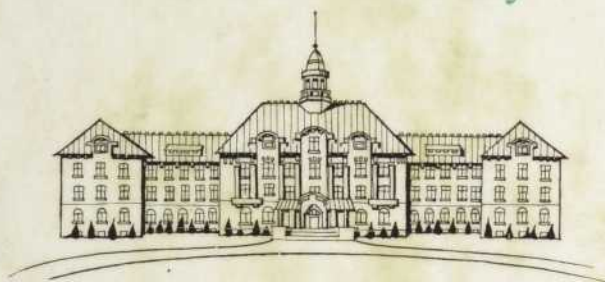


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HISTORY OF MACDONALD COLLEGE

of McGill University



MACDONALD COLLEGE was the crowning achievement to a number of Sir William Macdonald's early interests: the improvement of rural education, homemaking instruction for women, and the training of agricultural leaders. The well-known College at Ste. Anne de Bellevue was established prior to World War I, and this *History* carefully outlines the development of its curricula, its construction, and its expansion. The ancestral background and life story of Sir William, founder and benefactor, are included, while the book is flavoured with witty and engaging anecdotes about many people connected with Macdonald College.

The College was organized by resourceful effort and owes much of its propitious beginnings to Dr. James W. Robertson, who came from the post of Dominion Commissioner of Agriculture and Dairying to be its first Principal. This same talent for resourcefulness, plus the direction of conscientious educators, is evident in the continuing effort at Macdonald College to create a corps of professionals in society,—a group of dedicated leaders distinguished by their purposeful outlook and by a full understanding of their role in the community.

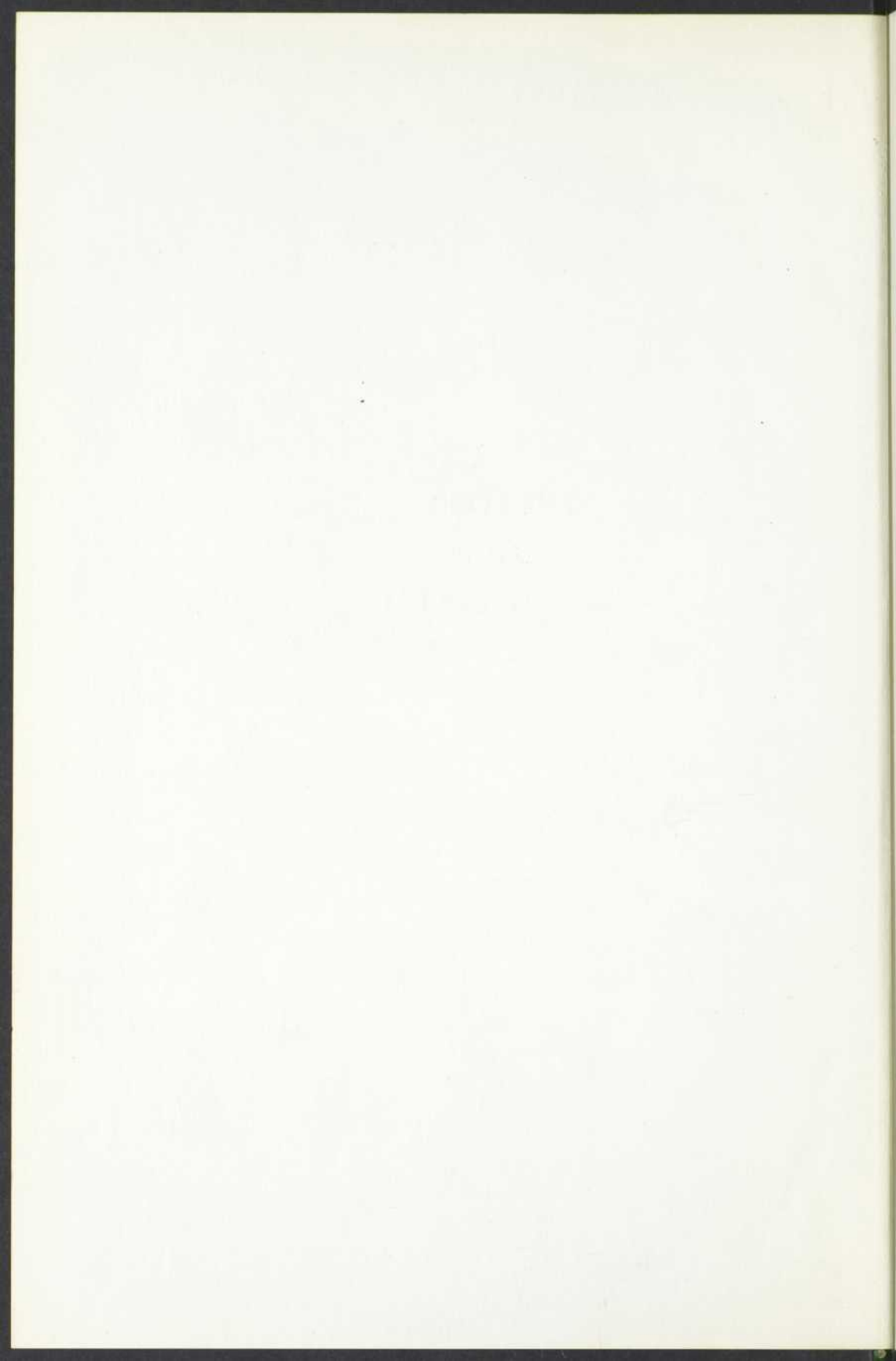
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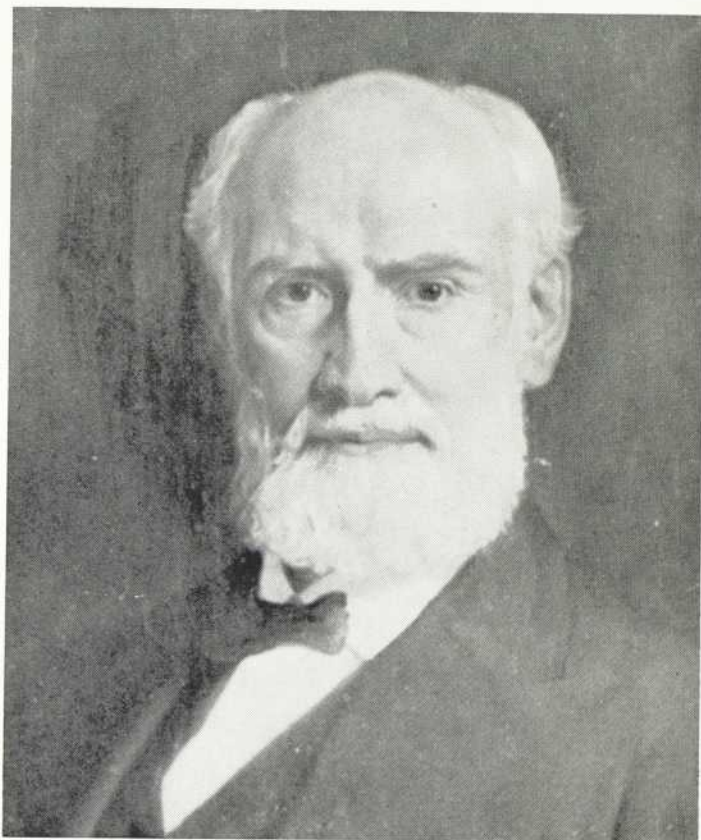




HISTORY
OF
MACDONALD
COLLEGE







SIR WILLIAM CHRISTOPHER MACDONALD

Founder of Macdonald College

1831-1917

Macdonald College

of McGill University

A HISTORY
FROM
1904-1955

by

JOHN FERGUSON SNELL, B.A., Ph.D.

*Emeritus Professor of Chemistry
and*

Honorary Historian of the College



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FOREWORD

We are pleased to be able to publish this *History of Macdonald College*. It is fitting to pay tribute here to the generosity of Mr. and Mrs. Walter M. Stewart, who maintain the interest of Sir William Macdonald, and who made publication of this volume possible.

This history records not only the development of Macdonald College as a monument to Sir William Macdonald, but also the service to the College and to Canada of the scholars who contributed to the solid academic foundations on which the reputation of the College has been based. Chief among these are Dr. Brittain and Dr. Snell. This *History* is a tribute to their role in bringing to fruition the ambitions and aspirations of Sir William Macdonald at the beginning of this century.

Revision and editorial work on the original typescript, prepared by Dr. Snell and lodged in the Macdonald College Library, was carried out by Professor D. W. Cole of the Macdonald College Staff.

July 1962

H. G. DION
Vice-Principal
Macdonald College



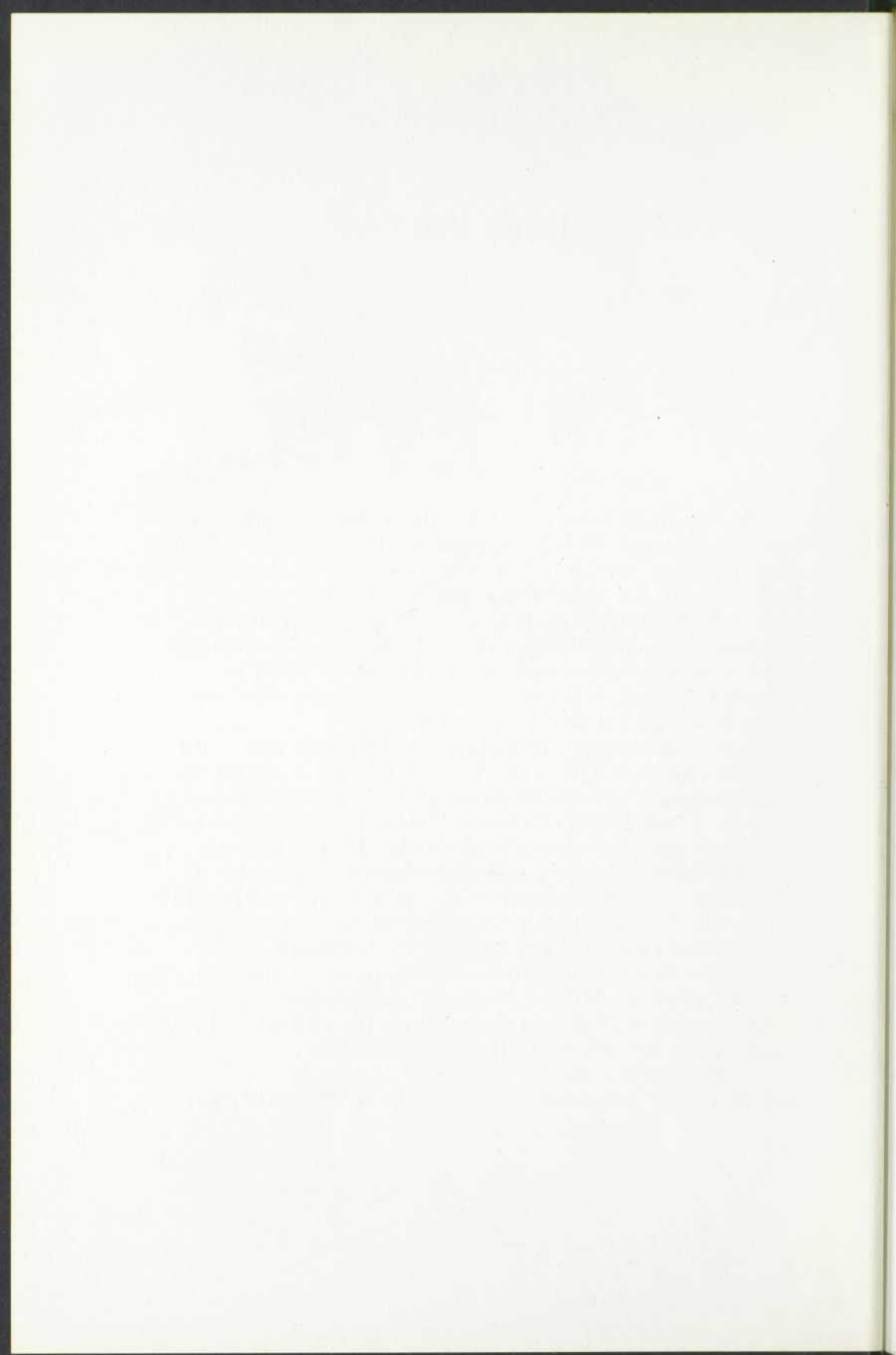
PREFACE

Dr. Ferguson Snell completed this history on the forty-fourth anniversary of his appointment to the staff of Macdonald College. His tenure of active service was the period between 1907 and 1936. Following his official retirement on August 31, 1936, he became Emeritus Professor of Chemistry and later Honorary Historian of the College, maintaining an active interest in and contact with its activities until the autumn of 1950 when he removed to London, Ontario. He passed away there May 20, 1953.

During this period the College lived through two world wars and a great world depression, and in all the events of those years Dr. Snell was an active participant. No one has equalled him in length of service or surpassed him in his devotion to the high ideals for which the College stands. He was, therefore, eminently qualified for the task which he has now brought to completion. This history covers the period from our beginning to the year 1950. Future generations of students and graduates will be grateful to Dr. Snell for the meticulous manner in which he has recorded all the salient facts of those years, many of which would otherwise have been forgotten. All material following 1950 has been added by the undersigned to complete a full fifty years of the Macdonald story.

July 10, 1961.

W. H. BRITTAIN



PERSONAL PREFACE

As one who has been a member of the staff of the College from its opening in 1907, I was asked in 1942 by the Vice-Principal to prepare this history. About the same time, he recommended me to the Canadian Legion War Services to serve as Instructor in the correspondence course in Soils and Field Crops that they were offering to persons in active service.

The preparation of textbooks for that course, the marking of students' papers, and the clerical and correspondence work involved occupied most of my time, and it was only in the spring of 1950 that my resignation of the Instructorship was accepted and I was able to devote myself to the completion of the history.

I am grateful to the members of the Faculty and Staff of the College and University for information about their respective departments, and to the officers of the University for access to their records. I should like to thank particularly the Bursar, Mr. William Bentley, who has been most courteous in allowing me to handle documents in his office.

For the information (which is contained in the first three chapters) about Sir William Macdonald and his distinguished family connections, I am mainly indebted to his niece and her late husband, Dr. W. E. Walsh, who placed at my disposal documents referring to the Macdonalds of Glenaladale and Glenfinnan and private family letters of their Prince Edward

Island descendants. These chapters, though not strictly part of the history of the College, may be of interest to a wider circle of readers than those describing the changes in staff, curricula and property.

My former pupil and later chief, Vice-Principal W. H. Brittain, has maintained a constant, stimulating interest in the progress of the task, and Principal F. Cyril James, though at a greater distance and laden with the multitudinous duties of his office, has frequently expressed his desire to have the work go forward.

So in my eighty-first year, and the year after my departure from the College, I lay down my pen and await immediately the sound of the Examiner's bell, commending myself to His merciful judgment and the indulgence of my readers.

London, Ontario
June 1951.

JOHN FERGUSON SNELL

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Part I—The Founder

Chapter I

HIS ANCESTRY AND FAMILY CONNECTIONS

Macdonald College takes its name from its Founder, Sir William Christopher Macdonald, a native of Prince Edward Island, who for many years had manufactured tobacco in Montreal and had accumulated a large fortune. He was a descendant of the chiefs of the branch of the Clanranald Macdonalds who bore the title of "Glenaladale," and whose estates of Glenaladale and Glenfinnan were located on the shores of Loch Shiel in Inverness-shire.

Clan Macdonald is one of the greatest clans of the Scottish Highlanders. Though the Chieftain from whom it takes its name lived in the first half of the 13th century (1204—1249), historians trace the clan to Somerled 1st, who was killed in battle against the High Steward of Scotland in the year 1164. Genealogical tables in possession of Canadian members of the clan trace Somerled to the ancient Irish Kings, Colla Uais and Conn Ard Righ (Conn of the Hundred Battles), whence in song and story the clan is referred to sometimes as *Clan Cholla* and sometimes as *Clann Chuin*¹.

The Clanranald division of the clan derives from Ranald, Ronald, or Reginald, a great-great-grandson of that Donald for whom the clan is named. Since Ranald's wife, Egidia, was a granddaughter of King Robert II, the Clanranalds can claim descent from Robert Bruce and from the royal houses of England and France.

Ian Og (Young John), the first Glenaladale, was the sec-

THE FOUNDER

ond son of John Moydartach, the seventh Clanranald. Ian Og was made Cashmer (guardian) of the Clanranald sept and was granted the lands of the Glens to defend the passes from the incursions of the restless neighbour clans (one account mentions the Camerons particularly). The descent of the Glenaladale and Sir William's relationship to them and to some other members of Clanranald are indicated in the tables.²

It was the grandfather of Sir William Macdonald, John, the eighth Glenaladale (and the last to claim the title), who was the pioneer of the family in America. The seventh Glenaladale, Alexander, had been one of the foremost supporters of "Bonnie Prince Charlie" in his disastrous attempt to seize the British crown in 1745. Indeed it was in his mansion house of Glenaladale that the gallant adventurer slept on August 18th of that year, and on his estate of Glenfinnan that the silken standard of the Royal House of Stuart was raised the next day and blessed by a Macdonald Bishop of the Roman Church. It is also claimed that the Prince owed his escape after the defeat of Culloden, to no one (excepting the famous Flora) more than to Alexander Macdonald of Glenaladale.³

After the failure of the Stuart cause, matters were made hard for the Catholic Highlanders, and about 1770 they became much worse for those Macdonalds who adhered to the ancient faith. One of their chiefs, *Alastair mor Bhoistal* (Big Alexander of Boisdale), who owned estates in the Hebridean island of South Uist and rented still others from the Clanranald of the day, married a Protestant lady and forsook the religion of his fathers. To induce his tenants to follow his example, he offered education to their children at the hands of the Presbyterian tutor of his own family. Scurrilous sentences were set for the youngsters to copy, and in Lent they were forced to eat meat. To coerce the adults, the chief stood at a parting of the roads, and with his goldheaded cane drove them like sheep away from the church and towards the Kirk.⁴ Having frightened away their Irish priest by threatening to wring his neck, he finally collected the tenants and, addressing them in Gaelic, ordered them to sign a promise to have no future dealings with any Roman priest.

John McDonald, the eighth Glenaladale, who had been a mere child at the time of "the forty-five", was now in his late twenties, and had completed an education (begun at the age of seven) in the Jesuit University of Ratisbon — at Regensburg

HIS ANCESTRY AND FAMILY CONNECTIONS

in the Upper Palatinate, a focus from which in earlier days Christianity had been propagated throughout southern Germany. He had married, and lost by death, a member of the influential family of the Gordons, an aunt of the future Admiral, Sir James Alexander Gordon, who won distinction in the Napoleonic wars and in the American war of 1812. Like his ancestor, Ian Og, he had been named Cashmer of the Clan by the Clanranald of his time, and thus assumed a responsibility for the protection of his clansmen and coreligionists.

Prince Edward Island, then known as the "Island of Saint John in the Gulph of Saint Lawrence", was amongst the colonies ceded to Britain by France in the treaty of 1763. In 1764-5 it was surveyed by Samuel Holland, who divided it into sixty-seven "Lots" of about 20,000 acres each (similar in area to townships elsewhere), and on July 23, 1767, these were allotted by ballot to persons who had claims for military, naval, or other services. John McDonald had heard of these grants and on the basis of the survey reports, had formed an over-favourable opinion of the prospects of the lands for settlement, and particularly of those of Lot 36. Bishop Grant, Vicar Apostolic of the Highlands, and Bishop Hay, his coadjutor, had already reached a decision to move the Catholics to America and had collected a sum of money towards the expense of the undertaking, when McDonald came forward with an offer to buy one or more of the Island lots and to settle his clansmen upon them as his tenants. As Bishop Hay wrote: "Worthy Glenaladale affirms he will sell all he has for that end and that he will himself go along with them. His conduct, indeed, upon this occasion is exceedingly edifying, he seems to have inherited all the zeal of primitive times as well as the piety of his own worthy ancestors."

Accordingly, Glenaladale mortgaged the family estates of Glenaladale and Glenfinnan to his cousin, Alexander Macdonald of Borrodale, who having made a fortune abroad was known as "*Alistair an Oir*" ("Golden Sandy"). As John McDonald was never in position to redeem the mortgage, he thus parted with his ancestral home. In the spring of 1771, he came into possession of Lot 36 and, either then or shortly afterwards, of Lot 35, each of 20,000 acres.⁵ A preliminary party of thirteen pioneers was sent out in that year to erect buildings and commence cultivation. In 1772, Donald McDonald, Glenaladale's brother, took out a party of over two hundred Highland Cath-

THE FOUNDER

olics⁶ and established one of the earliest settlements of Highland Scots in what is now the Dominion of Canada.⁷ In 1773, Glenaladale himself joined the Island colony. He came by way of Philadelphia, observed American soils and methods of agriculture on his way northward, and brought from Boston a cargo of supplies sufficient to support the settlers for a year.

He found much discontent and discouragement amongst the people. His brother had already secured a cargo of supplies from Quebec, and he was therefore able to undertake to provide for all on condition that they set to work. Conditions were so different from what the immigrants had been accustomed to as shepherds and herdsmen in Scotland that it was necessary for him to instruct and superintend them in their farming operations. He brought them agricultural implements, and he imported live stock for them from the other colonies. With true Highland hospitality he gave overnight shelter to benighted travellers (sometimes as many as thirty at once), and in the morning sent them on their way with a *viaticum*.

In 1775, before his tenants had been established in permanent locations, he was commissioned to visit the continental American colonies (probably Nova Scotia in particular), to use his influence in maintaining the loyalty of the Highland Scottish settlers. With Major (afterwards General) Small, he organized a battalion of Sir Allan Maclean's 84th Royal Highland Regiment in Nova Scotia and the Island.⁸ Throughout the eight years of war he served as Captain in this regiment, winning such distinction⁹ as to merit General Small's commendation as "one of the most accomplished men and best officers of his rank in His Majesty's service".

Meantime his personal interests suffered. In fear of American privateers — who, in disobedience to the orders of their superiors, invaded the Island and carried away the Administrator, whom the Governor had left in charge at Charlottetown — many of McDonald's tenants left his lands for those of other landlords, less obnoxious to the insurgents. The quitrents¹⁰ necessary to the maintenance of his title remained unpaid and in 1781 the lands, together with those of some of the other proprietors, were sold by order of the Provincial Government, whose officers "bought in" the most desirable lots for themselves.¹¹

On his return from military service in 1783, John McDonald petitioned the King for the return of his lands and for

HIS ANCESTRY AND FAMILY CONNECTIONS

the remission of the quitrents, setting forth that during his absence on active service he "had no power to pay the least attention to his interest in the Island" and that his brother, Donald, who held a Lieutenancy in the army (in another company of the 84th Regiment), had been killed in action. It was not for many years, and not without bitter controversy, that he eventually regained possession of his property.

In 1797 he was summoned to the bar of the Island Assembly to apologize for what a resolution described as a "wanton and wicked attempt to impress by a torrent of the most shameless scurrility, misrepresentation and falsehood a belief — that there actually existed — a levelling party — employed in disseminating principles analogous to those which led France to her disastrous internal calamities," but it is amusing to note that although he refused to obey the summons, the Assembly contented itself with this resounding resolution and did not proceed to an arrest. Eleven years later, the Government having been changed, the Assembly supported his petition for remission of the quitrents, describing him as "a gentleman deserving the consideration of our beneficent Sovereign".¹² It is said that Captain John McDonald was offered, and urged to accept, the Governorship of Prince Edward Island, but declined on account of the required oath in acknowledgment of the King's supremacy in spiritual matters, maintaining that "neither his honor nor his conscience would permit him to take such an oath."¹³ Extracts from a long letter to his daughter, Flora, a pupil in the convent of the Ursulines of Quebec, published in Miss Anna Macdonald's pamphlet "A Knight of the Eighteenth Century", are indicative of his Catholic piety, as well as to his command of English. The following is typical:

"I have been agitated too long and too much in the turmoils of this transitory life to entertain any high opinion of it but as a state of trial and passage to a better. If, however, I might presume to wish for more of it, it would only be in the fond desire of assisting, with the favor of our eternal and real Father, to make you good Catholic Christians and useful members of society and to fix or settle you all in life."¹⁴

Although so loyal to his convictions, he appears to have been tolerant towards those of others, doubtless owing to his fine education and his broad experience of the world. Not only did he come to the rescue of his Acadian fellow-churchmen by securing for them a pastor of their own race, but he is

THE FOUNDER

reported to have given a liberal contribution towards the building of the first Protestant church in Charlottetown.¹⁵

After the death in battle of his brother Donald, the only other brother being a priest, Captain John married Margaret MacDonald of Ghernish, a close relative to the chief of the Glengarry branch of the clan. The title of "Queen of Tracadie" bestowed upon this lady by her fellow colonists suggests a commanding personality. Their eldest son, Donald, was the father of our Founder.¹⁶ John McDonald died at the age of sixty-eight on December 29, 1811, the same year in which, in distant Montreal, James McGill wrote a will providing for the founding of a University in which by virtue of generous gifts, the names of the two families were destined to be indissolubly linked.

Donald McDonald, the eldest son of Captain John, born October 25, 1795, was educated in Lancashire in the Catholic College of Stonyhurst.¹⁷ He was from 1839 to 1854 a member of the Legislative Council of the Island, and at the time of his death in 1854 held the Presidency of that body. About 1820 he married Anna Matilda Brecken, daughter of John Brecken, a neighboring landowner and a member of the Legislative Council of the Island. Although much less written record has been discovered regarding the maternal, than regarding the paternal, ancestry of our Founder, it is clear that he had as good cause for pride in the former as in the latter. The mother of Anna Matilda Brecken (and thus the maternal grandmother of Sir William) was a daughter of Lieutenant-Colonel Joseph Robinson, a native of Virginia, who, at the outbreak of the American Revolutionary War, was a major in the militia of South Carolina and the proprietor of a valuable estate in that colony. At the command of the Governor, he assembled a force of two thousand men with which he defeated a fortified force of the insurgents. The Governor, however, was obliged to leave the colony and a reward was offered for the life of the major. Left without resources, Robinson disbanded his men and took refuge amongst the Indians. In 1777 he arrived in St. Augustine, Florida. A number of his former associates joined him there, and a regiment of South Carolina Royalists was organized and placed under his command. It took part in a number of battles.

Meantime the revolutionists had burned the buildings on his estate, including the dwelling, from which Mrs. Robinson

HIS ANCESTRY AND FAMILY CONNECTIONS

barely escaped with her two infant daughters. After several hundred miles of travel through the forest on horseback, accompanied by a negro slave, she joined her husband in Florida.

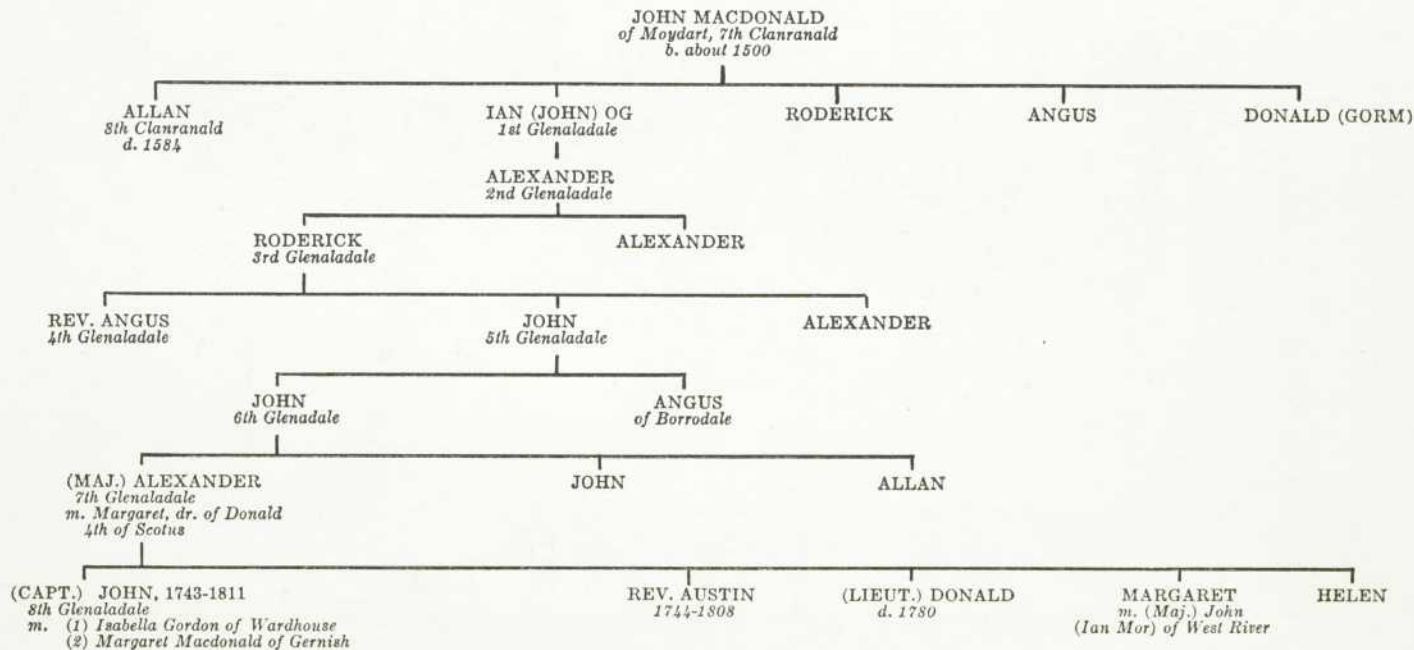
At the conclusion of the war the family set sail for Jamaica. They were shipwrecked and lost the small residue of their belongings but eventually arrived in Jamaica. After a time they emigrated to New Brunswick and ultimately to the "Island of St. John".¹⁸ A slave who accompanied them to the Island and lived there to the age of 103 delighted to tell how he had saved the lives of Mrs. Robinson and the children when sharks upset a boat in which they were being taken ashore in the West Indies.¹⁹

As might be expected, Lieutenant-Colonel Robinson took an active interest in the public life of the colony. In 1790 he was elected Speaker of the House of Assembly, an office which he held for five years. Afterwards he became Assistant Justice of the Supreme Court and a member of the Executive Council. His twice-rescued daughters became the wives of Ralph Brecken, Esquire, and Hon. Robert Hodgson (Speaker of the House of Assembly 1806-11) and the ancestresses²⁰ of such leading citizens as Hon. Ralph Brecken, Hon. T. Heath Haviland, Hon. Frederick St. Croix Brecken, Judge Leith A. Brecken, Hon. George D. DeBlois and Sir Robert Hodgson (See note 20 for brief accounts of careers). Haviland and Hodgson played specially prominent parts in the nineteenth century history of the colony.

It may be added that Hon. Andrew A. Macdonald, another Father of Confederation, and his brother, Augustine Colin Macdonald, both of whom were post-Confederation Lieutenant-Governors of Prince Edward Island, were descendants of the fifth Glenaladale, and that Hon. John Small Macdonald derived not only from the fifth but also, through his mother, a sister of Captain John, from the seventh Glenaladale² (Table III).

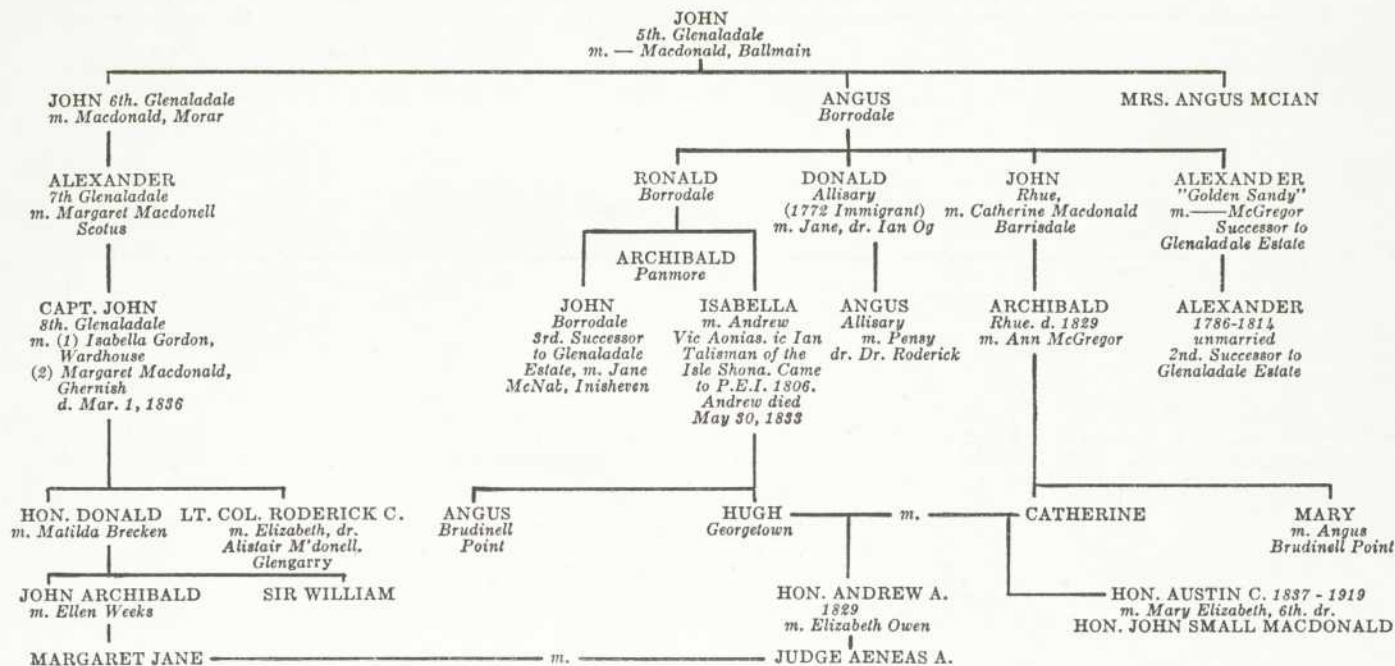
It is therefore clear that Sir William was derived from, or connected with many of the ruling families of Prince Edward Island — Scottish Catholic on the father's, English Protestant on the mother's side.

GENEALOGICAL TABLE I
The Origin and Succession of the Glenaladale Chieftains



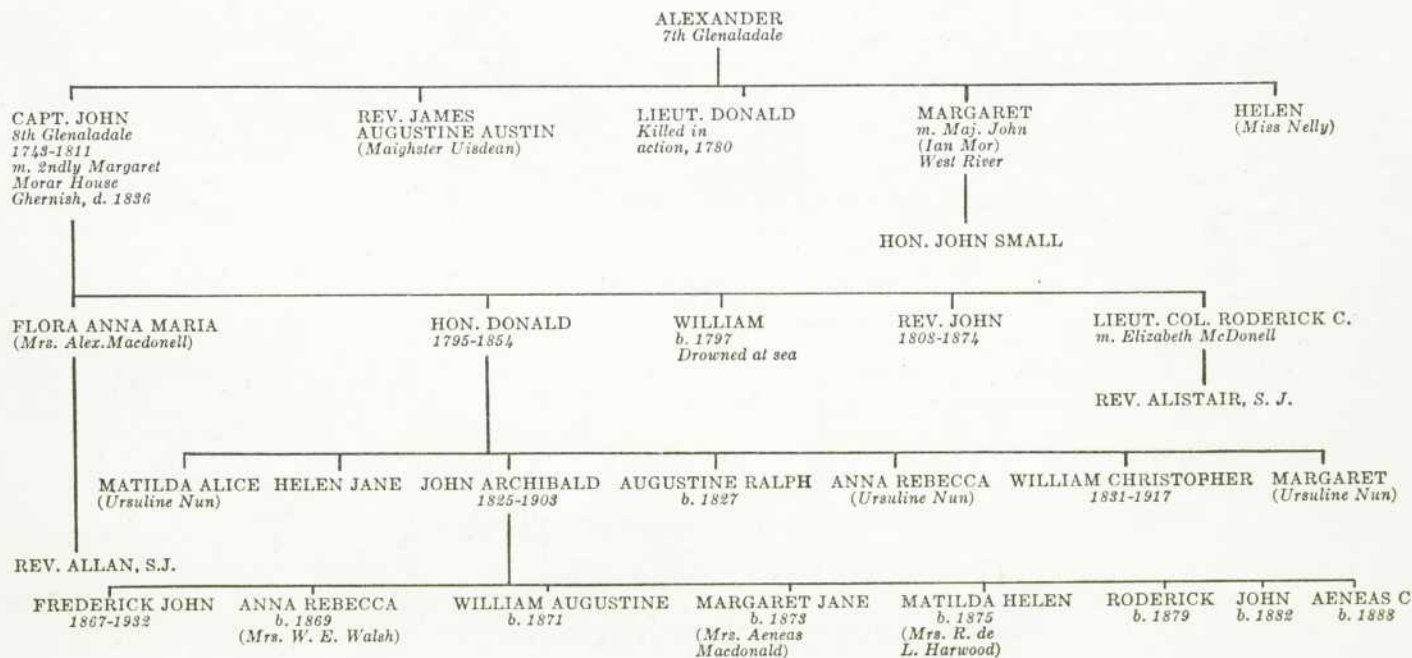
Derived mainly from a newspaper letter of A. McLean Sinclair in the scrapbook of the late Alain Chartier Macdonald.

GENEALOGICAL TABLE II
Interrelations of the Glenaladale and Borrodale Macdonalds

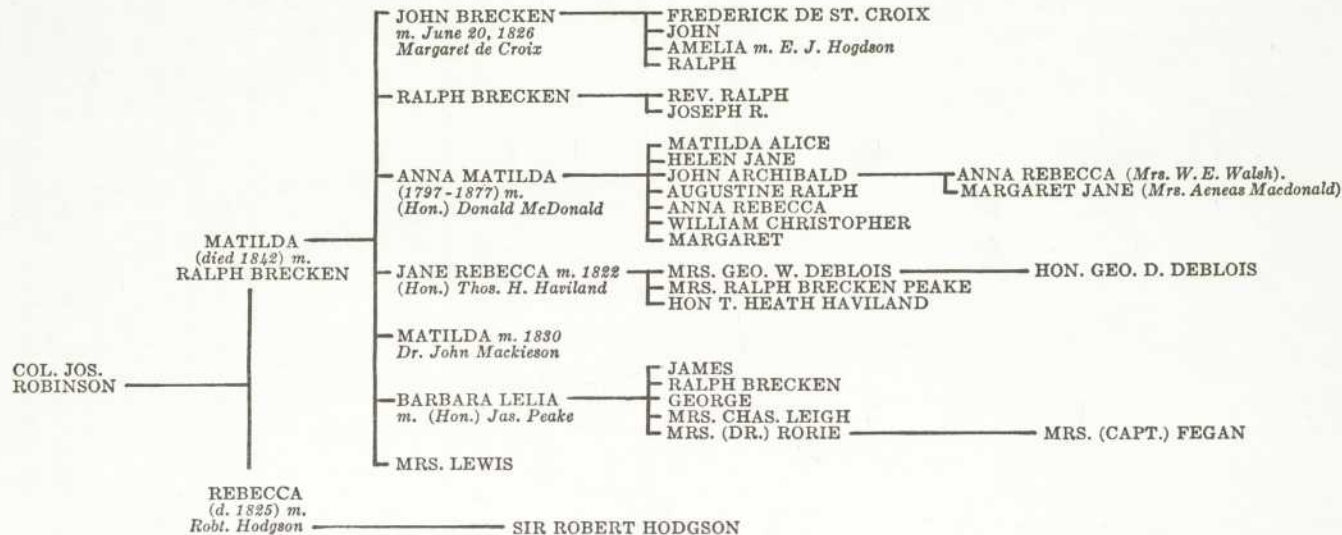


GENEALOGICAL TABLE III

The Closer Macdonald Connections of Sir William



GENEALOGICAL TABLE IV
Brecken Connections of Sir William Macdonald



Chapter II

THE STORY OF HIS LIFE

Seven children were born to Hon. Donald and Mrs. McDonald,¹ of whom William Christopher, born February 10, 1831, was the sixth—the youngest of the three sons.² Not much is known of Sir William's boyhood. He attended a country school, and it is said that Latin verses learned there from his Uncle John, a priest, were fresh in his memory in old age. Later he was for a time a pupil in the Central Academy of Charlottetown, a school that later developed into the present Prince of Wales College. He appears to have taken part in the services of the Church, either as an acolyte or as a choir boy. Whether from actual knowledge or by inference from his later characteristics, he is described as a reserved, shy lad, content to make his way quietly. When occasion arose, however, he exhibited keen intelligence, proud independence, a dominating will and a kindly attitude towards his associates in general, but a bitter and relentless antipathy towards those who opposed him. It is said that the reading and discussion of poetry was a practice in the McDonald household and that Pope, Cowper and Mrs. Hemans were favourites with young William. Differences in outlook between his Catholic father and Protestant-bred mother led him to discard all sectarian connections long before he became of age.³

The Honourable Donald had sent his two elder sons, John Archibald and Augustine Ralph, to his own Alma Mater, Stonyhurst, and it seems altogether probable that William would

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have followed the same course had it not been for a breach with his father, which resulted in his being apprenticed at the age of sixteen to a cousin by marriage, a Mr. Brennan, who kept a general store in Charlottetown. The sensitive soul of the youth rebelled against this action of his father, and an episode, vaguely described by him in a letter as "a godsend in the way of kettles and pans", resulted in his dismissal and his departure for Quebec without paternal blessing or means of support.

A bitter letter written to his father in July 1849 reveals that both he and his brother Augustine were then in Boston.

