college team

This year, for the first time, a tennis tournament was held, and was so successful that it will probably be repeated each year. Both singles and doubles were played, and in some of the sets there was

keen competition, reflecting great glory upon the winners. The doubles were won by F. E. Sharp and M. Newman, and the singles by F. E. Sharp. All things being taken into consideration, the outlook for the first real working year of the Royal Victoria College Athletic Club is most promising.

McGILL UNIVERSITY SPORTS.

Temperature varying from 30° to 40°F. is not usually productive of the best results in athletic events, but it is doubtful if McGill ever held a better field day than that of October 10th.

Only three events were called for the morning, viz., the trials of the 100 yards, the hop, step and jump, won by Ryan, with the excellent mark of 43 feet 3 1-4 inches, only a quarter of an inch behind the college record, and the shot-put, where Ogilvie, Fraser and McIntosh settled it among themselves and in the order mentioned.

Ryan won the hurdles, the first event in the afternoon, and Morrow ran the 880 according to his own fancy.

The high jumping was fairly good, Waugh getting first, Fraser second and Dalgleish third.

The 220 was won handily by Morrow in 23 3-5 seconds, followed by Gibson and McCuaig in the order named.

The mile proved to be a good race. Stovel ran well, and finished at a good clip. The time was 4.43 4-5, only about three seconds behind Brodie's record.

Dalgliesh broke the record in the pole vault, clearing 9 feet 10 inches. Kent was second. Ogilvie was the only other candidate, and retired after making a low height, scoring one point. He again proved his superiority with the discus, throwing it 105 feet 8 inches, a couple of inches better than the former record, held by himself.

Morrow had another easy thing in the 440, and won at his own pace in 52 seconds flat. Gibson and McKenzie took the other places.

The record for the hammer throw received a substantial increase at the hands of Fraser, who made 104 feet 5 inches; Ogilvie was second, McIntosh third.

Morrow won his fifth event in the 220 yards hurdle, with Dickson and Fraser following well.

This year certain changes were made in the list of events. The

bicycle events were cut out for very obvious reasons, and also the 56 lb. weight, an event quite in keeping with policemen's games, but which should form no part of a university's programme.

The two mile run was introduced, the necessity for which was demonstrated by the visit of the Oxford and Cambridge team last year. This is a standard inter-university event, and must of necessity figure in our subsequent meetings with the English collegians. We cannot develop distance runners in a season, and have not introduced the event too soon. Edwards was the winner of this event.

The inter-class team race, which ended the programme, was run off in rather a dim light. The seniors proved the victors.

On the basis of points scored, the juniors won by a safe margin, thanks in the main to Morrow's efforts.

The Sophomores and Freshmen were well matched, but the first-year men proved a little too strong. The seniors played the part of whippers-in not without honour.

THE INTER-COLLEGIATE MEET.

On Thanksgiving Day the McGill U.A.A. team met the representatives of the University of Toronto in the fourth track and field contest, and for the fourth time our efforts were successful.

This year the games were held in Toronto on the 'Varsity Athletic Field, which has been improved during the past summer by the addition of a new cinder track, three and one-half laps to the mile, slightly larger than the track on the McGill Campus. The grounds have many advantages over Rosedale, but the dressing accommodation, due to the heavy tax made on the resources of the sister club incident to the making of the track, is very limited as yet. It was found necessary for the team to don their running outfit at the University gymnasium, some distance away. This inconvenience, however, was overlooked when the fellows on their return from the contest were able to get a refreshing plunge in the swimming bath, a privilege we hope to extend to future competitors, when, in the days to come, we have that gymnasium of our own.

The day was clear and bracing. A slight breeze was blowing down the stretch to aid rather than hinder in the dashes. It was

warmer perhaps than on the occasion of our own games, but was much too cold for best efforts.

The attendance, considering the limited accommodation, was very fair, and the enthusiasm ran high when success came to the indigenous contestants. There was little provision for keeping the crowd in the stands, and late in the day, when a race was closely contested, the excitement, coupled to some extent by the increasing cold, brought the spectators to the sides of the track.

The two teams went into the contest with the object of winning. Neither did much talking, but each possessed the right amount of confidence. The McGill team won on its merits, yet the 'Varsity men made good losers, when losing was necessary.

Of the twelve events McGill secured eight firsts, four seconds and seven thirds, Toronto getting four firsts, seven seconds and four thirds. A tie occurred for second place in the high jump, whereby the points were divided. The aggregate score was 61 for McGill to 47 for Toronto, a slight improvement on last year's figures, when we won by 57 to 51.

Professor McLeod and Dr. Tait McKenzie accompanied the team, and imparted quiet encouragement.

The programme was called for 2.30 p.m., but was a little late in beginning on account of the distance of the dressing quarters from the field. The 100 yards was the first race on the card, and brought out a field of five starters, conveniently filling up the track. The two 'Varsity men, Worthington and Ferguson, broke together before the shot, but were not penalized; then Morrow offended. After a very short wait the signal was given, and the men leapt up. Morrow (M.) had a slight advantage, Brown (M.) a loss of a couple of yards. The race was never in doubt, Morrow leading all the way, with Worthington (T.) running well. Morrow won by a couple of yards in 10 2-5 seconds, with Worthington (T.) second and Ferguson (T.) third. Brown was unable to make good his loss.

An unpleasant halt was caused at the beginning of the half-mile race by a miniature strike on the part of one of the McGill men, happily settled without bloodshed. Those who lined up on the scratch were Graham, Warren and Teasdale for Toronto, and Morrow, Gray and Edwards for McGill. There had been much speculation about this event. Warren had on the Friday previous beaten Teasdale, who, it

will be remembered, tied with Molson for first place in this event last year. It was expected that the Toronto men would have set such a pace that Morrow, because of subsequent races, would not dare to follow. It turned out that Morrow made the pace to suit himself in the first lap, allowed Warren to get a slight lead about the 500-yard mark, which he gradually reduced, and, passing him at the beginning of the stretch, won easily in 2 minutes 8 seconds. Teasdale and Graham fought hard for third place, finishing in the order mentioned.

