spirit of loyalty towards the University, and much fellow-feeling and forbearance amongst the students themselves. This speaks well for the Canadian student; and I earnestly hope that no alteration or decadence will take place in these respects. Nothing conduces more to the success of the individual student, as well as to that of the University as a whole, than such a generous and friendly rivalry, in honourable and kindly conduct, as has in the main hitherto characterised the students of McGill.

CHAPTER VII

MCGILL NORMAL SCHOOL

My last educational work in Nova Scotia, in 1854, had been in connection with the establishment of a Provincial Normal School. Amongst my first, in the Province of Quebec, was the inauguration of a similar institution in connection with McGill University. This might, at first sight, seem to be a chimerical undertaking for a nearly bankrupt institution, especially as some provision already existed for the training of teachers in connection with the school of the Colonial Church Society in Montreal. Our connection with this project occurred, however, in a manner which appeared to make it, in some measure, an outcome of our poverty itself. The only permanent resource of the University at this time was the disposal of the property of the McGill estate. It seemed desirable, in the public interest, that this should not be forced into the market, at a time when land in the outskirts of Montreal was of very small value, since, if

it could be retained until the growth of the city enhanced prices, it might become the source of a handsome income. To avert this necessity, application was made to the Government for temporary aid, and it was partly in connection with this that my long winter journey to Toronto, in the Christmas vacation of 1855, already referred to, was undertaken. I found but little encouragement to apply for direct aid for McGill, but the Governor-General, and the members of his Cabinet, were, on the whole, well disposed towards measures of general educational improvement for Lower Canada; and the Hon. Mr. Cartier (afterwards Sir George Cartier), the most influential statesman for that province, was preparing a bill for the advancement of superior education, especially in connection with the secondary schools, or academies, as they were called, which might become the means of supplying students to the University. Sir Edmund Head also directed my attention to an Act for the establishment of Normal Schools, giving the Government power to establish these under an Order-in-Council, but nothing had been done, owing to a little quiet opposition from a portion of the clergy, and to the apparent want of any public demand for such institutions. The suc-

cess of the school established by Dr. Ryerson in Upper Canada had attracted the attention of leading men in Lower Canada, and Mr. Cartier and Dr. Chauveau, (the Superintendent of Education), were understood to be favourable to the organisation of a similar institution there. Sir Edmund was very desirous that so important an improvement should be introduced, and thought that if McGill College, and its friends, would move in the matter, and offer their co-operation, something might be done, and that this would be indirectly beneficial to the University, by practically giving additional strength to its staff, and by training young men as teachers, who could prepare students for matriculation. At the same time it would place the University in direct connection with the higher schools of the English and Protestant population, and give unity and strength to that portion of the educational system which specially provided for their wants.

On returning to Montreal, I learned Dr. Chauveau's views, and discussed the matter with the Board of Governors. They appreciated its importance, and agreed to unite with the Superintendent of Education in convening a meeting of influential Protestant citizens to consider the subject. This meeting was held in

the office of the Hon. George Moffatt, and was unanimous in approving the plans proposed, which, as far as the circumstances permitted, were similar to those followed in the organisation of the Normal Schools, in Upper Canada and in Nova Scotia. The University, on its part, offered to affiliate one of the three Normal Schools which it was thought necessary to establish, and which was to be especially for the benefit of the Protestant population. Arrangements to this effect were entered into with Dr. Chauveau. The old High School building, on Belmont Street, then disused, was granted for the new institution, and put into repair. An arrangement was made with the Colonial School and Church Society to take over its work and its head-master, and, in 1857 the McGill Normal School was opened, and has ever since been an important lever for the elevation of English education in the Province of Quebec. It should be added here, that Dr. Ryerson kindly aided us with his advice as to the organisation of the school, and recommended to us one of his ablest and most promising instructors, Dr. S. P. Robbins, who has since become principal of the school, and a leader in our provincial education.

With the subsequent movements for the

higher education of women, the Normal School was also connected in several ways. It was necessarily mainly a school for women, as very few suitable young men were willing to enter on the profession of teaching, when so many avenues for more lucrative employment were open to them. Educationally the school has thus been a professional college for women, providing a thorough course, extending over three years (in the case of those who take its highest diploma), and qualifying for entrance into a calling which, more than any other, has opened a field of usefulness for educated women, and through them, has elevated the status of female teachers, and contributed greatly to the improvement and extension of the elementary school system. Its affiliation to the University has enabled its ablest students to take the University degree,—the highest grade of educational diploma, -and its trained teachers have gone out as educational missionaries into the country districts; whilst they have, at the same time, enabled a good and uniform system to be introduced at moderate cost into the city schools. The school has, in addition, furnished lady principals and special teachers to important colleges and higher schools for