In this letter he describes himself as "a minor in a counting room" drawing insufficient salary to support him, and, though reproaching his father for the treatment he had received, asks for a remittance and threatens, in case of refusal, to ship as a sailor to California, accomplishing a permanent separation. His regard for his mother is evidenced by a request that this threat be kept from her knowledge.⁴

Within two years, without resigning his employment, he was consigning goods to Halifax on his own account and persuading his eldest brother, John Archibald, to give up farming and open a store in Charlottetown in which he would be a silent partner. One cargo of goods, valued at over \$6,700, was dispatched for Charlottetown in late December, 1851, in the schooner "Responsible". The vessel was wrecked, though some at least of the goods were recovered. This unfortunate adventure and a slander against Augustine, published in Boston by a business rival, appear to have discouraged John Archibald and to have brought the partnership to an end. Immediately after making this shipment of goods, the young man, then approaching his majority, moved to New York, where he expected to engage with a large commission house.

Early in 1852, however, he joined his brother Augustine in Montreal, where they engaged in business as oil and commission merchants.⁵ In July 1854, Hon. Donald MacDonald, with his youngest daughter, whom he was taking to the Ursuline Convent in Quebec, paid a surprise visit to the two brothers in their St. Peter Street office. In a letter to his eldest son, John Archibald, he represented the partners as having operated to the extent of forty thousand pounds a year and as hoping to *clear* twenty thousand pounds in the course of five years. The reunion appears to have been a happy one. Noth-

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ing is said of bygone differences and, though the father expresses deep concern over his second daughter's desertion of the Catholic faith to become a Protestant, he makes no comment on William's defection from the Church. Hon. Donald, then President of the Legislative Council of the Island, did not reach home but died in Quebec, of cholera, early in August.⁵

In 1858 the brothers engaged in the manufacture of tobacco under the firm name of "McDonald Brothers and Co.," which was altered after 1865 to "W. C. McDonald, tobacco merchant and manufacturer."⁶

The report is current that the initial success of the tobacco business was due to a jealously guarded recipe for the manufacture of a chewing tobacco. It is said also that the occurrence of the Civil War in the United States created an extraordinarily favorable condition for the establishment of a tobacco manufacturing business in Canada — a circumstance that the young businessmen must have been quick to foresee, as the factory was commenced before the outbreak of hostilities.

The plugs of Macdonald tobacco, both chewing and smoking, were distinguished by a little heart-shaped tin label with sharp lugs which were pressed into the tobacco. Labels from used plugs might be seen scattered about railway stations, lumber camps and farm stables, sometimes decorating hatbands and occasionally appearing in church collection plates. The "tobacco with a heart" became a prime favourite with fishermen, sailors, trappers, miners, lumbermen, farm labourers, railway hands — even with Indians and Esquimaux. Dealers had to carry it in stock even though profits on it were small or even negligible, and William C. Macdonald saw to it that no undue share of the profits should go where they might be dissipated by men of less frugal habits and less generously far-seeing motives than his own.

Augustine McDonald appears to have gone to the United States about 1863 and to have withdrawn from the firm by 1865 or 1866.⁷

The location of the tobacco works changed frequently with the development of the business and the city, but the office never moved far from Place d'Armes, even when, about 1876, a factory was built on Ontario Street East, between Dufresne and Iberville Streets — the present location of Macdonald Tobacco Inc. For some years this office was on St. Paul Street, and afterwards for many years on Notre Dame Street.

THE STORY OF HIS LIFE

Business visitors refer to climbing a rickety stair and entering a room furnished with a plain deal table and kitchen chairs. Here even a firm of the best financial standing had to present cash or a marked cheque in payment for its last consignment of goods before entering its order for a fresh supply. The order had then to be taken to the Customs House for payment of charges and to the warehouse for delivery of the goods, conveyance of which to the customer's premises had to be arranged by himself. Macdonald sold *tobacco*, not services!

Until 1869, Mr. Macdonald lived a boarder's life, usually in either St. Lawrence Hall or the Ottawa Hotel, both of which were located in "Great St. James St."⁸ In August 1868, he paid a visit to the Island home and, while waiting in Saint John for a steamer to Portland, it occurred to him to invite his mother and his sister Helen to come to Montreal to live with him. To each of them he wrote an affectionate letter, pointing out to the sister the advantages of their being all together, particularly in the event of the death of any of the three, and promising them all the comforts of a modern city home should they decide to accept his offer, but leaving them quite free to accept or decline as they thought best.⁹ The offer having been accepted, he purchased the residence No. 3 of the Prince of Wales Terrace, which stands on the corner of Sherbrooke and McTavish streets, just west of the McGill University grounds. This was his home for the rest of his life.¹⁰

Two years before William C. Macdonald set up this household in Montreal, his eldest brother, John Archibald, at the age of forty, had married a girl of eighteen. The prosperous William took a generous interest in the family of twelve children and in the estate, "Glenaladale" of Tracadie. He built a new farm house and a very large barn (since burnt), and furnished the fields with liberal supplies of fertilizer. As the children grew, he provided for their education. Three of the younger boys were sent to Merchiston Castle School in Edinburgh, and the three girls to Cheltenham College in Gloucestershire. The eldest son, heir to the estate, was given courses in the Massachusetts and Ontario Agricultural Colleges. Two of the other boys came to Montreal where one of them was tutored by Mr. Wellington Dixon of the Montreal High School and the other was entered in McGill University. As to the record of these boys as students, history is silent. It is authentically related, however, that one of them was sent home to

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the Island as a punishment for the wasteful and objectionable habit of smoking tobacco.

Upon the death of William Macdonald's mother, Miss Helen succeeded to the management of her brother's household and when, during a journey abroad, she died at Florence in 1889, this responsibility devolved upon his eldest niece, Anna Rebecca (daughter of John Archibald), then twenty years of age. A break between this handsome young lady and her uncle occurred in 1894 when, in spite of his opposition, she married Alain Chartier Macdonald, a member of the Keppoch branch of the clan, who had also close connections with French Canadian families of the highest social standing.¹¹

The separation was absolute, the uncle not only refusing to admit his niece to his house but also discontinuing all assistance to his brother's family. It was only on his deathbed when, unable to speak, he affectionately pressed her hand, that the breach with his niece was closed. In the meantime she had become a widow and had married an Irish Catholic, William Emmet Walsh, an authority on Celtic history and culture and the author of some charming romances of early Ireland, as well as of other literary notes.¹²

There can be no doubt that this separation from his beloved niece cost the sixty-three year old uncle an agony of spirit similar to that suffered by the adolescent youth when incompatible loyalties separated him from his father. Servants present in the house after the young lady's departure tell of his pacing the floor in a passion of resentment and grief.

For the remaining twenty-three years of his life, William Macdonald lived alone in his house in the Prince of Wales Terrace, visiting his office daily either on foot or in an ageing phaeton. Two absorbing interests, business and education, partially compensated for the loss of his cherished ties of kinship.

His growing and prosperous business soon won him a place amongst the financial leaders of the city. He had purchased stock in the Bank of Montreal, and in 1887 had been elected to its Board of Directors — a tribute to the regard in which his acumen and judgment were held in the business world.

The other interest, that in education, doubtless prompted in part by regret that his own schooling had been so early interrupted and in part by the sight of the numerous students

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passing his door on the way to and from the University, offered some consolation for his personal isolation. We have referred to his generous interest in the education of his brother's family. However his sympathies were never confined to his young relatives. As early as 1870 (when his brother's eldest child would be only three years old), he had got in touch with the Principal of the University, Dr. John William Dawson¹³, and arranged for the offer of ten annual matriculation scholarships. In 1881 these had been permanently established by an endowment of \$25,000, an endowment which still (in 1950) provides for several scholarships in the Faculty of Arts. On May 19, 1883, he was elected to the Board of Governors of the University. In 1893, the year before the family rupture and the last of the thirty-eight years of Dawson's Principalship, the Macdonald Engineering and Physics Buildings were opened — the former a joint donation of Mr. Macdonald and Mr. Thomas Workman, the latter an exclusive gift of McGill's most munificent benefactor.

Upon the death of Lord Strathcona in 1914, Mr. Macdonald was persuaded to accept the Presidency of the Board and the Chancellorship of the University. It is characteristic of his modesty that, in reluctantly accepting the latter office, he expressed his "earnest hope that no harm shall ever come to the University in consequence of this election."¹⁴

Sir William Dawson's successor as Principal was the Scottish classical scholar, Dr. William Peterson, who in due course (1915) received the honor of Knighthood from his Sovereign. Dr. Peterson took up his duties in September 1895, and it is scarcely credible that it was mere coincidence that made him a next door neighbour of Mr. Macdonald in the Prince of Wales Terrace. Diverse as were their mental types and their experiences in life, the two men became fast friends and collaborated loyally in the interests of the University until separated by death, each respecting the quality of the other. One who was in touch with both relates that within twenty-four hours he had heard Macdonald refer to Peterson as "your terrible principal" and Peterson to Macdonald as "that dear old Saint!"¹⁵

The Macdonald donations all fell within the Principalships of Dawson and Peterson. The annual reports of the University in the last quarter of the nineteenth century are replete with references to scholarships, endowments of chairs, gifts of land, equipments of laboratories, and payments of deficits by "Mr.

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W. C. McDonald"; and similar references to "Sir William Macdonald" are equally numerous in the early reports of the present century.

The circumstances that led to the founding of Macdonald College will be detailed in another chapter, but it may here be recorded that the undertaking of that ambitious project did not by any means stem the flood of donations to those existing departments of the University which appealed to his judgment nor to the University as a whole. The McGill Union Building was given in 1903-04, when the Macdonald-Robertson movement for the betterment of rural life was being supported from his purse. The Macdonald College buildings were well on their way to completion when, in the spring of 1907, the McGill Engineering Building was burned. Sir William provided funds for rebuilding. In 1909 a syndicate (including, it is rumoured, some of the members of the Board of Governors) purchased the Joseph property at the southwest corner of the McGill grounds, including the little building afterwards devoted to the McCord Historical Museum. They intended to build a hotel there. In great alarm Sir William Peterson appealed to Macdonald. "I will not have McGill made the backyard of any hotel!" exclaimed the latter; and, with threats of exposure and financial ruin, he prevailed upon the head of the syndicate and his associates to sell him the property for five hundred dollars more than it had cost them. At this very time, the need of increased endowment for Macdonald College was becoming apparent. A few years later (1911), he purchased the land (Macdonald Park) upon which the gymnasium, the stadium and Douglas Hall now stand and presented it to the University — twenty-five acres of city property, then valued at over a million dollars! His will, besides adding a further million to the endowment of Macdonald College, left munificent bequests to the Faculty of Medicine and the Conservatorium of Music and endowment for a travelling Fellowship in the Faculty of Law.

Nor, though the University was his primary interest, were Sir William's benefactions confined thereto. Several hospitals received donations, and the City of Montreal owes the Crematorium in the Mount Royal Cemetery, with its beautiful surroundings, to this generous and farsighted man.

The good bachelor benefactor of McGill and Founder of Macdonald lived to the age of eighty-six. His death occurred on June 9, 1917. The funeral was held from his Sherbrooke

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street residence, the only ceremony being the delivery of the following graceful and appropriate oration by Sir William Peterson:

"Many of those present will share my doubt as to whether our departed friend would have cared to have anyone stand forward here today and use vain words about him now that he is no more. But a request has been made to me which I cannot ignore. For the long period of twenty-one years, I have been his nearest neighbor and he was Chancellor of the University through whose grounds we are about to bear his mortal remains — the University for which he did so much and in which his memory will never die. That is why I have consented to break the reverent silence which I know he would have considered otherwise appropriate to these last sad rites.

Anything that savours of eulogy would certainly have been distasteful to him. You know how modest and retiring he was, with a kind of shy diffidence about him that made him almost to shrink from public notice. All that was, in most of the relations of life, the true indication of a genuine humility. And yet he had a sort of pride about him, too. Solitude had made him self-reliant; I doubt if there ever was a man who was less dependent on others. His philosophy of life rendered him absolutely detached, independent and self-contained. But with all his aloofness and reserve, there was always coupled a certain graciousness and geniality. His old-fashioned courtesy was largely the result of that consideration for others which was one of his marked characteristics; but he owed it also, I think, in large measures to his birth and breeding. He was a man of old descent and high lineage. And though there was very little romance or sentiment in his composition, there were times when he could easily be made to remember that he was the surviving representative of the chieftains of a gallant Scottish clan which formed part of the "small devoted band" that made a last heroic effort by the shores of dark Loch Shiel in defence of Charles Stuart. And there at Glenaladale and Glenfinnan what might have been his ancestral possessions remain to this day.

When death occurs at such a ripe old age and after so much good work well done, there is no call for tears or sorrow and mourning. The occasion is rather one which will prompt our Montreal community, while marking the flight of time and

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its significance for each and all of us, to ponder for a little the lessons of the life which has now been closed in death. To most of you our late friend was known mainly, I take it, as a successful man of business. He belonged to the race of merchant princes. He was the architect of his own fortunes and the capacity he displayed in building up and organizing a great business must have been little short of genius. And when success had fully crowned his arduous efforts, he settled down to use the wealth that came to him for the benefit of his fellow men.

To be of service to others, on lines of his own choosing, was with him a passion. It inspired all his solitary thinking, all his careful planning and farsighted calculations. Long ago he took a vow that he would do things by which his fellow citizens would care to remember him; and today he is remembered not only in Montreal, but also in the Province of Quebec, and indeed throughout our wide Dominion. For the fulfilment of this view is seen in Macdonald College, in the spacious site of Macdonald Park, which he donated to McGill University, and in other most munificent gifts too numerous to mention. There was something that amounted almost to a sort of religious fervor in the way he went about his great benefactions.

I remember being struck to find how carefully he had marked — as was his habit in almost everything he read — certain words of Bishop Lightfoot's, as quoted in a copy he once lent me of the Handbook of Girard College:

'The holy season extends all the year round, the temple confined only by the limits of the habitable world, a priesthood co-extensive with the human race.'¹⁶

Those words he must have taken as a confession of his faith; he certainly believed that the best way of glorifying God was to do one's utmost for one's fellow men.

Though his range was naturally somewhat limited, he was sincerely fond of good poetry, and in his early days he had learnt many things by heart. Finding him lately in great weakness — though his mind was evidently as clear as it has always been throughout his long illness — I reminded him that perhaps he could derive some comfort by repeating to himself Pope's Universal Prayer, which I knew he could by heart, and it was supremely touching to hear his voice, strong even in his

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weakness, at once and without a moment's pause, take up the well known invocation:

'Father of all in ev'ry age
In ev'ry clime ador'd' ¹⁷

There has always been some speculation as to the exact form and degree of his religious faith. It is true that as a result of his "obstinate questioning" he had parted with many of the conventional beliefs of orthodox Christianity. But, speaking for myself, I cherish the conviction that when the record is made up it will be found that the name of William C. Macdonald has not on that account been blotted from the Book of Life." ¹⁸

His body was borne round the tomb of James McGill on the University grounds and was committed to the flames in the Crematorium in Mount Royal Cemetery which, together with an endowment for the upkeep of its chapel, was a gift of his to the city where his life's work had been done, his enormous fortune built up, and his generous dreams conceived and brought to fruition. On the lot, in which were buried his mother in 1877 and his sister in 1889, there is a stone bearing the simple inscription:

Sir William Christopher Macdonald
1831 — 1917
Merchant and Philanthropist
Founder of Macdonald College
Chancellor of McGill University

Chapter III

HIS CHARACTER

Sir William Macdonald was a man of rather small stature and of slender frame. Even in old age he was remarkably agile, sure-footed, and graceful of movement. In a Founder's Day address, Principal Harrison told of having to follow the seventy-five year old gentleman across a high, narrow beam in the unfinished Main Building, a suggestion that they go down to cross over having been summarily rejected. Sir William was conscious of his small stature and humorously referred to it a few days after Dr. Robertson's reference to the stalwart members of Macdonald staff, by venturing slyly, as he surveyed the nearly completed buildings, "Not so bad for a *little* fellow, is it?"

Professor Percy Nobbs, the architect, was impressed by Sir William's qualities. "There was a fine style about Sir William", he wrote. "On the small finely-arched feet, so characteristic of a highbred Highlander, he wore the shiniest of boots, and it was a sight to see him skip, with antelope dexterity, across the March mud of Sherbrooke Street (macadamized and rutted in those days) and arrive with unspecked footgear on the far pavement. He could spend hours on a building under construction, going from wallhead to basement, without bumping his tall grey felt hat or rubbing plaster on an elbow".¹

This neatness and formality of dress was characteristic of him. In his days of prosperity his dress habitually included the shiny black shoes and a long black broadcloth "morning coat",

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surmounted in summer by a gray "plug" hat, lower than the black ones worn on Sundays by the church-going males of his day, in winter by a peaked mink cap. In such guise he might often be seen on a Saturday afternoon walking about the grounds of Macdonald College, stopping here and there to speak to a student or a workman and refusing offers of a drive, both to avoid inconveniencing the driver and to preserve the independence of his observations.

Probity, thoroughness and courtesy were marked features of his character—courtesy to the point of generosity, thoroughness that insisted on work being well finished, and probity that demanded that such work should be adequately rewarded. It must be confessed, however, that his courtesy had not been developed in family relations, for his references to his father are anything but respectful, and he lectures his brother, six years his senior, on the virtues of diligence and study, exhorting him to "let nothing stop you, not even your bald head ha! ha! ha! . . . Study, my dear brother, you require much, etc." In these letters his handwriting is even, his spelling is almost faultless and he satirically quotes his brother's misspelling of the word "penitentiary" as "penetentiary". However, even in his more mellow years, as we shall see, satire was not always uninhibited.

His attention to detail was astonishing. One rainy Saturday afternoon a member of the staff of one of the biological departments of the University found him standing on a chair in a laboratory room looking for evidence of a roof-leak of which he had heard mention. On another occasion he came into the University office to inquire why a half-mast flag was still flying some four days after the death of a prominent member of the University. He said he had understood that the flag should be restored to its usual position as soon as burial had taken place. (Fortunately, he could be assured that this usage had not been violated, as the body had been sent to Nova Scotia for interment.)

Characteristic of Sir William's thoroughness is the story of his test of the guarantee of the contractors that the college buildings were fireproof. While the floor of the room which was up to 1946 the office of the Bursar (later the Secretary) of the College (Room 7) was covered with shavings, Sir William had a fire-engine stationed in front of the building, had kerosene poured on the shavings and himself applied a match.

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The resulting fire scorched the doors and slightly warped a steel beam in the ceiling but expired without the intervention of the firemen.

A young relative, native of "The Island" but resident in Montreal, calling on Sir William at his home, remarked that he had seen in the Montreal Star an announcement of the engagement of Mr. Hensley. As there was a slight connection of the Hensleys with Sir William (a daughter of Sir Robert Hodgson, Sir William's cousin, being the wife of a Justice Hensley), his young friend thought Sir William might be interested. Sir William replied positively, "Excuse me, but you must be mistaken in thinking you saw such an announcement in the Star, because I read that paper and can assure you there has been no such item in any of its recent issues". The visitor stuck to his point and finally said he was sure he had read it in "last Wednesday's Star". Sir William produced last Wednesday's Star and, turning to the announcements, his face lit up with a smile as he handed the paper to his friend saying, "You may see for yourself that I am right. The name here is Hemsley, not Hensley. The Hemsleys are an altogether different family".

He was also precise and careful in his business dealings, as is manifest in the letters addressed to his eldest brother when as a youth in Boston he began shipping goods to his brother John Archibald for sale in Charlottetown. Very specific and detailed directions were given for the procedure in clearing the goods, and information was requested upon the market prospects for certain classes of merchandise.

He gave close personal attention not only to his business but to the study of the educational enterprises upon which his heart was set. Says Dr. W. B. Howell: "There was a room on the ground floor of his austere, plainly furnished house in "Prince of Wales Terrace" which was known as 'the library'. The shelves were packed with magazines and reports. The tables, chairs and sofa were heaped with them. There were few bound volumes. Here, standing at a lectern, he read for hours together in his untiring quest for information about the subject nearest to his heart. In that room he dreamed of a nobler alchemy by which gold was to turn into happiness, not for himself but for young people".²

His self-confidence, enterprise and ambition manifested themselves early in life, and it need scarcely be added, charac-

HIS CHARACTER

terized his whole career, the ambition being never for ease or self-glorification. The magnitude of the business obligations he ventured so early to assume must have astonished his brother, and may have been, at least in part, the reason for John Archibald's reluctance to consent to a partnership and his preference for a salary, perhaps also for his early abandonment of the project. William's self-confidence and determination are well illustrated by his signing one of these letters with a thrice-underlined "W. C. McDonald" and adding, "I shall not stop until that signature is GOLD wherever it appears."

Though generous, except perhaps in business deals, where beyond the pleasure of enforcing his will over those of others, in other words "having his own way", his motive may have been the conviction that wealth in his own purse would be devoted to greater and better purposes than in the hands of the common run of business men, Sir William was personally frugal to the point of asceticism. To quote Sir Arthur Currie: "Although a man of great wealth he lived plainly, simply, frugally and naturally. The luxuries of life, the vulgar display of wealth, the setting of himself above his fellowmen had no appeal to him".³

Mrs. Muldrew, the original "Housemother" of the Women's Residence, tells how, when visiting the college, he sat at her table in the students' dining hall. "On one occasion he refused tea and drank a glass of milk. He refused to add butter to his bread, saying that he did not take butter when he drank milk".⁴ Frugality, doubtless a matter of necessity in the hard days of adolescence in Boston, had become a habit and a source of pride. "In that sharp-lined eagle-eyed face," wrote Augustus Biddle in a sketch of the contrasting features of Sir William's character, "could be seen the lines of the proverb, 'Waste not, want not!'"⁵

Certainly, Sir William abhorred wastefulness, even in small things. Finding on the headlands of a field on the College property some few pounds out of several tons of tobacco stems he had sent out for use as fertilizer, he reproved Prof. Blair for not having had even this plowed in. "Do you waste your money on tobacco?" he asked Dr. Harrison when he found him smoking.

Miss Clare Harrington remembers Sir William cautioning her against leaving water running from a faucet, pointing out

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that it was brought there by the city pumps and every increased flow meant extra expense to the city.

To illustrate his ascetic manner of life we are permitted to quote the observations of a physician who attended him during an illness: "I found him sleeping in an old iron bed in a small third-floor room devoid of all decoration — not even a picture on the wall — and furnished with only a bureau and one or two chairs. He certainly looked the picture of misery in that room".

Another story, possibly more illustrative of his shrewdness than of his frugality, is told of him. In his old age, he called on a furrier and asked whether a fur coat as warm as the one he was wearing but lighter in weight was obtainable. The furrier brought out one that suited him exactly, but when a price of one thousand dollars was named, Sir William said: "On second thought I have decided to continue to wear my old coat".

To his mind, much of the machinery of modern business was unnecessary and even objectionable. When canvassed to install a telephone, his answer was "You'd like well to let the public have me by the ear any time they wish, wouldn't you? Well, they'll not!" His office was small and meagrely furnished. By requiring payment for each order filled for a customer before another was accepted, and by paying cash for his own purchases, he dispensed with most of the writing of invoices, statements of account and letters commonly considered necessary in a business office and limited his office staff to the numbers barely sufficient to prevent confusion.

The same passion for thrift that characterized his personal and his business life manifested itself in his university relations. Dr. C. A. Martin once called upon him to intercede for the retention of the eminent sculptor, Dr. Tait Mackenzie, as demonstrator in anatomy when he was being offered a salary one thousand dollars greater by the University of Pennsylvania. It was on this occasion, as well as possibly another, that Sir William exclaimed, "Why, the professors will be giving dinner parties if they get such high salaries! Don't forget that there are just as many good fish in the sea as ever came out of it!"

Formerly, the Medical Faculty was financially autonomous, deriving most of its income from the fees of students, and Sir William's munificence was withheld from it. Some of the young medical group, constituting what was known as the "Facultette", represented on the Faculty by a single represen-

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tative, sensed that he could not be expected to take a personal interest in a faculty with so loose a financial connection with the University. After much acrimonious discussion the Faculty agreed to accept the view of the younger men and to throw in its lot unreservedly with the University treasury. Dr. Martin hastened to announce this decision to Sir William, at the same time expressing a hope that he would now feel more disposed to interest himself in the affairs of the Faculty. Sir William's response was: "I am very glad indeed to hear that the members of the Faculty have come to their senses, but as far as I am concerned they have made their bed and they can lie in it!" After that, even Dr. Peterson could not win him over to sympathy for the Medical Faculty. It was only in making his will that he softened and left a moderate legacy to that Faculty.

Although firm in resisting appeals that appeared to him unwarranted, Sir William was not deaf to suggestions as to directions in which his wealth might be drawn upon to the advantage of the University. When Dr. B. J. Harrington, Professor of Chemistry, who was a favourite of Sir William's, was in his last illness, he confessed to a younger member of his staff, Dr. Nevil N. Evans, that he would like the University to have his collection of minerals but, in justice to his large family, could not afford to donate it. Dr. Evans reported this to Dr. James Douglas, a fellow graduate who had made a fortune in mining. Dr. Douglas asked him to have the collection valued. This was done and the value reported as three thousand dollars. Dr. Douglas then wrote Dr. Evans, enclosing his cheque for half the amount and telling him he would receive the remainder on calling at Sir William's office. When he called, the cheque was ready and was handed out by Mr. David Stewart, Sir William's confidential secretary.

On the occasion of a fire in the Macdonald tobacco factory, a girl had been seriously injured in jumping from a window. On the advice of a lawyer her mother demanded an excessive sum by way of compensation, refused an offer of two-thirds the amount, and entered suit. Sir William contested the suit and won a judgment denying the claim. After some time he sent for the woman and arranged periodical payments equivalent to the amount he had originally offered.

He was always appreciative of work well done and willing to pay for it justly and even generously. A British firm had contracted to supply and install some heavy experimental ma-

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chinery in the Engineering Building and had completed the work in good style but at a loss. Sir William insisted on not only making up the loss but also providing a reasonable profit.

Happening to stub his toe on one of the wooden walks which formerly led from Sherbrooke Street to the University Buildings, he asked Mr. T. Fred Ward, afterwards Secretary of Macdonald College, but then a clerk in the University office, to obtain an estimate of the cost of replacing these walks with concrete ones. Mr. Ward undertook to get the information by four o'clock of the same day. Promptly at four Sir William returned and wrote his cheque to the University for four thousand dollars, the estimated amount. The work was completed for thirty-eight hundred dollars, and with the authorization of the Bursar, Mr. Ward prepared a cheque for return of the difference. Nothing further was heard of the matter until the next meeting of the Board of Governors, when Sir William announced, to the dismay of his colleagues, that he had recently received a decided shock in his relations with the University. Asked to explain, he said, "I have made many payments to this institution, but I have never expected to receive money from it. Now this cheque for two hundred dollars has been sent to me because a piece of work was accomplished for less than was estimated. So rare an occurrence deserves to be reported here!"

Mr. Ward also tells of the Bursar's having recommended that a bonus be paid him for some extra work and responsibility that had fallen upon him during the illness of his chief. There was a deficit at the time, and Sir William objected that the University was not in position to pay such a bonus. He had the resolution altered to recommend that the bonus be paid "*when funds are available*". The next day he sent the University a cheque for the proposed amount.

"Jimmy" Rice, the well-known Montreal photographer and entertainer, tells a story illustrative of both thrift and courtesy. He had been commissioned by one of the organizations in the University to make a photograph of Sir William for inclusion in a publication. He called on the old gentleman in his home, apologetically stating that he doubted whether his mission would be welcomed. After listening to his plea Sir William said, "Well, young man, you have presented your case ably, but you must give me time to think." Early the next day Sir William came up the stairs of the studio (then on St. Cathe-

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rine St.) and presenting an old photograph, said, "There, Mr. Rice, that should serve your purpose."

He was as sparing of words as of small money and withal precise and witty in their use. A story is told of his having twice neglected to answer letters on an unimportant business matter. His correspondent wrote a third time, asking petulantly, "Do you not answer your letters?" Sir William turned down the corner of the sheet, wrote "No" upon it and returned it to the writer.

The late Dr. Ethel Hurlbatt, Warden of the Royal Victoria College, told of his attendance at a public recital given by a girl whose musical education he had sponsored. Noticing his wonder and delight at the performance of the child, Lady Peterson, who sat by him exclaimed, "Ah, Sir William, another Donald!" (referring to the stage name of a famous singer who had been similarly patronized by Lord and Lady Strathcona — Sir Donald and Lady Smith). "No! your Ladyship", protested Sir William, "a Macdonalda!"

Visiting the Practice School at the College he asked a boy his name. "Halpenny, Sir," was the answer. "Ah!" said Sir William, "worth twice as much as Bishop Farthing!" Enquiring about a man observed on the street in Ste. Anne's, he was told that he was the Rector of the local Anglican Church. "I thought I recognized the dog collar," remarked Sir William.

Mrs. Walter Vaughan, successor to Miss Hurlbatt as Warden of the Royal Victoria College, tells that Sir William liked to tease her about the pretentiousness of the name of that College and the superior rank of the donor, Lord Strathcona. "Is it possible you still lack something?" he exclaimed when some development was discussed. "Ah well! You need have no anxiety. The Lord will provide".⁶

An old bachelor, owner of a little tongue of land jutting into the Macdonald College property, held it persistently at an exorbitant figure. "Well Mr. D", said Sir William at last, "we shall leave the transaction to be completed between your grandchildren and mine".

Professor Percy Nobbs, who was appointed to a chair in Architecture endowed by Sir William, tells that during a visit to his office the benefactor expressed an interest in a cast of a headless Egyptian figure holding on its knees the plan of a temple. Professor Nobbs explained that this was an Egyp-

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tian official architect. "What!" sighed Sir William, "another architect without a head".¹

Professor Nobbs, who made the plans for the McGill Union Building, one of Sir William's gifts, also relates how one Sunday afternoon when he had called at Sir William's home with the plans and when, after ten minutes discussion, it had been decided to increase the height of the building by five feet and to substitute stone for brick throughout, involving an increase of twenty per cent in the cost, rain began to fall at the moment when he was ready to depart. Sir William insisted on wrapping the plans to protect them, and brought out from a cabinet neatly-folded wrapping paper and a number of rolls of old string. Handing these to his visitor, and doubtless noticing the astonishment depicted on his face, he remarked casually, "Mr. Greenshields collects Dutch daubs; Sir William Van Horne collects Japanese snuff-boxes; but *I* collect string". Then suddenly turning a piercing look on the young man, he asked: "What do *you* collect?" Being a bit of a numismat, interested in Greek coins, says Professor Nobbs, I murmured confusedly: "Coins, Sir William". "Coins!" rejoined Sir William with sparkling eyes, "Yes, so do I! so do I!"¹

Professor Nobbs is worth quoting in more serious vein. After remarking that the legend of hard grain in the man's texture was based on negative evidences — his frugality, his aloofness, his apparent lack of sympathy with his relatives, his avoidance of politics, he continues: "What is not so generally realized as it might be is that he was also a kind, a very enthusiastic, a very punctilious and a very modest old gentleman". McGill students of his time "probably never realized that behind a door in the Prince of Wales Terrace there lived their best friend — a man whose affection for them might have been more demonstrative but for a gentle shyness and delicacy of disposition, wholly charming. The motive that impelled his many wise endowments was not, I think, directly felt as the good of the state, the advancement of learning, and emphatically not the fame of the donor. While he did nothing without that eye to the good of Canada as a whole, which in those decades of accelerating expansion infected with a fervid emotion the great men who had the making of our world, the direct stimulus was Sir William's simple and sympathetic affection, strongly felt, for all young men entering the battle of life with serious intent".¹

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In his Founder's Day address on the occasion of the twenty-fifth anniversary of Macdonald College, Principal Sir Arthur Currie revealed that in addition to the competitive scholarships provided for undergraduate and graduate students, "we know that there are hundreds of students whose fees were paid by this generous, kindly man, whom they never personally knew, but whose gifts enriched their lives".³

"At times", wrote Mrs. Vaughan, "his methods were positively secretive. In those cases where I happened to be selected as his agent, College and Conservatorium fees were never met by cheques signed "W. C. Macdonald", but, punctually when fees were due, Sir William came to call. A punctiliously neat, polite, quiet mannered, elderly visitor, he talked unhurriedly on general topics, and then produced, unobtrusively, a pile of bank notes, always crisp and clean, always accurately counted, begged me to see that the amount was correct, and took his leave with a little smile that seemed to admit me as a fellow conspirator".⁴

Mrs. Jennie Muldrew, who, when widowed by the death of the original head of the Guelph Macdonald Institute, became "Housemother" (corresponding to the present title of "Warden" as used in the Women's Residence of Macdonald College), relates that Sir William once came to her and said, "There is a girl here as a student, whose mother used to do considerable work in my home, sewing for the household. I have lost all trace of her and I want you to find out what her name is and if her mother needs anything".⁴ By a process of elimination Mrs. Muldrew found out the girl's name and circumstances and wrote to Sir William. He seemed very grateful but asked her to let no one know about his enquiries. "He was very kind to any student who actually needed help", she continues. "When he gave help it was most cordially done and he would not think of thanks, saying he was glad to do it. All these things, known only to the girl and myself, he wanted kept from the knowledge of anyone. He said he could trust me and I treasured that trust".

"On the closing day of the School he attended the ceremonies, and when they were over he said to me, 'I am going over with you to the house. Wait for me'. It was a burning hot day and he had an overcoat. As we started I reached over and took the coat, which he reluctantly gave, saying he could not think of letting me carry it. A member of the staff joined

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himself to the party and said: 'I offered to carry your coat, Sir William'. With one of his old twinkles, he replied: 'Oh, yes, but you see I *trust* Mrs. Muldrew!'

"One Saturday he appeared suddenly about five thirty with the announcement that on the following day he was going to bring out three blind men to see the College. This was said with a smile. He said that he had been present at a meeting the day previous in Montreal, when there had been an effort to form an Institute for the Blind (I learned afterwards that he had been a generous contributor). Sir George Pearson from London, England, had been there and Sir William had asked him to bring his wife with two other blind men and their wives to 'see the College'.

"Dr. Robertson being away, Sir William had said to himself, 'I'll just go to Mother.' Mrs. Muldrew called Professors Lochhead and Blair and plans were made for the morrow. He asked for a low carriage and that at table every man should be set beside his own wife, for "a blind man's wife is his eyes and I would not have them embarrassed under any circumstances". During the visit "his pleasure was much in evidence as he watched them note every item through the eyes of their wives". With characteristic regard to the comfort of others and asceticism as regards himself, he asked that beds should be provided for an afternoon rest of the visitors, but "it was very difficult to persuade him to take the same measure of rest for himself".

A story told by Dr. Martin illustrates both his shrewdness and his satire. Calling upon him at his office, the doctor met a young man being shown out, "Did you notice that man?" asked Sir William. "He was a very nice, a very *kind* young man. He offered me a wonderful opportunity of investing in an enterprise that was going to yield ten percent. I could not refrain from telling him he should have gone to those who needed ten percent rather than to me, who am content with four percent", and adds Dr. Martin, "as he told the story he rubbed his hands with glee".

Nothing in the way of profanity or coarseness is thinkable in connection with a man of Sir William's refinement. The lavatories of Macdonald College owe their marble and glazed brick to his determination to banish scribbled obscenities then characteristic of such places. As has been intimated, he regarded the smoking of tobacco as wasteful. The chewing of

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the weed disgusted him. Dr. Robertson told of a sleeping car porter who, doubtless with a fat tip in mind, effusively acquainted Sir William with the fact that he had chewed Macdonald tobacco for twenty years. Sir William's only response was, "Filthy habit! Filthy habit!" Dr. Harrison once expressed a desire to visit the factory which had made Macdonald College possible. After a brief silence Sir William said, "I am not proud of my business, and that feeling, perhaps, has been the reason for my donations". No invitation for a visit ever came. On another occasion he said, "I have never used tobacco in any form, though I was a good judge of the texture and aroma of the leaf".

That Sir William could be curt on occasion is illustrated by his laconic answer to the inquiry whether he did not answer the letters he received. He is said to have terminated unwelcome visits to his office by putting on his hat and walking out. He once closed out the substantial account of a customer who presumed to solicit a subscription for a Church, citing the magnitude of their mutual transactions as justification for his request.⁷ It is said that when the Engineering Building was burned, representatives of the University lost no time in appealing to him to rebuild, and that he answered, "We'll discuss that when the ashes are cold!" Sir William had formed a friendship with Mr. Alexander Gibson of Marysville, New Brunswick, like himself a self-made man, and in this case made an exception to his rule of confining his sales in each province to one wholesaler. Gibson's business was sold to a large concern, the officers of which asked Sir William to continue this special account. In a reply written on a piece of brown wrapping paper he said: "I knew Gibson. I don't know you. Buy your tobacco from Scofield and Bears of Saint John".

His terseness could of course be misinterpreted. One writer detects "a suggestion of acerbity" in a letter to a French-Canadian Member of Parliament.² The letter is brief and to the point, though surely not discourteous:

"Dear Sir:

"As your letter of the 10th inst. is written in French I cannot read it, and being marked 'private' it must not be handed to another to translate, therefore I must ask you to be good

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enough to address me in English in order that I may understand what your wishes are.

Yours truly,
W. C. McDonald

The form of the signature will be noticed. The change to "Macdonald" was made on the occasion of his accepting knighthood in 1898. A first letter to Lord Minto, the Governor-General, declining the honour, was signed as above. A few days later, when he discovered that well-meaning friends had pushed the matter so far that his refusal would have the appearance of disrespect for the Crown, he wrote again signifying his acceptance and signing his name "W. C. Macdonald" — a form to which he ever afterwards adhered.

Mrs. Vaughan remarks on his "fine democratic friendliness, which included in its circle, not only statesmen and financiers, but also women and children, to whom his gentle manners and his sense of fun endeared him". She also refers to the "mingled shrewdness and generosity" which he exhibited in his gifts to individuals, "He was not interested in supporting weakness and had no wish to assume responsibilities that belonged to others, but, once convinced that he had found a promising field, he poured out his irrigating wealth with a hand as lavish as it was unpretentious".⁶

There is a well-authenticated story that, having shown a visitor, a recently married lady cousin, through the finest jewelry store in Montreal, he asked what was the most beautiful thing she had seen. She mentioned a certain necklace, and when she returned to his house for dinner that necklace was on her plate. To another visiting relative he said, "My dear, there are some pictures in the top drawer of that cupboard which I should like you to have". Opening the drawer, she protested that there were no pictures but only several banknotes of large dimension. "Well", he said smilingly, "That is just my little joke! The banknotes are for you".

In reference to Sir William's attitude towards women and children, the reminiscences of Miss Clare Harrington are of great interest. Miss Harrington's parents were the Professor of Chemistry (B. J. Harrington) in the Faculties of Arts and Science (Engineering) and Anna Lois, daughter of Sir William Dawson. Upon Lady Dawson had fallen the burden of entertainment at University functions, including the catering for

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occasions which guests by the hundred attended. In those early days the shops nearest to the University were on Craig Street; the upper streets were unpaved, and telephones and motor cars did not exist. So Lady Dawson's tasks were exceedingly onerous. Yet Sir William Macdonald declared that she was "more than half the University".

Sir William was meticulously attentive to both Lady Dawson and Mrs. Harrington. The custom of New Year's Day calling was then in vogue, and each lady had also her Reception Days monthly or oftener. Sir William never failed to pay his respects on these occasions, dressed of course as the fashion prescribed for an afternoon call. He was entranced with children. After the birth of each of the nine Harrington children he made an extra call to congratulate the parents and to admire the miraculous little one. Gazing at the bright face of one of the babies (a girl!) he made the prediction: "That child is going to be a judge".

His sleigh, fitted with comfortable robes and foot-warmers of heated soapstones, and distinctive in modest taste from those of his neighbors, was always at the disposal of the ladies for an afternoon drive, and he was genuinely disappointed when for any reason they could not make use of it.

When, in her childhood, Miss Harrington was confined to a hospital for a time, he sent an elaborate bouquet of flowers built up on a wire frame. On the occasion of the golden wedding of Sir William and Lady Dawson, he had a most beautiful pendant of pearls and diamonds made to his order for her Ladyship. It was heart-shaped. The ground was of set pearls, surrounded by a ring of diamonds which were again surrounded by pearls. On the back were miniatures of the couple.

Miss Harrington remembers being at Sir William Peterson's with her parents when Sir William Macdonald, who lived next door, joined them after dinner. Dr. Peterson had just received a novel instrument of entertainment — the Edison gramophone. Sir William listened for a few minutes, then, exclaiming, "I don't like it, Peterson! I don't like it at all! It's uncanny!" He took his hat and went home.

The impression prevailing amongst strangers, to which Professor Nobbs refers, that Sir William was negligent of, or unsympathetic with, his relatives was certainly not well-founded. It is true that there were estrangements and that he persistently cherished resentments arising therefrom, but these are

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to be attributed to a determined adherence to principle or set policy which cost him much agony of spirit. He was a man of great sensitivity, of profound feeling and of a bashful pride. Some instances of his generosity to relatives have just been given. His letters to his mother and his sister Helen, inviting them to join him in Montreal are models of affection and generous consideration. As already related, he contributed new buildings to his brother's "Glenaladale" estate in Prince Edward Island, provided fertilizer for his fields and offered his children education. Why he allowed his brother Augustine to languish in prison remains a mystery but to those acquainted with his character, hardness of heart does not appear a reasonable explanation.⁸ Certainly he had been loyal to Augustine in the days of his Boston trouble, and as late as 1866, in a letter to his other brother, he mentions having received two telegrams from Augustine. It is reasonable to suppose that he realized that his brother's efforts to secure a retrial while he continued to hold the orders of the American courts in contempt were futile.