The broad jump was performed with the sun in the eyes of the contestants. Ryan (M.) made a new record in this event by his first jump of 20 feet 10 1-5 inches. His subsequent jumps were 20 feet 10 inches and 19 feet 10 1-2 inches, getting, in the last, a very poor take-off. Worthington (T.) did not attain the 21-foot jump he was credited with the week preceding, and took second place with a jump of 19 feet 11 2-5 inches. Kent (M.) was third, clearing 19 feet 11 inches, and losing second place by less than half an inch. This was regarded as a proof of the honesty of the judges, some of whom happened to be wearing red and white ribbon.

The pole vaulting was not up to the average. There were but three contestants, one of whom represented 'Varsity, and succeeded in getting even third place with some difficulty. Dagleish (M.) and Kent (M.) tied at 9 feet 4 inches for first place, and, in spite of repeated efforts, could only decide the matter by tossing a coin for the medals. Kent won in this proceeding.

Fraser (M.) was *facile princeps* in the throwing of the 16-lb. hammer, clearing over 100 feet on all three throws. His first throw of 105 feet 7 inches was the best. The former record stood at 94 feet 3 inches. Ogilvie's (M.) three throws ranged from 97 feet 10 inches to 101 feet 11 inches, McIntosh (M.) from 86 feet 9 inches to 92 feet 7 inches. McGill took all three places in this event, Ford's (T.) best throw amounting to about 84 feet.

When the 220 yards was called, it was considered advisable, in view of subsequent races, to keep Morrow out of the race, who, although suffering somewhat from his stomach, could no doubt have sustained his reputation had it appeared necessary. McGill at the time, however, had 33 points to Toronto's 12, a large enough lead to give a certain feeling of security. 'Varsity was able to score eight points in this event. Gurney (T.) won with apparent ease in 22 4-5

seconds, remarkably good time under the conditions. Ferguson (T.) was second, with Gibson (M.) third.

The mile run was conceded by all to be the best race of the day, although it was manifestly disappointing to the McGill team. A comparison of the times made at the games of the two Universities the Friday before, led us to count on first and second places at least, and this would have been the result had not 'Varsity found out that a man they had regarded as ineligible for their own sports was really qualified to compete, and, as he turned out to be a good miler, he was put in the event. Gray took the pole at the start, and went out to make a good pace. After a comparatively fast lap Gray was leading, followed by Stovel (M.), Edwards (M.), and the three Toronto men. On the second lap Stovel let out somewhat for a lead of about ten yards on the field. Shepherd, Toronto's dark horse, was running second to him at the end of the second lap, with Saunderson (T.), Gray (M.), Edwards (M.), and Adams (M.) following in the order named and at different distances. It was evident on the last round, as Stovel and Shepherd increased their lead on the others, that the fight was to be between them. The Toronto man seemed to be running with less effort, and gradually closed up on Stovel. At the 300 yard mark the two men were running side by side. Shepherd seemed to be less distressed, and forging ahead by degrees, finished strong, winning by 10 yards in 4.39 3-5, and reducing the record from 4.46 made last year. Gray (M.) finished third; Edwards (M.) fourth.

In putting the 16-lb. shot 'Varsity had another surprise forthcoming in the person of Cook, who was only discovered some two days before the contest. He was nothing hampered by his Gunga Din uniform, and his first and best put of 35 feet 3 3-4 inches was enough to break the record and give him first place. The work of the McGill men was disappointing, for any one of the three might have done better than this. Ogilvie took second place with 34 feet 9 3-5 inches, and 33 feet 5 inches gave Fraser third place. It was a decidedly off-day for McIntosh, but he retrieved his good name in Ottawa on the following Saturday, winning the valuable trophy given by the "Ottawa Valley Journal" for the individual championship of the Ottawa Valley and District, a credit to himself and to McGill.

The high jump was a tame though in some respects an amusing contest. In the three previous events Toronto had made 18 to McGill's

9, so when Fraser failed at the first height and Waugh, upon whom we counted for first place, had some narrow escapes at low heights, not clearing the bar until his last trial on two or three occasions, and with the prospect of 'Varsity's scoring all the points in the hurdles yet to come, things began to look critical. Worthington (T.) was the next to fail, leaving Edwards (T.), Dalgleish (M.), and Waugh (M.) still in the event. All three cleared 5 feet 3 inches, and all three failed at 5 feet 4 inches, bringing about the peculiar condition of a three-cornered tie for first place. They decided to jump off at the same height, the first one to clear the bar on even trials to be the winner. All three missed once, twice, three times. On the fourth trial Dalgleish cleared; the others missed, and thus first place was decided. This still left a tie for second. Edwards and Waugh decided to keep jumping at the same height, but this seemed of no avail, for each missed four times. The bar was lowered one inch. Waugh jumped and cleared, then Edwards jumped and cleared, and the bar had to be raised again. In spite of every effort neither could get over it, and had the judges not intervened, suggesting a division of second and third points with a toss up for the medal (which Edwards won), it is possible that they might be jumping yet.

Morrow, old reliable, took the pole at the start and won the 440 without difficulty, although at one time Gurney looked a worthy rival. The latter finished second by about ten yards, scarcely a foot in the lead of Gibson, who was fast closing up the distance between them. The time was 52 seconds flat.

Toronto scored one, two, three in the hurdles, which were run on grass. Ryan (M.) started well, and led at the first hurdle, but managed to fall in getting over the second fence. Ford ran in splendid form, and reversed last year's order, breasting the tape a winner by a yard, gained from R. L. Biggs on the run in from the last hurdle. The time, 17 2-5 seconds, establishes a new record. Worthington was a good third.

The figures in the discus throw were very poor. Ogilvie won with a throw of 95 feet 6 inches. Worthington's mark of 83 feet 9 inches is good, considering that he throws without turn or run. McIntosh was third, some four inches behind the Toronto man. Thus ended the competition so far as scoring is concerned.

No points are given for the relay race, the last event on the pro-

gramme, except in the event of a tie, which did not happen on this occasion. Although it was rapidly darkening by this time, there was sufficient daylight left for the spectators to see and become enthusiastic over the race. Gurney (T.) and McCuaig (M.) ran the first quarter, and such a good race did the latter run that he was able to hold 'Varsity's best man down to a lead of five yards. Brown (M.) made this up on Graham, after a splendid run, and started Gibson off with the handkerchief about a yard in the lead of Ford. The latter challenged Gibson in the first hundred yards. The McGill man ran a well-judged race, and was leading by five yards when he reached Morrow. The pick-up was not good, and the Toronto men had the satisfaction of seeing their miler, Shepherd, close up and pass Morrow unawares. McGill followers were somewhat solicitous, considering Morrow's former work, but without any ground, for in the stretch Morrow shot past with ease, drew away from his fellow, and won by fifteen yards to the manifest disgust of the many, but to the supreme delight of the few.