women. It rendered easy, in this way, the establishment, by the Protestant Commissioners, of the Girls' High School of Montreal, which, while it raised the education of girls to a higher plane, also prepared many of them for entrance into the University. Fault has been found with myself, and with others connected with McGill College, in that, while adopting the system of mixed education in the Normal School, we insisted on separate classes for women at McGill. But our critics forget to consider the different conditions in the two cases. In the Normal School the women constitute the large majority, and, where this is the case, the difficulties of mixed education are greatly diminished. Besides this, teachers in training in a Normal School are subjected to strict rules of discipline, which would be impossible in the case of college students. Notwithstanding these advantages, however, we have not been without anxieties, which have necessitated a large infusion of trained and educated women in the staff of the school, and which, without any other information or experience, would deter me from advising mixed classes in an ordinary college.

I may here refer to a personal matter

which formed the only drawback to my satisfaction in being connected with the Normale School. It had not been proposed at fir that I should have any direct share in the work of the school, other than such general oversight as might belong to me as principal of the University. We had hoped to get as principal, an eminent and experienced educationalist, but it was found that his services could not be secured, and it became necessary for me to add to my already numerous duties the principalship of the school, and some lectures in natural science.

The sacrifice was in one respect great, for I had reckoned on the long vacation for original work, and this new employment required me to devote two extra months in each year to this institution. The result was, during several of the best years of my life, to reduce to about one-half my possible time for original research. The disappointment involved in this was, to some extent, diminished by my sense of the vital importance of the work of training teachers, and by the pleasure of teaching classes so earnest and attentive as those of the Normal School. It was also my first experience in the systematic teaching of natural history to classes

of women. As soon, however, as the school evas fairly established, and my work could sio provided for in other ways, I took the tractices recently of resigning this onerous position.

At an early period in the history of McGill, under its new management, it became apparent that better means must be provided for preparing students to enter the faculty of arts. The High School was sufficient, so far as Montreal was concerned, but the country high schools and academies were labouring under great difficulties, from want of adequate help and encouragement. Many of them also had their principals and masters from the New England states, to whose colleges they were naturally inclined to send their pupils. For this reason the University cordially supported the new Superior Education Act introduced by Cartier in 1856, and sought, by offering scholarships and free tuitions, to encourage deserving students from the country. We also co-operated with the Provincial Education Department, in the effort to introduce a uniform course of study leading to the University matriculation, and in stimulating the English population of the country to establish and maintain better

schools. Further, we did what we could to induce our own graduates to enter into the work of education.

These arrangements had special reference to the Protestant population of what is now the Province of Ouebec. In the peculiar circumstances of this province, with its twofold population, and with but a small and scattered English - speaking community, this involved much care, labour, and tact; and in so far as any success was attained, much credit is due to two members of our board, viz., the Hon. Judge Day and the Hon. Judge Dunkin, both of whom well understood the condition and wants of education in the country districts, and were entirely free from the jealousies then existing between the English people of the "Eastern Townships," and those of Montreal. They also well knew, that we could scarcely hope to attract many students from other provinces, until we had obtained some fruit from the cultivation of our own more limited field.

Both were interested in the movement, about this time inaugurated in England, for university local examinations, and it became a question whether anything similar could be done in connection with McGill. The

field was very limited and the difficulties were great, so that even our friendly Visitor doubted if the time had arrived for such an attempt. The effort was made, however, and though for several years, the candidates were nearly all from the High School of Montreal, the sphere of influence of our examination for Associate in Arts was gradually extended; and now, with the co-operation of the sister university of Bishop's College, and of the Protestant Committee of the Council of Public Instruction, the examinations have become a provincial institution, and the aid and stimulus they have given to secondary education would be difficult to overestimate.

CHAPTER VIII

PUBLICATIONS AND RESEARCHES

My first geological paper, accepted and published by any society abroad, was that on the Lower Carboniferous Formation of Nova Scotia, communicated by Sir Charles Lyell to the Geological Society of London, and published in its Quarterly Journal in 1843. It was preceded by short communications in local prints, and by a description of the Meriones, or leaping field-mouse, of Nova Scotia, published in Jameson's Edinburgh Journal in 1842. These papers were followed by others, too numerous to be mentioned here, in various scientific transactions, proceedings, and periodicals. The whole, as recently catalogued by the Royal Society of London, up to 1884, exceed 150 in number.

My first venture in the publication of an independent book, was the little "Geography and Natural History of Nova Scotia," already mentioned; ¹ the second was the "Contribu-

¹ Edinburgh and Pictou, 1848-52; and Halifax, 1852-57.