A relative, who as a young man came to Montreal from Prince Edward Island and called to pay his respects, was coldly greeted when announced by the family name of his grandfather who had refused employment to William Macdonald in adolescence. The circumstance that the visitor was erroneously announced as "Sir" instead of "Mr." may also have contributed to the frigidity with which he was received. But, when the youth prepared to bring his call to a precipitate conclusion, the millionaire's manner changed, and putting his arm around him, he said: "Oh, now I know who you are! You have your mother's eyes. She was the loveliest woman I have ever known and I will always be glad to see you for her sake".

When Sir William donated buildings to the University and endowed the Departments occupying them, he had a committee of management appointed for each building. Each committee included the Head of the Department, the Principal, the Bursar, Sir William himself and another member of the Board of Governors. The committees met monthly to consider the expenditures, and these had to be reported in full detail. The minute book of the committee of the Physics Building is still in existence. The young Professor Ernest (later Lord) Rutherford was then engaged on his epoch-making experiments on the radioactive transformation of the elements, and

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Dr. John Cox, Head of the Department, was permitted to purchase an air-liquefying machine for use in attempting to liquefy the radium "emanation", now known as the radioactive gas "radon". About that time it was announced that the Royal Society of Canada was to meet in Ottawa, and that the public lecture which is a feature of the meetings of the Society would be a demonstration of the properties of liquid air by Professor Cox. Seeing the announcement, Sir William addressed a letter of protest to the committee. The endowment he had given the Department was not to be used to support a travelling circus, he said, and though the lecture could not well be cancelled, Professor Cox must make a list of the apparatus he was taking to Ottawa and assume personal responsibility for its return in good condition.

In the funeral oration quoted in the preceeding chapter, Sir William Peterson made reference to Sir William's religious views. His antipathy to religious organizations was not paraded nor did he go out of his way to persuade others to adopt his attitude. In his invitation to his mother to make her home with him he mentions a Methodist Church on St. James Street (now the St. James United Church on St. Catherine Street) which she might like to attend. While living with him, his sister and nieces attended St. George's Church (Anglican). The pulpits of these churches were occupied by outstanding clergymen, but their eloquence failed to prevail over Sir William's prejudices.⁹ When Lord Strathcona presented the Young Men's Christian Association with its Strathcona Hall, Sir William said, "Lord Strathcona has given a building for the Christians. *I will give a building for all the students of the University*".

It was in such humorous irony that he gave expression to his attitude of mind. No doubt he was conscious of a moral superiority to many of his church-going associates on the Boards of the Bank and University. But towards Nature and the Intelligence revealed therein his attitude was one of sincere reverence. Mr. F. C. Elford, the original Head of the Poultry Department, relates that he once sat for an hour or more in silence before an incubator in which chicks were hatching. In a Founder's Day address, Principal Harrison told of Sir William's interest in learning how caterpillars succeeded in surviving a severe winter and of his reverent silence interrupted by the quotation: "In whom we live and move and have our being".

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To Professor Nobbs it appeared that "his great influence in the affairs of the University was not negative against religion but positive for freedom of thought".

Our Founder's modesty and shyness, his thrift, his pride of race, the reserved independence of his religious views, his courteous manner, and the conciseness and precision of his language — all features of his character only less conspicuous than his munificence — received mention in the account of his life published in the *Montreal Gazette* at the time of his death and in the funeral oration of the University Principal.¹⁰ The *Gazette* reporter remarks that in the case of two relatives of the Jesuit order (Father Alain and Alistair) his love of clan and race so far overcame his antipathy to ecclesiasticism as to render their frequent visits to talk of Scotland and the Macdonalds not merely tolerable but unquestionably enjoyable.¹¹ In illustration of his shyness, the reporter relates that when in meetings of the Board of Governors in Molson Hall his name was receiving favourable mention, "he was often seen slipping down the back stairs".

Part II—The Foundations

Chapter IV

THE MACDONALD-ROBERTSON AND HOODLESS PROJECTS

The founding of Macdonald College was the culmination of two projects in which its founder was interested — the “Macdonald-Robertson Movement” for the improvement of rural education, and the endeavour of Mrs. John Hoodless of Hamilton, Ontario, to interest the public in the better training of women for housekeeping and homemaking.

As previously stated, when Sir William Macdonald had acquired a considerable fortune, he became a shareholder of the Bank of Montreal. On May 27, 1887, he was elected to the Board of Directors of the Bank. In his survey of its business throughout Canada, he noticed that marked growth had occurred in the districts in which dairy industries had been established. Upon inquiry, he learned that the moving spirit in the reform of agricultural methods in eastern Canada, which the change from the marketing of hay and grain to that of livestock and dairy products represented, was Mr. James W. Robertson, then Dominion Commissioner of Agriculture and Dairying.

Robertson, a native of Dunlop in Ayrshire, had come to Canada in 1875 at the age of eighteen in company with his parents. Though cherishing an ambition to study medicine, he had engaged with his father in farming, cheese-making and the export of food products to the United Kingdom, had become successively a cooperative cheese factory manager, Professor of Dairying in the Ontario Agricultural College (1886—

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90) and a non-resident lecturer in Cornell University (1888–90), Dominion Dairy Commissioner and Agriculturist of the Dominion Experimental Farms (1890–95), and finally, Commissioner of Agriculture and Dairying (1895–1904).¹ He had become expert in the organization of cooperative dairy industries, and in both platform and newspaper publicity.

Sir William Macdonald approached Mr. Robertson for advice upon means of training agricultural leaders, particularly amongst the English-speaking people of the Province of Quebec. The question was discussed by the two during a walk on Parliament Hill, Ottawa.² The philanthropist's idea, suggested by the usage of the Roman Church in training spiritual leaders, was to found a residential school in which selected boys would be trained for leadership from the age of seven to maturity. Robertson pointed out that this would be impracticable, not only because English-speaking Canadians were not accustomed to sending their young children to school away from home, but also because, unlike priests, to whom privacy and a certain aloofness are of value, agricultural leaders, to be effective, must keep in close touch with farm life and work and with those whom they were designed to lead.

He succeeded in interesting Sir William in a project for the improvement of field crops, which he had already initiated (in 1899). He was offering one hundred dollars in prizes to farm children to select choice heads of grain from their fathers' fields to be used as seed.³ Sir William immediately offered to multiply this prize fund one-hundred fold. He also became interested in Robertson's constructive criticism of the existing methods of primary education. Robertson's ideas were in accord with those expressed in an editorial of the *London Times*, quoted in the *Montreal Gazette*, November 19, 1907: "The school came in to supplement the unorganized study of nature and manual training; but by and by it came near to depriving the child of what was really essential to him, by absorbing the whole of his time with formal studies from books. Manual training is an essential part of good elementary training; but in our zeal for teaching the three R's and a whole lot of other things, the training towards ability to *do* things has been left out of the schoolhouse".

Educational authorities were not entirely without appreciation of the value of manual training. As early as 1887 the McGill Normal School had made attempts to give some such

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instruction, but only by volunteer teachers, in a shed, and with meagre equipment. In 1901 Sir William Macdonald had made provision for modern equipment and for trained and paid teachers in this school. Two years earlier he had, at Robertson's suggestion, established a fund under which similar equipment was established in several cities; some twenty-seven specially trained teachers were imported, and provision was made for all expenses for a period of three years, after which local authorities undertook to continue the work. Before the end of the period of maintenance there were forty-five manual training teachers, receiving a total of \$3600 a month from the Macdonald Manual Training Fund, and over seven thousand persons receiving instruction. By 1907, the year of the opening of Macdonald College, more than 20,000 children were getting the benefits of manual training in the courses provided by regular school authorities in continuation of the movement launched by Macdonald and Robertson.⁴

This, however, did not satisfy Sir William, whose primary interest was in the English-speaking people of the *rural* districts. An experiment was therefore undertaken in the direction of introducing nature study and school gardening into country schools. Trained teachers were placed in charge of groups of five schools in each of the five eastern provinces, the teacher spending one day of each week at each of his five schools. The results in these twenty-five schools were so satisfactory that it was resolved to expand the benefits of school gardening and add those of manual training and household science by establishing "consolidated" schools — that is, by merging several adjacent school districts and providing daily transportation of the children to and from school. (In the days before motor cars and paved roads the provision of suitable transportation was much more difficult than it is today.) One such school was opened in Nova Scotia (at Middleton) in 1903, one each in New Brunswick (at Kingston), and Ontario (at Guelph) in 1904, and one in Prince Edward Island (at Hillsboro) in 1905. A Macdonald Rural Schools Fund provided for the construction and equipment of the buildings and also, over a period of three years, for the additional cost of operating the schools beyond that to which the ratepayers were accustomed. Scholarships were provided to enable eleven teachers, selected from different parts of eastern Canada, to attend courses at Chicago, Cornell, Columbia and Clark Universities and at the

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Ontario Agricultural College to fit them for positions as Principals and instructors in manual training, nature study, and school gardening.⁵

The advantages of consolidation had already been demonstrated in several states of the American Union. Daily attendance, especially of the younger children, had been greatly increased, and interest had been stimulated by the diversity of activities. In many places the cost of education had actually been lowered at the same time that its quality had been improved.⁶

Dr. Robertson was of a sanguine disposition, and under his direction economies were not always accomplished. In New Brunswick the project was enthusiastically welcomed, and consolidation was encouraged by action of the Legislature authorizing special grants to these schools, and especially by a gift of \$5000 from Hon. A. R. McLellan, ex-Lieutenant Governor, which rendered possible the erection of a consolidated school at Riverside in Albert County, independent of the Macdonald Fund.⁷ As early as 1906 there were consolidated schools open in Kingston⁸, Riverside and Florenceville, under construction at Hampton and Sussex, and planned in other parts of the province⁹, while in Nova Scotia, fifty-three schools had been consolidated into twenty-two, and the Middleton school required no support from the Fund after the initial period⁹. In the four Macdonald Schools operating in 1907 the number of teachers employed was as great as before consolidation, but the salary list was almost doubled. The average daily attendance of children had increased from 458 to 708.⁴

Ironically, Sir William's greatest disappointment in his ambitious project for rural schools came from his native province, and it was accompanied by a disappointment in his personal relations with his closest associate in the scheme. The Macdonald Consolidated School of Prince Edward Island was established at Hillsboro, three and a half miles east of Charlottetown. It comprised six former school districts and had van routes of four to four and a half miles. During the three years it enjoyed the support of the Macdonald Fund the cost to the ratepayers was just the amount they had paid for the former six ungraded schools. Sir William's offer had been un-animously accepted at the meetings of ratepayers to which it was made but, although this action was legally binding, some

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districts held local meetings at which resolutions of dissent were adopted, and the inhabitants of one district refused to send their children because the location of the school did not please them. Expenses were out of line with the idea of rate-payers who had been accustomed to providing two hundred dollars a year towards education on property valued at two hundred and forty thousand — or less than one mill per dollar. In a contribution to the *School Trustee*, the Principal of the School admitted that the salaries paid to the teachers were approximately double the average of those paid elsewhere in the province. He believed that when competent Normal School instruction in new subjects became available, efficient teaching could be provided at two-thirds of what it was costing and that a great deal of the cost of conveyance of the pupils could be saved if parents would take turns in driving the children in the winter. Even with these economies, however, the annual cost per pupil per day would, according to his estimate, be \$25.60 as against \$15.63 for the former six schools.¹⁰

When the three-year term expired, Dr. Robertson attended the closing exercises of the school and discussed with the trustees means of providing the necessary funds for continuation of the enterprise. At the closing exercise satisfaction with the school and hopes for its continuation were expressed by the Provincial Premier and the Chief Superintendent of Education and by clerical speakers. The press of Charlotte-town testified to its confidence in Dr. Robertson's wisdom and recommended that his advice be accepted.¹¹

He offered continued support from the Macdonald Rural Fund to the extent of \$1400 and suggested an assessment of forty cents per hundred dollars of the current valuation of the property of the consolidated district. This would yield \$876, and the Government Grant, \$1015, making \$3291. As this was \$1200 less than the annual expenditure, he suggested a fee of two dollars per pupil and offered to pay two dollars from his own pocket for every dollar received in fees.¹²

The outcome was the withdrawal of four of the six districts from the support of the school, the continuation of the school on a basis suggested by Dr. Robertson, and the opening of a rift between him and Sir William, who disapproved of his action in the matter.¹³

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The Macdonald Institute

The Macdonald Institute at Guelph was the outcome of a movement initiated by Mrs. John Hoodless of Hamilton, Ontario, to whom also is due the credit of initiating the Women's Institutes of Ontario, which have been duplicated in the other provinces and in the homeland. As early as 1891 Mrs. Hoodless had taken an interest in the efforts of the local Young Women's Christian Association to instruct girls in intelligent household work. With the cooperation of the Hamilton School Board and the Ontario Department of Education, public school classes had been afforded the facilities of the Association, and in 1900 a "Normal School of Domestic Science and Art" had been established in Hamilton. About the same time, Mrs. Hoodless met Sir William Macdonald, and afterwards also Dr. Robertson, and enlisted their interest in her projects. Visiting the Ontario Agricultural College, in which her son was a student, it had occurred to her that it would be of advantage to transfer the Normal School to the grounds of that institution. The Professors of Bacteriology and Chemistry were already giving voluntary lectures in the school in Hamilton, but closer association with these and other departments of the college was desirable.

Dr. James Mills, President of the College, was very favourable to the idea, and negotiations conducted by Dr. Robertson between Sir William Macdonald and the Ontario Government resulted in the founding of the Macdonald Institute on a broader basis than had been contemplated by Mrs. Hoodless. Sir William provided the Institute Building and a residence for women students, to which the name "Macdonald Hall" was given. The Government undertook to maintain the buildings and to provide a teaching staff. Dr. W. H. Muldrew, an experienced teacher of nature study, was made Dean of the Institute. Miss M. U. Watson, Principal of the discontinued school at Hamilton, was appointed Head of the Domestic Science Department, and a Mr. Evans, Head of the Manual Training Department. Upon the death of Dr. Muldrew, which occurred within a few months, Miss Watson was given charge of the Institute.^{4,14}

Mrs. Hoodless had naturally an Ontario and a woman's outlook. Sir William had lived chiefly in Quebec and the Maritime Provinces. Robertson had the broader view of one whose

HOODLESS PROJECT

boyhood had been passed in Scotland and who had supplemented his experience in Dominion-wide service with extensive travel abroad. Thus were shaped the various building stones of knowledge and experience that were to be eventually built into the broad foundation of Macdonald College.

Chapter V

THE PROPERTY

The Land

Although the names of Macdonald College and Ste. Anne de Bellevue are commonly, and properly, associated, none of the College land except a strip of town lots on the east side of Maple Avenue lies within the confines of the town. The rest of the land (with the exception of a little of the Stoneycroft Farm, which lies within the bounds of Senneville) is all within that part of the Parish of Ste. Anne du Bout de l'Isle which has not been incorporated into either the town of Ste. Anne de Bellevue or into the villages of Senneville and Baie d'Urfe (See accompanying map and Notes 1 and 9). The College has always had its own post office — Macdonald College, Que.

In the years 1904–06, Sir William Macdonald purchased and donated to the Royal Institution for the Advancement of Learning (that is, to McGill University) some half-dozen farms in the Parish and a number of town lots.

The largest of the farms was bought from Mr. Robert Reford, a prominent Montreal shipowner². It lay partly east and partly north of the town, and was a well-equipped stock farm with a fine herd of Ayrshire cattle, managed by Mr. James Boden. The part of the Reford Farm east of the town consisted of the long narrow French-Canadian Cadastral Lots 296 and 297, which Mr. Reford had purchased in 1892 from Alexander and Gilbert Crevier³.

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The main College and Stock Farm buildings now stand on these Crevier lots, which extend from the River Road to the Ste. Marie Road. North of the rights-of-way of the two railways (then the Grand Trunk and the Ontario and Quebec, now Canadian National and Canadian Pacific), the Reford farm included also Lots 251 and 205, and west of these again Sir William bought Lot 195 from Damase Legault, as well as a 25-acre lot (No. 25) lying north of the Ste. Marie Road at the point where that road makes an approximately right-angled turn (about 100°) from north to east. (It is interesting to note that the Ste. Marie Road and the town street known as "Montée Ste. Marie" were originally one highway and that, although the town street had been interrupted at the railways many years previously, the road still ran north from the railways and formed the western boundary of the Damase Legault farm, as well as the northern boundary of the Reford lots.) The Military Hospital buildings now stand on Lots 195 and 205, which up to 1951 were leased to the Department of Veterans' Affairs and are now Crown property. The road bounding Lot 195 on the west is closed, and the Ste. Marie Road forms a continuation of that part of Ste. Anne Street which separates the municipalities of Senneville and Ste. Anne de Bellevue.

Eastward from the Crevier farms stood in succession, the Dawes farm (No. 298)⁴, which, like them, ran the full length from the River to the Ste. Marie Road, the Coron and Basile Crevier properties (Nos. 302 and 303)⁵ which together (south and north, respectively) extended from the River to the Ste. Marie Road, broadening from the former to the latter and the Deslauriers farm (No. 304) of similar length and form⁶. All of these except a few small portions between the River and the River Road, reserved by their owners^{3,7} were included in Sir William's purchases and donation¹. Nine town properties on Maple Avenue were likewise acquired before the College opened in 1907 (see Table I on p. 50).

In the early annual Announcements of the College the extent of the property is stated as 561 acres. The Main College Farm (north of the railways) had an area of 387 acres. Of this the Agronomy (then called the Cereal Husbandry) Department was originally allotted thirty acres for experimental plots. The remainder constituted the Stock Farm. South of the railways, the Cereal Husbandry (Agronomy), Horticulture and Poultry Departments were allotted, respectively, 15, 70

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and 17 acres. Some seventy acres were occupied by the buildings, lawns and decorative plantings.

In 1912 and 1914 further transfer of Stock Farm lands in the East Field to the Cereal Husbandry Department brought up the holdings of that department to 55 acres.

The Ste. Marie Farm — In 1913 three farm lots (Nos. 43–45) lying side by side on the north side of the Ste. Marie Road and a little farther east than the Main Farm, were purchased by Sir William Macdonald from the Robillard brothers and donated by him to the University for the College.⁸ This tract of 228 arpents was used at first as a sheep farm and afterwards as a dairy farm up to 1932, when part of it passed from the Stock Farm to the Agronomy Department to be used in co-operation with the Quebec Department of Agriculture for the multiplication of new varieties of cereals, hays and roots. (A similar collaboration had been in progress since 1920 on a smaller farm at St. Rosalie in Berthier County.) The area so used is about 120 acres. The College is responsible for the administration of this "Provincial Seed Farm" all other expenses being met by the Department of Agriculture.

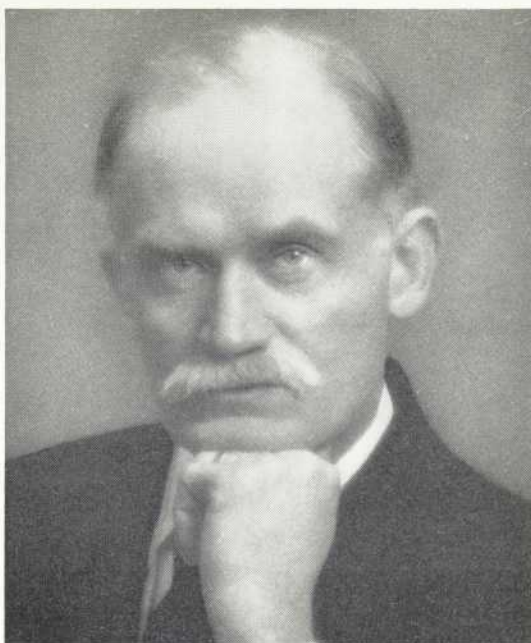
*The Stoneycroft Farm*⁹

In 1945 a major transaction in real estate was accomplished in the purchase from the estates of the late James and Harold M. Morgan of the Stoneycroft Farm of 910 acres lying north of the Ste. Marie Road and extending almost to the Senneville highway and partly within the bounds of Senneville Village. Its acquisition temporarily increased the holdings of the University in the Parish of Ste. Anne du Bout de l'Isle to about 1680 acres, of which 63 acres were then leased to the Department of Veterans' Affairs for use of its hospital. This acquisition also converted the property north of the Ste. Marie Road into a solid, though irregularly shaped, block. The wooded lands of the Stoneycroft Farm (365 acres) are used as an arboretum for the study of native trees and the mass planting of other economic species. The remainder of the property was added to the Stock Farm.

Hospital Leases and Expropriations

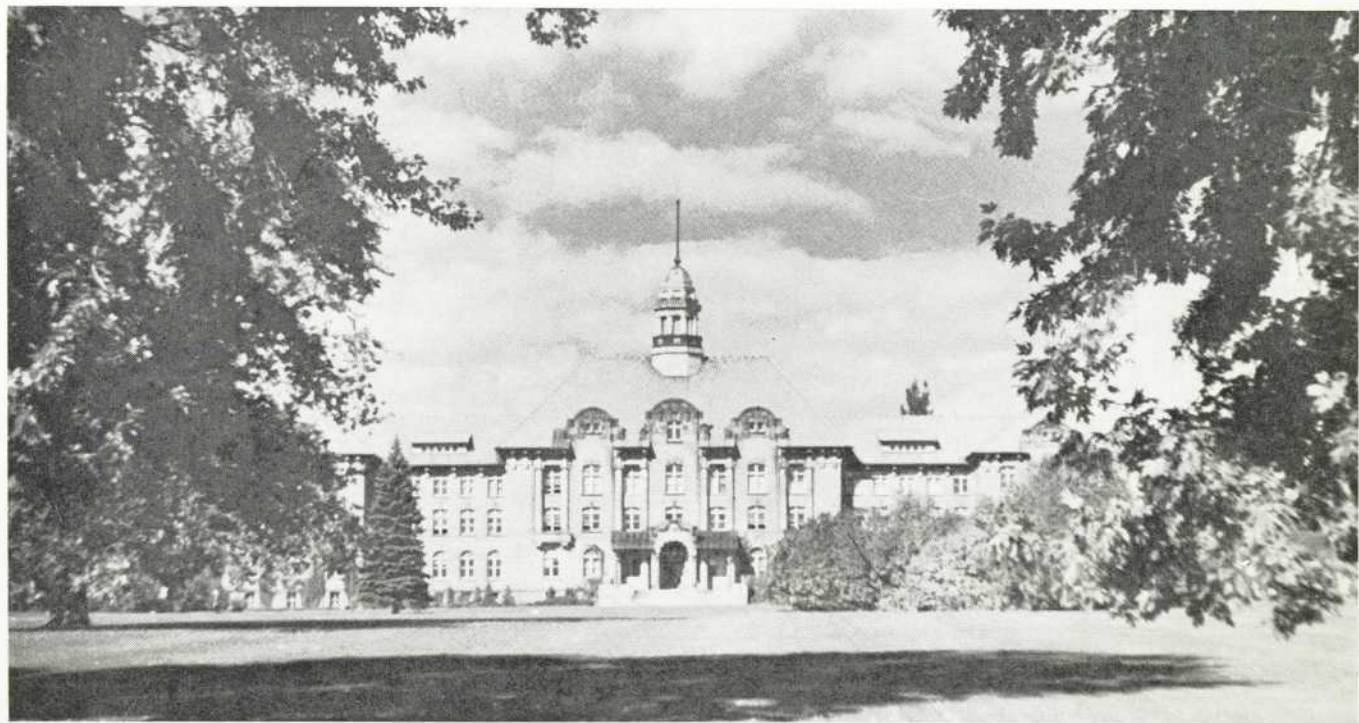
In October 1917, 14½ acres, and in January 1919, an additional 18½ acres at the extreme west of the Stock Farm, were

DR. JAMES W. ROBERTSON
Dean
Faculty of Agriculture
Principal, 1906-1910



DR. F. C. HARRISON
Dean
Faculty of Agriculture
Principal, 1910-1925





Main Building

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leased to the Dominion Government for use of a Military (eventually Veterans') Hospital. To make up for this loss, portions of the Stoneycroft Farm were leased to the College. Again in 1943 the Government required another thirty acres for hospital purposes and contracted for this extension northward on the basis of a five-year renewable lease. In 1950 these hospital lands were expropriated by the Government of Canada.

Other Transfers

In 1928 one and a half acres of the Poultry Department's land was taken for the Institute of Parasitology — an inter-Departmental transfer.

Up to 1935 a narrow strip of land of about two acres in area (Lot 301) between the Coron and Deslauriers farms projected into the College property from the Lakeshore Road. This was the property of the bachelor whose refusal to compromise was the occasion of the witticism of Sir William referred to in Chapter III, p. 25. Eventually the land passed into the possession of Miss Caroline Bourbonnais, from whom the University purchased it in 1935. At the same time two acres of the river front, also formerly owned by the bachelor, were bought from Mr. Gould Snasdall-Taylor⁷.

In 1939 the Provincial Government required a strip of land adjacent to the Canadian National Railway for the construction of the Metropolitan Boulevard. This area, measuring about 13 acres, deprived the Agronomy, Poultry and Horticulture Departments of an average of $4\frac{1}{3}$ acres.

These various acquisitions and expropriations have had the net effect of increasing the total area of College property from the original 560 acres (plus nine town lots) to a little over 1600 acres¹⁰.

Main Building, Science Buildings and Student Residences

When the College opened for students in November 1907, the group of Chemistry, Main (including the Library and Assembly Hall) and Biology Buildings and the Student Residences for Men and Women with their gymnasia and common Dining Room were complete. The Agriculture and Poultry Buildings were under construction and the High School Build-

THE FOUNDATIONS

ing was projected. These three were completed in 1908 and the High School was extended in 1912¹¹.

The Campus Apartments

In the summer of 1946 to provide for a prospective temporary increase in attendance and particularly for the accommodation of married veterans, five rows of one-story buildings were put up on the Girls' Campus, that is, the lawn east of the Women's Residence. These accommodate some sixty families.

Agricultural Engineering Building

A Department of Agricultural Engineering was created in 1918 under Mr. G. E. Emberley, who had been instructor in Manual Training since the beginning, and the foundation of a building for that department was constructed. This was roofed over and used as a blacksmith shop until 1942, when a one-story building was erected upon it. In 1946 the existing superstructure was added. This building, together with a cold storage plant, which had been installed in the Horticultural Barn, was formally opened on June 21, 1947.

*The Institute of Parasitology Building*¹²

From its beginning the College has been interested in the control of animal parasites, and the history of the events that led to the creation of the Institute of Parasitology and the record of its staff and achievements will be outlined in Chapter X. Its original three-story building, on the east side of Dawes Lane, consisting of the offices and one of the laboratory wings, was completed in 1933. The other wing was added in 1934 and the building formally opened on June 27th of that year.

The Greenhouses

The original greenhouses of the Horticulture Department, completed in 1908, were four parallel buildings 100 by 25 feet, divided in the middle by a passageway, thus providing eight compartments that could be separately controlled. This provided space not only for experimental work but also for the growing of florists' crops, both flowers and vegetables. In

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1938, the production for sale having been reduced, the four buildings were replaced by a single one of 125 x 25 feet on the same site. In 1950, under benefit of a donation from Mr. and Mrs. Walter M. Stewart, this building was partitioned into four compartments in which smaller quantities will be grown under varying conditions, and there will be little of any surplus for disposal by sale or otherwise.

The work carried on by the Florist, Mr. A. H. Walker, in the original houses was one of the attractive features of Macdonald College in its early days, particularly so to the florists of Montreal and vicinity, whose Society made a practice of meeting here about Christmas and Easter to observe the fruits of Mr. Walker's work and to discuss the problems of Horticulture with members of the staffs of the various College Departments.

In the original facilities of the College there was also an experimental greenhouse attached to the Biology Building for the use of the Departments housed there. In 1930 there was added a house of four sections with controlled heating and ventilation, and in 1950, also by a donation from the Stewarts, a basement room with six artificially illuminated air-conditioned chambers has been built as an addition to the Biology Building adjacent to the greenhouse, providing for growing plants under known and easily repeatable conditions.

In 1950, through the generosity of a group of twenty-three subscribers, headed by Mr. Ross Clarkson, a member of the Board of Governors and the husband of one of the original class of Household Science students (Miss Elsie Trenholme) an excellent four compartment greenhouse was erected for the experimental work of the Agronomy Department. This house, dedicated to the memory of Professor Robert Summerby, a member of the original class in Agriculture, who for many years occupied the Chair of Agronomy, was opened by Mr. Clarkson on Farm Day, June 24, 1950.

The Walter M. Stewart Practice House

Among the private residences built for the members of the original Faculty (see below), that provided for Prof. Lochhead on Lots 285-286 on Maple Avenue passed, at his retirement, to Mr. T. Fred Ward, the Bursar and Secretary of the College, who occupied it to 1941. Under a donation by Mr.

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Walter M. Stewart it was then reconstructed to take the place of "The Apartment" in the Main Building, which had served as a residence for the Head and another member of the staff of the School of Household Science, and as a house in which the students of that School could gain experience in private housekeeping.

Home Management Apartment

In 1940, the Women's Army Corps having given up its temporary quarters in the Main Building (see below), the School of Household Science resumed occupation of "The Apartment". With the benefit of a donation by Mr. and Mrs. Walter Stewart this was redecorated and also extended, by the conversion of adjoining rooms into a dormitory for five students. It is used for Homemakers' practice in housekeeping. The two staff members who have the most work with Homemakers are now housed there.

Accommodation for the Canadian Women's Army Corps

During its sojourn in the College (1942-45) the Canadian Women's Army Corps occupied the whole of the Women's Residence, including the Dining Room. In consequence, the Household Science students were assigned a part of the Men's Residence, and the women students of the School for Teachers were given accommodation in Strathcona Hall in Montreal. The Corps had also the third floor, and parts of the main floor and basement, of the Main Building.

Several buildings of a temporary nature put up by the Department of National Defence under the urgency of war conditions were transferred to the University at the close of the War. Utility having prevailed over beauty, these rather unsightly structures are still in use. An Infirmary and a Canteen were added to the Women's Residence. An extension was made to the Men's Residence for use as a students' Dining Department. This extension is now used for men's dormitories. At the close of the war the garages of the Motor Transport Service, which had been built adjacent to the Agricultural Engineering Building, were converted into offices of the Department of Buildings and Grounds and the Shops of the Repair Department. A Gas Training Shed on the quarry site has been adapted to the use of the Department of Animal Pathology, and

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a Drill Hall on the shore of the river (on Lot 297), the worst blot on the landscape, is now used as a Gas Dynamics Laboratory of the Engineering Faculty of the University.

The Private Residences

The purchase of town lots by Sir William Macdonald in 1904–1905, concurrently with that of farm land, and their subsequent transfer to McGill University has been referred to above. These lots were on the east side of Maple Avenue, a street of Ste. Anne de Bellevue just within the town limits. The houses which stood upon them were allotted to prospective members of the college staff. Up to 1913 additional lots in the same locality were bought as properties became available. Two new buildings — a double and a single — of red brick, similar to that used in the academic buildings, were put up on the street, and two large houses were built of the same material on the farm lands, east of the town. One of these latter two was intended as a Principal's Residence. It was given, and still bears, the name of "Glenaladale", reminiscent of the estate of Sir William's ancestors in Scotland and of the farm home in Prince Edward Island. The other was allotted to Dr. Harrison, the senior member of the Faculty of Agriculture, and occupied by him until his resignation of the Principalship and is now known as "Harrison House". The single house on Maple Avenue became the home of Professor Lochhead and the double one the homes of Professors Arkell and Snell. In the less spacious days of the twentieth century, no single family fully occupied any of them. Upon Dr. Robertson's resignation, Glenaladale was converted into a residence for women of the staff, and eventually, with provision of facilities for serving meals, became the Club House of the Macdonald College Club. Similarly, since Dr. Harrison's resignation, Harrison House has become a residence for post-graduate students and the family of a member of the staff charged with their supervision. Although the others continued for some years as Professors' houses, all but the lower two stories of No. 21 Maple Avenue (originally allotted to H. S. Arkell, the first Professor of Animal Husbandry) have eventually been diverted to more general uses. Professor Lochhead's is now the "Walter M. Stewart House" (Practice House of the School of Household Science). Professor Snell's, No. 19 Maple Avenue, popularly

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known (after a subsequent occupant) as "Conklin House",* is a residence for women of the staff and has been enlarged on its third floor by the opening of the partition wall dividing it from that of No. 21. No. 21, thus reduced, is now occupied by the present Professor of Chemistry, Dr. R. H. Common.

The older frame houses which stood on the Maple Avenue lots have been improved by alterations, most of them having received less combustible coverings of brick or stucco. The only new house, that now occupied by Dr. DeLong (No. 27) was built while the lot was the private property of Mr. A. R. B. Lockhart, a Lecturer in the School for Teachers.

The accompanying tables show, respectively, (I) the dates of purchase and names of vendors of these lots and (II) the names of the present occupants of the houses.

TABLE I ¹³

Town Lots (on Maple Avenue) purchased by Sir William or by the University

Cadastral Numbers	Dates	Vendors
253-254	Oct. 24, 1904	John Martin
255-256	Aug. 5, 1919	Hugh S. Thomas
257	Mar. 31, 1934	Estate of A. R. B. Lockhart
258	Jan. 1, 1950	James H. Wilson
259-261	Mar. 25, 1906	Miss Catherine Telfer
263-264	Nov. 25, 1905	Henry Miles
265-269	May 16, 1905	John Peters
270-273	May 12, 1905	Mrs. Frederick Orr Lewis
274-275	Oct. 22, 1913	Misses Julia and Mary Margery Barrett
276-278	Nov. 8, 1904	John W. Grier
279-282	Dec. 10, 1910	Hon. Charles Laurendeau
283-286	Nov. 25, 1905	Mrs. David H. Fraser
289-291	Apr. 7, 1905	Mrs. George S. Hubbell
292-294	Apr. 7, 1905	Fraser Bros.

The Cadastral numbers increase from north to south.

The present street numbers (Table II) which pertain to dwellings, instead of lots, run in the opposite direction and as there are several vacant lots, exact correspondence between street and cadastral numbers does not exist. The two lots unpurchased for the University in 1950 are Nos. 262 and 287-288.

*Editor's note: Still later, Snell House.

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TABLE II ¹³

East Side of Maple Avenue in December 1950

Cadastral No. of Lots	Street No. of House	Occupant December 1950
—	—	Metropolitan Boulevard
255-257	27A	Dr. D. G. Dale, Veterinarian
(258 & Part of 259)	27	Dr. W. A. DeLong
259-261	25	Mr. F. R. Peck
(262)	23	(Mr. Joseph Raymond)
263-265	21	Dr. R. H. Common
266-267	19	Staff Women
268-270	17	Reserved for Macdonald High School
271-273	—	Vacant Land
274-275	15	Prof. H. R. C. Avison
276-278	13	Mr. A. B. Walsh
279-282	—	College Gates
283-284	11	Prof. W. A. Maw
285-286	9	Prof. D. C. Munroe
	7	"Walter M. Stewart House" — Home Management
(287-288)	5	(Mrs. W. Lochhead)
289-291	3	Dr. R. A. Ludwig
292-294	1	Prof. H. R. Murray

Adjacent to Harrison House are three single red-brick houses, two to the east, one to the west, which were built in 1908 or 1909. Those to the east were for Professors Blair (Horticulture) and Klinck (Cereal Husbandry). House successors to Professors Blair and Klinck in these houses have been Professors James Murray, Robert Summerby and L. H. Hamilton and Professors G. S. H. Barton and W. H. Brittain. The house west of Harrison House was intended for the Head of the School for Teachers, and was occupied by Dean Laird from 1913 to 1942 when, anticipating retirement, he bought and moved into a house in the town. The present occupant is Professor Wayne Hall of the School for Teachers.

Groups of Houses for Staff Members

A group of double houses for members of the staff was built in 1911 and 1912 in the district known as "Rivermead". Beautiful gardens have been planted and maintained by the successive occupants of these houses.

The little "Cluster" apartment building erected in 1924

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north of the Power House accommodates the families of four, and "Glenaladale Terrace" built in 1948 between Glenaladale and the Men's Residence, accommodates the families of eight members of the teaching and research staff. Since 1948 no separate houses have been built for staff members. In the course of the years, several of those who formerly occupied College houses have built or bought in the town or in the adjacent villages of Baie d'Urfe and Senneville. Thus Professors Cameron and Laird, former Professor Steeves, and Mmes. Lochhead and Brunt, Professors' widows, own houses in Ste. Anne de Bellevue, Professors Heimpel, Gray and Nikolaiczuk in Baie d'Urfe, and Professors Ness and Henry and Mrs. Summerby in Senneville, where also Mrs. Bunting lives. Also, from the beginning, some members of the staff have rented houses outside of the College.

Houses for Employees

In 1907-08 three rows of cottage houses were built to house employees and were named (1) the East, (2) the Centre and (3) the North Cottages. They were situated, respectively, (1) at the extreme east of the southern part of the College land, (2) on Dawes Lane adjacent to the Poultry Building, and (3) on the lane of the Reford farm near the farm stables. These also are noted for the handsome gardens maintained by their occupants. The old Reford Farm house was divided to accommodate the foreman and two other married employees of the Stock Farm. In 1949, to supplement the accommodation provided for Stock Farm employees, a row of three houses was added on the west side of the lane leading to the Dairy.

Grants and Donations

In addition to numerous grants from time to time from such bodies as the National Research Council, the Quebec and Dominion Departments of Agriculture, the Department of National Health and Welfare, the Rockefeller Foundation, and the Carnegie Corporation, Macdonald College has received donations from numerous business houses and from individuals, though many of these latter have been for specific research projects or for scholarships or prizes. With the notable exception of Sir William Macdonald's munificent gifts, there have

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been few endowments, and even on those, revenues have decreased as the interest rates have fallen.

Donations of buildings, equipment and books, though essential to the life and growth of a college, unless endowed for maintenance, involve increased annual expenditures.

The Stewart Donations

The most notable donations have been those of Mr. and Mrs. Walter Stewart in honour of the memory of Sir William Macdonald. A number of these have been mentioned above. Over the quarter century, 1925-50, they have amounted to a total running into the hundreds of thousands of dollars. Each year at Founder's Day there has been a contribution of one thousand dollars or more to the Stewart Library Fund and a sum for the Day's celebration, which has usually taken the form of a dinner and concert for staff and students. Repairs to College buildings have been provided when needed, and it will be readily realized that the maintenance of so great a plant is a major item of expense. To provide practice in Housekeeping as part of the academic and practical training in household science the Walter M. Stewart House on Maple Avenue and the Home Management Apartment in the Main Building have been fitted up and equipped. Also a sprinkler irrigation outfit and considerable amounts of laboratory equipment have been provided. Scholarships amounting to seven thousand dollars have been given.

In addition to these definitely academic gifts, Mr. and Mrs. Stewart have taken special pleasure in contributing to the costs of the social and athletic activities of the students. At their expense the room opposite the Dining Room was converted into a "Common" room in which men and women students might meet and it was named "The Stewart Room". A similar room has recently been equipped in the Men's Residence as well as a Smoking Room in the basement of the Main Building. The Student's Council has received donations amounting to nearly five thousand dollars; lights have been installed over the playing fields and athletic equipment donated when needed. For many years the part-time salary of an athletic director has been provided, and quite recently, at a cost of eleven thousand dollars, the swimming pools in the two gym-

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nasia were greatly improved by the installation of continuous filters to keep the water always crystal clear.

A feature of the Stewart donations, appreciated by the staff and students, and quite in keeping with the tradition of the Founder, is that the gifts are so timed and so directed as to be most useful.

Donations from the Jones Estate and the Clarkson Group

Other donations of importance have been those of the Frank P. Jones Estate, which provided for extended facilities for the Department of Animal Pathology, and that of the Ross Clarkson group, which equipped the Agronomy Department with the Robert Summerby Memorial Greenhouse. (See p. 47.)

Chapter VI

ORGANIZATION AND CONSTRUCTION

While so generously providing for the Dominion-wide rural enterprises comprised in the Macdonald-Robertson movement and the gift to Ontario represented by the Macdonald Institute, Sir William still cherished the desire to do something special for rural Quebec, where the English-speaking population (chiefly Protestant) was losing ground to the French-Canadians. He provided funds for a survey of the Protestant schools of the Province, which, at the instance of Principal Peterson of McGill University, was carried out by John (subsequently Sir John) Adams, Professor of Education in London University. Professor Adams was accompanied in his travels by a junior member of the staff of the Mathematics Department of McGill, Mr. H. M. Tory, who in later life as Dr. Tory, did signal service to his native land. He consolidated the Vancouver and Victoria Colleges into the McGill University College, which later developed into the University of British Columbia; then he became the first President of the University of Alberta, and afterwards President of the National Research Council and organizer and first Director of its laboratories, and finally, after his retirement, he was the organizer and first President of Carleton College, a night college for residents of Ottawa.¹

In his report, published in 1902, Professor Adams strongly commended the reforms in the methods of education proposed by Dr. Robertson and Sir William, including the in-

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troductioin of manual training, household science and school gardening into suitable schools and the consolidation of rural school districts. Professor Adams commented favourably upon many features of the Quebec schools, pointed out defects and suggested means of improvement².