W.P.D.C. FIELD DAY.

The students of the four Theological Colleges held their fourth annual field meeting on the M.A.A.A. Grounds on Tuesday, October 21st., and, although in the main the times made were not exceptionally good, the events were well contested. The day was very cold, and not many records were broken. Morrow thought wise not to enter, and no champion arose to endanger the records made by him in former years. The spectators did not number very many, but such as braved the cold had reason to be interested, and, in not a few cases, amused. Dalglish (W.) won more than his share of first places, including the high and long jumps, the hop, step and jump, the pole vault and the low hurdles.

Sturdy Peter Mathieson (P.) took first in the 100 and in the 220 yards run. Gray (P.) won the 440 and the 880; Lohead (P.) the mile. The 28-lb. weight and the shot were won respectively by May (P.) and Reid (P.) A 220 yards open race fell to McCuaig, McGill, '06.

The relay race was competed for by all four colleges. The Presbyterians won, with the Methodists not far behind.

In the aggregate of points, the Presbyterians won by reason of

their strength of numbers, scoring 57 points. With three men the Methodists made 37. The Diocesan and the Congregational Colleges followed with 12 points and 2 points respectively.

BASKET-BALL.

The Basket-Ball Club, which was organized only last year, is conducting a very successful season. The game is without exception the best indoor game that has yet been introduced, and the fact that it has held sway for a decade, with unabating interest, in the gymnasiums of the Young Men's Christian Associations, and of many Universities, is sufficient justification for its introduction at McGill.

Dr. McKenzie has offered cups for the individual members of the team which wins the series of inter-class games to be played in January. There is good material in the classes, and the practices that have been going on, give promise of some interesting matches.

ASSOCIATION FOOTBALL.

This club, after a lapse of a number of years, was re-organized at the beginning of the present session.

About sixty students assembled in response to the notice, elected officers, and appointed a committee to draw up a constitution, preparatory to asking for recognition from the Grounds and Athletics Committee.

In Montreal, Association Football is classed as a summer game, but there is no reason why it should not, under existing conditions, keep in vogue from year to year till the snow comes.

There are a great many men who come up to college with a fondness for the game, and to whom Rugby does not appeal. The two games are not likely to interfere, for it is unusual to find the same man playing them both. Playing Association certainly provides a most excellent way of taking an hour's exercise, and there is reason to expect that the club will grow in numbers and in proficiency. Even if nothing so ambitious as a match with other colleges is attempted for a couple of seasons, inter-class games might be introduced, to take place after the Rugby season is over, or concurrently, if without too much clashing.

At the time of going to press the Rugby season has not been com-

pleted, so far as the second team is concerned, although we chronicle with pride that the cup, representative of the highest honours in the Intercollegiate Union, is for the ensuing year McGill property. A review of the season's doings will appear "in our next."

CROSS-COUNTRY RACE.

This very successful event took place on the first day of November. President Carlyle and Secretary Ross mapped out a course of about half-a-dozen miles, much the same as last year, but a straight run was substituted for the climb and drop over the Westmount mountain, and a run from the gates to Greene Avenue and back was added, so that the course lay through the grounds. Fifteen men lined up on the Côte des Neiges Road, opposite the cemetery, and at the starting signal made off, with Hall, last year's winner, in the lead. They bore on to near the old Athletic Club-house turn, where the car-track was reached, and followed for a mile or so to the Old Quarry Road. From here they cut cross lots up and down, through rough and smooth, reaching the college grounds *via* Law's Lane and Milton Street. Hall kept his lead all this distance, and made the turn of the track about fifty yards ahead of Gomery, with Edwards and Lohead in steady pursuit. Hall had disappeared through the gates and west along Sherbrooke street when Gray reached the track; Foreman, Stewart, Laurence, Dutaud, Lambart, A. D. Harris, Hausser and Shearer followed at irregular intervals, and in the order named. Nobody seemed to know the name of the next to arrive, and he refused to tell. S. D. Harris was the last to reach the track, and received passing words of encouragement from the spectators. A large crowd had by this time gathered, and the quarter of an hour the leaders spent on the way to Greene Avenue and back were minutes of suspense. Word was brought back that Lohead had caught and passed the leaders, and this report was substantiated when the returning runners were seen through the iron fence on Sherbrooke street. He made the track ten yards in advance of Hall, who had the same lead on Edwards. The three were well played out; every effort to gain was unavailing, and the three crossed the line holding the same relative positions. Gomery came in at a good clip about 300 yards behind. Foreman and Laurence had a good try-out, and the former came in ten feet to the good.

Gray and Stewart finished in the order named, about 200 yards behind these. Dutaud covered the 600 yards intervening, finishing next, and followed by the Harris brothers at intervals of 300 yards. Lambart, Hausser and Shearer did not finish.

The run was a most satisfactory one from all points of view, and the ease with which the entry list filled up would seem to indicate that within the Athletic Association a place could easily be made for a club holding regular runs, which might develop into a snow-shoe club in season. It is a pity that snow-shoe races are so much a matter of history. Is this a department that is beyond the scope of our college athletics?

FRED. J. TEES.

CRICKET, 1902.

During the season of 1902 the McGill University Cricket Club played fourteen matches, winning five and losing six, whilst two were drawn and one proved a tie.

These figures might be taken to signify a falling-off in the strength of the club, but although six matches were lost, four of these were of such a close character that the beaten side were very near victory. Three matches were lost by less than five runs, and in no case was the McGill team badly beaten. The 1902 eleven acquitted themselves well, and there is a very desirable addition of young promising players to the team, of whom still better things are expected next year. King, our new West Indian bowler, trundled with surprising skill and steadiness throughout the season, and his name is held in great respect by some international batsmen in Toronto, where he was most successful. The batting averages are not published yet, but six or seven players have averages well into double figures. Owing to the wet season, scoring was lower than usual, McGill's highest total being 204 for seven wickets, against All Toronto.

List of Matches.