In the Annual Report of McGill University for the year 1904-05, a Committee of Corporation reporting on the general condition of education in the Province, "expressed hearty approval of recent proposals to provide effective (rural) central schools by the method of consolidation". Principal Peterson wrote: "We shall watch with interest the development of Sir William Macdonald's plans for benefiting the rural districts of the Province."³

The establishment of a College to include schools of agriculture, household science and teacher training was projected. It was to be located in the Province of Quebec and to serve as the capstone of the Macdonald-Robertson movement for the betterment of rural education. As a suitable location, Ste. Anne de Bellevue, convenient to Montreal and on the main lines of the Grand Trunk and Canadian Pacific Railways from that city to Ottawa and Toronto, was selected. Building was commenced in April 1905 upon plans prepared by Messrs. Hutchison and Wood, architects.

The contract for the erection of the buildings was awarded to a Chicago firm of contractors. Basing their estimates on Montreal prices, and suffering from a strike of labourers for higher wages, they found they were losing money and abandoned the work. Mr. George Richards was then engaged as Superintendent of Construction, and the buildings were completed under his direction — the Main, Residence and two Science Buildings in 1907, and the Agriculture Building in 1908. For the installation of the woodwork Sir William employed two men who had done good service for him previously. Mr. James Shearer, of Shearer, Brown & Wills who had volunteered to make boxes for his tobacco at a time when he was commencing business and was not in a position to pay cash and who had continued to provide such boxes for the factory, was given the contract for woodwork in the residence buildings. Mr. John Roberts, who put in the woodwork in the Main and the two Science buildings was the son and successor of Mr. George Roberts, who had had the task of adapting a private residence to the purposes of the McGill Conservatorium of

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Music when that Institution was founded by Lord Strathcona and who had also done excellent work in Sir William's private residence. The condition of this oak, both solid and veneer, after forty years of service testifies to the quality of the work of these contractors and abundantly justifies the Founder's confidence in them.

It was the intention to open the College in September, 1907, but delays in the completion of the buildings rendered necessary a postponement to November. Meantime Dr. Robertson, who until formal appointment was designated "Acting Principal", gathered the nucleus of a staff of agriculturists to supervise the initiation of practical experimental work and the equipment of the scientific laboratories. From the staff of the Ontario Agricultural College he brought F. C. Harrison as Professor of Bacteriology, and William Lochhead as Professor of Biology. These two advised him regarding construction and equipment of the Chemistry-Physics and Biology Buildings. From the Iowa State College he called L. S. Klinck to take charge of Cereal Husbandry, from the Nappan Experimental Farm, W. Saxby Blair as Horticulturist, and from the Central Experimental Farm at Ottawa, F. C. Elford as manager of the Poultry Department, and John Fixter as Farm Manager. These five organized the outdoor work of the College.⁴

The design and planting of the College grounds, which have been and are still so universally admired by visitors to the College, are due to Professor (now Dr.) W. Saxby Blair, who left the College in June 1912 to take charge of the Dominion Experimental Fruit Station at Kentville, N.S. The macadam roads were laid by the late Mayor James Sheppard of Niagara Falls, and so well made that they endured for over thirty years, though the development of motor traffic eventually necessitated the addition of a tar finish to those most used. The ditch drain across the farm (which discharges into the Lake of Two Mountains) was dug by a gang of Italian labourers, over whom Professor Lochhead had supervision. To pump the water over a ridge of rock where the ditch crosses the cottage road a windmill was installed. The concrete surrounding the well at this point still remains, though the pumping project had soon to be abandoned and blasting of the ridge resorted to.

The College has had from the outset its own power plant, which provides steam, hot and cold water, gas and electric

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current (220 V., D.C.) to the College buildings. A double water supply was provided at first, the drinking water being taken from an artesian well and the general supply directly from the Ottawa River. When in 1915 epidemics of typhoid were traced to the artesian well, which was receiving river water through a cleft in the rock, that source and the special pipes through which the drinking water was conveyed were abandoned. Instead, filters were installed and a single system adopted by which river water was treated with alum, filtered through limestone and treated with chlorine. A close check upon the alkalinity and bacterial content of the water has always been maintained.

The purposes of the new College were set forth as "among others":

1. The advancement of education; the carrying on of research work and investigation and the dissemination of knowledge: all with particular reference to the interests and needs of the population in rural districts.
2. The Provision of suitable and effective training for teachers, and especially for those whose work will directly affect the education in schools in rural districts.

From the first it was designed to include three schools — Agriculture, Household Science and Teacher Training. In regard to the last-mentioned the special circumstances of the Province of Quebec had to be considered. The training of teachers for the schools of the Province was a responsibility of the Council of Public Instruction (since modified into the "Department of Education") which operates through two practically independent Committees — Catholic and Protestant. A Normal School, affiliated with McGill University, had for fifty years been the recognized institution for the training of teachers for the Protestant schools.⁵ It was capable of supplying the demand for trained teachers but keenly felt the need of a residence for those of its women students whose homes were at a distance from Montreal. Attacks on the existing system of teacher training, which found expression in the English language press, directed partly against the Normal School and partly against the University element in its administration, led in February 1906 to a protest on the part of Dr. S. P. Robins, the Principal of the School, in a report to the University Corporation,⁶ but by June of that year ne-

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gotiations between the Government, the University and Sir William Macdonald resulted in the incorporation of Macdonald College as a College of McGill University and the transfer of the functions of the McGill Normal School to the School for Teachers of the College, the veteran Dr. Robins retiring with honours but the remainder of the full-time staff being transferred to the new institution.

On the 18th of June, 1906, the Board of Governors of the University adopted a memorandum undertaking to manage and control an endowment fund of two million dollars to be "exclusively applied to the maintenance and extension of the said College and of the work carried on by it", but none of this fund to be used for the erection of buildings. Courses for degrees and examinations in connection with the College were to be under control of the University. Those for teacher training were to be controlled by a committee in which the University (through its "Corporation"), Macdonald College and the Government of the Province should all have representation. Other courses than those for degrees or teacher training were to be under control of the "Faculty" of the College, which was still an undefined body. All appointments to the staff of the College were to be made by the Board of Governors.

On July 18th, 1906, Sir William deeded the property of the College to the "Royal Institution for the Advancement of Learning", in other words to the Board of Governors of McGill University,⁷ and on February 25th and 26th, 1907, an agreement was entered into between the Royal Institution and the Provincial Government, whereby the former, as trustees of Macdonald College, undertook to carry on at their own expense the training of teachers under the regulations of the Protestant Committee, and the Government agreed to devote the annual sum of \$16,866.67, hitherto granted to the McGill Normal School, to the purposes of Protestant education in the Province. This agreement, incredibly short-sighted financially, was incorporated in an act of the Legislature, assented to on March 14, 1907.

Contrasting with Sir William Macdonald's modest reticence and avoidance not merely of display but even of approbation, was the first Principal's love of publicity and his belief in its value. Doubtless Dr. Robertson's long experience in the Government service, where informing of the public was a duty, had developed this characteristic. He quoted Sir John Mac-

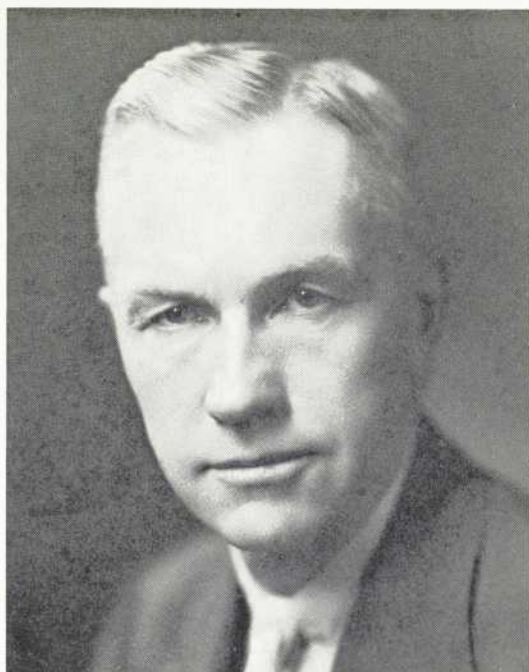
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donald as having advised him to "give the people something to cheer for". Perhaps his most spectacular feat of advertising came early in his career in the service. He was Dairy Commissioner when the great Chicago Exhibition of 1893 in celebration of the quadricentennial of the discovery of America was planned. Robertson conceived the idea of exhibiting an enormous cheese as a symbol of the dairy industry of Canada. In the fall of 1892 he had a vessel capable of holding ten tons of cheese made at a boiler factory in Montreal and shipped to Smiths Falls, Ontario. While supervising its placement and filling there, he fell from a stepladder and broke a leg — an accident that was little hindrance to one of his energy and perseverance. Special railway arrangements had to be made to convey the huge bulk of the cheese to Chicago, and when it arrived in May 1893, the floor of the building in which it was installed broke down and had to be strengthened. The big cheese stood under a glass dome and the redolence it acquired as the summer advanced provoked humorous comments in newspapers far and near, thus enhancing its advertising value. After the close of the Fair, the cheese was sold to Mr. (afterwards Sir) Thomas Lipton, who had it conveyed across the Atlantic and mounted on a gorgeously bedizened triumphal car which, drawn by four gaily caparisoned horses, was to tour the cities and towns of the United Kingdom. But Sir Thomas withdrew from his undertaking and the projected tour was reduced to the distance between the dock and the warehouse. When the outer half inch had been pared off, the cheese was found to be of superb quality and was cut up and put on sale⁸.

As Dominion Commissioner of Agriculture, Dr. Robertson inaugurated cold storage shipment of fruits to the United Kingdom, and numerous clippings from the British and Canadian newspapers of 1898 to 1905 testify to the publicity secured for this development.

It was probably not merely from habit and personal preference, but also from an apprehension of the difficulty of convincing the rural people of the benefits of school consolidation and, afterwards, the need to recruit students from the narrow constituency contemplated by Sir William, that Robertson chose, through newspapers, periodicals and public addresses, to claim so much public notice for the "Macdonald-Robertson Movement" and for the projected College. In the days of organization, and in those immediately following the opening of the

DR. G. S. H. BARTON
Dean
Faculty of Agriculture
1925-1933



DR. W. H. BRITAIN
Dean
Faculty of Agriculture
Vice-Principal, 1934-1955





Aerial View of Macdonald College

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College, numerous descriptions of the institution appeared in such various publications as the daily and weekly press of Ontario, Quebec and the Maritime Provinces, *Canadian Life and Resources*, the *London Times*, the *American Review of Reviews*, the *Country Gentleman*, the *Christian Guardian* (organ of the Methodist Church of Canada), the *Transvaal Leader*, the *Glasgow Herald* and the *Chicago Record-Herald*.⁹ Between December 1908 and June 1909 brief contributions from members of the College staff were syndicated to the rural newspapers of Quebec and Eastern Ontario under the general title of "Macdonald College Movement".

During all this period of construction, Dr. Robertson laboured diligently in lines that were unfamiliar to him, while at the same time keeping up the stream of articles and public addresses that the publicity demanded. He would read and write late into the night and be up at five in the morning to make a tour of the property. His energy was boundless but the strain told upon him and, though he was only fifty years old in the year of the College opening, he had the appearance of a man of sixty.

Chapter VII

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The Heads

Dr. James W. Robertson was formally appointed the first Principal of Macdonald College on April 19, 1907, after having served as Acting Principal. However, owing to differences with Sir William Macdonald, he resigned the Principalship on January 10, 1910.

He was at the time Chairman of the Lands Committee of the National Conservation Commission. He retained that office and in the same year was appointed Chairman of a Royal Commission on Industrial Training and Technical Education, a Commission appointed in December, 1909, at the instance of the Hon. W. L. Mackenzie King, Minister of Labour. This Commission of seven persons travelled throughout Canada, the United States, the United Kingdom, Denmark, France, Germany and Switzerland. Its itinerary included a visit to Macdonald College. The information collected (published in four volumes in 1913) formed the basis for a scheme of grants to the Provinces for the promotion of technical education. After the completion of this work Dr. Robertson occupied himself with services to the Boy Scouts Association and the Canadian Red Cross. He represented the Dominion Department of Agriculture at the Paris Peace Conference, and was Director of Food Supplies to the devastated regions of France. He died March 19, 1930. Though distasteful to Sir William Macdonald, his visits to the College were welcomed by members of the staff, especially those who had served under him.

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On Dr. Robertson's resignation, Dr. F. C. Harrison was appointed Acting Principal, and at the close of the session (July 1, 1911) he was formally appointed Principal. He held the office for fifteen years, resigning June 30, 1926. He then moved to Montreal where he filled the University Chair of Bacteriology for four years, holding also, during the last year, the office of Dean of the Faculty of Graduate Studies. He retired in June 1930 because of ill-health and has since resided in Europe. Mrs. Harrison is a daughter of the late Dr. James Mills, for some years President of the Ontario Agricultural College, and afterwards a member of the Dominion Railway Commission.

Born in Gibraltar, the son of a British officer, and having received training as an artillery officer in the Canadian militia, Dr. Harrison had a somewhat arbitrary manner and was inclined to treat his colleagues rather as inferiors than as equals. In his relations with farmers and other visitors to the College his attitude tended to arouse antagonism. Sir Arthur Currie, who appreciated his services, relieved the situation by appointing Professor Barton to the Deanship and next year transferring Dr. Harrison to the Medical Faculty.

Dr. Harrison was distinguished as a bacteriologist and was a clever and able lecturer. During the First World War he rendered good service as commander of the Officers Training Corps of the College, and afterwards as a member of the staff of the Khaki College — an organization for education of men on active service during the occupation of the defeated countries. He had artistic tastes, which were used to advantage in connection with a choral society of college and town folk, which flourished for the five years between 1923 and 1928, and during that time it produced three of the Gilbert and Sullivan operas. He not only directed the dancing in the operas, but, with Dr. B. T. Dickson, Professor of Plant Pathology, painted the scenery.

Dr. G. S. H. Barton became Dean of the Faculty of Agriculture a few months before Dr. Harrison's resignation of the Principalship. The office of Principal then remained vacant until 1934 when, by virtue of a revision of the Statutes of the University, it was restored under the more appropriate title of Vice-Principal. In the interval (1926-34) the general government of the College was carried on by an Executive Committee, consisting of the heads of the three schools with the

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Bursar as Secretary. When the Principal of the University, Sir Arthur Currie, was not present at meetings of this Committee the Chair was taken by Dean Sinclair Laird of the School for Teachers, who was the senior Dean in date of appointment. After the death of Sir Arthur Currie, the Committee continued to function under the Chancellor, Sir Edward Beatty.

Dean Barton resigned in November 1932 to accept appointment as Deputy Minister in the Dominion Department of Agriculture. Being a competent live stock man, Dr. Barton commanded the confidence of the farming community as well as that of the officials of both the Dominion and the Provincial Departments. As Dean he made important administrative changes, including the organization of research committees, which not only were inter-departmental within the Faculty of Agriculture but also included representatives of the Departments of Agriculture and other interested persons.

Following an interval, during which Dr. J. F. Snell served as Acting Dean (after the death of Sir Arthur Currie), Dr. W. H. Brittain was appointed Dean of the Faculty of Agriculture and Vice-Principal of the College, coming into office September 1, 1934.

The history of the various Departments of the Faculty of Agriculture will be given in Chapters IX and X but in the present connection a note tabulating the names and dates of service of the Heads of these Departments is in order.¹

School for Teachers

The School for Teachers was staffed mainly from its predecessor, the McGill Normal School, but its Head, George Herbert Locke, a graduate of the University of Toronto (Victoria College) who had been Associate Professor of Education (1899-1905) and Acting Dean (1903-05) of the College of Education in the University of Chicago, was brought from Boston, where he was serving Messrs. Ginn & Co. as Assistant Editor of their educational publications. Dean Locke was given the appointment of Professor of the History and Principles of Education.

He resigned as Head of the School for Teachers at the end of the year 1909 to become Librarian of the Toronto Municipal Library. He was succeeded by Dr. S. B. Sinclair, Vice Principal of the Ottawa Normal School. Dr. Sinclair resigned in 1913 and

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was succeeded by Professor Sinclair Laird, who conducted the work of the School from that time until his retirement in 1949. After his resignation, Dr. S. B. Sinclair resided in Toronto. For some years he was connected with the Ontario Department of Education, promoting the organization of separate classes for children of above normal and below normal ability. Dr. Sinclair was a bachelor but a sister shared his life. He died on December 20, 1933.

In a brilliant course in St. Andrews, Scotland, Dr. Sinclair's successor, Dean Sinclair Laird, won medals in three languages, in logic and metaphysics, and in education, and took honours also in mathematics, political economy, history and moral philosophy. He also attended summer courses in two of the Universities of France (Grenoble and Lyons). He had taught in several Scottish schools, in his Alma Mater, and in Lyons, and he came to us from Queen's University, Kingston, Ontario. During his service as Director of the School for Teachers, Dean Laird was created "Officier de l'Instruction Publique" of the French Republic and was awarded honorary doctorates by the University of Montreal and by St. Andrews University. He also received the Order of Scholastic Merit of the Province of Quebec, with the Gold Medal of the Order and the Diploma of "Distinguished Merit". Dr. Laird retired in 1949 but continued to reside in the Town of Ste. Anne de Bellevue where he served on the Council.

It happened that other retirements and resignations to accept positions outside of the College so depleted the staff of the School that the new Director, David C. Munroe, M.Sc., has an essentially new staff of teachers. Director Munroe ranks as Professor of Education.

School of Household Science

Miss Helen A. Bainbridge, whom Dean Locke brought to the College to act as Art Instructor, was taken over by Dr. Robertson to head the School of Household Science. The design of the living room of the "Practice Apartment" on the third floor of the Main Building which was for many years the residence of the Head of the School of Household Science afforded evidence of her taste as long as it remained. She had had some instruction in food values and cookery, but her experience was inadequate for the position she had accepted and she

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resigned after one year's service, leaving behind her a large stock of superfluous equipment and supplies. She afterwards married Lieutenant-Colonel Consuelo A. Sloane of the United States Army. She died many years ago.²

Associated with Miss Bainbridge as Instructors in Household Science were Miss Abbie DeLury and Miss Catherine T. McCaig (always seen together), Miss Margaret Kennedy and Miss Emma H. Bigelow (afterwards Mrs. Jan Vanderleck).

Miss Bainbridge's successor as Head of the School of Household Science was Miss A. B. Juniper, a mild-mannered but capable Englishwoman, who, after graduating in the Norfolk and Norwich School of Household Science, had taught for six years in England and Wales and for an equal period in Canadian Schools. She held the position for two years.

From 1910 to 1917 the Head of the School was Miss Katherine Fisher, who had received her training under Miss Mary Uri Watson in the Normal School of Domestic Science and Art in Hamilton, Ontario, which was the precursor of the Macdonald Institute. Miss Fisher left to accept a position in Teacher's College, Columbia University, from which she passed to the headship of the Good Housekeeping Institute, associated with the magazine of that name. Her successors, Miss Anita Hill (1917-20), afterwards Mrs. Whyley Baird, Nappan, N.S., and Miss Bessie M. Philp (1920-39) received their training in the Macdonald Institute at Guelph and had been her colleagues on the staff of our School. Miss Philp retired in 1939 after a long period of distinguished service, during which Miss Fisher's dream of a Degree Course in Household Science was realized. She spent the years of her retirement in Ste. Anne de Bellevue and so remained an honoured member of the College community until her death, May 21, 1941. Her successor, Miss Margaret McCready, B.A. (Tor.), Ph.D. (Aberdeen), Associate Professor of Nutrition, resigned in 1949 to accept a similar position of Director.

Though Miss Neilson is the seventh Director in the forty-three years of the School's history, the terms of Miss Fisher, Miss Philp, and Dr. McCready cover thirty-seven of these years. One member of the staff, Miss Alice Stickwood, has given courses in Diet Therapy since 1927. Other changes in the staff have been fairly frequent, but they have been in the direction of advancement in academic qualifications as the

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School has evolved from a technical school to a University School.

Academic Staff

The opening of the College was announced for September 1907, and Principal Robertson proceeded to expand the small staff he had assembled for preparatory work in 1905.³ Dr. Carleton J. Lynde and Dr. John F. Snell arrived in July to take charge of the Departments of Physics and Chemistry, respectively. G. S. H. Barton, B.S.A., subsequently Dean of the Faculty of Agriculture, afterwards Deputy Minister of the Dominion Department of Agriculture, and eventually Chairman of F.A.O. (the Food and Agricultural Organization of the United Nations), joined Professor Arkell in the Department of Animal Husbandry as Lecturer, and later (1911) succeeded him as Professor. Victor Gardner, afterwards Professor of Horticulture in his Alma Mater, the Michigan College of Agriculture, was added to Professor Blair's Staff. Dr. Harrison secured the services of two Europeans as Assistants in Bacteriology, the colourful Netherlander, J. Vanderleek, and the Swiss, H. Dasen. Dr. J. M. Swaine of the Pictou Academy, the future Director of the Science Service of the Department of Agricultural, became Lecturer, and Mr. Douglas Weir, Assistant in Biology. Dr. John Brittain, who was appointed a member of the Faculty of Agriculture with the title of Professor of Nature Study, gave instruction in that subject in the School for Teachers also. The subjects of English and History in the School of Agriculture were also assigned to Dr. Brittain, and he was given as Assistant, Dr. W. Douglas MacFarlane, who was later advanced to the rank of Lecturer in English and History, and continued to give the courses in English up to 1919, when he left to join the Faculty of King's College, Windsor, N.S. Mr. H. S. Hammond, who before taking the B.S.A. course in the Ontario Agricultural College had had experience in the Southeastern Agricultural College at Wye, Kent, and in experimental stations in Kingston, Jamaica, and Kingston, Rhode Island, became Assistant, and later Lecturer, in Chemistry, remaining in the Department until 1919. He afterwards served on the staff of the Division of Chemistry of the Dominion Experimental Farms.

Of the School for Teachers staff who came from the

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McGill Normal School, Abner W. Kneeland and Mme. Sophie Cornu continued under the titles of Professors of English and of French respectively which they held in the old School. Miss Lilian B. Robins, a daughter of the retiring Principal of that School, continued as Instructor in Mathematics and Classics.

Mr. G. E. Emberley was appointed Instructor in Manual Training. H. F. Armstrong, Associate Professor of Drawing in the Engineering Faculty, and William H. Smith, Instructor in the Montreal Protestant Schools, gave instruction at the College on certain days, and members of the staffs of the Schools of Agriculture and Household Science also gave limited courses to the teachers-in-training.

Confusion of Titles

In view of the variations in origin of the members of the teaching staff and the differences of their qualifications and experiences it was inevitable that there should be differences of opinion regarding the titles to be given them and hesitation in conferring these. There were then no exact definitions such as now exist of the various ranks of the academic officers of the University.

In deference to the fact that in the McGill Normal School Mr. Kneeland and Mme. Cornu had been ranked as Professors they continued to hold this title. The head of the School for Teachers could be appointed to a Chair in the Faculty of Arts, but the other members of its staff, whose work lay almost exclusively with non-matriculants, were ranked no higher than Lecturers. In the School of Agriculture the man chosen to head a Department, whether practical or scientific, was usually given the title of Professor, though, if he was without a University degree or without experience in the teaching of Agriculture, that title could be avoided by the use of Assistant Professor, Lecturer, Instructor or Manager.

The staff lists of the early years suggest uncertainty of policy in this matter. Thus the Chairman of the staff of the School for Teachers, who in modern practice would be entitled "Director" of the School, was listed under the various titles of "Dean" or "Head" and "Professor" or "Assistant Professor", while the head of the School of Household Science was at first designated "Dean" and "Assistant Professor" but after 1911-12 only "Head". The University authorities were chary

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of granting professional titles to non-graduates, and particularly to persons whose teaching was confined to students unregistered as candidates for degrees — and practically all the students of Macdonald College except those in the upper years of Agriculture were in this position.

The University itself was bound by its obligations to the Carnegie Foundation for the Advancement of Teaching, whose Trustees ruled that only those persons whose work lay with matriculated students could take advantage of the pension benefits extended by the Foundation. In the School for Teachers the regulations of the Provincial Department of Education regarding pensions also had to be observed.

*Academic Qualifications of the Staff*⁴

It is of interest to compare the staff of the College in the early days with the modern staff in regard to academic standing as represented by University degrees.

Of the twenty-three members of the staff of the School of Agriculture in the year 1909-10, which was the Third Session, six had no degree, eight were bachelors, and nine had the advanced degree of Master or Doctor.

Stated in percentages — of the original Agriculture Staff (1909-10): 39 per cent held advanced degrees, 34 per cent were bachelors, and 26 per cent were without degrees; whereas, of the 51 on staff at mid-century (1947-48): 84 per cent held advanced degrees, and 16 per cent were bachelors.

Similarly, the staff of the School for Teachers, half of whose members were originally without degrees, had by 1947-48 six persons with advanced degrees, four bachelors, and only one person without a degree, while in 1950-51 its staff of eleven includes one possessing doctoral, five magistral, and the remaining five, baccalaureate titles.

Residential Staff

When Macdonald College opened, Mrs. Jennie Muldrew, widow of Dr. James Muldrew (who was the original "Dean" of the Macdonald Institute at Guelph) was appointed "House-mother and Superintendent" of the Women's Residence, and Mrs. J. F. O'Hara "Matron" of the Men's Residence. Mrs. O'Hara's successor, Miss Nealina Macmillan (1910-15), was

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designated "Superintendent". From 1916 to 1936, there was a "Superintendent of Residences", a position held by Miss Mima Russell, R.N., from 1921 to her retirement in 1936. Since that time, by virtue of a change in the designation of various offices, incident to a revision of the Statutes of the University, there have been "Wardens" for both men and women. The Warden of the Women's Residence (or "Hall", as it is called in the Statutes) from 1937 to the present (1950) has been Mrs. Marion G. Strang. The position of Warden of the Men's Residence (or "Hall") has been temporarily filled by various junior members of the teaching staff, and there have been resident nurses in both Halls.

From the first there has been a Dietitian, though in earlier times this position was sometimes combined with that of Housekeeper. Miss Margaret Burroughs served as Dietitian from 1926 to 1940. Beginning with 1944, two dietitians have been listed — one for the Main Dining Room, the other for Glenaladale, the staff club house. In 1950-51 Miss Margaret R. Stewart, B.H.S., continues in the former position after many years service and Miss Sheila M. Croskery, B.Sc. (H.Ec.), has just taken charge at Glenaladale.

From 1910 to 1921 there was both a housekeeper and an Assistant Housekeeper. From that time only one Housekeeper has been recognized. Miss M. E. Scott, S.R.N., held the title for a year, then reverted to that of Resident Nurse, under which title she served in the Men's Residence up to 1946, when she retired to Wales. As Housekeeper she was succeeded in 1922 by Miss C. M. Sutton, O.B.E., who remained in office until 1932. That position was then discontinued.

Administrative Officers

Bursar (Secretary) — Mr. T. Fred Ward headed the business administration of the College from the time it was incorporated into the University until his retirement in 1946. He had had previous experience as a clerk in the office of the Bursar of the University, and no doubt his efficient service there had attracted the attention of Sir William Macdonald. Until 1934 his title was simply Bursar. The Statutes of that year, designating him "Secretary", made no material change in his duties and responsibilities. Under the Board of Governors he had authority over the material property of the College and

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administered its complex accounting. Mr. Ward retired in 1946 and was succeeded by Mr. J. H. Holton, B.Com. (Toronto) under the titles of "Secretary" (of the College) and "Assistant Bursar" (of the University).

Registrar — Miss Gamble, who acted as Registrar in the first year of the College's activity, left with her friend, Miss Bainbridge, at the end of that year. Under the title of Principal's Secretary, Mr. William J. Wright then carried on the full duties of a Registrar most thoroughly. In 1927 the *title* of Registrar was bestowed upon him. Mr. Wright retired in 1936, taking up residence in St. Lambert, Quebec. On July 1, 1937, Mr. A. B. Walsh, B.Sc.(Agr.) succeeded to the office. From 1941-42 on, the names of the Bursar and Registrar of McGill University are also listed in the College Announcement and from 1947-48 that of the Comptroller of the University S. H. Dobell, D.S.O.

Librarian — The original Librarian was Miss A. G. Rowson, B.A., of the University of Toronto. After one year's service she married the Rev. John Inkster of the Presbyterian Church. She was succeeded by Mrs. Frank J. James, who continued in office to 1927. Mr. Ernest H. Mutton succeeded. Mr. Mutton had the advantage of having had experience in the book trade and a course in library management. Although due for retirement in 1946 he continued in office to August 1947. His successor is Miss Margaret MacIntosh, M.A. (Queen's), B.L.S. (McGill). Though never listed in the Announcements, Miss Norma Detlor has been a very efficient assistant since October 1927.

Physician (Medical Officer) — During the first year there was no resident physician in the College and no English-speaking physician in the town of Ste. Anne de Bellevue. Dr. Helen Macdonald of Montreal was, however, appointed (non-resident) Physician to the Women's Department and Miss Alice Sinclair as Resident Nurse and Instructor in Home Nursing.

In the second year Dr. John J. Walker became "Physician to the Men's Department", and took up residence in the Men's Building. He came on the understanding that he might establish a private practice, and after a few months he found it more convenient to live in the town. From 1910-11 the name of Dr. Macdonald disappears from the Announcement, and Dr. Walker is designated "Physician" with Dr. F. W. Harvey at

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first as "Consulting Physician" and later as "Consulting Medical Director of Physical Training".

In the year 1914-15, Dr. R. F. Kelso became Medical Director, succeeding also to Dr. Walker's private practice. Though Dr. Harvey's name was continued in the Announcement up to 1927, and the name of the Director of the University Department of Physical Education, Dr. A. S. Lamb, was listed in 1950, the work of the Medical Director was independent of both the Medical Faculty and the Department of Physical Education, except as regards necessary co-operation in emergencies.

Other Administrative Officers — There has been no settled policy as to the recognition of other administrative officers by inclusion of their names in the Annual Announcement. From 1921-22 to 1930-31, the name of Chas. Stephen, A.M.E.I.C., as Resident Engineer, and from 1928-29 to 1939-40 that of Jas. R. Currie as Accountant were listed as administrative officers.

The Macdonald High School

The building of the Protestant school of Ste. Anne de Bellevue (now the Parish Hall of St. George's Church) was obviously inadequate for the purpose of a practice school for the School for Teachers. Some of its classes were held in the Main and Chemistry-Physics Buildings until April 14, 1909, when the southern part of the present Macdonald High School Building was ready for occupation. Formal opening exercises were held on June 19th of that year with Sir William Macdonald in attendance. In 1911 the northern half of the building was completed.

The School has had seven Headmasters: Miss M. I. Peebles (1907); R. W. Edmison, B.A. (1911), now in dental practice in Montreal; A. D'Arcy Chapman, M.A., F.A.G.S., (1915); Elmer S. Giles, B.A. (1920) now Provincial Inspector of Protestant Schools; Harold S. Cook, B.A. (1925), afterwards Principal of the St. Lambert Schools; William A. Steeves, B.A. (1931), later on the College staff and now an Inspector of Schools in Montreal; and Malcolm de F. Davies, B.A. (1943). The staff originally consisted of two members (Miss Peebles, who had been Head of the corresponding Practice School of the McGill Normal School, and Miss M. Moe). At the opening of the building in 1909 it numbered four. This number gradu-

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ally increased, reaching a maximum of 13 in 1933. In 1947, the last year of its operation as a part of Macdonald College, the staff consisted of 12 Teachers and an Honorary Librarian (Mrs. J. Murray Gibbon).

Though retaining the name "Macdonald High School", the School is now under control of a regional board, representing several adjacent school districts.

Chapter VIII

THE CURRICULA¹

Faculty of Agriculture

Courses for the degree of Bachelor of Science in Agriculture have been offered from the outset — B.S.A. from 1907 to 1934 and B.Sc.(Agr.) since the latter date.

In the beginning the practical subjects were emphasized during the first two years of the course, and instruction was given in common to candidates for the diploma and for the degree. The ideal set forth in the original announcement (1907-08) was to have a succession of short courses in the various branches of agriculture — animal husbandry, horticulture, etc., with supporting minor courses in the sciences. It was "believed that the massing of forces upon a single subject for a month or six weeks, and the simultaneous focusing of the different sciences upon this subject" would "give better results than if many subjects were carried along together through the session without special co-operation of the different Departments." The obvious defect of this system is the difficulty of initiating the degree students into any clear understanding of the sciences by means of minor courses subordinated to practical ones of varying content. The quoted words are not repeated in the second announcement, though the sounder idea of using "the valuable but rather indefinite information that the student already possesses regarding farm life and processes" for the "building up of a solid superstructure . . . enlarged and strengthened . . . by the introduction of scientific principles

CURRICULA

gained in the biological, physical and chemical laboratories," is insisted upon.

The academic requirements for admission to the first year were some knowledge of elementary mathematics and of history and geography (especially of Canada) and ability to read and write English acceptably. Admission to the third year of the degree course was granted to those who had entered the first year with matriculation standing and also to those who had obtained a standing of sixty per cent in the two-year (diploma) course and who had the permission of the Faculty to proceed. This was soon (from 1910-11) modified to require either a successful entrance examination in English, history and arithmetic and a record in the two-year course of fifty per cent general proficiency and sixty per cent in English or, alternatively, with permission of the Faculty, a matriculation examination to be passed before entering the third year.

The policy of common classes for the degree course students of the first and second years and the diploma course students was continued up to 1920. Naturally, the instruction had to be adapted to the capacity of those unqualified for the degree course. The number of subjects studied concurrently had also to be quite large. When, in 1910-11, the original class of students had reached its senior year, the students of the first and second years were taking sixteen courses in eleven different departments of the College, and those of the third and fourth years were receiving instruction from eight to eleven departments according to the option selected. These options were originally animal husbandry, cereal husbandry, horticulture and selective². In 1914-15 a general option was added with the lower examination standard of forty per cent instead of the fifty per cent required in the "Specialist" options. By 1916-17 the number of subjects required in the upper years had been reduced to nine in the third, and to from six to nine (in the various options) in the fourth year, but those in the first and second years of the course were still thirteen and fourteen, respectively. In addition, first year students were required to work in the practical departments two afternoons a week and such forenoon time as should be found necessary. From 1916 students were required to keep diaries of their work in the second term of the First, and the first term of the Second year, these to be examined by the Department of English.

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In 1909-10, in response to a request by the students, lectures in Rural Economics were given. In 1911-12 a course of ten lectures in General Economics was given by Dr. J. C. Hemmeon of the Faculty of Arts, and one of ten lectures on Rural Economics by Mr. W. C. Good, a member of the Ontario Legislature. From 1914 to 1920, Dr. Hemmeon treated the subject from both the general and the specifically rural standpoints. After 1920-21, when the Winter Course was established, lectures in Economics were given to each class by Dr. H. D. Brunt of the Department of English until, in 1926, a separate Department was established under Dr. J. E. Latimer.

A course in Geology, offered originally by Professor William Lochhead of the Biology Department in the second year, was transferred to the third year in 1912³.

From 1909 to 1921 a typewritten thesis was demanded of students of the fourth year. This was to be based "chiefly on original investigation". The further provision of an oral examination upon the thesis appears never to have been enforced.

For the session 1916-17 a course designed to prepare men for teaching in rural academies was introduced. It was to embrace two years in McGill and two in Macdonald College and was to lead to a degree designated "B.Sc. in Agr." The demand for this course proved negligible and the difficulty of arranging courses for an applicant in 1922 led to a Faculty vote recommending its abolition. The recommendation was not accepted by Corporation at that time but the course was dropped in 1934-35⁴. Actually the degree had been conferred on only two candidates, neither of whom had any intention of entering the teaching profession. On the other hand, a few graduates who had also taken instruction in the School for Teachers sufficient to qualify them as teachers received High School appointments.

In 1920-21 a radical change was made in the Agricultural curriculum. The two-year course for diploma was replaced by a "Winter Course" of four and one-half months (November 1 to March 25). Instruction to this class of students was necessarily separated from that to degree course students whose sessions began earlier and continued later in the College year. For the first and second years of the degree course the emphasis on the sciences was increased and the time devoted to practical agricultural subjects was diminished. In this way a

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better foundation for advanced work was laid and the opportunity for specialization in the agricultural sciences enhanced. Such specialization began in the third year. At first six options were offered, viz., animal husbandry, cereal husbandry, horticulture, entomology and selective. A general option on an elective basis was added in 1923, options in chemistry and in poultry in 1926, and one in general biology in 1929.

In 1921-22 a system of unannounced test examinations was introduced. A proposal to exempt from final examinations students whose record in these tests was above a certain average was debated in the Faculty but not adopted. An experiment was made in basing one-fourth of students' annual standing upon their personalities and performances in extra-curricular activities, including athletics, the idea being to recognize qualities of leadership. These characteristics were judged by faculty committees appointed for each of the years. This innovation did not prove acceptable either to the students or to some members of the teaching staff. It was abandoned after two years trial.

It was also in 1921-22 that the requirement of a thesis as a qualification for the degree of B.S.A. was replaced by courses of "projects", each of which could be completed and reported upon in a single term. In the same year accommodation in the residences and tuition in matriculation subjects in the Macdonald High School was offered for a limited number of students. This privilege was withdrawn in 1927, very little advantage of it having been taken in the intervening years. In 1924-25 the two terms into which the College year was divided were equalized by transferring the first terminal examination from December to the latter part of January.

In 1924 negotiations with the Canadian Pacific Railway Company resulted in Professor Lochhead's being sent to Great Britain to visit the Public Schools for the purpose of presenting the claims of Canadian agriculture to the consideration of boys in these schools in their choice of careers. In the spring of 1925 a small number of such boys came over. These arrived at various times, and through the service of the Railway were afforded an opportunity to work on farms. In 1926 this plan was more definitely outlined. A committee of College and Canadian Pacific officials was appointed and it was arranged that the boys should be brought over at one time and handled as a unit. This involved receiving them at Macdonald College

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and providing their initial contact with farm work in Canada on the Stock Farm. After two weeks' experience they were then placed on selected farms to obtain practical experience. On their return to the College in the autumn the great majority entered the Winter Course. Later many of them decided to transfer to the Degree Course and provision had to be made for the transition of such students, as well as of Canadians desiring to make the same change. It had been provided in 1925-26 that students with sufficiently high records in the Winter Course might, during the first two years of the Degree Course, substitute matriculation subjects for certain of the practical courses which were similar to those taken during their Winter Course.

In the outline of the Winter Course adopted in 1924-25 provision was made for a second year of study of subjects in which students who had passed the first year creditably might wish to specialize, and in 1927-28 the course was re-organized into one of two years duration, allowing in the first year a choice of subjects relating to dairy farming or to fruit farming or to both, and in the second year a choice between live stock or fruit farming or a combination of the two. In 1927-28 the title of the Winter Course was changed to "Diploma Course", and in 1929-30, options in the first year were abolished, all students being required to take the same subjects.

In 1930-31 provision was made for a third year leading to a "Diploma with Distinction." The course for this third year, designed to provide special training for positions of greater responsibility, embraced six months apprenticeship at the student wage rate and a Diploma Course session (five months) devoted to studies, projects and departmental work of a character more advanced than that of the second year. In 1933-34 the title of this course was altered to the more appropriate one of "Advanced Diploma Course."

In 1927-28 students who had completed the two years of the Winter Course and who had matriculation standing were permitted to combine in one year the first and second year work of the Degree Course. This was found to involve a too crowded timetable. It was abandoned in 1929-30.

In 1928 the Nova Scotia Agricultural College officially recognized Macdonald College as the finishing institution for those of its students who desired to proceed to a degree, and it agreed to so co-ordinate its courses that its students would be

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qualified to enter the latter college (usually in the Third Year) with training corresponding to that of their classmates in our College.

In 1937 similar agreements with respect to both agriculture and household science were made with Prince of Wales College in Charlottetown, Prince Edward Island, and Memorial College in St. John's, Newfoundland.

At a meeting of the Faculty of Agriculture held on March 12, 1929, a committee was appointed to study and consider the reorganization of the curriculum for the first two years in agriculture. This committee consisted of Dr. Brittain (Chairman) and Professors Lattimer, Lods, Quayle and Crampton. The Committee submitted its report on April 11, 1929, and recommended a radical break with tradition in the matter of courses customarily offered to students in Agriculture. In brief, the Committee recommended that all the applied courses in Agriculture, which heretofore had composed a significant portion of the curriculum, should be eliminated and that instruction should be restricted to the fundamental subjects in the physical and biological sciences plus English and mathematics, since these subjects were considered to be basic to all options. As recommended, the work of these two years was to compare so nearly to corresponding courses offered to B.Sc. students that students should be able to pass from one to the other without conditions.

The proposed new curriculum, with minor amendments, was unanimously approved by Faculty and, in due course, was ratified by the University Corporation. It is now clear that this action by Faculty broke new ground in the training of undergraduates for professional agriculture, and similar action was ultimately taken by the other Canadian faculties of Agriculture.

In 1932-33 the Degree Course was again revised in order to bring it into harmony with courses for degrees in other faculties of the University. In conformity with the practice in sister faculties a distinction between Pass and Honours Courses in the third and fourth years was introduced, higher standing (sixty per cent) in the lower years being demanded for entrance to the Honours Courses. The minimum number of full courses to be taken was prescribed as 11-12½, a full course being defined as one of three lecture periods a week throughout the year. Otherwise stated, a student was required to take the equivalent of 66 units of instruction in his third and fourth

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years and was not permitted to take more than 75 units, a unit being one lecture or laboratory period per week for one term. In the "B.S.A. Course Syllabus" included in the Announcement, the courses recognized as major and minor in each option were indicated and provision was made for a General Biology Option in which courses might be selected for major recognition. The major subjects (Departments) were divided into two Groups, from the first of which a subject might be chosen as that in which most of the Honours work should be taken, while if two subjects were chosen they might be selected either from Group I or one each from Groups I and II.

In 1934-35 the designation of the degree was altered from "B.S.A." to "B.Sc.(Agr.)" the degree formerly designated "B.Sc. in Agr." being abolished.

In 1935-36 provision was made for an Honours Option in General Agriculture similar to that in General Biology.

In 1937-38 the minimum examination requirements were fixed at fifty per cent in major, and forty per cent in minor courses, Second Class Honours being given to those making sixty to seventy-five per cent in major and fifty per cent in minor courses.

In 1945-46 the distinction between Group I and Group II subjects, and in 1947-48 that between major and minor subjects was dropped, the minimum requirements for Honours being set at sixty per cent in all courses, sixty-five per cent for Second Class, and eighty per cent for First Class Honours. Pass standing was allowed to those making an average of fifty per cent in all courses of the third and fourth years.

From 1937 to 1944 students majoring in Chemistry were required to take certain courses in the McGill Department of Chemistry, and since 1945 students majoring in Economics have taken some of their courses in McGill.

Courses in Extension Methods have been offered since 1939 under direction of a committee headed originally by Vice-Principal Brittain, but since 1943-44 by Professor Avison of the Department of English. The courses in English were recast in 1943-44 to give more emphasis to public speaking and debate.

According to the 1947-48 Announcement courses in Sociology and Textile Chemistry, offered primarily for Household Science students, may be elected by Agriculture students of the Third and Fourth years, if other regulations permit.

In 1947-48, besides the Honours Courses in General Agri-

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culture and General Biology there are eleven Specialist options. In two of these there is a choice between two groups of subjects, viz., in Agronomy between a Plant Breeding and a Soil Fertility Group (both including Production courses) and in Chemistry between an Animal Biochemistry and a Soil and Plant Group.

School of Household Science

The School of Household Science originally offered Home-maker courses of one and two years, comprising practical training, supplemented by courses in science and, in the second year, in English, Mathematics, History and selected agricultural subjects. The only entrance requirements were ability to "read and write the English language acceptably" and proficiency "in the use of elementary mathematics." A certificate was given on the completion of the one-year, and a diploma on completion of the two-year, course. Short courses of three months' duration were added in 1910-11 and have been offered intermittently ever since. Lessons in food study and needle-work were given to women students of the School for Teachers, and a limited number in both subjects is still given.

In 1910-11 when Miss Katharine Fisher became Head of the School, the two-year "Housekeepers' Course" was launched. In 1914 this was replaced by a nearly identical "Institution Administration Course." The age requirement for admission to this course was twenty-two years, as compared with seventeen for the homemaker and short courses. This age limit was reduced to twenty years in 1923. In 1920 an entrance requirement of Grade XI standing was set. The Institution Administration Course was continued up to 1935-36, when the demand for it disappeared on account of the growth of the course leading to a University degree.

A standard of Grade X for entrance to the Homemakers course was also adopted in 1920, but after two years' experience this was reduced to Grade VII. Since 1945, completion of one year in High School, that is Grade VIII, has been required.

In 1918-19 the important step of offering a degree in Household Science (B.H.S.) was taken. The first two years of the course were taken in the Faculty of Arts, the remaining two in Macdonald College. The outline of courses for the degree was published in the Announcement in 1919-20 and suc-

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ceeding years. Since 1929 the whole course may be, and for the great majority of students is taken in Macdonald College, though some transfer from the Arts and Science Faculties of McGill and other Universities in their second or third year. Since 1929 also an option between a dietitian's and a teacher's course has been allowed in the fourth year.

The revised statutes of 1934 made the School of Household Science an adjunct of the Faculty of Agriculture, of which Faculty the Director of the School is a member.

Since 1937 the first and second year courses for the B.Sc. (Agr.) and B.H.S. (B.Sc. (H.Ec.)) have been specified in a common syllabus, the Household Science students substituting Physical Education, an Introduction to Household Science and a laundry course for the first year course in agriculture, and Art Appreciation and Interior Decoration, Costume, Cookery, Theory of Foods and Household Administration for the second year courses in Agriculture, Mathematics and Physics. Though the courses in the third and fourth years necessarily show greater divergence, as many as are appropriate to the two degrees are taken in common.

In 1944, the designation of the degree was altered from B.H.S. to B.Sc.(H.Ec.) to conform with the corresponding degree in Agriculture.

Since 1938 a laboratory course in the fundamentals of nutrition has been offered in common to fourth year students for both the B.Sc. degrees; and since 1942, the Professor of Animal Nutrition has collaborated in a Nutrition Seminar in the School.

School for Teachers

As previously recounted, when the College was established, its School for Teachers took over the work and most of the full-time staff of the half-century-old McGill Normal School and became the official training school for teachers of the Protestant schools of the Province.

Originally at Macdonald College courses were offered for five diplomas — Elementary, Advanced Elementary, Kindergarten, Model School and Academy. The second of these was dropped in the second year of the College and the fifth was discontinued the next year (1909) when courses in Education established in the Faculty of Arts took its place. Up to 1910-11, the academic requirement for admission to the ele-

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mentary course was the first grade academic examination, which corresponds to the present Grade IX, while the model school class could be entered with either an "AA" (advanced academy) certificate (equivalent to a High School Leaving certificate), or with an Elementary Diploma and examinations in Latin, Algebra and Geometry⁵. These requirements have been gradually raised until, from 1944-45, High School Leaving standing with a pass in ten papers, or Junior Matriculation, that is, completion of Grade XI, is required for admission to the Elementary, and Senior High School Leaving or Senior Matriculation (Grade XII), for the Intermediate Class, provided that the candidate has also passed in ten papers of Grade XI. Certificates are granted by the Protestant Central Board of Examiners, and these are not made permanent until after two years of successful teaching and one session at an approved summer school. Advanced elementary and Intermediate diplomas are granted after, respectively, two and three summer sessions. The Provincial Department of Education conducts a school of one month's session at the College in July of each year, and simultaneously a course for French Specialist teachers is given.

In the School for Teachers, instruction is given not only in the teaching of school subjects but also in Principles of Education, Educational Psychology, School Management, School Law and Regulations, and the History of Education. Special emphasis is laid on the observation and practice of teaching for which facilities are afforded by the Macdonald High School, the schools of the city of Montreal and, at certain periods, rural schools and the schools of other Quebec cities and towns.

The advancements in entrance requirements referred to above are indicative of the improvement in teacher training that has been attained since the establishment of the college.

Further details regarding the personnel of the School and the subjects of instruction are given in Chapters VII, VIII and IX. The complete relationships of the School to the College, the University and the Quebec Department of Education are represented in the accompanying chart, prepared by Dr. Sinclair Laird, the retired Dean of the School.

Attendance Records

In the year the College opened, 1907-08, only 215 students were registered, of whom only 38 were enrolled in the

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single class in Agriculture, the others being divided between the School of Household Science and the School for Teachers. Each of the following three years had an additional class in Agriculture, so that in 1910-11, when 11 of those of the original class completed their course and received B.S.A. degrees, there were 197 in the four classes, including those proceeding only to the Diploma; 110 in Household Science; and 150 in the School for Teachers, a total of 457. In the early period of the College's operation, numerous "short courses" of a practical nature were given — some at the College, others at rural centres in Quebec — the attendance at which is not included in this record.

The registration in Agriculture continued to grow until the outbreak of World War I, at which time it had reached the number of 211, and the total registration in the three schools 494. In the final year of the war, 1918-19, the enrolment in Agriculture had shrunk to 122, of whom only 52 were registered in the degree course, and the only students graduated were two who had failed to qualify fully in the preceding year.

For further information on Attendance, see Chapter XIV (pp. 163-165).

Part III—The Development

Introduction

This part of the History consists of detailed accounts of the various subjects of study and research pursued in the College during its life. In the Faculty of Agriculture the main subjects are organized into Departments, which for our purpose may be divided into two classes — (1) the Practical (or Applied), in which operations are stressed and (2) the Scientific (or Theoretical), in which prominence is given to Principles. Chapter IX treats of the Practical Departments, Chapter X of the Science Departments, the arrangement of each being alphabetical.

In Chapter XI similar treatment is accorded to such subjects as for various reasons are not included in the two preceding Chapters. These reasons may be (1) that the subjects do not belong exclusively to the Faculty of Agriculture or (2) that they do not belong exclusively to any one department or (3) that they are of relatively minor importance.

For most of the information in these Chapters the author is indebted to the courtesy of the heads of the departments on the subjects concerned.

Chapter IX

THE PRACTICAL DEPARTMENTS

THE ADULT EDUCATION SERVICE

Origin

With financial assistance from the Carnegie Corporation of New York, this service was established in 1938 on an experimental basis. Its headquarters were originally at Lennoxville in the Eastern Townships, the area in which, outside of the city of Montreal, the English-speaking people of the Province of Quebec are most concentrated.

History

A Committee of the University Senate was appointed with Dr. W. H. Brittain, Vice-Principal of Macdonald College, as Chairman, and Mr. R. Alex Sim, M.A., as Secretary. In 1943 the office of the Service was transferred to Macdonald College. On the resignation of Mr. Sim in 1949, H. R. C. Avison, M.A., Associate Professor of English in the College, was appointed Director of the Service.

In 1950-51 Miss Roberta Ridley is Secretary-Librarian of the Service, Mr. James T. Davidson is Quebec Secretary of Farm Forums, and Mr. Jack Cram is editor of the publications of the Service.

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Programs

As the outcome of experimentation with several projects, three programs of adult education have become firmly established and continue to operate in 1949:

- (1) *Farm Forums*: In 1939 Dr. Brittain and Alex Sim conceived of a program of neighbourhood discussion groups, based on radio broadcasts by appropriate leaders. The first broadcast in the weekly series, arranged with the co-operation of Neil Morrison of the C.B.C., took place in February 1940, on a three-station chain, and was called at that time, Community Clinic. This undertaking, supported originally by the Canadian Adult Education Association, the C.B.C. and Macdonald College, became Canada-wide as a result of its success, and later as Farm Radio Forum, has played a major role in stimulating an awareness of current problems in the listening and discussion groups of the rural areas.
- (2) *Community Schools*: These adult night schools, meeting weekly for periods of 10-12 weeks at English-speaking centres, are organized by local committees but draw on the personnel of the Service for assistance and advice. In 1949-50 six such schools operated with a total enrolment of 585. Subjects studied range from agricultural mechanics, cooking, sewing and handicrafts to public speaking, public affairs, dramatics and French conversation.
- (3) *Leadership Training Schools*: Since 1941 a school for training of leaders has been held annually in August. In 1946 this school came under the joint control of McGill and Laval Universities, becoming bilingual and receiving support from the Quebec Government Department of Youth. The school was originally known as Camp Macdonald, and is now known as Camp Laquemac, a name composed of the initial syllables of Laval, Quebec and Macdonald, and signifying the co-operation of the two Universities and the Province.

A Leaders' Course given in Cowansville and Lennoxville in May 1948 enrolled 70 students, and

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Short Courses in Chateauguay and Pontiac Counties in November and at Macdonald College in December brought up the total enrolment in such courses to 355.

- (4) *Information Centre and Local Courses*: More recent developments in the Service include the establishment of (1) an *Information Centre* with a mailing list of 500, which distributes books, pamphlets, films, etc., to 108 organizations, counsels local groups regarding programs and has a full time Secretary-Librarian, and (2) *Evening Courses* given at Macdonald College and Hudson, Que., by members of the College staff to adults in the Lakeshore area.

McGill Handicrafts

The McGill Handicrafts Division which, growing out of the co-operation of interested members of Macdonald College staff and student body in such work, was established as a College enterprise in December 1942. It was enthusiastically developed by Dr. Ivan H. Crowell, Lecturer in Plant Pathology, who had at one time given instruction in manual training in the Nova Scotia Provincial Normal School and had subsequently studied Botany and its application to Forestry in the University of New Brunswick and in Harvard University (where he received his doctorate) and had come to Macdonald from the University of New Mexico in 1937.

In 1943 Dr. Crowell resigned his position in Plant Pathology and devoted his full time to the promotion of the handicrafts movement both within and beyond the College, obtaining financial support for the work from various industrial sources.

As World War II drew to a close there arose a demand for training in crafts by veterans and those working in hospitals, recreation centres, etc. With the support of the Department of Veterans' Affairs the handicraft staff and student body at the College was expanded, at one time reaching a total of 70 students. The staff included full-time instructors in woodwork, weaving, leather work, metal work, plastics, and pottery. Evening instruction was given to people from the College neighbourhood as well as to veterans and students of the College.

As the demand for such training fell off at the close of the

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post-war period the staff was reduced. Dr. Crowell left in August 1946 to accept a position as Director of Handicrafts for the Province of New Brunswick, and was succeeded by Miss Alice Winslow-Spragge until April 1947, who in turn was followed by Miss Ruth Sprenger.

In 1950-51 courses were offered in weaving, leather work, metal and wood work, with one part-time and two full-time instructors. Evening courses have been continued as before.

Travelling Libraries

The McLennan Travelling Libraries which were established in 1910 for the service of rural adults and children, on an endowment by the late Hugh McLennan, though housed in Macdonald College since 1943, were operated by the Redpath Library until they were re-organized in June 1950 and came under the direction of the Adult Education Service. Miss Olive Mavis Clarke, B.A., B.L.S., is in charge with Mrs. Alice Davies as assistant.

The Macdonald College Journal

The Macdonald College Journal supplements the adult education work of the Extension Service. The Journal was founded as a College enterprise in 1940 to act as a medium for promoting the extension program of the College and to fill the gap left by the discontinuance in 1936 of *The Journal of Agriculture and Horticulture of the Province of Quebec*. It is published monthly, with a circulation of 5000, and serves as a link between the English-speaking farmers, the Provincial Department of Agriculture and Macdonald College. It publishes articles on farm practice and reports on happenings in agriculture throughout the Province and is used as an official organ of publicity by the Quebec Department of Agriculture and the Quebec Women's Institutes. From the outset this journal has been directed by a Board headed by the Vice-Principal and has been edited by Mr. A. B. Walsh, the College Registrar. In 1946, Mr. J. S. Cram joined the staff as Farm Editor. The majority of the articles published are contributed by the Agricultural and Home Economics staffs, the Quebec Women's Institutes and members of the Quebec Department

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of Agriculture, the Editor acting as liaison officer between the College and the Department of Agriculture.

AGRICULTURAL ENGINEERING

The interest of Dr. James W. Robertson and Sir William Macdonald in manual training as a feature of elementary education has been referred to in Chapter IV. Naturally, therefore, prominence was given to such training, both in the young College and in the associated elementary school.

A manual training department was formed and given liberal space in the west end of the Main Building. Dr. George E. Emberley presided over the Department until his death at the end of the year 1921. He gave instruction to students of all three Schools of the College and to the pupils of the "Practice School" (later named Macdonald High School). From 1910 he held the rank of Lecturer and had an Assistant — Miss Louise Wetmore, to 1913 and Mr. J. A. Starrak from then to 1920. In the Announcement of 1914-15, Mr. Emberley is listed as Lecturer in "Agricultural Engineering and Manual Training" and in 1918 his name and Mr. Starrak's appear on the staff of the School of Agriculture. Mr. Louis Heimpel was appointed Lecturer in Agricultural Engineering shortly before Mr. Emberley's death, and has continued as Head of the Department to the present, advancing by stages to the full rank of Professor.

As the work of the Department expanded, the need of a separate building was felt, and as early as 1918 the foundation of such a building (44 x 98 ft.) was laid, adjacent to the Agriculture Building. This foundation was roofed over and used for instruction in blacksmithing until, in 1946, it was found possible to complete the three-storey building. Adjacent to the building a one-storey structure of equal dimensions was built during the Second World War for use as a Machinery building.

Several different lines of work for the benefit of farmers have been followed by the Department. With the support of the Quebec Department of Agriculture surveys of farms for underdrainage were undertaken by the College before 1913, the Physics Department taking the lead. When the Department of Agricultural Engineering was formed in 1918, about one hundred such surveys had been made. A building plan

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service is also conducted for the guidance of farmers. Over six thousand plans of buildings and implements are now sent out annually.

A catalogue of plans of buildings, implements, water supply and sewage disposal systems etc. and information stencils, issued in September 1948, comprises some 135 items.

A special study of dairy barn ventilation was made by Professor Heimpel. As a result the Rutherford system of ventilation then recommended by the Dominion and Provincial Departments of Agriculture has been discarded in favour of a single-outlet modification of the King system.

Throughout the years 1946 and 1947, under the Department of Veterans' Affairs, a six-months course designed to train men for farm repair work as a trade was conducted. Sixty-nine men received certificates of satisfactory completion of this course. At the close of the course much of the valuable machinery provided for the veterans was taken over by the College.

The staff of the Department was increased to two in 1923 and to three in 1946. Amongst its members have been F. G. North, B.S.A. (1923-29), Robert Millinchamp, B.S.A. (1930-36), William Kalbfleisch, B.E. (Sask.) (1936-41), J. H. Cooper, B.Sc. (Agr.) (from 1941), and Allan Clyde Malloch, B.Sc. (Queen's) (from 1946).

AGRONOMY

First Steps

The Agronomy Department, originally designated the Cereal Department, was established by Professor Leonard S. Klink in 1906.

At that time it seemed a logical beginning to devote the first undertakings of the department to a survey of the agronomic possibilities of this general region. Accordingly trials were planned to determine the adaptability of the existing kinds and varieties of field crops and the best cultural methods for their production. These cultural experiments concerned such things as dates, rates and methods of seeding, plant-spacing as applied to inter-tilled crops, rotation practices and the

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like. Experiments of this nature and particularly of the last-mentioned sort, mainly completed in the first ten years, have furnished an invaluable guide ever since.

Crop Breeding

It very quickly became evident that one of the most useful and enduring contributions the department could make would be in the field of crop breeding. Work in this line had hardly been begun when it was decided to divide the effort into three main fields: (1) cereals — since they were essentially all close-pollinated crops; (2) hay and pasture crops — having a common use and requiring rather similar approaches to breeding; and (3) root and corn crops — which are inter-tilled, cross-pollinated and serve similar farm uses.

(1) *Cereals*

Cereal breeding at Macdonald goes back to 1907. At that time seed control regulations were virtually non-existent and hence seed stocks were in general quite mixed. The first approach to breeding, therefore, was an attempt to develop cereal stocks which could be classed as pure lines by the production of strains which traced back to selected individual plants. At this time hybridization as a means of crop improvement had hardly begun. However, a start was made with the cereals in 1911. From very humble beginnings, breeding has developed into a large undertaking. Crosses and first generation stocks are now grown largely under controlled conditions in the greenhouse. Under glass, also, new stocks are subjected to disease inoculations and the non-resistant sorts discarded. It has become a summer and winter job, which has advanced the rate of progress materially. The more important varieties arising from this programme in the cereal group include the barley varieties Pontiac (developed by L. S. Klinck), Byng and Montcalm* (by E. A. Lods); the oat varieties

*Editor's note: Montcalm in 1961 occupied more than half of all the malting barley acreage seeded in Canada and has been the most outstandingly successful barley ever produced in Canada.

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Banner 44 (by L. S. Klinck), Lasalle and Cartier (by R. Summerby and E. A. Lods), Mabel and Roxton (by E. A. Lods); Horton fall rye and Kharkov 22 fall wheat (by R. Summerby).

(2) *Grasses and Clovers*

The breeding of grasses and clovers was started in 1911, mainly with the three crops: alfalfa, red clover and timothy. Lack of facilities later resulted in discontinuance of the alfalfa work, but the two others have been extensively dealt with since the beginning. Both red clover and timothy are difficult crops to work with, and progress has been slow. The work has produced Dollard and Macdonald College, usually referred to as M.C. varieties of late red clover, and, through the efforts of J. N. Bird, the Milton and Drummond varieties of timothy.

(3) *Roots and Corn*

Mass selection was begun in both root and corn crops very early in the Department's history. It was not, however, until 1922 with corn, and 1924 with roots that more advanced breeding methods were employed. Economic conditions have now placed the root crop in a doubtful category as a feed crop and its use is receding rapidly. As a consequence our breeding endeavour with root crops has been reduced after production of Laurentian swedes and Frontenac mangels. Corn, however, still occupies a prominent place. The efforts with corn have followed the line of hybrid production, similar to that so generally utilized on this continent, but with the emphasis on a crop that will be used for silage rather than for grain. The new varieties are Iroquois and Algonquin (by L. C. Raymond) and Quebec 28 (by L. S. Klinck).

Miscellaneous Crops

While attention has been devoted largely to the crops mentioned, other promising types such as buckwheat, millet,

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soybeans, and a large group of grasses and clovers have been at least kept under observation.

Much time is taken in furthering the development of such associations as the Canadian Seed Growers' Association, the Quebec Seed Board, the Plant Nutrition Board, the Provincial Pasture Committee, and the Eastern Canadian Society of Agronomy.

For thirty years the department has made itself responsible for the operation of a provincial seed farm, first at Ste. Rosalie and latterly on the Ste. Marie farm — part of the College property. The service is provided without remuneration for the Provincial Department of Agriculture.

Teaching

Teaching at three levels — diploma, degree and post-graduate — has been a heavy obligation throughout the years. A "Cereal Husbandry" option was available from the inception of degree courses (1907), and since then the number of Agronomy specialists graduated has been eighty-nine. Graduate studies leading to the Master's degree were offered first in 1922 and show a total enrolment to date (1950) of fifty-four. In addition to the strictly Agronomic subjects, the department has taught the course in Elementary Genetics since 1924, and the work in Experimentation and Statistics since the inauguration of that course.

The department began with what seemed considerable space in the way of laboratory rooms and storage areas, but this was quickly outgrown, and rooms had to be found in other buildings. The last five years have resulted in a great improvement in that respect, since all of our space is now completely consolidated. The recent construction of a departmental greenhouse has filled a need which has been a real one for many years.

Approximately seventy acres of land have been set aside for the field work of the department.

Staff

In 1914, Professor Klinck was called to Vancouver to become Dean of the Faculty of Agriculture of the University of British Columbia. From this position he advanced to that of

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President of the University. His successor in the Chair of "Cereal Husbandry" in Macdonald was his classmate in the Ontario Agricultural College, James Murray. After four years, Professor Murray left to take charge of the Noble Foundation Farm in Alberta, and Robert Summerby, a member of the first graduating class, was appointed his successor, with the title of "Professor of Agronomy". Upon Professor Summerby's death in 1946, L. C. Raymond, of the second graduating class, succeeded. Another member of the same class, Professor Emile A. Lods, has been a member of the staff for many years and has directed the work of the Provincial Seed Farm.

Cereal investigations have been in charge of L. S. Klinck (1906-11); G. H. Cutler (1911-13); R. Summerby (1913-21); and E. A. Lods (from 1921); *Grasses and Clover*: L. S. Klinck (1911-14); L. A. Waitzinger (1913-20, not a member of the staff); G. P. McRostie (1920-22); A. McTaggart (1922-29); J. N. Bird (1930-45); A. A. Hanson (1946-48); H. A. Steppler (from 1949); *Roots*: L. S. Klinck (1907-11); P. A. Boving (1911-16); E. A. Lods (1916-19); L. C. Raymond (from 1918); *Corn*: L. S. Klinck (1906-14); James Murray (1914-19); L. C. Raymond (from 1919). *Field work* has been supervised by L. S. Klinck (1905-08); G. H. Cutler (1909-11); R. Summerby (1911-13); L. C. Raymond (1913-16); J. C. Moynan (1916-18); R. A. Derick (1918-19); Campbell Morris (1919-21); James Coull (from 1921, not on staff).

ANIMAL HUSBANDRY

The Department of Animal Husbandry has had the greater part of its responsibilities centered in the stables and laboratories that were established on the Reford Farm (see p. 42). There had been erected on the premises a set of dairy barns second to none in those days, which were unfortunately destroyed by fire in 1907. The following year, upon a different site, the present loft-less stone farm buildings of Scottish design were erected. Acquired with the property was the famed herd of Ayrshire cattle, but no other classes of farm stock.

In order to provide for broader interests, one of the early responsibilities of this Department was to establish herds of other dairy breeds, beef cattle, swine, sheep, and studs of horses. Milking Shorthorn cattle, together with individuals of several breeds of sheep and swine, were imported from Great

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Britain. In 1910, Canadian bred Holstein-Friesians were first acquired. In 1912, four Clydesdale mares were imported from Scotland, and in 1913, the second importation of milking Shorthorns was made from northern England, and the original flock of South Country Cheviot sheep was imported from Scotland.

This flock of Cheviot sheep provided material for an intensive extension programme by the Department to arouse greater interest in sheep production in the Province. From this original importation, several Cheviot flocks were established in the Province, and by means of funds made available from the Federal Grant under the Agricultural Act of 1913, personnel, as Extension Sheep Husbandmen, were added to the Department. From this sheep extension work began the first attempts in Canada to market wool on a co-operative basis. The first Co-operative Wool Growers' Association was formed in Pontiac County in 1913. The number of these Associations grew in Quebec and elsewhere until they were eventually amalgamated into the present Canadian Co-operative Wool Growers' Limited, the General Manager of which is a Macdonald graduate, Mr. G. E. O'Brien (see p. 187).

The herds of cattle, studs of horses and flocks of sheep that have been bred and developed from the early introductions have served as a most important source of material for the study of numerous problems of nutrition, disease, breeding, and breeding irregularities.

During the process of studying different systems of breeding, some encouraging results were obtained, and, although it was not necessarily the aim to breed pedigreed stock for sale, there has been constant demand for breeding stock, bred and raised at this institution. One cow, Macdonald Dorothy, proved to be the first Ayrshire to produce, under official test, seven thousand pounds of butter fat. She completed her life's work at the age of sixteen years, having produced 177,996 lbs. of milk and 7,309 lbs. of butter fat. Two of her sons proved to be outstanding sires in the Province of Quebec, a third was exported to New Zealand, and a fourth to the United States.

At present there is a Holstein cow in the herd that has produced 175,119 lbs. of milk and 6,494 lbs. of butter fat.* Two

*Editor's note: Oleana Supreme, with a lifetime record of 196,384 lbs. of milk containing 7,797 lbs. of butterfat.

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of her sons were selected for service by an artificial breeding syndicate in Ontario, and another was exported to England. In 1946, special sales of stock, bred and developed by the Department, amounted to \$11,378.00. Most of them were exported to England, Chile and the United States. One of the animals was the highest-priced animal sold at a public auction held in Reading, England.

Since the very early years, the operation of the farm has been the direct responsibility of the Animal Husbandry Department. In 1913, two hundred and twenty-eight arpents of land were acquired on the Ste. Marie Road. This farm was completely re-organized and was used particularly for expanding the sheep work and for a study of the possibility of establishing a tuberculosis-free herd of cattle. In 1932, this farm became the Provincial Seed Farm referred to above.

The acquisition of the Stoneycroft Farm in 1945 provided additional accommodation for live stock, and made possible the expansion of the study of beef production under Province of Quebec conditions.

Public Relations

During the early years of the College, short courses for farmers and farmers' sons were held each year, usually of a week or two weeks' duration, in which the animals themselves and the breeding and feeding practices formed the basis of instruction. On other occasions, short courses were organized at country points in which the officers gave lectures and demonstrations, using live stock provided by local breeders. There were two occasions on which, with the financial assistance of Provincial Governments, special "Better Farming Trains" toured country districts. The Animal Husbandry instructors on these trains were members of the College staff, and the animals were provided by this Department.

Live Stock Field Days, organized by both Provincial and Federal Breeders' clubs and live stock associations, have been numerous and popular, when groups of breeders have inspected the live stock, and the College judging pavilion has been the scene of numerous demonstrations and discussions.

Each year, between the two great wars, the students of the College interested in live stock, and organized as an Animal Husbandry Club, held a mock sale or show of animals which

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attracted parents and other farm people. Following the second war, this activity developed into a much larger student undertaking, embodying the work of all departments, and took the name of the "Macdonald College Royal".

Experimentation

Each of the different breeds of live stock has been propagated through definite breeding plans and rigid selection on the basis of individual or family performance.

The swine herd has been used almost exclusively for nutritional experimentation. Small as they are in comparison with cattle or horses, pigs reproduce quickly and reach market specifications early in life. Therefore, the lowly pig is an admirable and economical animal for such investigation.

The studies have included the following:

Raising pigs without skim milk;

Minimum protein requirement for market pigs;

Comparison of the value of different cereal grains in the diet;

The effect of feed on carcass grades;

Development of suitable protein-mineral-vitamin supplements.

The sheep flock has been employed extensively for breeding trials, particularly for crossing purposes to develop a suitable type of market lamb. When the plan had developed to the stage where the results needed to be introduced into the sheep-producing districts of the country, the Departments of Agriculture of both the Federal and the Provincial Governments co-operated.

The dairy herd has contributed much information on the many problems involved in breeding, building up, and maintaining high class productive herds of two of the recognized dairy breeds of cattle — Ayrshire and Holstein-Friesian. The herds of dairy cattle were established before any nationwide efforts had been instituted to eradicate tuberculosis from herds of cattle. In the early years of the Department, and up to 1920, much initial study was made on determining methods which would make it possible to eliminate tuberculosis from dairy herds. The second farm, acquired in 1913, was used in this study. In 1923, the cattle herds were entered in the scheme of

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tuberculosis elimination under Federal supervision, known as the Accredited Herd plan.

Records of the feed consumption are maintained for dairy animals of all ages. Early studies included the feed cost of producing one hundred pounds of milk, the feed costs of raising calves up to marketing and heifers up to freshening age. More recently, attention has been given to developing methods of raising dairy calves with a minimum supply of milk, which methods would be usable in milk-shipping areas.

A herd of twenty head of Aberdeen Angus breeding cows was established in the Department in 1929, expressly for the purpose of studying the possibilities of the production of beef in the Province of Quebec. The project was undertaken by the Department and financed by the Department of Agriculture of the Province of Quebec.

Staff

Dr. Robertson's original choice of a man to head the Department was E. C. Drury, son of a former Ontario Minister of Agriculture and himself afterwards Premier of Ontario. Mr. Drury declining appointment in 1906, H. S. Arkell, B.A., B.S.A. was appointed Professor of Animal Husbandry, and Mr. John Fixter, Foreman of the Central Experimental Farm, Farm Superintendent. Professor Arkell resigned in 1910 to accept appointment as Dominion Live Stock Commissioner, and in the following year Mr. Fixter returned to Ottawa, and the management of the Stock Farm became the responsibility of this Department.

G. S. H. Barton, who had been a member of the staff since 1907, succeeded Mr. Arkell as Professor. W. J. Reid of the graduating class of 1911, and A. R. Ness of the class of 1912, were added to the staff on graduation, Reid resigning in 1913 to accept a position with the Prince Edward Island Department of Agriculture. R. B. Cooley, later of the University of Illinois, was an early member of the Department, and several of those who served on its staff afterwards held important positions in the Dominion Department of Agriculture, amongst them the late A. A. Macmillan as chief of the Sheep and Swine Division, the late L. C. McOuat as Bacon Specialist (afterwards Agricultural Agent of the Eastern Division of the Cana-

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dian Pacific Railway) and A. E. MacLaurin as Secretary of the Council of Boys' and Girls' Clubs.

L. H. Hamilton was added to the staff in 1920 and given special responsibility in connection with the external relations of the College, particularly the supervision of the Diploma Course and of the British students brought out by the Canadian Pacific Railway. E. W. Crampton was appointed in 1922 and, devoting himself to the investigation of nutrition, was made Associate Professor in 1933, and became Head of a separate department of Nutrition in 1946 with the rank of Professor. J. E. Moxley of the class of 1947 is Lecturer, and Clement Morin of the class of 1945 Instructor in Dairying.

The closely related subject of Dairying will be dealt with in Chapter XI.

ANIMAL PATHOLOGY

Earlier Activities of the University

Duncan McEachran, a graduate of the Veterinary College of Edinburgh, came to Montreal in 1866, and shortly afterwards started to lecture in veterinary science at McGill University. In 1875 he established the Montreal Veterinary College which, in 1890, developed into the Faculty of Comparative Medicine and Veterinary Science. This Faculty produced many outstanding members of the profession, and became renowned for the high calibre of its graduates. The Faculty was discontinued upon the retirement of Dr. McEachran in 1903.

Veterinary Studies in Macdonald College

Elementary studies in Veterinary Science were offered to students in Agriculture at Macdonald College in its early days under a non-resident lecturer. In 1914 one of the first graduates, Alfred Savage, B.S.A., who had received the degree of D.V.M. from Cornell University, was employed as College Veterinarian, and in the following year a Department of Veterinary Science was established. This Department offered courses to both diploma and degree students in Agriculture, but courses leading to a degree in Veterinary Medicine were not, of course, offered. Raymond L. Conklin, D.V.M. (Cornell) succeeded Dr. Savage in 1921. He became a member of the Fac-

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ulty in 1923, and Professor of Animal Pathology in 1932. Simultaneously, he served as technical adviser to the Quebec Department of Agriculture (1931-36) and Animal Pathologist to the Institute of Parasitology (1932-38).

In 1940 Dr. Conklin resigned to accept a position in the United States, and the Department lapsed as such, the various veterinary subjects being continued in the Department of Animal Husbandry with C. A. V. Barker, B.V.Sc. as Lecturer. In 1945 Animal Pathology was re-established under the Chairmanship of W. E. Swales, B.V.Sc., Ph.D., who was then in charge of the Section on Parasitology of the Division of Animal Pathology, Dominion Department of Agriculture within the Institute of Parasitology. He now undertook direction of the College work as a part time Associate Professor. Up to 1947 the Department had one, and sometimes two, Lecturers, and new courses for students in Agriculture were given, stressing prevention of live stock diseases and a more thorough knowledge of animal physiology. Work on mastitis and sterility in dairy cattle was instituted, and at the same time research work on the control of parasitic diseases of sheep, and control in chickens of coccidiosis (a disease caused by a species of protozoon), was actively continued by Dr. Swales in co-operation with the Institute of Parasitology. In 1947 a working agreement between the University and the Dominion Department of Agriculture was adopted, and in the autumn of 1948, a full Branch Laboratory of the Division of Animal Pathology, Science Service, Dominion Department of Agriculture, was established at Macdonald College with Dr. Swales in charge. A bequest from the estate of the late Frank P. Jones of Montreal rendered possible the provision of new buildings on the College property. The Annex to the Biology Building, which had from the outset of the College been used to house experimental animals, was rebuilt and enlarged by the erection of a second storey. This converted it into a building housing two convenient, well-lighted laboratories, and also provided an adjoining heated room for small experimental animals to be kept under isolated conditions. For other farm animals under experimental study a new building 55' x 25' was erected upon the site of the stone quarry from which limestone had been taken for the foundations of the College buildings and which in the course of years had gradually been filled almost to ground level. This building, together with an ex-army "gas training house", and a

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fenced area of 44,000 square feet, now constitutes a unit which enables active research on farm animals to be undertaken. The Dominion Division of Animal Pathology staffs the laboratories and other buildings, and, in addition, leases from the University a fenced area of 26 acres of pasture land, part of the Stoneycroft Farm. This government unit houses two Sections of the Division, those dealing with Parasitology and with Physiology, which are devoted entirely to research work on disease problems of farm animals. In addition, routine blood testing and diagnostic services are carried out for this part of the country. The research in parasitology continues in co-operation with the Institute of Parasitology. The Branch Laboratory also acts in close co-operation with the Lecturer in Animal Pathology, David House, D.V.M., M.Sc., who is employed by Macdonald College, as was also with his predecessor, W. B. Darrell, D.V.Sc., M.Sc. At the present time Dr. Swales is acting as Honorary Chairman of the Department of Animal Pathology. The Lecturer is responsible for undergraduate teaching and for routine clinical care of the College flocks and herds.

This present arrangement, while retaining the Department of Animal Pathology in skeleton form, allows very close co-operation between the Dominion Department of Agriculture and Macdonald College in all matters of service and research connected with diseases of live stock.

ENGLISH

The teaching of English in the School of Agriculture was at first assigned to the Department of Nature Study, the head of which, Professor John Brittain, D.Sc., had an appreciative knowledge of the literature and an excellent command of the language. During the first year an assistant was added to the Nature Study Department in the person of W. Douglas MacFarlane, Ph.D., who had pursued studies in Chemistry (including some industrial experience), Plant Physiology (for his degree in Goettingen) and Theology. Dr. Brittain gradually transferred his responsibility for English to his younger, enthusiastic colleague, and MacFarlane's name appeared in the Announcement of 1908-9 as Lecturer in English and History.

Judging by the outlines in the Annual Announcements the courses in English took some time to become settled. This is understandable when it is considered that the classes in-

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cluded both matriculated students and those with much less schooling. In 1909-10 courses in English Literature and Composition are prescribed for all four years. They would appear to have been directed mainly to training in writing and speaking. Much interest was taken in debates, and interclass competition was keen.

In the School for Teachers, Abner W. Kneeland, who had been Professor of English in the McGill Normal School, continued under the same title to his retirement in 1919, working independently of Dr. MacFarlane. He also gave the very elementary instruction required in the School of Household Science, whose entrance qualifications required merely ability "to read and write the English language acceptably".

In 1919, Professor Kneeland retired, Dr. MacFarlane accepted a call to the Chair of English in King's College, Windsor, N.S., and Howard D. Brunt, B.A.(Dal.), Ph.D.(Jena), was appointed to take charge of English in all three Schools of the College. In the revision of curricula in 1920-21, lectures in English and practice in public speaking were provided for the Winter Course, while in the Degree Course, English was limited to three years, each year's course arranged to include composition (including debating), public speaking, and literature. The composition work of the third year was in Journalism which was given by Mr. S. R. N. Hodgins, one of our graduates. In 1920 Mr. Hodgins was appointed editor of the *Journal of Agriculture and Horticulture* published by the Quebec Department of Agriculture in which he was successor to Professor Wm. Lochhead and Professor J. F. Snell. From 1925 to 1929 Mr. Hodgins' course in journalism included some lectures on newspaper work by the Editor of the *Montreal Daily Star*, Mr. George Wright.

Under the revised curriculum of 1929-30, the course in journalism (English 35) became optional for students of the Third and Fourth years. In 1936, following a change of the Provincial Government, the publication of the *Journal* was discontinued, and in 1939 Mr. Hodgins resigned as Lecturer in English to go to Ottawa on war service in the Department of Agriculture. Henry R. C. Avison, M.A., was appointed Lecturer in English in 1940. Professors Avison and Paton continued Course 35, but in 1941-42 announced that it would not be given to classes of less than five students, and in 1942-43 it was discontinued. There is now no separate course in journalism

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but the topic receives attention in the Second Year course in English and in the optional Fourth Year course in Extension Methods.

Dr. Brunt died in May 1941 and was succeeded as Head of the Department by J. M. Paton, M.A., D. Paed. (Tor.) with Mr. Avison as Assistant Professor. On Dr. Paton's resignation in 1949, Professor Avison became Head, and Charles Wayne Hall, M.A. (Bishop's) Associate Professor of Education (English). As his title implies, Professor Hall had responsibilities in the School for Teachers as well as in the Faculty of Agriculture.

HORTICULTURE

W. Saxby Blair, the original head of this department and, as noted elsewhere, the man to whom the tasteful landscape gardening of the College grounds in 1905 is to be credited, returned in 1912 to the staff of the Dominion Experimental Farms System, becoming Superintendent of the Experimental Fruit Station at Kentville, Nova Scotia, in which position he continued until his retirement in 1938. The Honorary Degree of D.Sc. was conferred upon him by Acadia University in 1930.

He was succeeded in the Chair by T. Gordon Bunting, B.S.A. (Tor.), who, after a year's experience in the New Hampshire Agricultural College and Experimental Station, had been on the horticultural staff of the Central Experimental Farm at Ottawa. For some years before his retirement in 1939, Professor Bunting's health had been failing and a year's leave of absence, during which he pursued studies in Cornell University, did not result in such improvement in physical condition as to justify his continuing to bear the burden of responsibility involved in the administration of the department. After his retirement, Professor Bunting continued to reside in Senneville. He died December 28, 1945.

Of the numerous members of the frequently changing staff of the Department, space forbids the mention of more than a few. In the first year Victor R. Gardner, M.S.A., of the Michigan Agricultural College, served as Instructor under Professor Blair. He afterwards won distinction as Professor in his Alma Mater. E. M. Straight, one of our first graduates, who was on the staff as Assistant and Lecturer in 1911 and 1912, was afterwards Superintendent of the Dominion Experi-

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mental Station at Saanichton, B.C. His daughter is now with us as the wife of Dr. D. L. MacFarlane, Professor of Economics. Under Professor Bunting we had F. M. Clement, afterwards Dean of the Faculty of Agriculture of the University of British Columbia, A. H. McLennan, later Professor in the Ontario Agricultural College, and the very energetic veteran of World War I, W. J. Tawse, for years prominent in horticultural work in the province and now in the service of the Steinberg Chain Stores. Mr. A. H. Walker had charge of the greenhouses from an early date to his retirement (1945) and held the title of Instructor in Floriculture from 1917. He is still resident in the neighbourhood of the College.

Of the present staff, H. R. Murray, M.Sc., was appointed Assistant Professor in 1930, Chairman of the Department in 1940 and Associate Professor in 1943; A. N. Nussey, M.Sc., Lecturer in Pomology in 1942, and Assistant Professor of Horticulture in 1949; Jean David, Ph.D. (California) Assistant Professor in 1949; and D. W. Pettit, B.S.A. (Toronto) Lecturer in 1949. Dr. David, a food technologist, is employed under a co-operative arrangement with the Quebec Department of Agriculture.