May 24..	McGill (did not bat).	Ottawa 88.....	Drawn
May 31..	„	78.....	Montreal 39..... McGill
June 7..	„	91.....	„ 29..... „

July 12.	McGill 99 for 9.....	Montreal 98.....	McGill
„ 15..	„ (did not bat).	Toronto 48 for 3....	Drawn
„ 1..	„ 43.....	Quebec 55.....	Quebec
Aug. 9.	„ 48.....	Montreal 68.....	Montreal
„ 16..	„ 58 and 64...	Ottawa 40 and 82...	Tie
Sep. 6..	„ 58 and 77...	Ottawa 82 and 55...	Ottawa
„ 8.	„ 81.....	Tor. Ch. League 107.	Tor. Ch. League
„ 10.	„ 149.....	St. Alban's 69.....	McGill
„ 11.	„ 80.....	Rosedale 82.....	Rosedale
„ 12.	„ 204 for 7....	All Toronto 80.....	McGill
„ 13.	„ 110.....	Toronto 141.....	Toronto

W. A.

The Tour of the McGill University Cricket Club in Ontario.

The McGill University Cricket Club ended the season of 1902 by making a week's tour in Ontario. The financial support of some of its members, supplemented by the ready generosity of friends of the game and well-wishers of the club, rendered possible what has proved to be a beneficial visit to a province where cricket is more in evidence than in Quebec. On the whole, the tour was a successful one, for although the club won only two games out of six, the opposing elevens that were victorious were put on their mettle. The match with Ottawa was lost by one wicket, that with Rosedale by two runs, and a strong Toronto team—the strongest, perhaps, that opposed the club—lost eight of their wickets before they passed their opponents' total. It was unfortunate that the captain, M. C. Hill, was unable to accompany the team, for his loss was undoubtedly felt in both batting and bowling. His substitute, W. W. Walker, captained the eleven with great judgment. His knowledge of the game and of his side enabled him to manage the eleven to the best advantage.

The result of the team's batting during the tour is gratifying, and shows great consistency, as no fewer than seven of the side obtained an average of double figures. Three innings of more than fifty runs were made, the highest being Walker's fifty-six against the All-Toronto eleven, whilst in the same match Baber followed closely with a stylish fifty-four, not out. Both innings were free from fault, with the ex-

ception of one chance from each batsman after he had scored fifty. The greatest credit for an individual effort ought, perhaps, to be given to Hainsworth, the club's popular and indefatigable professional, who, after being severely hurt in the last match, with his score at twenty-six, resumed his innings and carried out his bat for fifty-one, made by sound and at times brilliant cricket. The bowling fell mainly to King and Philpot, and both deserve great praise for the way in which they acquitted themselves. King is entitled to special mention for his fine performance, and his record of thirty-three wickets for the tour gives some evidence of the splendid length and control which he exhibited.

An account of the visit would not be complete without reference to the hospitality of several members of Toronto clubs. The pleasure of the tour was greatly increased by their efforts to make the stay of the visiting eleven enjoyable. The McGill University C.C. is especially indebted to the President of the Toronto C.C., Mr. J. W. Woods, for the trouble to which he put himself in order to give the visitors a taste of social life. A Toronto eleven will, it is expected, come to Montreal next summer, where a hearty welcome awaits them. In the interests of a fine old game, which it is difficult to keep from languishing in this province, every effort should be put forth to make tours things of annual occurrence.

The summary of the results of matches and of averages is as follows:—

List of Matches.

September 6th.—Vs. Ottawa. McGill, 58 and 77 for six wickets (innings declared). Ottawa, 82 and 55 for nine wickets. Ottawa won by one wicket.

September 8th.—Vs. Toronto Church League. McGill, 81 and 86 for six wickets (innings declared). Toronto, 107 and 64 for two wickets. League won by eight wickets.

September 10th.—Vs. St. Albans. McGill, 149; St. Albans, 69. McGill won by 80 runs.

September 11th.—Vs. Rosedale. Rosedale, 82; McGill, 80. Rosedale won by 2 runs.

September 12th.—Vs. All Toronto. McGill, 204 for seven wickets (innings declared); All Toronto, 80. McGill won by 124 runs.

September 13th.—Vs. Toronto Club and Ground. McGill, 110; Toronto, 141. Toronto won by 31 runs. C. E. M.

Batting Averages.

	Inn-ings.	Times Not out.	Ttl. runs.	High-est score.	Ave..
W. C. Baber	8	2	109	*54	18.1
Hainsworth (pro.)	8	1	127	*51	18.1
W. W. Walker..	8	0	121	56	15.1
W. N. Philpot	8	0	109	26	13.5
A. B. Wood	7	1	69	19	11.3
F. L. Gunter	7	1	64	29	10.4
P. Barton	8	0	80	24	10.0
J. L. King	7	1	46	24	7.4
T. F. Short	4	1	17	*13	5.2
E. Relf	4	1	12	6	4.0
H. Jones	5	0	17	15	3.2

* Signifies not out.

Bowling Averages.

	O.	M.	R.	W.	Average.
1. Wood	29.4	8	57	9	6.3
2. King..	108.5	33	228	33	6.9
3. Philpot	87	24	196	19	10.4
4. Baber	47.5	10	123	9	13.6
5. Gunter	5.5	1	20	1	20.0
6. Hainsworth	13	4	22	1	22.0

BURIAL OF A CHIEF IN ANGOLA.

The capital of the Ondulu country, two days' journey north of the Sakaujimba Station of the American Board Mission in South Angola, was recently the scene of the obsequies of a dead chief and the induction of a new one. The place is beautiful for situation, strategic also, evidently chosen at its foundation with a view to defence. It is built upon a large round hill covered with huge granite boulders, with others of a lesser size scattered all around its sides. At the summit is the chief's enclosure, the huts being built largely upon a foundation of soil, carried up from the lower sides of the hill and deposited upon the bare rock. Around this, below, in clear spaces, are built the houses of his wives and immediate followers, all surrounded by a palisade, having two gates, one on each side of the hill, opposite to each other. Around this again, below, are built the compounds of the resident chiefs, who, with the ruler, form the governing body. Some of these have their permanent residence there, but others reside temporarily, going to and from their respective districts over which they hold rule. Outside these compounds again are the remains of a mud and wattled fence that once ran around the hill and closed the whole in. Now, however, the glory of the place has departed, for, according to custom, since the old chief's death, who did not keep the place built up, it has been left to go to ruin, to be rebuilt by the new chief.