The orchard of the Horticultural Department, consisting of 25 acres, suffered two disastrous winters (1917-18 and 1933-34) when a third of the trees were actually killed and the remainder affected to the extent that many died in the succeeding years. By 1933-34 practically all of the older plantings had been replaced. Following 1933-34 all of the older trees were killed out, together with many of the trees planted between 1918 and 1933. In 1950 approximately 300 trees remain of the plantings made between 1918 and 1933; the rest of the orchard has been completely replanted since 1933.

In the early days all the plantings were made as standard trees and as a commercial orchard together with small variety trials. Since 1934 no effort has been made to replace the commercial plantings. All replacements have been made with one object in view: to have better varieties and hardier trees for the Quebec orchards, so that today small, but well planned, experiments are being carried out with hardy roots, hardy trunks or stem pieces and different methods of top working, in order that a method may be eventually recommended for the Quebec orchardist whereby he may avoid disastrous years such as 1917-18 and 1933-34. Also extensive trials of new varieties

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have been planted and are being added to each year. These are grown both as standard and as top-worked trees.

Small fruit variety trials have been conducted each year since the Department opened.

In vegetables variety trials, seed production and breeding have been given prominence, especially during World War I and World War II. Vegetable research was intensified with the starting of graduate instruction in the early 30's.

Early in 1925, the Macdonald Rhubarb was introduced by the Department, and since that date this variety has become one of the most important varieties of rhubarb throughout the world.

In 1949 a new hardy grape of excellent quality was registered with the Canadian Horticultural Council under the name of "Macdonald".

POULTRY HUSBANDRY

Personnel

F. C. Elford, the original Manager and Instructor of this Department, resigned in 1912 to accept an industrial appointment. He was subsequently appointed Chief of the Poultry Division of the Dominion Experimental Farm, which position he held until his retirement in 1939.

Mr. Elford was succeeded by Morley A. Jull, B.S.A., with the title of Manager and Lecturer. Mr. Jull, after being awarded his Ph.D. by the University of Wisconsin, was made a member of the Faculty of Agriculture in 1920, and resigned in 1923 to accept a position in the United States Department of Agriculture. He is now head of the poultry department of the University of Maryland.

W. A. Maw, who had been lecturer since 1920, was appointed Head in succession to Dr. Jull. His cousin, A. J. G. Maw, likewise a Macdonald graduate, was appointed lecturer in 1929, received his doctorate from the University of Wisconsin, and resigned in 1939. He is now professor in charge of poultry genetics in the poultry department of Pennsylvania State College.

N. Nikolaiczuk was appointed Lecturer in 1939, attained his doctorate from Ohio State University in 1948 and now holds the rank of Associate Professor.

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Others who have held teaching or extension appointments in poultry husbandry at Macdonald include: S. A. Bergey (1913-17); the late A. G. Taylor (1915-20); C. E. Lampman (1920-23); G. L. Landon (1923-26); the late L. H. Bemont (1923-36), and C. D. Fogerty (1926-29).

Research Studies

The Department has been active in research of both a fundamental and an applied nature throughout the years. Although problems of a minor nature only were carried on in the early years, their importance to the poultry industry was of distinct value. Specific studies of basic importance were started by M. A. Jull as early as 1915. Since that time problems of a fundamental nature have been carried out in the various phases of interest, such as the genetic, physiological, parasitological, pathological, nutritional and economic, by working in close co-operation with many departments within the College and the University, as well as with the Dominion Department of Agriculture, the National Research Council and the Quebec Department of Agriculture.

Several fundamental genetic studies have been undertaken. Specifically, sex ratio and egg production, inheritance of skeletal dimensions, growth and body shape have been studied in chickens, and similar studies are under way with turkeys. Egg-weight studies have also been a major contribution in this field.

Through the co-operation of Dr. R. L. Conklin certain physiological studies on fowl sperm were carried out. Later, through the interest and co-operation of Dr. J. B. Collip of the Institute of Endocrinology, specific physiological influences of extracts of anterior and posterior lobes of beef pituitary were studied with growing and fattening chickens. During the past two years co-operative endocrine work has been carried on with Dr. R. H. Common of the Chemistry Department.

Studies with both the internal and external types of poultry parasites have been undertaken in co-operation with the Department of Entomology and the former Animal Parasite Committee and later the Institute of Parasitology.

A more intensive program of research in poultry nutrition was undertaken in the early years of War II with a view to studying fundamental feed conditions. The necessity of re-

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placement and substitution of certain feeds was then imperative. Dried milk products, yellow corn and certain vitamin products were in short supply, thus necessitating specific studies of replacement or substitution, which were carried out. Alternative calcium supplements were studied and subsequently research on egg shell quality was conducted.

In 1947, as a result of graduate training in poultry nutrition being instituted, the research program was broadened to include specific basic feed and pasture studies, in part with the co-operation of the Department of Agronomy. Radio-active phosphorus studies with chicks were undertaken from 1948 onward, as facilities were made available through the Macdonald College Tracer Committee.

Chapter X

THE SCIENCE DEPARTMENTS

BACTERIOLOGY

Personnel

At the outset of the College there were two biological departments, named Biology and Bacteriology respectively. Both were headed by men from the Faculty of the Ontario Agricultural College, who were advisors to Dr. Robertson in the planning and equipment of the laboratories of the new institution. Of these, F. C. Harrison, who after graduation in the Ontario college had studied in Denmark and the United States, became Professor of Bacteriology. Professor Harrison, whose chief interest was in research (though he was also a good teacher) started out with two European assistants, one of whom, Jan Vanderleck, advancing to a lectureship, continued to 1919, when he resigned to enter industry, becoming eventually bacteriologist of the Ottawa Dairy Company. Mr. Vanderleck was succeeded for a year or so by A. Grant Lochhead, a son of Professor Wm. Lochhead and a civilian prisoner in Germany throughout World War I, who is now Dominion Bacteriologist. Subsequent lecturers or assistants included Mr. Wilfrid Sadler afterwards Professor of Dairying in the University of British Columbia, the late Dr. Redvers R. Thompson, Dr. E. G. Hood (1920-23) and Dr. J. Raymond Sanborn (1924-29).

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P. H. H. Gray, M.A. (Oxon), D.Sc. (Lond.), has headed the Department since 1929, and has had as colleagues, in succession, three of our own graduates, Even T. Bynoe, N. B. McMaster and F. S. Thatcher. The last advanced to the rank of Assistant Professor, but resigned in 1950 to accept an appointment in Ottawa, being succeeded by R. H. Wallace, B.Sc. (Dalhousie) M.Sc. (McGill).

Research

Both in the Ontario Agriculture College (from 1899) and in Macdonald College, Dr. Harrison's researches extended to all branches of agricultural bacteriology, covering work on water, dairy products, soils, and diseases of plants and animals. In 1914, with Alfred Savage (Veterinarian) and Wilfrid Sadler he published our first technical bulletin, "The Milk Supply of Montreal", a work that led to reform in the handling of the city's milk supply. In 1917, he turned his attention to canned foods derived from the sea and made a number of valuable contributions to the fishing industry. He was also one of the contributors to two editions (1912 and 1921) of "Microbiology", a collaborative work edited by Charles E. Marshall and published by Blakistons. From 1911 to 1926, he was Principal of the College, and in the years of the First Great War, Officer Commanding the Officer Training Corps (see Chapter XII).

Since Dr. Gray's appointment (1929) the research work in the Department has been concerned with soils.

During the twenty years of Dr. Harrison's tenure of the Chair, a course of six lectures with demonstrations was given annually to students of the School for Teachers.

BIOLOGY

Personnel

A Department of Biology — to include Botany, Zoology and Entomology, but not Bacteriology — was amongst those foreshadowed in the appointment of "Professors" by Sir William Macdonald in 1905, and the man chosen to develop it was William Lochhead, a McGill Bachelor of Arts, and a Cornell Master of Science. He had been for seven years Professor of Biology in the Ontario Agricultural College and had previously

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taught in Collegiate Institutes in Perth, Galt, Napanee and London, Ontario. He was a man of many interests and considerable versatility. His service as foreman of a gang of Italian navvies during the construction period has been referred to in Chapter VI. In his second year of teaching in Macdonald College (1908) he organized the Quebec Society for the Protection of Plants, whose Presidency he held until the eve of his retirement in 1925. In the same year, when the Quebec Department of Agriculture, seeking an Assistant Editor and virtual successor to the aged Mr. Jenner-Fust as Editor of the English edition of its *Journal of Agriculture and Horticulture*, sought the advice of the College staff, Professor Lochhead was unanimously recommended by his colleagues. He was also active in the long-established Quebec Pomological and Fruit-Growing Association. Although not a fluent speaker, Professor Lochhead was an inspiring teacher and, because of his humor and kindliness, a popular man with colleagues, students, and farmers.

The idea of attracting students from the British Public Schools originated in conversations between him and Mr. John Murray Gibbon, Publicity Agent of the Canadian Pacific Railway, and in the winter of 1924-5 he visited a number of these schools, with the result that for several years a considerable number of boys came over and either took up farms on the completion of the Diploma Course or proceeded to degrees in Agriculture, ranking amongst the ablest students in the history of the College.

From 1912 to 1926 Professor Lochhead was the Representative Fellow of the Faculty of Agriculture in the Corporation of the University. The oil portrait which hangs on the south wall of the Library was painted by G. Horne Russell, P.R.C.A., and was a subscription gift to the College of Professor Lochhead's colleagues and his friends outside.

In 1931, the William Lochhead Memorial Prize, offered to students specializing in Entomology, was endowed by Mrs. Lochhead, who continues to reside in Ste. Anne's and is a familiar figure at College functions.

Professor Lochhead's original staff comprised J. M. Swaine, M.S.A., Lecturer in Entomology and Zoology, and Douglas Weir, B.S.A., Assistant in Biology. Mr. Weir resigned in 1911 and was succeeded by W. H. Brittain, who in turn, after a

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year's service, was succeeded by P. I. Bryce, who retained the post until 1919.

Mr. Swaine resigned in 1912 to take charge of Forest Insect Research for the Dominion Department of Agriculture and eventually became Director of the Science Service there. He was succeeded as Lecturer in Biology by W. P. Fraser. The teaching in the Department was now re-organized, Professor Lochhead taking responsibility for the courses in Entomology, and Mr. Fraser (Assistant Professor in 1914) for those in Plant Pathology. Courses in Botany and Zoology were shared between them.

E. Melville DuPorte, B.S.A. joined the staff in 1913 as Research Assistant, but, owing to the increase in entomological teaching which took place at this time, had within a few years to devote almost all of his time to teaching. Remaining with the College, Dr. DuPorte has advanced to the rank of Associate Professor of Entomology.

Professor Fraser resigned in 1919 to take charge of the Dominion Rust Research Laboratory in Winnipeg. In that Laboratory, and afterwards as Professor of Biology in the University of Saskatchewan, he won distinction as a research worker on the problem of cereal rusts so vital in the Prairie Provinces.

As successor to the Assistant Professorship, Captain Bertram T. Dickson, B.A. (Queen's), an aggressive young veteran, was appointed, and next year Botany and Entomology (with Zoology) became separate Departments with further separate histories.

Early in the history of the College a Biological Club was organized for the discussion of current and other interesting biological topics — a custom that was continued in the two daughter departments.

BOTANY

From 1921 to 1926, that division of the original Department of Biology, now entitled Plant Pathology, was designated Botany, and Dr. B. T. Dickson was Professor of Botany. The existence of a Department of Botany in McGill College, the importance of Plant Pathology in relation to agriculture, and Dr. Dickson's special interest in the branch were determining con-

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siderations in this change of title. (For further information see "Biology" and "Plant Pathology.")

CHEMISTRY

Personnel

The original organization of the Department of Chemistry was carried out by Dr. John Ferguson Snell, who was appointed some months before the first class of students took up residence in 1907. Dr. Snell continued as chairman of the Department until his retirement in 1936, and up to 1950 retained an office in the Chemistry-Physics Building.

Dr. J. B. McCarthy, Professor of Chemistry in King's College, then in Windsor, N.S., came to Macdonald in 1919 as Assistant Professor and retired to his native Shelburne, N.S., in 1936. Dr. William Douglas McFarlane, who had been on the staff of the Department of Biochemistry at the University of Alberta, was appointed as successor to Dr. Snell. Dr. McFarlane resigned from the staff of Macdonald College in 1947. He was succeeded by R. H. Common, B.Sc., M.Agr. (Belfast), D.Sc. (London), the present chairman, who came to us from Northern Ireland where he had held the position of Lecturer in Agricultural Chemistry in Queen's University, Belfast, with the rank of a Scientific Officer in the Ministry of Agriculture for Northern Ireland.

In addition to these senior members of the Department, the following persons have been named in the Announcements as officers of instruction: H. S. Hammond, N. C. McFarlane, W. E. Parker, C. L. Wrenshall, Enid Knight, Kathleen Mackay, Colin Cranham, D. G. Chapman and B. B. Coldwell, while Drs. H. Bruce Collier and G. H. Benham are noted as holding Assistant Professorships in the two Departments of Parasitology and Chemistry. In 1935-6 two young men who had just received the doctorate from the University, Robert K. Holcomb and W. W. Stewart were given Research Assistantships in the Department. The first-mentioned had served the Department as a laboratory boy and had taken the B.S.A. degree here before associating himself with the McGill Department and enrolling as a candidate for the advanced degree. In a later period of emergency (1944-45), two German Ph.D.'s were attached to

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the Department, Dr. Moritz Michaelis as a Research Fellow and Dr. David Simonovich as a Research Associate.

Other University graduates, too numerous to be listed here, have carried on chemical research either as candidates for advanced degrees or otherwise and have subsequently held positions of responsibility elsewhere.

Teaching

Opportunities for some degree of specialization in Chemistry have been available to undergraduates at Macdonald College since the outset, but a special option in chemistry did not become available until 1926. From 1926 until 1950 inclusive one hundred undergraduates have majored in the Chemistry option.

The Department has also provided facilities for post-graduate studies from the outset. The first student to proceed to a higher degree in the Department was Professor Wm. Lochhead's son, A. Grant Lochhead, who graduated M.Sc. in 1912. From about 1920, the numbers of graduate students began to increase. During the period of Dr. McFarlane's chairmanship the demand for post-graduate training was such that facilities for graduate work were extended by fitting up new laboratories in the basement of the Chemistry and Physics Building. This work was completed in 1946.

From 1920 until 1949 inclusive, sixty-eight graduate students have proceeded to the Master's, and twenty-seven to the Doctor's degree in Agricultural Chemistry.

Research in Food Chemistry

The research activities of the Department which have covered a considerable range of topics, have received financial support from the National Research Council and various industries. Dr. Snell carried on a long series of investigations on sugar chemistry with special reference to the maple syrup industry. His last paper on this subject was published in collaboration with Mr. Louis Sair in 1939 and dealt with the question of the constituents of maple syrup responsible for its characteristic flavour.

Dr. Snell's work established a Departmental interest in food chemistry which was actively developed under Dr.

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McFarlane's leadership with special respect to the chemistry of edible oils and fats, vitamins and proteins. Dr. McFarlane also directed a series of researches dealing with the industrial utilization of farm products with special reference to vegetable oils and the fermentation industries. During the war the Department collaborated with the National Research Council of Canada and the Canadian Council on Nutrition on milk products. Dr. R. A. Chapman, who was appointed to the staff in 1944, was especially active in this field until his resignation in 1948 to take up a position with the Food and Drugs Division of the Department of National Health and Welfare in Ottawa. Dr. McFarlane's students made a number of novel applications of photoelectric colorimetry to analytical problems.

Research in Soil Chemistry

The Department's work on soils was greatly extended from the year 1926, when Dr. R. R. McKibbin was appointed to the staff. Largely through his efforts, supported by an Interdepartmental Committee on Soils, a soil survey of Quebec was instituted under the auspices of the Dominion and Provincial Departments of Agriculture. A staff of six soil chemists was appointed to work on the survey under Dr. McKibbin's direction. Dr. McKibbin resigned from the College in 1936. His resignation, together with changes in the Provincial Government, led to a reorganization of the soil survey, which had its headquarters moved elsewhere. Since 1936, however, the Department has continued to provide headquarters for one survey party, an arrangement which maintains close liaison between the activities of the College and those of the Government Departments in soil survey work.

Since his appointment to the College staff in 1936, Dr. W. A. DeLong has directed the Department's teaching and research in soil and plant chemistry. Much work has been carried out in connection with the activities of the Macdonald College Pasture Committee. In particular, valuable contributions have been made on the determination of lignin in plant material and on the phosphate status of soils. Latterly the work on soil phosphate has been extended by using radioactive tracer methods to study the fate of fertilizer phosphate applied to crops and grassland. In addition, a series of fundamental studies are being carried out on the chemistry of soil-forming pro-

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cesses in Eastern Canada. This project involves studies on soil organic matter and the decomposition of plant residues in soils and involves a wide range of analytical problems. Dr. DeLong has also directed researches on clay minerals and on the part played by clay minerals in relation to soil potash status.

Research in Biochemistry

More recent Departmental projects are concerned with the efficient utilization of milk by-products, especially casein, and studies on the biochemical effects of sex hormones on the fowl. Reference to studies of the effects of pituitary hormones has been made in the section of Chapter IX on Poultry Husbandry. Some physiological experiments on the fowl, using radioactive tracers, have been started with the aim of studying the calcium metabolism of the fowl more closely.

ECONOMICS

Beginnings

The earliest announcements sketchily outlined courses in Rural Economics, and in the early years a few lectures in the subject were given by visiting lecturers. In 1911-12 a general course in Economics, consisting of ten lectures by Dr. J. C. Hemmeon of the Faculty of Arts was introduced, and in 1913 this was supplemented by a course of ten lectures by W. C. Good, B.Sc. (Toronto), a member of the Ontario Legislature. From the succeeding year to 1919-20, Dr. Hemmeon gave a course of one lecture a week, the latter part of which had special reference to rural life.

From 1920-21, when the inauguration of the Winter Course rendered possible a recasting of the Degree Course, lectures on Economics — two a week for one term to Degree, and one a week to Diploma students — were given by Dr. H. D. Brunt of the Department of English, who became Lecturer in Economics as well as in English.

Creation of Department

In 1926 a Department of Agricultural Economics was created with Dr. J. E. Lattimer as Assistant Professor and

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Head. Dr. Lattimer, who was a veteran of World War I and a former member of the Animal Husbandry Department of the University of Alberta and who had received his Doctorate in Economics in the University of Wisconsin, was promoted to a full Professorship in 1929 and retired in 1949. During his term of office, he conducted a number of agricultural surveys in Quebec and the Maritime Provinces and attended several world conferences, including one held at the College in the summer of 1938.

A bequest from Sir Vincent Meredith provided funds for the endowment of a Chair in the Department when the funds so designated should no longer be required by Lady Meredith.

Research

Although instruction was the primary purpose for which the department was established, research inevitably became the more important phase. Funds were not lacking for this purpose. Of the four technical bulletins published, one was financed by the Federal Government, one by the Provincial Government, and two by Macdonald College. During the same period four bulletins were published by the Government of Nova Scotia in co-operation with the Department, and two were published by the Government of Prince Edward Island by the same co-operative method. These bulletins served a useful purpose for students in a field almost entirely dependent on foreign texts.

Expansion

War and post-war prosperity brought increased demand for work of the Department, and at the same time made both men and money available. In 1947, the long deferred expansion of the Department was realized with the addition of two Professors to the Department, both holding master's degrees from Canadian, and Doctor's degrees from American Universities — David L. McFarlane from Saskatchewan and Minnesota, and Gordon L. Burton from Alberta and Iowa.

ENTOMOLOGY

Personnel and Courses

During the early days of the College, Entomology and

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Zoology were taught in the Department of Biology, the history of which has already been dealt with. There was no Entomology Option, but fourth-year students could take a selective course in Biology and were allowed to stress either Entomology or Plant Pathology. The first to do so was W. H. Brittain (1911), now Chairman of the Department of Entomology, Dean of the Faculty of Agriculture and Vice-Principal of the College.

Courses given at this time for specialists in Entomology included one in General Entomology and another in Economic Entomology. The need for more fundamental training was soon recognized, and courses in Insect Morphology and Insect Taxonomy replaced the general course. Courses in Entomological Technique and Histological Technique were also added, and somewhat later a course in Insect Ecology. Thus the general policy of what is now the Department of Entomology was established, namely, provision of that sound training in basic Entomology which is necessary for any significant work in applied Entomology. Early in the history of the Department, a Biological Club was organized for the discussion of current and other interesting biological topics. Following the establishment of a separate Department of Entomology (1921) this was replaced by a required seminar in Entomology, which affords opportunities to discuss aspects of Entomology and related sciences which are not considered in the formal courses.

Upon the "fission" of the Department of Biology in 1921, Professor Lochhead and the Lecturer, Dr. E. M. DuPorte, continued in Entomology and Zoology. Mr. A. D. Baker, B.S.A. was added as assistant in 1924. Professor Lochhead retired in 1925 and died in 1926.

As his successor in the Chair of Entomology and Zoology, there was appointed W. H. Brittain, B.S.A., M.S.A. and Ph.D. (Cornell), F.R.S.C., a son of the late Dr. John Brittain (see Nature Study) and the first graduate of the Faculty of Agriculture. After graduation Mr. Brittain acted as Assistant in Biology from July 1911 to March 1912. He spent two years in British Columbia as Provincial Entomologist and Plant Pathologist, and for twelve years held simultaneously the positions of Entomologist of the Province of Nova Scotia and Professor of Zoology in the Nova Scotia Agricultural College. During this period he and his associates conducted intensive studies of the insects of Nova Scotia — biological,

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morphological, economic and taxonomic — the results of which were published in part in the *Annals of the Acadian Entomological Society*, which he founded. These studies also formed the basis for numerous bulletins and circulars published by The Department of Agriculture, including a final one entitled the "Injurious Insects of Nova Scotia", which embodied much original material collected over the preceding twelve years. An excellent entomological library and an extensive collection of local insects in all stages, with biological notes, were, unfortunately, destroyed by fire in Truro in 1948. Extension activities in entomology in Nova Scotia were first organized under his direction and the beginning of an orchard "Spray Service" which, under his successors, has been greatly expanded. During his period of service in Nova Scotia, he found time during various leaves to complete requirements for two Cornell degrees and to spend a year in foreign travel through the countries of Southern Europe, Egypt and the Orient on behalf of the Research Department of the American Cyanamid Company.

After assuming charge of the Macdonald College Department of Entomology, Dr. Brittain spent five summer sessions in Nova Scotia investigating problems connected with the pollination of apple varieties, in which he had the collaboration of the Dominion and Provincial Departments of Agriculture. The results of this study were published in the extensive Bulletin 162 (1932) of the Dominion Department of Agriculture.

Dr. Brittain's broad experience in economic entomology, together with Dr. DuPorte's mastery of the general aspects of the science, enabled the Department to give instruction in the subject unsurpassed in Canada and, allowing for limitations in numbers of the staff, comparing favourably with that of most institutions elsewhere in America. Even before the creation of the Faculty of Graduate Studies it had been active in graduate work, Dr. DuPorte having taken a master's degree as early as 1914.

Staff changes under Dr. Brittain include the appointment of Mr. W. E. Whitehead as Assistant in 1927, and his advancement to the rank of Assistant Professor; the resignation of Mr. A. D. Baker in 1932 to complete his graduate studies and later to take a position with the Division of Entomology of the Dominion Department of Agriculture; the appointment of Mr. J. W. McBain Cameron as Lecturer in 1932, and the appoint-

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ment of Dr. F. O. Morrison as Lecturer (now Associate Professor) to succeed Dr. Cameron, who resigned in 1938 to become Provincial Entomologist of Nova Scotia.

Breadth of Interest

Teaching in the Department has always been very heavy in relation to the size of the staff since it is responsible for courses in Zoology as well as those in Entomology, though the words "and Zoology" were dropped from its title in 1927.

From the beginning, the Department has been active in research and has made contributions to almost every field of Entomology: Morphology; Taxonomy; Bionomics, life histories and control of injurious insects; Insect Behaviour; Forest Entomology, Medical and Veterinary Entomology; Insect Pollination of Orchards; Insect Toxicology, and the Action of Insecticides. In 1926 a project on helminth parasites of poultry was started and placed under Dr. Brittain's chairmanship. Out of this grew the establishment of the Institute of Parasitology.

Dr. DuPorte has maintained a very wide interest in the whole field of Zoology, but his two special interests have been in medical and veterinary entomology and in insect morphology. In the latter field he is an acknowledged authority and to it he has made significant contributions.

Since joining the Department, Dr. Morrison has been responsible for the economic entomology, his main research activities being devoted to basic studies in toxicity of insecticides.

Mr. Whitehead's talents find expression in his duties as curator of the insect collection. His drawings are distinguished for their accuracy and craftsmanship. As a highly skilled technician Mr. Whitehead has made valuable contributions to the Department and to the University. His skill in penmanship is displayed in the lettering of the University Diplomas. He has recently completed a noteworthy task in the University "Book of Remembrance", following the two books of remembrance for Macdonald College.

The appointment of Dr. Brittain as Dean and Vice-Principal in 1934 has entailed the devotion of much time and attention to details of College and University administration and, consequently, has greatly reduced the time available for Departmental duties. Since his appointment, he has served as

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Chairman of the McGill Department of Zoology for two years, and as Acting Principal of the University in the interval between the resignation of Dr. E. A. Morgan and the appointment of Dr. L. W. Douglas. It was during this period that he was able to secure a Carnegie Grant to assist in the establishment of the Adult Education Service which has since developed into an important College activity and is now integrated with the McGill Extension Department (see Chapter IX). During the war Dr. Brittain served as Lieutenant-Colonel attached to the C.W.A.C. Advanced Training Centre established at the College in 1942 (see Chapter XII). Dr. Brittain has held office in a large number of organizations, including the presidency of the Quebec Home and School Association, the Ontario Entomological Society, the Agricultural Institute of Canada, and the Canadian Association of Adult Education.

NUTRITION

Beginnings

From about 1925, work which eventually led to the formation of a separate Department of Nutrition was begun in the Animal Husbandry Department. Courses in Feeds and Feeding, and the institution of some experimental feeding work marked the beginning of the development. Later, the Nutrition unit within the Department of Animal Husbandry became more definite by the appointment of an assistant whose duties were to supervise the experimental projects planned. In 1933, Dr. E. W. Crampton, then Assistant Professor of Animal Husbandry, was appointed Associate Professor of Animal Nutrition, and in 1937 a separate Course in Animal Nutrition was introduced into the curriculum.

The nutrition work soon grew to such proportions that it seemed desirable to make provision for a separate department to carry the research and teaching in this field. Consequently in 1946 the Department of Nutrition was created by separating from the Department of Animal Husbandry the two staff members who had been devoting practically all of their time to Nutrition work. However, the separation was not complete in that the Chairman of the Nutrition Department continued to be listed on the staff of the Department of Animal Husbandry because of the close association of the research work in nutrition with the livestock facilities of the

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Animal Husbandry Department. For example, the entire swine herd is managed by the Nutrition Department although the permanent equipment belongs to Animal Husbandry.

Animal Laboratories

With the creation of the Department of Nutrition as a separate entity, the small-animal laboratory was expanded considerably so that there is now accommodation for rats, guinea pigs, chinchillas, sheep and swine, as well as facilities for human nutrition studies involving digestibility and nitrogen balance work. Limited chemical facilities, adequate for routine analysis involved in the nutrition studies were also added to the equipment of the Department.

The numbers of graduate students, which include both household science graduates and graduates in agriculture, have increased steadily, with a corresponding increase in the amount of research work being undertaken. During the war the Department conducted extensive research for the Army Medical Research Committee of the National Research Council, as well as for the Department of National Health and Welfare. In addition to this, there have been carried on for many years studies on the utilization of Western Canadian grains, which have been sponsored by the Canadian Co-operative Wheat Producers of Western Canada. In 1948, a second Assistant Professor was added to the Department.

Equipment

At the present time the Department occupies quarters in the basement and on the first floor of the Agriculture Building. The five large rooms in the basement have been fitted as animal laboratories, while the space on the first floor is occupied by offices, desk space for post graduates, and chemical and histological laboratories.

In addition to the batteries of cages for the small animals, the metabolism equipment for sheep and for swine, and accommodation for stock colonies of rats and guinea pigs, the Department has complete equipment for the preparation and serving of experimental meals to human subjects and for the collection of excreta which may be required in the experimental work. Many of the facilities of this Department are unique

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insofar as Canadian Universities are concerned. The Department operates in close association with the Chemistry Department and the School of Household Science, and in connection with research on the nutritional properties of pasture, it collaborates with the Departments of Agronomy, Chemistry and Botany.

PARASITOLOGY

Origin

External parasites and internal diseases due to parasites inevitably obtruded themselves upon the attention of the departments of Animal Husbandry, Poultry, Animal Pathology and Entomology-Zoology, each of which carried on in its own way until 1926, when, under Dean Barton's policy of interdepartmental committees on research, an Animal Parasites Committee was organized with Dr. W. H. Brittain as Chairman. By direction of the Committee, Dr. R. L. Conklin took charge of the pathological aspects of the project, while the biological aspects were assigned to Dr. E. M. DuPorte. Investigation of the parasites of poultry, sheep and swine was projected, some progress made in the study of poultry parasites, plans for a building considered, and sources of financial support sought.

As sources of such support the Quebec Department of Agriculture, the National Research Council and the Empire Marketing Board were suggested. The Research Council voted a small initial grant and, by request of its Chairman, Dr. H. M. Tory, the approach to the Empire Marketing Board was left to that Council. Under the grant the full-time services of Mr. A. D. Baker, B.S.A., Assistant in Entomology, were allotted to the investigation and the study of poultry diseases continued and extended. In 1930, at the request of the Empire Marketing Board, Dr. DuPorte went to England to discuss plans for the establishment of an institute of parasitology. Two other members of the interdepartmental committee, Dr. R. L. Conklin and Professor W. A. Maw, who were in England at the time, were also consulted.

The outcome was the establishment in 1932 of the Institute of Parasitology — a much more ambitious enterprise than had been originally contemplated by the College commit-

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tee. An Associate Committee on Parasitology, representing the University, the National Research Council and the Empire Marketing Board was appointed to supervise the Institute, and Dr. T. W. M. Cameron, Senior Lecturer of Helminthology in the University of Edinburgh, was appointed Director. Funds for the erection of a building were provided by the Quebec Department of Agriculture, while the National Research Council and the Empire Marketing Board agreed to share the current expenses of the institution.

As a result of the Imperial Conference held at Ottawa in 1932 the Empire Marketing Board went out of existence in 1933. The full burden of scientific maintenance then fell upon the National Research Council, the cost of domestic maintenance, as always, being borne by Macdonald College. Recently the Science Service of the Department of Agriculture has seconded a member of its staff to work in the Institute, and the University has assumed a proportion of the general upkeep. The extra-provincial aspect of the Institute is indicated by the inclusion in the Associate Committee of representatives of the Dominion and Quebec Departments of Agriculture and of the Dominion Department of Health and National Welfare.

Survey of Internal Parasites

A long-term survey of the internal parasites of animals in Canada has been in progress from the initiation of the work of the Institute and will take many years to complete. The survey, which is the first of its kind to be undertaken in any country, has uncovered a wealth of problems, some concerning fundamental underlying principles, others economic in reference to farm beasts, fur and game animals, fish, birds and human beings.

Research

In the eighteen years of its existence, some 250 papers have been published from the Institute. Numerous problems important not only to Canada but to all temperate parts of the world have been solved. Some examples may be cited.

Commencing with a study made by Dr. W. E. Swales, of the large American Liver Fluke, infecting ruminants, a Dominion-wide survey has revealed the existence of many smaller

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species, one of which, infecting man and carnivora from Quebec to Saskatchewan, is transmitted only by the "mute sucker" fish, while others found in fish are transmissible to fish-eating birds and animals. "Swimmer's itch" has been found to be produced by various blood-flukes of wild animals which, though not developing in man, frequently penetrate the human skin producing a severe, though temporary, irritation. These flukes pass a part of their lives in certain snails and it is found that copper compounds, by destroying the snails, free the water from its objectionable effects. Fish-carried species of tape-worms, infecting dogs, foxes, bears and man have been found to occur from Quebec to British Columbia and down the Mackenzie watershed to the Great Slave Lake.

Dr. Swales has also made a very thorough survey of the various forms of roundworms affecting sheep and has devised an "explosive" pill of phenothiazine which, disintegrating in the stomach, kills practically all the most important species of these worms.

In addition he (Swales) has made a study of caecal coccidiosis in poultry and devised plans for a system of exposure to, and immunization of, chickens against this disease by the use of sulphamethazine and related sulphapyrimidines, sulphapyrazine and sulphaguanidine.

Dr. I. W. Parnell, before his enlistment in the Air Force in World War II, discovered that eggs of all important roundworms of live stock pass into the manure and are taken up by animals with the pasture plants. Experimenting, he found that various fertilizer materials (urea, calurea, kainite, cyanamid, nitrate of soda and muriate of potash) are effective in destroying the eggs without harming the manure. When he left for Scotland, his work here was continued by Dr. E. Munroe and, after the latter's transfer to Science Service, Dominion Department of Agriculture, by Mr. H. Cohen and various post-graduate students.

Biochemical Research

In 1939, Dr. H. Bruce Collier joined the staff of the Institute as a biochemist and commenced a study on the effect of digestive enzymes on parasitic nematodes. He showed, *inter alia*, that while *Ascaris* was able to resist digestion by the normal digestive enzymes of the mammalian intestine and did in

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fact produce anti-enzymes against them, it could not resist digestion by plant enzymes such as papain. Much of this work was disrupted by the war and Dr. Collier was transferred to Dalhousie University, being replaced temporarily by Dr. H. G. Benham and permanently by Dr. D. Fairbairn, who is carrying on the same type of fundamental biochemical work, with the assistance of Dr. R. Harpur. Colonies of chickens and rabbits have been built up to supply typical nematodes for experimental purposes.

Research on Human Parasites

After the war, the staff was augmented by the appointment of Dr. M. J. Miller to carry out research into human parasites in Canada — especially amoebiasis and pinworm disease.

Research on Non-farm Animals

The work on economically important animals, other than farm animals, is carried out by Dr. L. P. E. Choquette who has, *inter alia*, worked out the life cycle of a trematode which lives in the kidney of speckled trout. Other investigations on fish include the elucidation of the problem of "Black spot" in trout by the late Lieutenant L. Lyster and Dr. Miller, and of "Black spot" in bass by François Lachance. Both are caused by the larval stages of trematodes which live normally in fish-eating birds.

Museum Collections

A minor research of the Institute is a survey of the internal parasites of animals indigenous to the British West Indies. This has produced a collection of exotic species of great interest and considerably enriched the already important collection of the laboratory. Among others, a little round worm (*Strongyloides*), closely related to parasites found in man and domestic animals, was found in the Golden-Rumped Agouti, a large relative of the Guinea Pig. Detailed laboratory studies of the life cycle and bionomics of this organism, made by Drs. H. Griffiths, M. Miller and Khan have yielded results of great scientific interest.

Among the auxiliary activities of the Institute has been

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the importation of the first colony of Golden Hamsters from Syria into North America. This little animal resembles a miniature guinea pig, and the pureness of its descent, the ease of its maintenance, and its freedom from natural parasites and diseases promise to make it an invaluable experimental animal for use in numerous branches of medical science. It was introduced in 1938 and already sub-colonies have been established elsewhere in Canada and in the United States.

PHYSICS

Personnel

With the founding of Macdonald College in 1907 the Physics Department was established as a necessary and important part of the Faculty of Agriculture. The department also had the additional responsibility of teaching elementary physics to Household Science students and, for a few years, carried on similar work in the School for Teachers.

From 1907 until today three men have headed the department — Dr. Carleton J. Lynde for seventeen years, Professor W. C. Quayle for about five years, and Dr. W. Rowles from 1930 to the present. Others who have shared in the work from time to time include Dr. A. Norman Shaw, Mr. F. W. Bates, Mr. J. V. Dupré, Mr. R. Dougall, Dr. D. K. Froman, Dr. M. Laura Rowles, Dr. H. G. I. Watson, Dr. W. F. Oliver, Mr. C. A. Herald and Mr. J. K. Kinnear.

Teaching

The purpose of the Department is two-fold — teaching, research. Of the major functions, teaching has always been the chief, and the department has, through the years, carried a heavy teaching assignment. This is not surprising when it is remembered that the Physics Department has been responsible for teaching most of the mathematics as well as physics within the Faculty of Agriculture.

During the first three years after the College was opened the number of courses taught by members of the Physics Department grew rapidly, rising to fourteen or more. Most of these were of one term duration, lecture periods were shorter than nowadays, and enrolment in the various courses was con-

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siderably smaller than at present. The Department was a busy one. Gradually the work was consolidated, so that before long the list of physics courses in Agriculture was reduced to five. With the passing years it has been necessary to include new subject-matter in the curriculum, with the result that today the department offers twelve courses in physics and mathematics, ranging in scope from the most elementary to several at the post-graduate level. In addition to this the Department has, for the last twenty years, taught physics to Grade X and XI pupils of the neighbouring Macdonald High School.

The number of students in Agriculture and Household Science receiving instruction at the hands of this Department has varied widely. In the early days the number was about 160 per year. In 1938-39 it was 136, while in 1948-49, the numbers reached 533. Many of these students were receiving instruction in both mathematics and physics concurrently — a point which is not evident from the numbers quoted and which would increase the totals appreciably.

Research

Throughout its history the Physics Department has carried on research, sometimes independently, but more often as part of a co-operative investigation. The early work had to do with the movement of water through the soil and the effect of temperature thereon. It also dealt with the soil as a semi-permeable membrane and with electrical conductivity measurements upon the soil solution.

Later work has dealt with a wider range of physical properties of Quebec soils, both mineral and organic, and their relation to each other and to the structure of the soil.

In co-operative work the problems have varied in complexity from measurements upon the temperatures inside experimental silos to detailed work in spectroscopic analysis, such as tracing the location of boron inside healthy and diseased turnips. Other experiments have included a study of the stimulating effect of monochromatic light of various wave-lengths on house flies and the effect of x-rays on the production of mutations in buds on apple twigs. A co-operative project upon the development of equipment for use in studies of photosynthesis, uses infra-red radiation to measure small concentrations

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of carbon dioxide and water vapour speedily and with precision. Photoelectricity has served as a useful tool in ascertaining the effect of such things as temperature and cloudiness on the activity of bees, and in the measurement of Vitamin B by a photoelectric fluorimeter developed here. Another co-operative research has involved the construction of an ultrasonic generator and its use in enzymology and in the denaturation of proteins. At one time a large number of measurements were made to study the production of cosmic ray "bursts" and to examine the variation of cosmic rays with altitude and direction. Other work dealt with measuring the recovery time of the human eye after temporary blindness had been produced by a bright light, and the relation of this recovery time to vitamin deficiency in the diet.

The most recent work has been the use of radioactive tracers to study the movement of atoms through metabolic and other processes. Problems such as the assimilation of phosphorus by baby chicks, the uptake of phosphorus by oats, the tracing of insecticides in worms and other similar problems have all been attacked by this new method.

War Services

Contributions of a somewhat different kind should also be noted. Almost all the individuals who were at one time staff members in the Physics Department undertook war service of some sort. Part of this was after, and in some instances before, they were members of the Department. It is a matter of record that in both world wars staff members, while still attached to the department, helped out as they were able. During the first World War, Captain A. Norman Shaw acted as Second-in-Command, under Principal Harrison, of the Macdonald College Contingent of the C.O.T.C. Considerable work was done by Dr. Lynde upon planning and testing armoured vehicles. Dr. Shaw played an important part in the development of various types of fog and submarine signalling (see p. 150). During the second World War, in addition to their regular duties, physics staff members took part in a strenuous program of teaching R.C.A.F. candidates in the McGill Radio Technicians' course. Former staff members were active in war research at Chicago, Los Alamos and elsewhere.

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Radioactive Elements

Co-operative investigations using radioactive materials as "tracers" of chemical elements in living organisms were started in 1947. This work is conducted by a Tracer Committee which has expanded in three years to include staff members and post-graduate students of five departments under the Chairmanship of Dr. W. F. Oliver, Associate Professor of Physics. An "active" laboratory was established in 1948 in the Chemistry and Physics Building. An animal laboratory was added two years later. Some of the problems studied have involved uptake measurements of phosphatic fertilizers by plants, fixation and release phenomena of phosphorus in soils, calcium and phosphorus metabolism determinations in laying hens and baby chicks, the distribution of ingested insecticides, and amino acid studies.

PLANT PATHOLOGY

This Department was first organized in 1920 and entitled "Botany", the original Department of Biology being divided into Entomology and Botany (see p. 112). From the outset, the teaching of undergraduate and post-graduate courses and the conducting of research in Plant Pathology comprised the main endeavour of the Department, so its name was changed to its present one in 1926. It is interesting to note that among Canadian universities it has the distinction of being the only botanical department bearing this name. While its principal activities are in the field of Plant Pathology it still gives also the undergraduate courses in Botany which are fundamental to a sound training in the science of agriculture, viz.: General Botany, Plant Morphology, Plant Anatomy, Plant Physiology and Plant Taxonomy.

Research

The two primary purposes of training specialists and conducting research in Plant Pathology have always been closely linked, as the advanced students regularly participate in the investigational work under the direction of the staff. While many problems of a diverse nature have been under investigation by staff and students, research has been pursued for the

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most part along the following main lines: (a) virus diseases of plants, (b) effects of associations between various plant pathogens and other microorganisms, (c) winter hardiness in plants, (d) wilting in plants due to microorganisms which inhabit the vascular system of the plant, (e) minor element deficiency diseases, (f) the spoilage of fruits and vegetables in transit, in storage, and on the market, (g) diseases of field crops, and (h) control of various plant diseases.

The Department has trained and is training more Canadian plant pathologists than any other botanical department, in Canada, and the number of our graduates among the plant pathologists employed in Canada today far exceeds that from any other institution.

Personnel

When the Department was formed in 1920 it was headed by Professor Bertram T. Dickson, a graduate of Queen's University who had served in the War as Captain, had been wounded and discharged, and had earned a master's degree at Cornell. The Department also included John G. Coulson as Lecturer. Mr. Dickson won his doctorate in McGill in 1923. When, in 1927, he resigned to take charge of the Plant Division of the Research Council of the Australian Commonwealth, A. H. Gilbert, M.Sc. (Wis.) succeeded to the Chair. Professor Gilbert returned to the United States in 1929, and Mr. Coulson succeeded to the Headship of the Department. In 1948, the University of Montreal honoured him with the degree of D.Sc.

Amongst those who have served on the staff of the Department, varying in rank from Demonstrator to Assistant Professor have been: T. C. Vanterpool (1924-28), J. E. Machachek (1929-30), Dorothy Newton (1930-39), both before she was married, and as Mrs. W. E. Swales, R. F. Suit (1923-35), H. F. Brodie (1934-38), F. S. Thatcher (1936-41), I. H. Crowell (1941-44), R. A. Ludwig (1941-50), H. J. Scoggan (1946-47) and E. O. Callen (from 1947).

G. W. Scarth, Professor of Botany in the University, gave the lectures in Plant Physiology from 1930 to his retirement in 1946, and he still (in 1950) directs some research in the College.

Chapter XI

MISCELLANEOUS SUBJECTS

INTRODUCTION

In addition to subjects of instruction or research that do not strictly belong to any one Department of the College, this chapter deals with some which, though definitely the concern of one Department, are subsidiary to other major interests and responsibilities.

AGRICULTURE – HISTORICAL AND ORIENTATION COURSES

To the first class of third year students (1909-10) a one-term course of two (later extended to three) lectures a week on the History of Agriculture was offered by Professor Klinck in the Department of Cereal Husbandry. This was continued under his successors, Professors James Murray and Robert Summerby, but was transferred to the fourth year in the revision of the curriculum made in 1920-21 and was discontinued in 1926-27.

The next year, an orientation course, entitled "The Development of Canadian Agriculture", was given to First Year students by the Economics Professor, J. E. Lattimer.

In the general revision of 1931-32, this orientation course

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was continued but was modified to include lectures by members of various other Departments. It was again recast in 1935-6, still under co-operation of several Departments. It has been gradually extended, and in 1949-50 covers both terms of the First and Second Years of the Degree Course at three periods a week.

A similar but less extensive orientation course is given by Professor L. H. Hamilton to First Year students in the Diploma Course.

For the history of instruction in elementary agriculture in the School for Teachers, see *Nature Study and Elementary Agriculture* below.

APICULTURE

There has never been a Department of Apiculture in Macdonald College, and the amount of attention given to the subject in the Agriculture curricula, never great, has varied from time to time. Mr. John Fixter, the original Farm Superintendent (1907-12) and Mr. D'Arcy Chapman (Headmaster of the High School 1915-20) kept bees and gave information to students, but there is no record in the Annual Announcements of a course by them. A course was offered to First Year students by the Department of Horticulture in 1913, and to Second Year students in 1920. Mr. W. J. Tawse, who was appointed Lecturer in Horticulture and Agriculture in 1924 and resigned in 1928, gave courses to Second Year Winter Course and to Third Year Degree Course students of the Horticulture Option. These courses consisted of not over one period a week for one term. The subject disappeared from both curricula in 1931, though a few lectures and demonstrations continued to be given to those interested by the Dominion Apiarist or other visiting lecturers up to the time of writing (1950).

ART

The name of H. F. Armstrong, Associate Professor of Drawing in the Engineering Faculty appears in the staff lists of the School for Teachers up to the year 1914-15. Professor Armstrong came regularly from Montreal to give this instruction. Since then the School for Teachers has had a resident Instructor in Drawing and Household Art, the first being Miss

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Winifrede Thompson. Miss D. Maud Bellis held the position from 1923 to 1934, Miss Evelyn K. Elderkin from 1934 to 1944, and Miss Mary F. Cameron, A.O.O.A., from 1944 to 1949. Miss A. Elizabeth Jaques succeeded her in 1950.

CLASSICS

As noted elsewhere, Miss Lillian Robins was Instructor (or Lecturer) from 1907 to 1916 in Classics as well as in Mathematics in the School for Teachers.

The Announcements from 1909 to 1914 show that the course in Latin included readings from Caesar, Ovid and Horace, as well as the study of Latin grammar and of methods of presenting the subject to children. After 1915 Latin does not appear as a subject of study.

The Announcement for 1912-13 contains (on p. 74) a paragraph to the effect that students of exceptional ability aspiring to the academy diploma may take a course in Greek, reading Book I of Xenophon's "Anabasis", as well as an extra course in Caesar. This paragraph is omitted in the succeeding years, but after 1916 all reference to Classics disappears. It is doubtful if any students took advantage of this opportunity to become acquainted with Greek.

DAIRYING

As related in Chapter VI, dairying had been a prime interest and activity of Dr. James W. Robertson, and, although as Principal of Macdonald College he refrained from competing with the Provincial Dairy School at St. Hyacinthe as regards training industrial workers, he allotted a generous share of the ground floor of the Agriculture Building to a Department of Home Dairying and brought Miss Janet MacNaughton, N.D.D., from Scotland to take charge of it. Under Miss MacNaughton and her successor, Miss Jenny Reid, N.D.D., each of whom had an assistant, not only was instruction given to both agricultural and household science students, but butter and special varieties of cheese were offered for sale. In 1915 both Miss Reid and her assistant, Miss Jessie D. Gray, N.D.D., returned to Scotland. The sales activity of the Department was abandoned, and instruction was assigned to Mr. Wilfred Sadler, N.D.D., who was Assistant in Bacteriology. From 1919 to 1945

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the instruction in Home Dairying was given annually by practical dairymen who came to the College for the second term of the year. Since 1945, one of our graduates, Mr. Clement Morin, resident in Montreal, has been Instructor in Dairying, listed as a member of the Animal Husbandry staff. He gives instruction to the Senior students specializing in Animal Husbandry and to the Dairy Farming Group of the Diploma Course.

In the School of Household Science, up to 1945, Dairying was offered as an optional subject in the Homemaker Course.

EDUCATION — PRIMARY

From very early in its history, the School for Teachers has given special training in the teaching of primary children. As early as 1909, the School operated by the College (which has been entitled successively "Day School", "Practice School" and "Macdonald High School") had a Kindergarten Director. Miss Ruth O'Connor, a sister-in-law of Professor N. N. Evans, of the McGill Chemistry Department, held that position for the year 1909-10, and Miss Hortense E. Lawrence for the year 1910-11. Miss Frida Kruse, who served for the long term 1911-34, and Miss Violet B. Ramsay, who joined the staff of the School in 1925 and was appointed to the staff of the School for Teachers in 1927 (see Nature Study) are both living in retirement in the vicinity of the College. Miss Blanche Stewart, who in 1934 became Kindergarten Director in the School and Lecturer in Kindergarten Methods in the School for Teachers (succeeding Miss Kruse), left in 1950 to accept an Inspectorship in the Department of Education. She is succeeded by Miss Phyllis Bowers, a teacher and School Principal of varied experience, under the title "Lecturer in Education (Primary Methods)".

EXTENSION METHODS

Since 1940 a course in Extension Methods has been offered by a Committee, the Chairmanship of which was originally held by Dean Brittain, but is now held by Professor Avison who arranges for the services of appropriate speakers on its various topics. In addition to the Dean and the Head of the Department of English, the Committee (in 1950) includes the Direc-

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tor of the Diploma Course and the Head of the Department of Economics.

FRENCH

The use of the French language has always constituted an important feature of the curriculum of the School for Teachers. Instruction is given in the language itself and formal exercises are supplemented by a *Cercle Français*, in which opportunity for practice is afforded in songs, speeches, plays, illustrated lectures and causeries.

Originally, French was required of students in the School of Agriculture. The announcements do not give definite outlines of courses but merely describe the instruction as "of an eminently practical nature that the students may acquire a facility in the use of language". It was under the direction of the instructor in the School for Teachers. In 1914 the teaching of French to Agriculture students was dropped. For matriculation, French is given preference over the alternative languages (Latin, German or Spanish) but is not obligatory. The same is true of the Home Economics Course.

The Instructors in French have been Mme. S. Cornu (1907-10), Mlle Hélène Biéler (1913-18), Miss Lea Tanner, (Mrs. G. Parmalee) (1919-22), Miss Novah Brownrigg (1923-49) and Miss Rachel Woodburn (from 1950).

GENETICS

During his long period (1907-26) as Professor of Biology and Professor of Entomology and Zoology, Professor William Lochhead, gave a course of one lecture a week, which was entitled "Biological Theories" up to 1915 and, thereafter, "Genetics". In this course such topics as evolution, heredity, Mendelism and mutation were discussed for students of the Second and Fourth Years in Agriculture. In the 1920-21 reform of the curriculum (see Chapter VIII) the lectures were given twice a week for one term and supplemented by a laboratory period. Upon Professor Lochhead's retirement the main course in Genetics (two lectures and two laboratory periods, one term in Third or Fourth Year) was taken over by Professor Raymond of the Agronomy Department. However, up to 1929 a Second Year lecture course, given in the Department of En-

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tomology and Zoology, was required of all students in Agriculture, while only those in certain options took Professor Raymond's more extensive course.

In 1929-30, the Agronomy Department assumed full charge of Genetics, giving three lectures and two laboratory periods a week for one term to students of the Third or Fourth Year.

In 1933-34 an arrangement was made with the Botany Department of the Faculty of Arts and Science by which a lecture course in Advanced Cyto-genetics was given in alternate years in McGill and Macdonald to Fourth Year students of both Faculties. In this course members of the staffs of the Agronomy, Animal Husbandry, Horticulture and Poultry Departments and Professor C. L. Huskins of McGill took part. This co-operation continued when Genetics became a separate Department in McGill. It was discontinued in 1945-6 when Professor Huskins had left McGill. Under Dr. J. W. Boyes, his successor, the lectures are all given in McGill, and there is no record of their being taken by students in Agriculture. Graduate students working at Macdonald College may, of course, take this course for credit.

From the Announcements of 1912-13 to 1926-27 it appears that in the School of Household Science such topics as evolution, heredity and eugenics were touched upon in Professor Lochhead's courses entitled "Household Biology" and "Human Physiology". Later Announcements make no reference to the subject.

GEOLOGY

Geology is named as a second year subject in the Announcements of 1908-9 to 1910-11 without indication of instructor, who was, however, Professor Wm. Lochhead of the Department of Biology. It is omitted from the Announcement of 1911-12 but reappears in the following year as a third year course offered in the Department of Biology. After the division of the department, it is listed under Entomology and Zoology, where it continues up to the time of Professor Lochhead's retirement. Geology received no notice in the Announcements of 1926-27 to 1929-30 (though it was treated in Professor McTaggart's fourth year course in Soil Management), but reappears in 1930-31 in the Chemistry Department as Geochem-

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istry and Geology, a course given by Dr. R. R. McKibbin. After Dr. McKibbin's resignation (1936) the course was taken over by Dr. W. A. DeLong. In 1938-39 and 1939-40 it was offered by Dr. C. L. Wrenshall, the title being altered to "Geology: Soil Genesis and Genetics." Upon Dr. Wrenshall's departure for service as a munitions inspector, the course reverted to Professor DeLong under whose direction it continues as a separate subject.

HISTORY

The Announcements for the year 1908-9 and 1909-10 outline a course in General (European) History in the School for Teachers, and two courses in Canadian History in the School of Agriculture — presumably to be taken by First and Second Year students.

In 1910-11, the introductory course in Canadian History was required in both these schools, and the course in European History was required in the School for Teachers only. In 1912-13 and subsequently courses in history were prescribed for the School for Teachers only. As noted elsewhere, Douglas MacFarlane, Ph.D., originally attached to the Department of Nature Study, taught History as well as English. He resigned in 1919 and, although his name as Lecturer in the School of Agriculture is continued in the Announcements of 1919-20 and 1920-21, that of John Grant Thompson, M.A., is listed for the School for Teachers, as Lecturer in History and Geography.

In 1927-28, Miss Mabel D. Price succeeded Mr. Thompson. Miss Price was accidentally drowned in 1929, and Miss Dorothy Seiveright was appointed Lecturer (in 1930). From that time until Miss Seiveright's retirement (1949) courses in Canadian History are the only ones listed, and prominence is given to methods of teaching and the use of teaching devices.

From 1934 to 1949 a separate course adapted to rural school conditions was offered to the elementary class. In 1950 James Wilson Hamilton, B.A., was appointed Lecturer in Education (History and Geography), succeeding Miss Seiveright.

LIBRARY

Statistics

The early Announcements of the College give 13,000 volumes as the capacity of the Library stack-room. The number

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of entries in the accession book at the end of 1908, when the books of the McGill Normal School had been entered, was about 6,000. In 1927 the stack-room accommodation was estimated at 17,000, but in succeeding years all mention of the Library was omitted from the Announcements.

In 1927, however, basement space was allotted to the Library, and the stack-room could now accommodate fifty to sixty thousand books. At present (May 1950) the accession numbers have passed 40,657, but books discarded or lost over the period of forty years must number in the thousands. There is no record of this number.

The Stewart Donations

Since 1927 the annual celebration of Founder's Day (February 10) has been marked by a generous gift of one thousand dollars or more by Mr. Walter M. Stewart of the Macdonald Tobacco Company. The books bought on this donation constitute the "Walter M. Stewart Collection". They are mainly books of general interest or sets too large to be purchased out of the regular appropriation. On Founder's Day of 1950, an exhibit of articles from Sir William's Montreal home was made in the Reading Room and a beautiful colored photograph of the Founder and his mother was placed for permanence in the Reading Room beside the door to the Librarian's office.

In 1949-50 some movable glass cases were stood in the Reading Room for the temporary display of sets of books and articles of historical or artistic interest.

Artistic Decorations

The St. George banner hanging over the entrance to the Reading Room was presented to the College in its infancy by Lord Grey, the Governor-General of that time, who by virtue of his office was Visitor of the University. Its story, lost for about twenty-five years, was rediscovered when Canon F. Whitley, Rector of St. George's Church in Ste. Anne de Bellevue, noticed a letter in the Canadian Churchman describing it and reporting that such a banner along with several others had been worked by Miss Longhurst and Lady Mary Wood and sent to Lord Grey to be placed in educational institutions.

The oil paintings hung above the desk are, in order from left to right, those of Dr. F. C. Harrison, second Principal (by

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G. Horne Russell, 1926); Sir William Macdonald, Founder (by Watt Euston, 1892); and Dr. James W. Robertson, first Principal (by Wyley Grier, 1910). Those on the opposite wall are of William Lochhead, first Professor of Biology (by G. Horne Russell, 1925); and John Ferguson Snell, first Professor of Chemistry (by Dora Snell Davidson, 1936).

Departmental Libraries

Since about 1930, books of special interest have been kept in the Biology, Chemistry and Agriculture Buildings for the convenience of the Departments housed therein. Supervision of such branches is maintained by the stenographers. The Institute of Parasitology has had from its establishment its own separate Library with Miss Josephine Smith as Librarian.

MATHEMATICS

Although the Announcements of 1909-10 and 1910-11 forecast mathematics courses for all four years of the Degree Course in Agriculture, for a long period instruction was only given in the first year.

In Agriculture, Mathematics originally consisted of selected topics from Algebra, Geometry and Trigonometry, as related to agriculture, and scientific measurements and calculations. In 1927-28 Elementary Calculus was included among such topics. In 1929-30 the course was expanded by the addition of a tutorial period and divided into a First-Year course of Geometry, Trigonometry and Algebra (or Elementary Mathematical Analysis) and a Second Year devoted to Calculus (or Calculus and Analytical Geometry). In 1944-45 a Third Year course of one lecture a week on Differential Equations for specialists in Agricultural Engineering and in Chemistry was added.

Instructors

The first mathematical instruction to students of agriculture was given by Mr. George Emberley of the Department of Manual Training. In the second session (1908-9), the subject was transferred to the Physics Department, instruction being given by the Assistant, Frederick W. Bates, B.A. (M.Sc.). A. Norman Shaw, M.Sc. (D.Sc.), who was Lecturer in Physics

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from 1913 to 1918, taught the mathematics during that period though towards the end of it, when much of his time was absorbed in the work of the Officers' Training Corps, some relief was obtained from the staff of the School for Teachers. Later the full responsibility for Mathematics in the Faculty of Agriculture was borne by the Lecturer in the School for Teachers. Mr. W. P. Percival (now Director of Protestant Education in the Province) held that position from 1923 to 1925 and had a seat in the Faculty of Agriculture. From 1925 to 1930 Professor W. C. Quayle, Head of the Department of Physics, gave instruction to both years. Dr. M. Laura Chalk gave the courses in 1930-31 and again, as Mrs. W. Rowles, from the beginning of the session of 1931-32 to the end of that of 1935-6, except that for the first year of that period Dr. D. K. Froman taught the First Year class. From 1936 to 1944 the First Year work was taught by Mr. E. C. Irvine, from 1944 to 1949 by Professor W. A. Steeves, and from 1949 to the present by Professor A. M. Henry, all of whom were members of the staff of the School for Teachers. Professor W. Rowles has continued to give the Second Year work, and the courses in Differential Equations is given by Professor W. F. Oliver.

First Year Mathematics has always been required of Degree students in the School of Household Science. It is taken in common with the First Year students of Agriculture.

In the School for Teachers, Miss Lilian Robins came over from the McGill Normal School as Instructor (later Lecturer) in Mathematics and in Classics. Miss Robins who was a daughter of Dr. Sampson P. Robins, the Head of the Normal School at the close of its history, held this Lectureship to her retirement in 1916. Since that time the School has had a Lecturer in Mathematics alone. The primary purpose of the Department is to advise on methods of imparting mathematical knowledge but this presupposes a thorough knowledge on the part of the Lecturer. The quality of men engaged for the position has been correspondingly high and, as instanced above, Agriculture and Household Science have from time to time found it of advantage to draw upon them for instruction of their Degree course students.

MUSIC

In 1907, Mr. William H. Smith was appointed instructor in music on the staff of the School for Teachers. Mr. Smith was

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supervisor of music for the Montreal Protestant Board of School Commissioners, and he commuted to Macdonald College once a week for the purpose of instructing the students in the School for Teachers. In 1914 Mr. Smith was succeeded by Mr. G. A. Stanton, L.R.A.M., A.R.C.M., who was appointed as Lecturer in Music for School for Teachers on a full-time basis. Mr. Stanton also served in the capacity of College organist. Mr. Stanton lived in a College house — the one immediately north of the main gates at the campus. He resigned in 1920 to succeed Mr. Smith as supervisor of music for the Montreal Protestant schools.

In 1914, Mr. R. Birkett Musgrove, F.R.C.C., was appointed to succeed Mr. Stanton as Lecturer in music and College organist. (Both Mr. Stanton and Mr. Musgrove served St. George's Church, Ste. Anne de Bellevue, as organists and choir directors.)

In 1923, on the initiative of Dean Laird of the School for Teachers and Principal Harrison, a choral society was organized amongst College staff and students and townspeople of Ste. Anne de Bellevue, and a small orchestra was also formed. These were occasionally supplemented by Montreal musicians and singers. Over a period of some five years three concerts or operas were given annually. The conductor was Mr. Musgrove. In June 1940, having reached the age of retirement, Mr. Musgrove moved to a cottage on Isle Perrot where he died on June 10.

In 1940, Mr. Frank K. Hanson, L.Mus., Mus.Bac., a lecturer on the staff of the Faculty of Music, McGill University, was appointed as Lecturer in Music on the School for Teacher's Staff to serve four days weekly. The appointment included supervision of music in the Macdonald High School and the title of Honorary Director of Music for Macdonald College. Mr. Hanson has also served as guest organist at College functions in the Assembly Hall. Mr. Hanson was advanced to the rank of Assistant Professor in 1945. In 1947 he attained the degree of Mus. Doc. from McGill University, and in 1950 the rank of Associate Professor of Education (Music). Dr. Hanson lectures for the Faculty of Music, McGill University, two days weekly in harmony, counterpoint and school music. He also acts as examiner in music for the Department of Education, McGill University Faculty of Music, and is musical advisor to the Central Board of Examiners. In 1947 Dr. Hanson initiated

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the formation of a Lakeshore branch of the Community Concert Association, which is widely represented in Canada and the United States. Many members of the village and College communities belonged to this association, through which four concerts a season were held in the Assembly Hall of the College, and special terms were offered to the College students. Professor Hanson also supervises the Young Artist's Concert Series, the Macdonald College Music Festival, as well as lending aid and advice to various College and community musical projects.

NATURE STUDY AND ELEMENTARY AGRICULTURE

In the Macdonald-Robertson Movement (see Chapter IV), Nature Study was given prominence as a subject for rural schools, and when Macdonald College was established its Officers of Instruction included John Brittain, D.Sc., as Professor of Nature Study.

The introduction to the subject, doubtless written by Dr. Brittain, reads as follows:

"All the studies in this Department will be based upon observations and experiments made by the students themselves in the garden, field or laboratory.

The economic side of the work will converge in and radiate from the school garden, and will touch upon the relations of air, soil, and water to plant and to human life.

A spirit of enquiry will be encouraged in all the classes, and much practice given in scientific methods of research applied to problems within the reach of the general student, the teachers in the common school, and the ordinary citizen.

An appreciation of the beautiful in nature will be cultivated, and applied in the study of approved methods of beautifying home and school buildings and grounds.

Those forms and phenomena which appeal most strongly to the young will receive special attention. The best methods of using the natural surroundings of children as a means of education will be studied and illustrated in the work of the Department."

For the College "Practice School", a set of little gardens enclosed by borders (originally of shrubs and flowers but later

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of perennial flowers alone) was laid out on the site facing (that is south of) the projected school. One such plot was assigned to each student of the School for Teachers and one to each pupil of the Practice School, to plant and care for. The supervision of these gardens in the summer vacation was a problem, which was provided in one year by the employment of the teacher of one of the consolidated schools (J. Walter Jones, who is now Premier of Prince Edward Island) during his vacation. In subsequent summers the gardens fell into disorder and Principal Harrison had the ground plowed and seeded to grass. The western flower border remained intact for many years, and a small portion of it is still maintained (1950).

Dr. Brittain's introduction to the subject of Nature Study was reprinted in the College Announcements until 1919-20. After the death of Dr. Brittain (1913), Dr. D. W. Hamilton, who had been one of the group of teachers chosen by Dr. Robertson for training in the methods of the "Macdonald-Robertson Movement", and who was at the time Assistant in Physics, was appointed Lecturer in Nature Study and Elementary Agriculture. Under Dr. Hamilton a course in Agriculture was added to the curriculum, and provision was made for students of agriculture to qualify for a Model School Teacher's Diploma by attendance at classes in Education for one month before, and a like period after, the Second Year of their course in agriculture. Except on the part of the McOuat brothers (see below) no advantage was taken of this provision.

In 1919, Mr. Hamilton having resigned, Mr. J. Egbert McOuat, a graduate in Agriculture who had also qualified as a teacher, and had since 1915 been a member of the staff of the School of Agriculture (employed as Demonstrator to Quebec Rural Schools), was appointed to the Lectureship in the School for Teachers. In the Announcement for 1920-21, Dr. Brittain's time-honoured introduction is omitted, and the course becomes essentially one in elementary agriculture, the nature study element being subordinated. The description of the course is: "Review and Exposition of work in Agriculture prescribed for Grades VI, VII, and VIII (Hatch and Hazelwood's Elementary Agriculture), a study of home projects and school fairs". (Mr. McOuat's brother, J. Harold McOuat, had succeeded him as Demonstrator to Quebec Rural Schools.)

Harold McOuat resigned in 1922, and in 1925 M. H. Howitt succeeded Egbert McOuat as Lecturer in the School

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for Teachers. In 1927 Miss Violet Ramsay was appointed Lecturer in Primary Methods and Nature Study, and in the Announcement of 1928, a course in Nature Study for the Primary Grades is added, and the outline of the Course in Nature Study and Elementary Agriculture is recast, the division by seasons being dropped, and also the reference to the text book of Hatch and Hazelwood.

In 1931-32 Agriculture and Nature Study are separated, some topics of the former being relegated to the Geography course, and the seasonal treatment of Nature Study was revived.

In 1934-35 separate courses for the Intermediate and Elementary Classes were outlined, and in 1945-6 a course for Kindergarten Directors was added.

In 1949-50 Nature Study came under the supervision of Arthur M. Henry, Assistant Professor of Education (Mathematics and Science). In the interval between Miss Ramsay's retirement and Professor Henry's appointment, the various Departments of the Faculty of Agriculture had co-operated in the teaching of elementary agriculture.

PHYSICAL TRAINING

In the construction of the College, ample provision was made for gymnasia and swimming pools for men and for women, the girls' gymnasium, the larger of the two, being of the same dimensions as the dining room, above which it stands. The Announcement of 1907-8 states that "the course in physical training for girls will be closely correlated with that of physiology and hygiene" (for which Dr. Jean Dawson was appointed Instructor), and describes their gymnasium suit, as consisting of "a blouse and bloomers". In 1908-9 Miss Marjorie Torrance, who had been Assistant to Dr. Dawson, succeeded her as Instructor. Although the name of John Doig of the Canadian Pacific Railway, who resided in Ste. Anne de Bellevue, does not appear in any of the Announcements, the writer's recollection is that he gave some instruction in the men's gymnasium. In the Announcement of 1909-10 Charles B. Powter, who had charge of physical training in the Montreal Protestant Schools and who was also a resident of Ste. Anne's, is named Instructor in Physical Culture in the School of Agriculture — this however for that year alone.

THE DEVELOPMENT

When the staffs of the schools were differentiated, the Instructor in Physical Culture was assigned to the School for Teachers, though the classes included also girls of the School of Household Science. Miss Torrance resigned in 1914 and was succeeded by Miss Dorothy Richmond, M.G.T.I., as Instructor, with Miss Ethel A. Roberts (afterwards the wife of Dr. J. C. Simpson, Dean of the Faculty of Medicine) as Assistant for one, and Miss Lynette H. Wren for a second year. Thenceforth the staff of the Department has consisted of a single Instructor, Miss Lynette Wren (afterwards Mrs. Paul Boving) being the first. Changes were frequent until 1923 when Miss Elsie N. Heathcote (afterwards Mrs. Mitschke) took the position and held it for over ten years.

Miss Alice F. Spicer, B.A., M.S., in Phys.Ed., was appointed in 1938 and continued (as Mrs. Joedicke) to 1946 when she was succeeded by Miss Mary K. Varey, B.A., B.Sc. (Phys. Ed.) who resigned (as Mrs. Wilkinson) in 1950. In 1950 Miss Adele Peron, B.Sc. (P.E.), and Miss Patricia Brown, B.Sc. (P.E.), both McGill graduates, have been appointed, respectively, Lecturer and Instructor in Education (Health and Physical Education). They are also taking charge of Physical Education in Macdonald High School. They supervise women's athletics in both institutions.

Only since 1947-48 has an Athletic Director been mentioned in the staff lists. Mr. Colin Cranham, a Bachelor of Public Health Education, who was also an Instructor in Chemistry, was then named to that post. Previously, members of the staff had given supervision voluntarily, or concessions in residential charges had been granted to students of maturity and academic promise. As noted in Chapter V, generous provision for athletic coaching has been made by Mr. Walter Stewart from time to time.

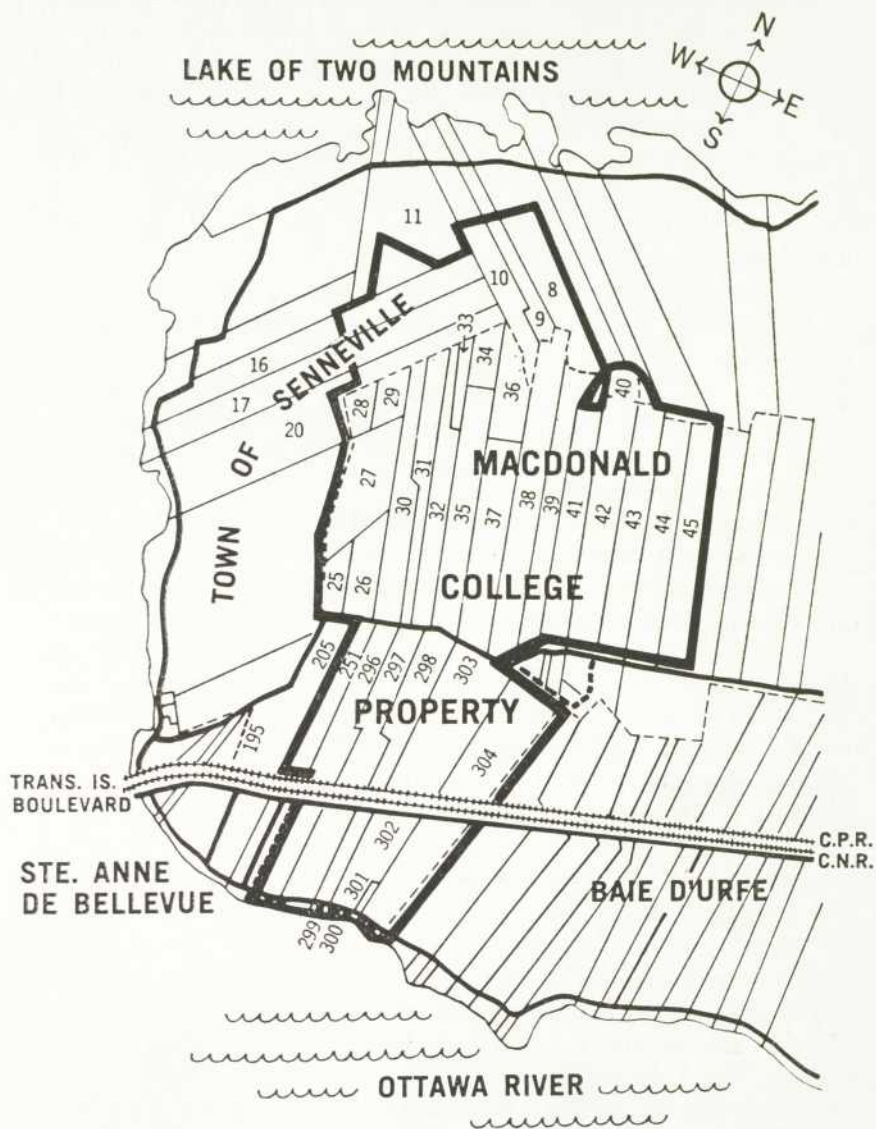
RELIGIOUS INSTRUCTION

Throughout the history of the College, the annual Announcements have carried a paragraph requiring students of the School for Teachers to state the denomination to which they belong and to attend public worship at least once each Sunday, and also a class conducted weekly by a clergyman of the denomination named. (Under Professor Munroe's Directorship of the School this class is referred to as "Padre's

MISCELLANEOUS SUBJECTS

Hour".) In the early years, clergymen from Montreal were depended upon to conduct these classes. The only permanently resident Protestant clergyman was the Rector of St. George's Anglican Church. A committee of non-Anglican Protestants was allowed the use of the Assembly Hall for Sunday services of worship, but these were discontinued in a few years, and it was not until the fall of 1913 that an Inter-denominational Committee made up of Montreal clergy and laymen of the Congregational, Methodist and Presbyterian Churches established a Union Church in Ste. Anne de Bellevue and engaged a Minister. Thereafter the non-Anglican students have been under the supervision of the successive ministers of this Church, which in 1925 became a Congregation of the United Church of Canada. Since that time Religious Instruction has been imparted to the Anglicans by the St. George's Rector and to the non-Anglicans by the United Church Minister. Since 1941 these two clergymen have ranked as Honorary Lecturers in the School for Teachers.

Rev. Canon F. L. Whitley, M.A. of the Anglican, and Rev. Francis A. C. Doxsee, B.A. (Oxon.) of the United Church of Canada, were the Lecturers in 1950, but Mr. Whitley retired in the fall, and he was succeeded both as Rector of St. George's Church and as Honorary Lecturer in Religious Instruction by the Rev. John W. Kerr. Others who served for terms of several years include Rev. C. F. Lancaster of the Anglican, Reverends Norman McLeod and Donald McLeod of the Union Church, and Rev. Cyril H. Adair of the United Church of Canada.



Map showing Macdonald College property and surroundings

Part IV — The War Services

Chapter XII

IN WARTIME

During the lifetime of Macdonald College Canada has been engaged in two great World Wars, to the successful military outcome of which the staff, students, graduates and employees have loyally contributed to the extent possible for so limited a number of persons.

World War I

Early in the session of 1914-15, Principal Harrison, addressing the men students, suggested consideration of the desirability of forming an Officer Training Corps as a precautionary measure in view of the insecurity of our position in the Empire and our unpreparedness for defence of our homes. A few days later, the President of the Students' Council, Mr. E. M. Ricker, called a meeting at which, almost to a man, the students favoured the organization of such a corps and promised to join it. Dr. Harrison, who held the rank of Major in the artillery of the Canadian militia, was appointed Commander, Dr. A. Norman Shaw, Lecturer in Physics, was named Second in Command with the rank of Captain, and a student, Carroll Robert Bennet, who already held the rank of Captain, Third in Command. Sinclair Laird, Dean of the School for Teachers, G. H. S. Barton and Morley Jull, Heads respectively of the Animal Husbandry and Poultry Husbandry Departments, and A. R. Ness and Paul Boving of the Departments

WAR SERVICES

of Animal Husbandry and Agronomy qualified as lieutenants, and other members of the College staff held appointments of responsibility. Drill on the men's campus and in the gymnasium commenced without delay, and in the course of time uniforms and then rifles were supplied from Ottawa. These and all other items of property were entrusted to Mr. T. Fred Ward, the College Bursar, as Quartermaster, and were stored in the basement of the Men's Building in charge of John McPhee as Quartermaster Sergeant.

A room in the basement of the Men's Building was fitted up for target practice, and drill in musketry and physical training was given by Sergeant-Major Jack Sharpe, a resident of Ste. Anne de Bellevue, while Sergeant-Major Werry came periodically from Montreal to conduct drill on the campus. Route marches and field days were held and operations planned over war maps of Belgium under Major Harrison's supervision. The Corps was represented with distinction in the McGill summer camps. Oral and written examinations were held and certificates of qualification for commissions were issued to successful cadets.

In the fall of 1914 and the spring of 1915, a number of staff members and students enlisted in the McGill Company of the Princess Patricia's Royal Canadian Light Infantry. Others joined other infantry or artillery units or the Royal Canadian Air Force and, when tanks came into use, some of our men served in tank units.

Some staff members who did not join the Corps rendered service otherwise, particularly the Professor of Physics, of whom Mr. Fetherstonhaugh writes:

"With his imagination stirred by the suffering of the infantry in attacking trenches and wired defences on the Western Front, Dr. C. J. Lynde of Macdonald College devoted much effort to planning and testing armoured vehicles based on the same idea of protection for attacking troops which resulted eventually in the development of the British tanks In his recognition of the field wherein one great solution of trench warfare lay, Dr. Lynde was thinking in terms which corresponded closely to the most enlightened military conceptions of the time."¹ The writer's recollection is that Dr. A. Norman Shaw also took part in the experiments on acoustic detection of submarines which Fetherstonhaugh refers to as carried

IN WARTIME

on by Dr. A. S. Eve of McGill before the superior electrical "Asdic" devices were conceived.²

Soldiers' Civil Re-establishment

At the close of War I enlisted students resumed their studies with time allowances for their military service, and under the Department of Soldiers' Civil Re-establishment an agricultural course for returned men who had not been students was arranged at the College to provide a period of adjustment to civilian activities and to qualify them to take up land under the Soldiers' Settlement Act. This course was in charge of one of the graduates of the College, Mr. C. Eric Boulden, afterwards Principal of the Nova Scotia Agricultural College. Mr. Boulden, whose title was "Vocational Officer", gave the instruction in Animal Husbandry. Mr. John C. Moy-nan, who is now Chief Supervisor of the Division of Illustration Farms of the Experimental Farms Service of the Dominion Department of Agriculture, served as Lecturer in Cereal Husbandry and Poultry, and Mr. R. J. M. Reid as Lecturer in Horticulture. The duration of the course was eight months — three at the College and five in practical work on farms — and the students received a subsistence allowance while engaged in it.

As most of the men enrolled were inexperienced, the College placed at their disposal during their stay here a barn on the Stock Farm and some cattle and horses so that they might have practice in farm operations. Lectures on Animal Husbandry, Agronomy, Horticulture, etcetera, were given by Mr. Boulden and his staff, and a certain period of each day was devoted to practical work.³

World War II

The activities of the C.O.T.C. were suspended at the conclusion of the War, but upon the outbreak of the Second World War in September, 1939, the McGill Contingent was revived and, under Honorary Colonel A. A. Magee, D.S.O., K.C., a Macdonald College Company (No. 9) was formed with Major T. W. M. Cameron as Commander. In spite of this formal connection with the McGill Contingent, the Macdonald College Contingent was regarded as distinct by Military District,

WAR SERVICES

No. 7, information sometimes reaching Macdonald in advance of McGill. Also, by agreement, membership in the Contingent was open to all eligible young men in the vicinity of the College, from Senneville to Beaconsfield. A half-company of undergraduates was commanded by Lieutenant L. L. Lyster, and a half-company of "graduates" by Lieutenant F. P. Griffin, both graduate students.

The experience of commencing drill without uniforms or arms was repeated, equipment being provided as received. A considerable amount of field work was carried out during the winter, and in summer a camp was held with the rest of the McGill Contingent, in which the Macdonald Company not only held its own, but was conspicuously successful.

In the session of 1940-41 the institution of compulsory military training and the transference of the majority of the officers to active service resulted in several changes in personnel and to a distinction being made between cadets training for commissions and the others, who were regarded as privates of the McGill Reserve Training Battalion and were given less instruction and attended separate summer camps. Sgt. Allan Ramsay, an ex-student, was appointed a full-time drill sergeant, and served as such for two years until commissioned in the Royal Army Service Corps. Lectures were given by Dr. Cameron assisted by Registrar Walsh and two local retired officers — Colonels G. G. Archibald and V. H. Graham.

Changes in Character of Training

As the war went into its third year, the volunteer spirit gave way more and more for the compulsory feeling. Army regulations made it more difficult to obtain commissions, and the military authorities in Ottawa assumed more and more the direction of affairs by way of explicit instructions, leaving practically no initiative to the C.O.T.C. officers. This was discouraging to both men and officers and led to the resignation of the three remaining officers, Major Cameron and Lieutenants H. R. Murray and A. B. Walsh at the end of 1942. The newly appointed College Veterinarian, Mr. C. V. Barker, was appointed Company Sergeant-Major, and Mr. D. McRoberts Quartermaster Sergeant, and drill was left almost entirely in Sergeant Ramsay's hands.

To the end of 1945 training continued on lines more appropriate to a Reserve Training Battalion than to an Officers'

IN WARTIME

Training Corps, Mr. Barker being advanced to a commissioned standing, eventually Captain, and assisted by officers appointed from the undergraduates themselves. Training during the academic year was considerably reduced, but attendance at the annual camp was compulsory.⁴

The feeling at the College was that the policy followed in the First War led to better results both militarily and academically.

Contributions to Victory

As in the First War, the contributions of Macdonald College to the victory were not confined to military services. Fetherstonhaugh gives the College credit for our contributions to food production, generously including much research that had been in progress over many years of peace and that, had there been no War, would still have continued, though doubtless more slowly and in somewhat different directions. Thus he refers to the development and improvement of varieties of cereals, corn, clover and timothy in the Agronomy Department, the development of economic rations for pork production in the Department of Animal Husbandry, the work of the Plant Pathology and Entomology Departments in the control of plant pests, that of the Departments of Chemistry, Nutrition and Poultry Husbandry in the processing, preservation and advantageous use of food and feed materials. In particular he mentions Dr. E. W. Crampton's contribution to the solution of the troublesome problem of digestive disturbances amongst U.S. troops on emergency rations in the northern prairies, which was referred to by the Army Medical historian as affording "valuable information of fundamental character", and to the studies on the culture of molds producing such antibiotics as penicillin, streptomycin and citrinin, conducted in the Chemistry Department under the supervision of Professor W. D. McFarlane and the "displaced" scholar, Dr. Moritz Michaelis.⁵

More direct contributions to immediate war problems were made by the Departments of Physics and Parasitology. Dr. and Mrs. Rowles and Dr. Oliver took a very active part in the courses given in the McGill Physics Department for the training of enlisted men as radiotechnicians.⁶

In 1941-42, a series of four short courses in tropical medicine was held in Ottawa, instruction being given by the Direc-

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tor of the Institute of Parasitology, Dr. T. W. M. Cameron, and a number of Ottawa scientists. From 1943 onwards, however, five courses of one to two months' duration were held at Macdonald College, Major Bews, Captain Edwards and Pilot Officer Eugene Monroe being seconded from the army to assist in this work. These courses were attended by naval, army and air force medical officers. They were later enlarged to a three-months course leading to a Diploma in Tropical Medicine from McGill. In addition, six courses of four to eight weeks' duration and one special course on malaria and malaria control were given to technicians from the Army, Navy and Department of Veterans' Affairs. This work, which was carried on without remuneration, involved about 700 lectures and over 2000 hours of practical instruction.