Five days before such a funeral as this, the time of the women is given up to brewing the beer of the guests, during which days they are arriving from all parts of the country. These are accommodated, as

far as possible, in the houses, huts being built for those who cannot be so provided for. On the fifth day the proceedings proper take place, but preparatory ceremonies, religious and otherwise, precede the burial. Morning and night, for several days previous to the interment, the crier, from an elevated point, shouts a warning to all to shut up their animals, and take care of their little children during the coming days until the funeral is over, lest they disappear. Plunder of this kind is permissible, and was carried on much more in older times than now. Three nights before the funeral the widows of the dead chief begin to wail for the dead, whose corpse has been that day removed from a hut near by into the royal cooking house, the only sound building remaining in the compound. In the cold and darkness they sit on the rocks and wail and cry most mournfully for some hours. In the daytime they stay in the house with the corpse. This continues during the second night and the night before the funeral.

On the morning of the funeral the whole place is like a hive of people. Chiefs with their clans have been gathering during the past five days, and late arrivals are still coming in. Up in the dead chief's compound some of the younger men are busy adorning the bier, which consists of a palm-pole with a frame fastened on, to which is suspended as much coloured cloth as can be attached, reaching nearly to the ground. When the last artistic touches are made, this is taken into the house where the corpse is, and the corpse being wrapped in an ox-skin, just taken from one of the oxen killed in honour of the dead as part of the religious ceremonies, is tied to the pole. The hoofs of the ox are left dangling, and appear below the curtains of cloth, striking together as the bearers carry the corpse on their shoulders. To the native mind this is very pleasing as a finishing touch suitable to an occasion so important. The widows sit crouched together all the morning, covered over with cloths. Later in the day, after the corpse has been carried out, these are conducted in single file, going in a crouching manner, with the cloths still over them, to a house in one of the lower outer compounds, and later, they go to the river in the same way to undergo some rite of purification by bathing.

During the preparations referred to, a renowned fetish priest and some assistants are conducting religious ceremonies. Men, women and children crowd about them, struggling to be sprinkled with water from a bark trough, in which has been placed some herbs and other

concoctions. The sprinkling is done with a bunch of sprigs in one hand and a ferule in the other, both being dipped in the water and sprinkled over the body of each one presenting himself. The significance of this ceremony is that good crops will be ensured for the women during the reign of the incoming chief, and good hunting for the men.

Preparations for conducting the corpse out into the open country seem to be completed about mid-day, but the rain which has been threatening begins to fall, whereupon some of the fetish doctors get together and call upon all the parents of twins, with their children, to congregate in one spot and sing a chorus as a charm, which they do with all their might. This is to cause the rain to cease, and it did within half an hour, a verification of its power over the elements. If it had not succeeded, however, some other evil-disposed persons or spirits with greater power would have destroyed the influence of their charm, all of which is good native logic.

The funeral procession now forms for descent into the adjacent country, where further ceremonies are to take place before burial. The corpse is carried by some of the old men, councillors of the dead chief, others play musical instruments, and one assists the priest in strewing the pathway with a charm in the form of roots and leaves of a certain tree, reduced to a pulp.

The relatives and more important people of the *ombala* follow in single file—the general crowd either following also, or lining the sides of the pathway. Arrived at the outer gate, there is a halt, when a dog and fowl are killed, and their mingled blood spilt on the ground to honour the egress of the dead chieftain into the country, and for other reasons. This ceremony over, the procession moves on, directing its way to a rough altar a few hundred yards from the gate. This altar is dedicated to the spirit of the hunt, and is built of rough stones, supported by spikes of wood driven into the ground, upon the points of which are placed skulls of animals killed in hunting. As the late chief was a hunter, worship is paid at this spot by singing and dancing, particularly on the part of hunters, the corpse being kept there while it is going on. During the advance to the altar the different chiefs, with their clans, grouped here and there about the slopes, have been firing salutes (the honour done to the dead is measured by the quantity of powder expended), but the performance at the altar being over, the groups all converge towards the corpse, and surrounding it in an

immense crowd of five thousand or more, musicians in the centre, circle it continuously, chanting choruses, gesticulating, and leaping into the air as they move unceasingly round and round and round. Only those incapacitated from old age refrain from this wild abandonment. Viewed from a rising ground, such a sight is impressive, and is seldom witnessed on so extensive a scale. The circling, swaying mass of black humanity, flecked with bright-coloured cloths, worn by the majority of them, the sea of heads, being relieved by a variety of head-gear from a handkerchief or soft wide-awake to a silk hat or a policeman's helmet, the surface of the crowd being continually broken by the men leaping with shouts into the air in the ecstasy of the dance, the sonorous monotone of the chorus pointed by explosive shouts from the whole crowd, the mellow tone of the pipes and the thud of the drums heard at intervals in a lull of the chanting, all this is a glimpse of heathen Africa not soon to be forgotten.

This goes on for some two hours or more, when the incoming chief, who has been in seclusion in the *ombala*, is sought for by some of the chief men, and escorted out to the crowd to be crowned—to receive the insignia of office from the dead chief and his councillors.

It is evidently a momentous ceremony for all directly concerned, as well as for the onlookers. The chief takes his stand, facing the corpse, still carried on the shoulders of two men; half-a-dozen or more chief men stand in a line on one side of the corpse, the same number on the other, the crowd closing around gazing in superstitious wonderment at the performance. The chief, after a short address to the people depreciating their choice of himself for the office, and expressing his appreciation of the honour shown him, commences an interlocution with the corpse, the latter being supposed to have power to move the bearers who carry it backwards or forwards at its will, thus answering the questions put to it—forward, "Yes!," backward, "No!" The interrogations are on this wise:—"You, my father, our chief! I have been chosen chief by the people in your place. I am not worthy of that position. There are many older chiefs than I. You know me who I am. I was one of your family when you were here upon the earth. Is there anything to prevent my accepting the rulership of this people? Have I done evil that discredits me? Is there anything I have done that may prevent my being chief in your stead? Speak, I pray you, and let the people know if I am unworthy, or if you have any personal dislike for me."

There is a pause; the silence is oppressive. The suppressed excitement is not only felt by all the people from those surrounding the corpse who can see its movements, back to the outskirts of the vast crowd, but the chief's commanding voice quavers, and the eyes of the old men are rivetted on the bier in expectation of the answer. The two bearers, after standing motionless for some seconds, amid perfect silence over the crowd, made tense by the suppressed breathing of the multitude, or the rustling of leaves stirred by the breeze in the trees near by, begin to sway slightly under their load; they incline a little to one side, then to the other, then move back a little, and finally and distinctly they lunge forward. The answer is propitious; the chest of the new chief heaves as he draws a deep breath. The old men breathe freely, and exchange wise nods of approval, and a murmur ripples from the centre to the edges of the crowd.

The interrogation is continued in the same manner and answered in the same way, until it is fully ascertained that the choice of the people entirely meets the wishes of the dead chief. Then the "master of the keys" of the old chief comes forward amid a murmur of applause from the populace, and hangs a bunch of keys that belonged to the dead chief around the neck of the new one, this being the insignia of his formal induction to office.

The tall, commanding chief, with much dignity and grace, but still under great excitement, now addresses the corpse again, covenanting to rekindle new fires in the *ombala* when the fires of the dead chief shall be put out, and keep them going all his lifetime, to build up the place and restore it to its former glory as a good chief should, and to be a wise judge and father to his people, calling on the dead and living to be witnesses to his covenant.

Amidst murmurs of applause the crowd breaks up, and two processions are formed—one to escort the corpse to its last resting-place with the remains of the former chiefs, and the other, headed by fifers and drummers, to conduct the chief to his compound.

As one wended one's way through the crowd in the evening twilight back to the humble lodging that hospitality had provided for the white stranger, thoughts upon the scenes just witnessed crowded one upon another. Among them this.—Take away the ignorance, the servile superstition and fear from all these ceremonies, and there remains a substratum of native dignity, loyalty and respect that the

Gospel will one day transfigure, enhance and glorify.—Had the chief consulted the will of the people alone instead of the corpse; had he, with his dignified bearing and address, called upon the true God to witness to his fidelity; had he covenanted with Him and the people to be a good and true chief, it had been a most imposing ceremony.

F. W. READ.

[We regret to hear of the sudden death of the Rev. F. W. Read, which took place recently in this city, and, in the name of The McGill University Magazine, express sympathy with his family in their bereavement.—ED.]

PROF. WYATT GALT JOHNSTON.

In Memoriam.

The death of Professor Wyatt Johnston, which occurred on the 19th of June, deprives the profession of Canada of one of its most brilliant and original members. His death was due to septic poisoning, incurred in the autopsy room of the Montreal General Hospital.

Dr. Wyatt Galt Johnston was the son of the late Dr. J. B. Johnston, of Sherbrooke, Que. He received his early education at Bishop's College, Lennoxville, and entered upon the study of medicine in McGill University in 1880, graduating in 1884. As a student he showed special aptitude for pathology, and was a constant associate of Dr. Osler, assisting him at autopsies and preparing material for demonstration. Immediately after graduation he became resident medical officer in the General Hospital, and during the period of his service had more than the usual responsibility on his shoulders, as the staff that year was small and continually changing. In the spring of 1885 he paid his first visit to Germany, working during the summer in Virchow's laboratory in Berlin. Next year he returned again to Germany, and carried on researches in connection with pernicious anaemia in the laboratory of Professor Grawitz at Greifswald. He was appointed demonstrator in pathology at McGill, and alone he gave all the lectures and demonstrations in this department for a number of years. He subsequently returned to Germany, and worked at comparative pathology in Munich and also for some months in the Zoological Gardens in London. Shortly after this he resigned his position

in pathology in McGill, but still continued to work in the General Hospital, devoting himself almost exclusively to bacteriology and beginning his medico-legal work.

In 1890 he made a bacteriological study of the water supply of Montreal, including the bacteriology of surface water generally. His very thorough report on the methods of classification of water bacteria and their sanitary importance was widely published. He was appointed lecturer in bacteriology at McGill in 1895, and was connected with the departments of pathology and hygiene. About this time also he became bacteriologist for the Provincial Board of Health and medico-legal expert for the district of Montreal. In 1897 he was made Assistant Professor in Public Health and Lecturer in Medico-Legal Pathology, and only a few months before his death was appointed to the chair of Hygiene and director of that department in the Faculty of Medicine, McGill University. He had practically occupied this chair for the Sessions 1900-01 and 1901-02, but until just before his death he was not formally appointed.

In December, 1895, he married Julia, daughter of the late Michael Turnor, of Rugely, England.

Professor Johnston's career was a varied one; from pathology proper he proceeded to the study of comparative pathology, and spent a year in the investigation of the Pictou Cattle Disease. During this period he was associated with the Faculty of Comparative Medicine in McGill University as well as the Faculty of Medicine. Becoming more interested in bacteriology, he made a specialty of the sanitary application of this science, and was recognized as one of the best authorities on the subject of the bacteriology of water supplies. Originality, inventiveness and the power of recognizing the simplest and most direct method of reaching results, characterized his work in every department. While engaged in the investigation of the water supply of Montreal, he devised a very rapid and convenient method for collecting samples of water at various depths in such a way as to exclude the possibility of contamination. He also devised a method of distinguishing and counting the various animalculae found in surface waters. When engaged in bacteriology in the General Hospital, his simple method for the diagnosis of diphtheria by culture on hard-boiled eggs, which is even now very widely used, was announced. His modification of the Widal reaction for the diagnosis of typhoid by means of dried serum,

is also widely in use in different countries. An indefatigable worker, he tried all the methods announced that gave promise of practical value in connection with the application of bacteriology to hygiene and medico-legal work, or to the diagnosis of disease. Having studied these methods, they were either immediately discarded or utilized in his work, and almost invariably improved upon or simplified. Instance after instance occurs to the writer where his inventive genius has made practical and useful many laboratory methods in bacteriology and pathology, and so to a great degree simplified the method of instruction or economized the time of both student and demonstrator.

Dr. Johnston's habit of mind, his rapidity of thought and quickness in seizing upon what was of immediate importance, makes his published writings a very poor index of the amount of work he accomplished, and only to those who knew him do they give anything but an imperfect idea of the soundness and extent of his knowledge. His mental habit of concentration and going to the root of the matter, neglecting all side issues, which made him so valuable and trustworthy as a medico-legal expert and a coroner's physician, showed itself in all his research. A given problem presented itself to him, and he worked at it until he had satisfied himself with regard to that problem only, and being satisfied with results, was extremely careless in placing them upon record. His papers are characterized by directness; they are unaccompanied by any full or orderly history of the development of his subject up to the point at which he took it in hand, and he was content, as a rule, to refer incidentally to the work of others which he was able either to confirm or refute. These references, however, were always adequate for those familiar with the matter, but not always so for the ordinary professional reader. The difficulties which he encountered in attacking the problem, the side issues which sprang up in the course of his investigations, were rarely more than hinted at; the part of the subject which interested him and which impressed him with its importance was recorded red-hot. Thus his published papers, an incomplete list of the more important of which follows this notice, are apt to strike the reader as being short and hurried, and certainly do not do him justice. But one has only to glance over the list to appreciate his remarkable versatility.

His mastery of many allied branches of medicine, gross and microscopic pathology, both human and comparative, bacteriology in a

more abstract form as well as in its applications to hygiene and public health, sanitation, medical jurisprudence in many aspects, as well as medical education, will be seen in his contributions. To each of these subjects he made valued and pre-eminently practical contributions, endeavouring to popularize each subject and to bring its methods within the reach of those to whom it would be useful.

Of recent years he devoted himself to hygiene and medical jurisprudence. One of his most thorough studies in the department of medical jurisprudence, in which he probably stands pre-eminent in Canada, if not on this continent, was a method of determining the pecuniary equivalent of injuries to one or other portions of the body, a subject which was very largely neglected by English-speaking medical jurists, although it has been very scientifically investigated in France and Germany. About the time of his death he was negotiating a scheme for the use of companies with a large number of employees, and accident insurance companies, which would enable them to follow the after-effects of injuries and the conditions and treatment after leaving hospital, forming a basis from which valuable statistics could be compiled in this country and in the United States.

As a teacher, the same characteristics showed themselves. His great mental activity and his rapidity of thought often made it difficult for him to exhibit to his hearers the process by which conclusions were reached; hence it was always necessary for him to prepare carefully his set lectures. But in practical teaching, at the autopsy table, at his weekly demonstrations in morbid anatomy, and, above all, to a few interested students, graduates or assistants in the laboratory, he was at his best. In devising methods of demonstration and of checking the work of classes in the laboratory, his originality was of much value. He was never contented unless he could develop some simple method of staining, some simple apparatus for class purposes or for reproducing diagrams in a few minutes; method after method occurs to us, all alike in their directness, simplicity and effectiveness for the purposes for which they were designed. He had a perfect genius for recognizing what was at the same time practical, scientific, sound and capable of performance by the simplest means.

In addition to his methods for the diagnosis of diphtheria and typhoid fever, already referred to, his simple method for the diagnosis of leprosy by scraping a suspected cutaneous nodule and staining the

mixed blood and lymph which exudes, and his introduction of the ordinary sterilized cotton-wool swab at the end of a length of strong wire enclosed in a test tube, which now-a-days is used in all public health diphtheria outfits, may be cited as examples of how he always thought of the most direct and simplest methods of reaching his results.

But, after all, it is Wyatt Johnston, the man, the delightful companion, whose wit was ever full of such delightful surprises, that his friends and associates will regret the most. Intellectually honest, direct and simple to an unusual degree, he had the greatest contempt for all that savours of dishonesty and pretence in scientific work. His wonderful personal magnetism, his ready wit and sympathy, made him hosts of friends and admirers among those associated with him in the various organizations and societies with which he was connected—the Bar of Montreal, the Coroner's Court, the General Hospital, the Provincial Board of Health, the American Public Health Association, the American Medical Association, the American Medico-Legal Society, the Montreal Medico-Chirurgical Society and the McGill Faculties of Law and Comparative Medicine.

R. F. RUTTAN.

The following is an incomplete list of his more important contributions to scientific literature:

Retrospect of Pathology—Montreal Medical Journal, 1889.

Thymus Gland—Reference Handbook of Medical Sciences, 1889.

Thyroid Gland—Ibid.

Retrospect of Pathology—Montreal Medical Journal, 1890.

An Unusual Case of Perityphlitis—Montreal Medical Journal, 1890.

A Rare Form of Kidney Tumour—Montreal Medical Journal, 1891.

Notes on the Bacteriological Study of Diphtheria—Montreal Medical Journal, 1891.

On the Collection of Samples of Water for Bacteriological Analysis—Canadian Record of Science, 1892.

A New Method for the Culture of Diphtheria Bacilli in Hard-boiled Eggs—The Medical News, 1892.

Anomalous Cases of Primary Nasal Diphtheria—Montreal Medical Journal, 1892.

Fracture of the Skull from the Discharge of a Shot-gun into the Left Orbit—Montreal Medical Journal, 1893.

Six Months' Medical Evidence, Coroner's Court of Montreal—Montreal Medical Journal, 1893.

One Hundred Cases in Coroner's Court of Montreal in 1893—Montreal Medical Journal, 1893.

Return to an Order of Legislative Assembly of December 13th., 1893, upon Coroner's Inquests—1893.

"Coroner's Quest" Law in the Province of Quebec—Read before Medico-Legal Society, May, 1893.

Report of Special Committee appointed by Montreal Medico-Chirurgical Society to amend Coroner's Law for Province of Quebec—Montreal Medical Journal, 1894.

Coroners and Inquests—The Montreal Gazette, February 8th., 1894.

Statistics of Coroner's Court, Montreal, for 1893—Montreal Medical Journal, 1894.

A Biological Analysis of Montreal Water Supply from November, 1890-November, 1891—Montreal Medical Journal, 1894.

The Use of the Autoclave for Sterilizing Nutrient Gelatin—The Medical News, 1895.

A Few Observations upon Sedimentation in Water—Trans. American Public Health Association, 1895.

On Grouping Water Bacteria—Trans. American Public Health Association, 1895.

Clinical Microscopy—Reference Handbook of Medical Sciences, Supplement, 1895.

Thymus Gland, Development of—Ibid.

Thyroid Gland, Pathology of—Ibid.

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On the Practical Clinical Teaching of State Medicine—Philadelphia Medical Journal, 1900.

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On the Estimation of Disability and Disease due to Injury—Read before Montreal Medico-Chirurgical Society, January, 1900.

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A Simple Method for Bacteriological Examination of Milk Supplies—Montreal Medical Journal, February, 1902.

R. F. R.

NOTICES OF GRADUATES.

1879, Arts. JAMES ROY. Received the degree of M.A., 1879, and of LL.D. 1883. After ordination, was appointed curate-in-charge St. Peter's Church, Coburg, Ontario. Later held various rectorships in New York State. Now Principal of Ingham University and Rector of the Church of the Epiphany, Niagara Falls, N.Y. Married, 1893, Miss Mary McElroy Dorr. Has published verses and articles in various papers and magazines, also one volume of verse, entitled "Let Down the Nets," and other Poems.

1887, Arts. ANDREW PARKER SOLANDT. Ordained to Congregational Ministry, 1888, at Brigham, Quebec. Studied at Oberlin Theological Seminary, and received the degree of B.D. Pastor successively in the Congregational Churches of Bakersfield, Vermont; East Berkshire, Vermont; Odell, Illinois and Emmetsburg, Iowa. Married, 1889, Miss Mary Capsey.

WALTER RUSSELL. Engaged ever since graduation in evangelistic work in various parts of Canada and the United States. Licensed to preach 1889. Married, 1892, Miss T. Hartwell Mayhew. Author of "The Life of Love," "The Holy Spirit," "The Law of Love," and miscellaneous poems. Present address, Bristol, Quebec.

Comparative Medicine. ALLAN RITCHIE ROWATT. Has practised, first, in Winchester, Canada, and later in Honolulu, where he holds the position of government veterinarian for the island, and inspector of live stock for the port of Honolulu. Married, 1890, Miss Nellie Mary Alexander. Has written various papers for the Montreal Veterinary Medical Association.

1888, Arts. JAMES EDWARD LE ROSSIGNOL. 1888-89, second master, Berthelet Street School, Montreal. 1889-92, graduate student, University of Leipzig, Germany, 1892 M.A., Ph. D., (*magna cum laude*), University of Leipzig. Subjects: Philosophy, Economics and Pedagogy. 1892, Fellow in Psychology, Clark University, Worcester, Mass. 1892, Fellow (elect) in Ethics, Cornell University, Ithaca, N.Y. 1892-94, Professor of Psychology and Ethics, with Economics, Ohio University, Athens, Ohio. 1894-1901, Professor of History and Political Economy, University of Denver, Colorado. 1900, Special Lecturer in Economics, McGill University, Montreal. Member of the American Academy of Political and Social Science, the American Economic Association, the American Historical Association, and the American Association for the Advancement of Science. Married, 1898, Miss Jessie Katherine Ross, B.A. (McGill). Is the author of *The Ethical Philosophy of Samuel Clarke*, Leipzig, 1892. *The Training of Animals*, *American Journal of Psychology*, 1892. *Malevolence in the Lower Animals*, *Ohio University Bulletin*, September, 1893. *The Expression of Anger*, proceedings of the Ohio College Association, 1894. *Spinoza as a Biblical Critic*, *Canadian Methodist Review*, January-February, 1895. *Economics in the High School*, I., *Rocky Mountain Educator*, March, 1900. *Relation of Economics to Business and Politics* (in part), *Montreal Gazette*, September 26, 1900. *Economics in the Higher School*, II., *Canadian Magazine*, May, 1901. *History of Higher Education in Colorado*, in press, to be published by the United States Government. *Monopolies Past and Present*, New York, 1901. *Municipal Affairs in Denver and Woman Suffrage in Colorado*, *Annals of the American Academy of Political and Social Science*, September, 1901.

Applied Science. ARTHUR EDWARD CHILDS. 1888, Entered the Central Technical College, South Kensington, London, and studied there in the electrical engineering department for four years, graduating with the Diploma of Associate, 1891. 1891-92, In the employ of the Canadian General Electric Company; first in Montreal, later in Peterboro, Ontario. 1892, Assistant to Dr. Coleman Sellars, then engaged upon the preliminary development of the great power plant at Niagara Falls in the interests of the Catarach Construction Company. 1893, Engineer of the Philadelphia office of the Westinghouse Electric and Manufacturing Company. 1895, New England manager of the Electric

Storage Battery Company of Philadelphia, with an office in Boston. 1897, Treasurer of the newly-organized Light, Heat and Power Corporation, operating under public franchises. 1901, President of this corporation. Mr. Childs married, in 1894, Miss Alice Grant Moen of Worcester, Mass. Mr. Childs has been admitted to the following engineering societies:—Canadian Society of Civil Engineers, American Society of Mechanical Engineers, American Institute of Electrical Engineers, Institution of Electrical Engineers (London), and is a member of the following clubs:—The Algonquin Club, Boston, Mass.; the Country Club, Brookline, Mass.; the Country Club, Lowell, Mass.; the Pomfret Club, Easton, Pennsylvania; the Athletic Club, Boston, Mass.; the Exchange Club, Boston, Mass.

1889, Arts. **GEORGE HUTCHINSON SMITH.** Received the degree of B.D. from the Presbyterian College, Montreal, in 1894. Afterwards pursued courses of study in England—at the British Museum and Mansfield College, Oxford—in Edinburgh and in Germany. In 1900, received the degree of D.D. from the Presbyterian College, Montreal. Was for four years minister at Thamsford, Ontario, and in 1899 was inducted into present charge, Knox Church, St. Catherines, Ontario. Married, 1900, Miss Maud May Cawthorpe, B.A. (Toronto). Dr. Smith, like many of the graduates who communicate with the University Magazine, speaks with enthusiasm of the growth of the University, and pleads for enlarged opportunities for post-graduate study.

Applied Science. **JOHN HOLDEN ANTLIFF.** For the first two years after graduation was employed as assistant-engineer and draughtsman by the Grand Trunk Railway Company. Later, held the post of town engineer at Toronto Junction. In 1892 returned to McGill for post-graduate work. In 1893 passed the Dominion Topographical examination and also received the degree of Master of Applied Science at McGill. 1893-94, draughtsman with the Dominion Bridge Company, and later with the Brown Hoisting and Machine Company, Cleveland, Ohio. In 1896 entered the department of Indian Affairs at Ottawa, and in 1898 was appointed by an Order-in-Council to the permanent staff as a technical officer. Married, 1895, Miss Ruth Caroline Shaw, daughter of Dr. Shaw, Principal of the Wesleyan Theological College, Montreal. Mr. Antliff has followed, with much interest, the development of the University Library, and especially the late outgrowth of

travelling libraries. He pleads for increased facilities for the use of the library by graduates, and sends a suggestion that copies of the Library Catalogue might be sent to graduates, with an intimation that the books are available for reference (subject to certain limitations) upon payment of a fee.