In 1943, the Medical Department of the Army established a Pregnancy Diagnosis Station at the Institute of Parasitology, using South African frogs as test animals. A number of army personnel were seconded to assist in this work, but much of it fell on the depleted Institute staff, as the army personnel assisted in the various courses of tropical medicine. This work continued till the end of the war and prevented the dispatch of pregnant women to service overseas.⁷

The Women's Army Corps

Early in 1942, Macdonald College became the chief training centre of the Canadian Women's Army Corps for Eastern Canada. The Women's Residence, the Dining Department, and parts of the Main Building were given up to them, half of the Men's Residence being assigned to the civilian women students, and accommodation provided elsewhere for the men thus displaced. A temporary extension was added to the Men's Building to provide dining room, kitchen and common-room accommodation for the unenlisted students. Smaller extensions to the Women's Residence were made for temporary use as infirmary, canteen, etc. The students of the School of Teachers moved to Montreal.⁸ The women found accommodation mainly in Strathcona Hall, and the few unenlisted men of the School were easily provided for. Casualties amongst the men enlisted from that School were exceptionally heavy.⁹

In summation, Macdonald College may proudly claim to have done its duty in the cause of freedom by both active service and sacrifice in both the great wars.

Chapter XIII

WAR MEMORIALS

WAR I

A record of all those connected with Macdonald who enlisted in the armed services during the First Great War was meticulously kept by the Registrar, Mr. W. J. Wright, and Rolls of Honour were published from time to time in the Macdonald College Magazine, a student periodical, but, unfortunately, no final roll was so published.

It was not until about 1930 that a War Memorial Committee was appointed. Meanwhile, the Graduates in Agriculture had had a bronze plaque made commemorating the loss of five of their members. This plaque, installed on the wall-post at the foot of the stairs in the Main Building, was unveiled by Sir Arthur Currie on May 31, 1922.

The general College memorials to the First War are three in number: (1) a ring of oak trees about the men's playing field, (2) a clock, and (3) a Book of Remembrance. It was intended to plant one oak tree for each man whose life was sacrificed in the War, but, whether to provide for the possible death of some critically ill at the time of planting, or merely to complete the circuit of the field, forty-four trees were planted instead of thirty-four. The clock, made by Henry Birks and Sons, hangs in the corridor of the Main Building, its four dials facing, respectively, the Main Door, the Library and the East and West stretches of the corridor.

The oaks were dedicated on November 11, 1931, in a student ceremony, in which Mr. Norman Beach gave the oration.

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The clock and Book of Remembrance were unveiled November 11, 1933, by Colonel Wilfrid Bovey, acting for Sir Arthur Currie, who was ill and who died two days later.

Book I

The Foreword to the Book is as follows:

"The compiling of this book is more than a merely formal list of names. It is a sincere tribute of deep affection, it is an evidence and pledge of our remembrance and our gratitude. These young men and women whose names are inscribed, though trained only in the arts of peace, and imperfectly understanding the issue, hesitated not to enter the tragic tournaments of death in order that civilization might be preserved and the principles for which their fathers fought should not pass from man's possession.

We are far enough from the War to realise its unspeakable waste, its cruel slaughter, its aftermath of loneliness and sorrow and broken hearts. Yet to-day the European world totters blindly down the road of discord and misunderstanding. War to-day has no longer glory in its methods nor in its results. Its only glory is the glory of the sacrifice for an ideal which it involves. The remembrance of the bravery of our fellow men who died for an ideal ought to remain with us as an inspiration, that we may draw strength for the duties of peace and that generations yet unborn may learn that by fortitude and fidelity, by endurance and determination, the darkest hour may be turned into one of radiant achievement.

October 29, 1933.

A. W. Currie"

WAR II

At a meeting of the Faculty of Agriculture held May 21, 1945, the Vice-Principal was invited to appoint a War Memorial Committee consisting of members of the staff, alumni and students to solicit subscriptions and arrange for fuller memorials of the two Wars. Professors Rowles and Raymond were named co-chairmen of the Committee. Upon its recommendation, a two-fold Memorial was decided upon, namely a Memorial Entrance to the Library and a Memorial Lectureship Fund.

WAR MEMORIALS

It was agreed that subscriptions should be to the University Memorial Fund, but that not only those specifically given towards our local memorials, but all those adjudged as intended therefore were to be transmitted to the College Committee. On this basis \$9,505 was received. The Memorial Entrance was constructed after a plan submitted by Mr. Grattan Thompson, Architect, who generously subscribed the amount of his fee (as did also Mr. Leslie Watt, who had submitted a plan). It consists of a modified doorway flanked by recessed glass-covered rests for the Books of Remembrance of the two Wars and surmounted by the inscription:

"Ye who pass this way, hold in Memory and Honour
Those who dared and those who gave their lives
That we might continue here the work of Peace".

The Book of Remembrance of those who served in the War of 1914-1918 contains the names of 357 persons — 302 men, of whom 34 were killed or died on active service, and 55 women. The names are in handsome Old English lettering, the artistic pen-work of Professor W. E. Whitehead, who also subscribed the amount of his fees. They are all in alphabetical order, the women's preceded by "Miss". Introductory pages have inscriptions, advising that the Oak Trees and the Bronze Clock are memorial tributes to those who died and to all who served, and quotations from Lawrence Binyon and the Book of Ecclesiasticus:

"They grow not old as we that are left grow old;
Age shall not weary them nor the years condemn".

and

"Their name liveth evermore".

The expenditure for the Entrance, the Second Book of Remembrance and the First Memorial Address was \$4,275 and it was estimated that the balance of the Fund would yield a revenue of about \$180 towards subsequent annual Addresses.

Book II

The Book of Remembrance of those who served in World War II, 1939-45, bears the names of 525 persons. Men and

WAR SERVICES

women are listed separately, 430 and 95 names respectively. Sixteen of the women's names are preceded by "Mrs." and 42 of the men's are marked with memorial crosses. The order of names in each list is alphabetical except for four of the men's which were received late and added on a concluding page. The lettering in Fourteenth Century style, illuminated in McGill and Macdonald colors, is again by Professor Whitehead's skilful hand, as are also the title page, the coats of arms of McGill University and Macdonald College and the preface by Field-Marshal Alexander of Tunis, Visitor of the University and Governor-General of Canada. It reads as follows:

"This Book of Remembrance bears worthy testimony to the memory of those of Macdonald College who gave everything in order that the spirit of free education in a free country should survive.

Although their names are emblazoned on these pages, which may fade with the years, their spirit of sacrifice is an undying heritage of the College for evermore.

The tradition of unselfish sacrifice which was displayed is an inspiration to all who may follow.

We must, all of us, strive with all our spirit to be worthy of their example in the years to come.

Rideau Hall,
August 1947.

Alexander of Tunis
F.M."

Lord Alexander dedicated this Second Book of Remembrance and the Memorial Entrance to the Library on the afternoon of February 26th, 1948.

Memorial Lectures

At the time of writing (December 1950) five Memorial Lectures have been given as follows at General Assemblies of staff and students:

- I. February 26, 1947 — Right Hon. Vincent Massey, C.H., LL.D.
- II. February 26, 1948 — Field Marshall the Right Honourable Viscount Alexander of Tunis, K.G., Visitor of the University and Governor-General of Canada. "How the Principles of War Can Be Applied to Peace".

WAR MEMORIALS

- III. March 9, 1949 — Leonard W. Brockington.
"Building a Nation".
- IV. November 2, 1949 — Field Marshall the Right Honourable Earl Wavell, G.C.B., G.C.S.I., G.C.I.E.
"Leadership in Democracy".
- V. November 9, 1950 — General the Honourable A. G. L. McNaughton.
"The Evolving Programme of the United Nations".*

The names of those who died in the service of King and Country are listed in the announcements of the College Assemblies at which these Memorial Lectures are delivered. A list of the Honours and Awards conferred on members of the College is given at the end of this chapter.

In addition to the tragic loss of vigorous young life represented in such lists, there is a great unwritten record of suffering and of lives distorted more or less from normal development by wounds, diseases and severe strains due to war service. However, even those so handicapped have found it possible to render good service again in civilian life.

*Editor's note: Subsequent to the writing of this part of our *History*, the following Memorial Lectures were delivered:

- VI. November 9, 1951 — The Rt. Hon. Louis St-Laurent, K.C., Prime Minister of Canada.
- VII. November 10, 1952 — Dr. Ralph Bunche, M.A., Ph.D. (Harvard), Director of the Department of Trusteeship of the United Nations.
- VIII. November 6, 1953 — Mrs. Anna Eleanor Roosevelt.
- IX. November 25, 1954 — Lieutenant-General Sir Archibald Nye, G.C.S.I., G.C.M.G., G.C.I.E., K.C.B., K.B.E., M.C., United Kingdom High Commissioner in Canada.
- X. November 14, 1955 — The Very Rev. John Ogle Anderson, M.C., B.A. L.Th., B.D., D.D., Dean of Ottawa and President of the Canadia Legion.

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HONOURS AND AWARDS — 1914 - 1948

Name	McGill Status	Award
Bradford, Sergt. W.C.R.	Agr. 1913-15 B.S.A. '21	M.M.
Gordon, Cpl. H.G.	Agr. 1912-14	M.M.
Jacks, Lt. O.L.	Arts-Sci., -Agr. 1911-14	M.C.
Longworth, Lt. F. J. (Killed in action)	Agr. 1913-15	M.C.
MacBean, Sergt. Kenneth	B.S.A. '13	M.M.
McClintock, Lt. L. D.	B.S.A. '13	M.C.
Milne, Lt. A. R.	Agr. 1913-15 B.S.A. '21	M.M.
Montgomery, Lt. A. R.	Agr. 1910-12	M.C., M.M.
Newton, Capt. Robert	B.S.A. '12	M.C.
Pope, Sergt. H. M.	Agr. 1914-15	M.M.
Rankin, Sergt. T. B. G.	Agr. 1913-16	M.M.
Turner, Pte. W. G.	Agr.	M.M.
Wilcox, Lt. C. J.	Agr. 1910-14 B.S.A. '19	M.C., M.M.

HONOURS AND AWARDS — 1939 - 1945

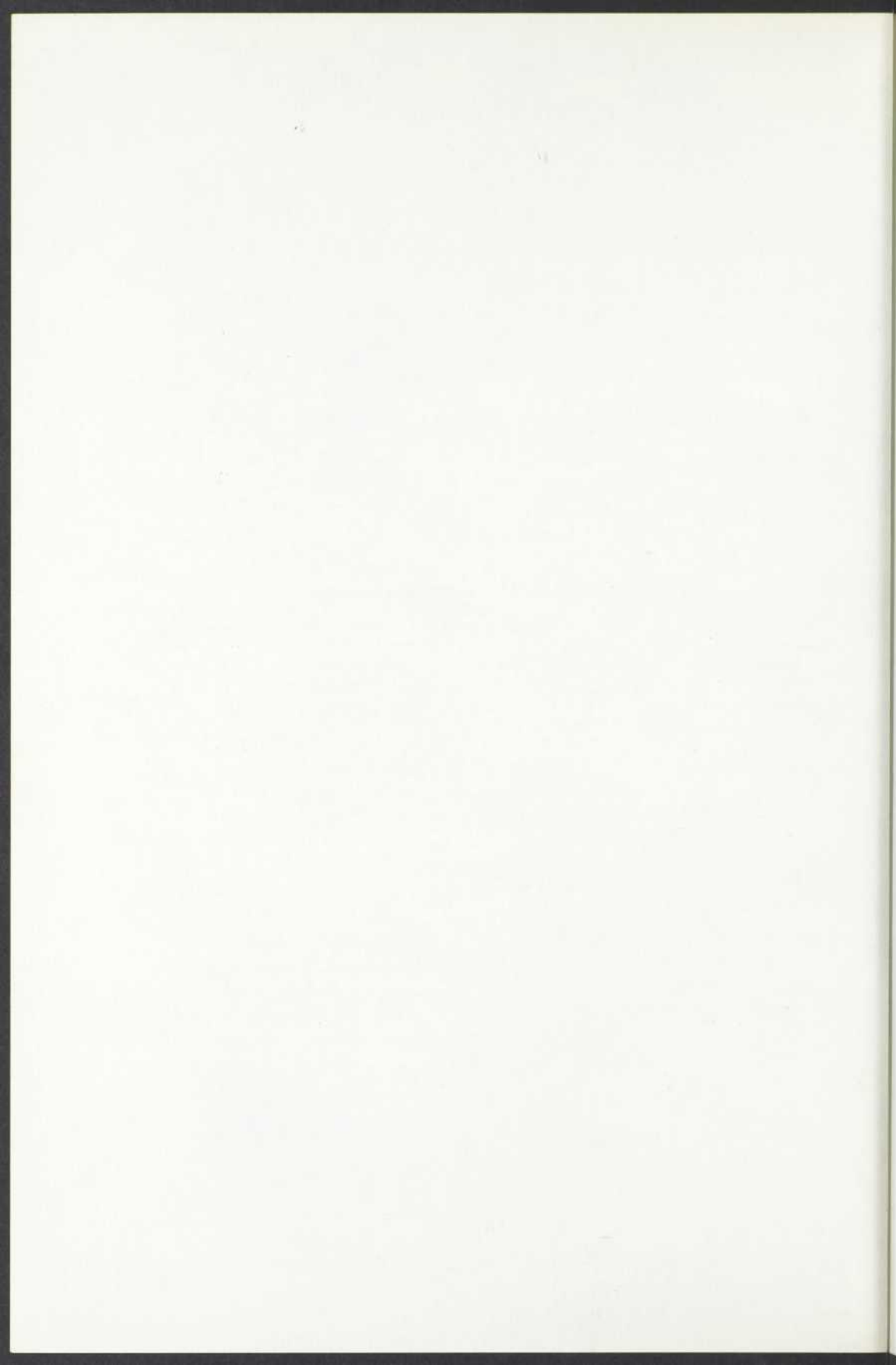
Name	McGill Status	Award
Archer, Sq. Ldr. P.L.I. (Killed in action)	B.Sc. (Agr.) '40	D.F.C.
Beaupré, Capt. T. N.	B.Sc. (Agr.) '39 M.Sc. '41	M. in D.
Brittain, Sq. Officer E. Louise	Dip. Macd. Coll. '28 (Inst. Ad. '28)	M. in D.
Brittain Sq. Ldr. W. B.	Teachers '41	D.F.C.
Brogan, Flt. Lt. M. A.	Agr. 1931-32	D.F.C.
Dougall, Flt. Lt. D. C. (Prisoner of War)	B.Sc. (Agr.) '39	D.F.C.
Farmer, Lt. (N/S) M. E.	Homemaker '35	M. in D.
Gale, Sq. Ldr. E. B. (Killed)	Teachers '37	A.F.C.
Gibbon, Flt. Lt. Philip.	Agr. 1936-37 Eng. 1937-40	A.F.C.
Griffin, Major F. P. (Killed in action)	Grad. Stud. 1930-40	M. in D.
Griffin, Capt. S. E.	B.Sc. (Agr.) '38	K.O.O.N.
Lamb, Major R. T.	Agr. Partial 1932-33 B.Sc. '39 D.D.S. '39	M. in D.
Lepine, Flt. Lt. J.H.C.A.	Dip. Agr. 1939-40	D.F.M.
Miller, Lt. D. L.	B.Sc. (Agr.) '40	D.S.C.

WAR MEMORIALS

Morrison, Capt. V.C.	Teachers '37	M.C.
Morley, Capt. P. M.	M.Sc. '38	M. in D.
MacDuff, Major R.	Teachers '38	D.S.O.
McKinnel, Sergt. R.	Dip. Agr. 1936-37	M.M.
Neilson, Sq. Officer Helen R.	B.H.S. '39	M.B.E.
Nesbitt, Lt. Col. J. A.	Agr. 1927-28	M. in D.
Osborne, Lt. J. S.	Agr. 1936-37	M.C.
Peiler, Major Marion (C.W.A.C.)	Teachers '22	M.B.E.
Shewell, Major G. E.	B.Sc. (Agr.) '35 M.Sc. '39	M. in D.
Smith, Sub. Lt. K.H. (R.N.V.R.) (Killed in action)	Agr. Dip. '38	M. in D.
Stothart, Major J. G.	B.Sc. (Agr.) '32 M.Sc. '36	D.S.O., M. in D.
Williams, Capt. S. B.	B.Sc. (Agr.) '34 M.Sc. '36	M. in D., K.O.O.N.
Woodward, Lt. J.C.	B.S.A. '30	M.C. (Bar)

CIVILIAN HONOURS AND AWARDS — 1939-1945

Name	McGill Status	Field Service	Award
Grisdale, F. S.	B.S.A. '11	Food Control	C.B.E.
Hodgins, S.R.N.	B.S.A. '20	Agriculture	O.B.E.
McOuat, L. C.	B.S.A. '15	Food Control	M.B.E.
(Veteran of Active Service in 1914-18)			
Reid, W. J.	B.S.A. '11	Patriotic Services	O.B.E.
Thomson, Roswell	Dip. 1919-21	Agriculture	M.B.E.



Part V—Other Information

Chapter XIV

THE ATTENDANCE

In the accompanying Table, furnished by the Registrar, the number of students registered in the three divisions of the College from its opening in the fall of the year 1907 to the fall of 1950 are shown. Conspicuously small are the figures for the first year, when the College did not open until November, and then with only one year's classes in Agriculture and Household Science, and those for the two succeeding years, when the full quota of classes for four years in Agriculture and two years in Household Science had not yet been attained.

In those years a number of "short courses" of a practical nature were given by the staff — some at the College, some at rural centres. The duration of such courses was very brief — a few days or at most a fortnight. The attendance at such courses then or in later years, though recorded at the time, is not included in the tabulated Summary of Registration.

In the Table, the effects of war conditions are apparent in the sudden drops in Agriculture in 1915-16, 1916-17, 1939-40, 1942-43 and 1943-44, and in the increases in the same department on the return of enlisted men in 1917-18 and especially when, in the four years following 1944-45 (after World War II), special inducements were offered to veterans to continue their educational training.

The relatively high registration in the School for Teachers from 1917-18 to 1933-34 is due largely to the fact that in those

OTHER INFORMATION

SUMMARY OF REGISTRATION

1907-08 to 1950-51

Year	Agr.	H.Sc.	Teachers	Total
1907-08	38	62	115	215
1908-09	65	76	127	268
1909-10	147	85	163	395
1910-11	197	110	150	457
1911-12	204	128	146	478
1912-13	127	110	170	407
1913-14	172	114	169	455
1914-15	211	103	178	492
1915-16	157	117	196	470
1916-17	77	108	159	344
1917-18	181	132	176	489
1918-19	122	112	142	376
1919-20	334	120	184	638
1920-21	129	122	161	412
1921-22	416	90	177	683
1922-23	270	90	242	602
1923-24	333	107	259	699
1924-25	398	112	255	765
1925-26	327	99	231	657
1926-27	302	95	201	598
1927-28	237	88	199	524
1928-29	415	116	149	680
1929-30	325	95	128	548
1930-31	180	80	155	415
1931-32	160	116	227	503
1932-33	167	104	284	555
1933-34	173	111	244	528
1934-35	172	117	141	430
1935-36	236	131	97	464
1936-37	271	132	93	496
1937-38	262	154	107	523
1938-39	281	128	155	564
1939-40	192	125	191	508
1940-41	251	109	146	506
1941-42	234	143	115	492
1942-43	173	96	53	322
1943-44	172	100	74	346
1944-45	201	104	88	393
1945-46	381	152	82	615
1946-47	519	159	99	777
1947-48	532	186	103	821
1948-49	546	201	131	878
1949-50	484	188	132	804
1950-51	421	177	142	740
Totals	11192	5204	6936	23332

ATTENDANCE

sixteen years the course for the Elementary Certificate covered only half a year and was given to two classes in succession. As in all educational institutions, economic conditions also have markedly affected registration. This is especially marked amongst the women, who constitute the whole student body of the School of Household Science, and the bulk of that of the School for Teachers. Changes in entrance requirements and variations in residential, class-room and laboratory accommodation are also factors influencing College attendance.

The total registration for the forty-four years represented in the Table is 23,332, an annual average of 530.

The percentage of male veterans enrolled in the Faculty of Agriculture in the years immediately following World War II was about 40 per cent, while that in the Faculties of Arts and Sciences, Engineering and Law was nearly 65 per cent.

It is worth noting that the registration figures give an incomplete view of the burden of administration of the College residences. Thus in the year 1947-48, although the total registration did not exceed 821, it is recorded that the number of persons in residence in that year was 863. In the same year the number of meals served in the dining rooms was 461,667, an average of 1263 over the 365 days of the year.

A note from the Registrar dated May 1, 1951 states that since the Campus Apartments were opened in 1946, the families of 155 students have lived in them. One hundred and thirty-nine children came with them, and seventy-four children have been born during their residence here.

Chapter XV

A CHRONOLOGY

Note: Because the Announcements and Reports of the College and University are arranged according to academic years (July 1 to June 30), this table may have errors of one year. Of course also the author's judgment as to the relative importance of events may have led to the omission of some items and to over-estimation of the importance of other items.

1904. The idea of College to train rural leaders conceived by Sir William Macdonald in consultation with James W. Robertson, Dominion Commissioner of Agriculture and Dairying, who resigned that position to organize such an institution.

Autumn: Commenced purchase of farm lands and town lots in the Parish of Ste. Anne du Bout de l'Isle and the Town of Ste. Anne de Bellevue.

Dec. 10. Earl Grey became Governor-General and ex-officio Visitor of McGill University.

1905. May. Construction of buildings set about. Work in agriculture and horticulture begun by prospective professors under Robertson's direction.

1906. Staff members selected by Robertson as Acting Principal. June 18. An endowment of two million dollars by Sir William Macdonald accepted by McGill Board of Governors.

CHRONOLOGY

- July 18. The property deeded to McGill.
 Nov. 16. The College formally constituted a College of McGill University. A joint Normal Training Committee of the Province and University established.
1907. Completion of Main, Science and Residence Buildings.
 Feb. 15. Selection of a Head for a School for Teachers (George H. Locke).
 Feb. 25-26. Agreement of University to conduct a School for Protestant Teachers.
 March 19. Act of Legislature embodying the agreement.
 April 19. Formal appointment of Principal (James W. Robertson) and of staff of School of Agriculture.
 June 21. Appointment of staff of School for Teachers.
 Aug. 7. Appointment of Head of Household Science (Helen Bainbridge).
 August. Farm Buildings destroyed by fire due to lighting.
 November. Students enrolled:
- | | |
|---|-----|
| Nov. 5. in School for Teachers | 115 |
| Nov. 7. in School for Household Science | 62 |
| Nov. 12. in School for Agriculture | 38 |
| | 215 |
1908. Faculty of Agriculture created.
 Student self-government initiated.
 Agriculture and Poultry Buildings completed.
 Macdonald College (staff) Club formed.
 Quebec Society for the Protection of Plants organized.
 "Macdonald College Movement" articles syndicated to rural newspapers.
 Editorship of the (Provincial) Journal of Agriculture undertaken by Professor Lochhead.
 Fire proof stables built, with separated feed barns.
 Greenhouses (4 Horticulture, 1 Biology) constructed.
 June. Visit of Members of Parliament.
 June. Resignation of Miss Bainbridge.
 Sept. 1. Appointment of a Professor of Education (J. A. Dale) in Faculty of Arts.

OTHER INFORMATION

- Oct. 26. Appointment of new Head of Household Science (Miss A. B. Juniper).
December. Resignation of Professor Locke.
1909. School for Teachers directed by Dr. S. B. Sinclair (Head of Teacher Training Committee) and Prof. J. A. Dale. Observation privileges in Montreal Schools accorded. First student publication — "The Trifolium".
Jan. 25. Appointment of Dr. Sinclair as Sessional Head of School for Teachers.
Apr. 14. Occupation of "Practice" School Building.
June 3. University Convocation in Assembly Hall as formal Inauguration of Macdonald College. Honourary Degrees conferred on Duncan McEachran, Gifford Pinchot, James W. Robertson, James Earl Russell and James Wilson.
June 19. Formal opening of "Day" (or "Practice") School.
1910. Jan. 10. Resignation of Principal Robertson. Appointment of Acting Principal (F. C. Harrison). Conversion of Glenaladale from "Principal's" to "Teachers' " Residence.
Feb.-Mar. First issue of Macdonald College Magazine (Students' periodical).
Resignation of Miss Juniper.
Appointment of Miss Katherine Fisher as Head of School of Household Science.
Arrangement for practice teaching in Montreal Schools. Breeding of Holstein cattle begun.
1911. Enlargement of Macdonald "Day School" Building completed.
Rivermead houses for staff families built.
Introduction of two-year professional Housekeepers' Course.
Appointment of a Rural Demonstrator (Beauharnois, Chateauguay and Huntingdon Counties).
Publication of (first) Bulletin, "Farm Poultry" by F. C. Elford.
Feb. 23. Visit of Technical Education Commission, headed by ex-Principal Robertson.
June 5. Conferring of first Degrees (B.S.A.)

CHRONOLOGY

- June 19. "Closing Exercises" attended by Sir William Macdonald.
- July 1. Confirmation of Dr. Harrison as Principal.
- Nov. 11. The Duke of Devonshire became McGill Visitor.
- Dec. 2. Winning of International Stock Judging Competition at Chicago by Macdonald team.
1912. Grants of Dominion to Provinces "for the encouragement of Agriculture". Part of Quebec grant passed on to the College enabled appointment of three agricultural extension men and a Demonstrator to Women's Clubs.
- Appointment of five Rural Demonstrators.
- Establishment of six demonstration flocks of Cheviot sheep.
- Importation of Clydesdale mares.
- June 1. Adoption of Constitution by Alumni Association.
- June-July. Demonstrations on C.P.R. "Better Farming Train".
- Intercollegiate debates with Ontario Agricultural College.
- Dec.2-Jan. 5. Scarlet Fever "recess".
1913. Purchase by Sir William and donation of the Ste. Marie farms.
- Introduction of Quebec No. 28 corn and Quebec No. 1 Alfalfa.
- Organization of Co-operative Wool Growers Association in Pontiac Co.
- College exhibit in Provincial Government Train.
- Mar. 16. Death of Mr. Robert Reford, former owner of college lands.
- Mar. 17. Death of Dr. John Brittain, Professor of Nature Study.
- June 23. Appointment of Sinclair Laird as Head of School for Teachers.
1914. Endowment increased one million by Sir William Macdonald.
- Jan. 14. Death of Lord Strathcona. Sir William Macdonald succeeds as Chancellor of University.

OTHER INFORMATION

Replacement of Housekeeper Course by Institution Administration Course.

February. Convention of Homemakers' Clubs, numbering 33.

August 4. Outbreak of World War I.

Enlistment of students and staff members for active service.

October. Organization of Officer Training Corps.

Organization of local Co-operative Wool-Growers Associations.

Publication of Technical Bulletin "Montreal Milk Supply".

December. Vacation military course.

1914-18. Graduation ceremonies held in the College.

1915. Donation of \$44,000 by Sir William for maintenance of College and of Demonstratorships, now numbering 8.

Typhoid epidemic — Illness of Dean Laird and other members of staff.

Establishment of a Department of "Veterinary Science" (Animal Pathology).

Oct. 29. Reduction of annual Provincial Grant to School for Teachers to \$5,000.

Nov. 4. Approval of plans for filtration of water supply, Founder underwriting \$25,000 of cost.

Appointment of a Demonstrator to Rural Schools (J. E. McQuat).

1916. Collaboration with Quebec Department of Agriculture in 13 school fairs.

Liberal distribution of seeds and hatching eggs to school children.

Discontinuation of financial support to District Demonstrators.

Provision for students of agriculture to qualify for teaching diplomas.

Feb. 11. Organization of Ste. Anne de Bellevue Horticultural Association.

Apr. 12. Filtration plant completed.

Nov. 11. The Duke of Devonshire became Visitor.

CHRONOLOGY

1917. April. 18. Approval of lease of land for Military Hospital and compensatory lease of one hundred acres of the Stoneycroft Farm.

Apr. 23. Resignation of Miss Fisher as Head of Household Science. Appointment of Miss Anita Hill as Head.

June 9. *Death of Sir William Macdonald.*

Bequest of one million dollars to Endowment.

Adoption of course in Household Science for Degree (B.H.S.).

Elementary Course in School for Teachers first given twice annually.

Summer School for Clergy established.

1917-18. Severe winter-killing in orchard.

1918. Feb. 11. Appointment of Sir Robert Borden as Chancellor. Disallowance of voted increase of grant to School for Teachers.

Construction of basement of Agricultural Engineering Building.

Leave of absence of Principal Harrison for duties as Agricultural Director in Khaki University and Asst. Adj.-Gen. in Petawawa Camp.

Establishment of degree of Bachelor of Household Science (B.H.S.).

1919. Five weeks recess due to influenza epidemic.

Death of two members of staff of School of Household Science. (Mrs. Frederica Campbell Macfarlane and Miss DuBois.)

Courses for Veterans under Department Soldiers' Civil Re-establishment.

Consolidation of courses in English into a Department under Dr. H. D. Brunt.

Jan. 12. Sir William Peterson, University Principal, stricken by paralysis.

Apr. 14. Retirement of Peterson and appointment of Sir Auckland Geddes as Principal.

May 5. Leave of absence to Principal Geddes. Appointment of Mr. F. D. Adams, Acting Principal of University.

OTHER INFORMATION

- Aug. 18. Reunion of Agriculture Graduates. Proposal of professional Society of Agriculturists.
- Nov. 2. Visit of Prince of Wales (afterwards Edward VIII, now Duke of Windsor).
1920. University Centennial Endowment Campaign.
Revision of salaries of teaching staff.
Inauguration of Winter Course in Agriculture.
Assumption of oversight of School Fairs by Province, except in four counties.
Appointment of S. R. N. Hodgins as Editor Journal of Agriculture.
Creation of degree of M.S.A. in newly created Faculty of Graduate Studies.
Establishment of Frederica Campbell Macfarlane scholarship.
Reorganization of Student Council.
Assumption of management of Provincial Seed Farm at Ste. Rosalie by Agronomy Department.
Feb. Resignation of Sir Auckland Geddes to accept Ambassadorship to United States.
May 25. Resignation of Chancellor Sir Robert Borden.
May 28. Convocation to confer degrees in Agriculture and Household Science.
May 31. Appointment of Sir Arthur Currie as University Principal and of Sir Edward Beatty as Chancellor.
Resignation of Miss Hill and appointment of Miss Bessie Philp, Head of Household Science.
1921. Fourteen Macdonald Scholarships in Agriculture established by Mr. Walter Stewart in Faculty of Graduate Studies.
Division of Biology into Botany and Entomology-Zoology Departments.
Appointment of Advisory Committees for Agriculture Classes.
Jan. 4. Death of Sir William Peterson.
May 27. McGill Convocation at College, Sir Arthur Currie presiding.
Aug. 11. Lord Byng of Vimy became McGill Visitor.
Dec. 31. Death of Mr. George Emberley, Head of Agricultural Engineering.

CHRONOLOGY

1922. Courses for Ph.D. degree offered in Bacteriology, Entomology and Plant Pathology.
May 31. Unveiling of Memorial Tablet to Graduates killed in World War.
June 28. C.S.T.A. Convention at College.
Dec. 7-8. Joint meeting of American Phytopathological Society with Quebec Society for Protection of Plants.
1923. Maximum attendance (258) in School for Teachers.
Enrolment in Household Science limited by lack of residential accommodation.
First four Degrees in Household Science conferred.
June 7. High School Diplomas given in Assembly Hall at closing exercises of School for Teachers.
Organization of Macdonald Philharmonic Society.
1924. Visit of Prof. Lochhead to British Public Schools.
Construction of "Cluster" apartment buildings.
Appointment of University Advisory Committee on Agriculture.
Failure of Legislature to act upon recommendation of increase of grant to School for Teachers.
Award of 13 M.S.A. Degrees.
1925. Re-organization of Faculty of Agriculture with G. S. H. Barton as Dean.
Agreement with Canadian Pacific Railway for selection and placement of students from Britain.
Enrolment of students from British Public Schools, as a consequence of the "Old Country Boys' Scheme".
Revision of courses to save teaching time.
Abolition of credits for extracurricular activities.
Introduction of Macdonald rhubarb.
Record production of 2-year old Ayrshire "Macdonald Annie Laurie".
Aug. 31. Retirement of Prof. Lochhead.
Nov. 28. First Student "Formal".
Nov. 31. Fire in Horticulture Barn.
1926. June 30. Resignation of Principal Harrison.
Replacement of Winter Courses in Agriculture by Diploma Course.
Creation of Economics Department.
Rebuilding of Horticultural Barn.

OTHER INFORMATION

- Formation of Interdepartmental Research Committees.
Change of title of Botany Department to Plant Pathology.
Affiliation of Nova Scotia Agricultural College.
Sept. 1. Appointment of W. H. Brittain as Professor of Entomology.
Feb. 10. Performance of "The Mikado" by Philharmonic Society.
Oct. 2. Viscount Willingdon became McGill Visitor.
1927. Resumption of Annual grant of \$10,000 by Province to School for Teachers.
Mar. 27. Death of William Lochhead, Professor Emeritus.
Aug. 5. Hon.D.Sc. conferred on Edward Brown, F.L.S., President third World's Poultry Congress, in Convocation at the College.
Nov. Judging team won second place at Royal Winter Show, Toronto.
1928. Course in Nova Scotia Agricultural College accepted as equivalent of two years towards degree of B.S.A.
Reservation of Poultry Department land for projected Institute of Parasitology.
"Green and Gold Revue" inaugurated.
Jan. 26. Little Live Stock Show.
Nov. 20. Death of A. W. Kneeland, retired Professor of English.
Baccalaureate Service for Faculty of Agriculture and School of Household Science and Divine Service for School of Household Science and School for Teachers.
1929. Provincial Grant to School for Teachers increased to \$15,000.
Instruction in Genetics assigned to Agronomy Department.
Establishment of a herd of Aberdeen-Angus cows.
1930. All four years of B.H.S. work given at Macdonald College for the first time.
Degree M.S.A. replaced by M.Sc. (Agr.)
Construction of "Biology" Greenhouse with four compartments.
Mar. 19. Death of ex-Principal James W. Robertson.

CHRONOLOGY

1931. Endowment of William Lochhead Memorial Prize in Entomology.
Courses in Plant Physiology given by Prof. G. W. Scarth.
Apr. 4. Earl of Bessborough McGill Visitor.
Nov. 11. Dedication of Memorial Oaks.
1932. Re-establishment of the Department of Animal Pathology.
Establishment of the Provincial Seed Farm on the Ste. Marie Farm.
Establishment of the Institute of Parasitology.
Commencement of the Survey of Animal Parasites.
1933. Aug. 31. Resignation of Dean Barton and appointment of Dr. J. F. Snell as Acting Dean.
Nov. 11. Unveiling of Memorial Clock and Book of Remembrance.
Nov. 13. Death of Sir Arthur Currie.
Chancellor Sir Edward Beatty exercised Principal's functions during interim.
1934. Appointment of Dr. W. H. Brittain, Dean of Agriculture.
Revision of University Statutes.
School of Household Science joined to Faculty of Agriculture.
Elementary Course in School for Teachers extended to full year.
June 25-28. Conventions of C.S.T.A. and C.S.G.A.
June 27. Formal opening of Institute of Parasitology.
- 1934-35. Severe winter killing in orchard.
1935. Oct. 5. Installation of Arthur Eustace Morgan as Principal of University.
Appointment of W. H. Brittain as Vice-Principal of College.
Purchase of Bourbonnais and Snasdall-Taylor lots.
Substitution of B.Sc. (Agr.) for B.S.A. as designation of degree.
Nov. 2. Lord Tweedsmuir became McGill Visitor.
1936. Oct. 20. Affiliation of Prince of Wales College.
1937. Apr. 17. Resignation of Principal Morgan.
Vice-Principal Brittain appointed Acting Principal of

OTHER INFORMATION

University and temporary Head of Department of Zoology, Faculty of Arts and Science.

Feb. 12. Adoption of Prince of Wales College courses in Agriculture and Household Economics for admission to third year.

Feb. 19. Adoption of Advanced Diploma Course in Agriculture.

1938. Jan. 7. Installation of Lewis William Douglas as University Principal.

Establishment of Adult Education Service.

Replacement of Horticulture Greenhouses by a single house.

Report of "Hepburn" Committee on Quebec Protestant Education.

July 30-Oct. 26. Prof. R. Summerby Acting Dean during absence of Vice-Principal in Australia.

August. International Convention of Agricultural Economists.

1939. May. Visit of King and Queen to Montreal, passing through McGill grounds.

Transfer of land to Province for Metropolitan Boulevard.

June 30. Retirement of Miss Philp and appointment of Miss Margaret McCready, Head of Household Science.

Organization of Department of Nutrition.

Sept. Revival of Officer Training Corps.

Adoption of Wartime training for men and women students.

Nov. Revision of University Statutes.

Dec. 31. Resignation of Principal Douglas.

1940. Jan. 12. Installation of Dr. Cyril James as University Principal.

Establishment of Farm Radio Forums.

Founding of Macdonald College Journal.

Adoption of course in Extension Methods.

June 2. Earl of Athlone became McGill Visitor.

June 10. Death of R. B. Musgrove, recently retired Lecturer in Music.

CHRONOLOGY

1941. Raising of entrance requirement to School for Teachers to Grade XI.
Merging of Animal Pathology and Dairying into Animal Husbandry Department.
Participation of Institute of Parasitology in Tropical Medicine Courses in Ottawa.
May 31. Death of Miss Philp, retired Head of Household Science.
1942. Feb. College made chief training centre of Canadian Women's Army Corps. Appointment of Vice-Principal Brittain as Superintendent, with rank of Lieutenant-Colonel.
Temporary removal of School for Teachers to Strathcona Hall.
Construction of temporary extensions to Residence buildings.
Lease of Stoneycroft Farm from estate of late Harold Morgan.
Erection of Machinery Hall beside the Agricultural Engineering Buildings.
Appointment of "McConnell" committee to explore ways of increasing University revenue.
Increase of annual Provincial grant to School for Teachers to \$35,000.
June 1. Contributory pension plan expanded, covering all employees.
June 1. Death of Dr. H. D. Brunt, Head of Department of English.
1943. March 23. Death of Sir Edward Beatty, Chancellor.
Nov. 10. Appointment of Morris W. Wilson as Chancellor.
Appointment of Committee to survey training of teachers.
Adoption of Army-University Course.
Courses on Tropical Medicine given at the College.
Conference on Leadership Training under auspices of Canadian Association for Adult Education.
Removal of Adult Education office from Lennoxville to College.

OTHER INFORMATION

Lease of additional land (30 acres) to Veterans' Hospital.

Establishment of Walter M. Stewart Practice House of Home Management.

Housing of McLennan Travelling Libraries in College.

July 1. Official opening of McGill Handicrafts.

Nov. 15. Death of A. R. B. Lockhart, Lecturer in School for Teachers.

1944. Reports of University Committees on (1) Teaching-training (2) Rural Adult Education (3) University Needs.

June 1. Adoption of new salary scale for teaching staff of University.

Change of designation of Household Science degree from B.H.S. to B.Sc. (H.Ec.)

Adoption of Grade XII as entrance requirements of course for Intermediate Diploma in School for Teachers.

1945. Acquisition of Stoneycroft Farm from Estates of Harold and James Morgan.

Return of School for Teachers to College.

Relinquishment of Accommodation by C.W.A.C.

Expansion of Adult Education Service.

Appointment of War Memorial Committee.

Apr. 21-Aug. 31. Service of Prof. Robert Summerby as Acting Vice-Principal during illness of Dr. Brittain.

Dec. 28. Death of T. Gordon Bunting, retired Professor of Horticulture.

1946. Construction of Campus Apartments for veteran students.

Revival of Department of Animal Pathology.

Completion of Agricultural Engineering Building.

Re-occupation of Home Management Apartment in Main Building.

Apr. 12. Viscount Alexander of Tunis became McGill Visitor.

May 13. Death of Chancellor Morris W. Wilson.

June 19-20. Celebration of 10th Anniversary *Corporation des Agronomes de Quebec* at College under Presidency of Prof. E. A. Lods.

CHRONOLOGY

- Sept. 7. Death of Robert Summerby, Professor of Agronomy.
1947. Building of Glenaladale Terrace Apartments.
Feb. 27. First War Memorial Assembly Address.
Apr. 24. Appointment of Chief Justice Orville S. Tyndale as Chancellor.
June 21. Formal opening of Agricultural Engineering Building and Horticulture Cold Storage Plant.
First annual "Macdonald Royal" Fair.
1948. Organization of Macdonald Protestant Central School Board. Grant of use of College building and land to School Board on nominal lease.
Establishment of Branch Laboratory of Division of Animal Pathology, Federal Department of Agriculture, at College.
Extension and equipment of Animal Pathology laboratories with benefit of Jones bequest.
Incorporation of McGill Handicrafts into Adult Education Service.
Establishment of Tracer Element Laboratory.
Last session of Summer School for Clergy.
Feb. 26. Dedication of Memorial Entrance to Library and of Second Book of Remembrance.
1949. Retirement of Dean Laird and several other members of staff of School for Teachers.
Appointment of D. C. Munroe as Director of School for Teachers.
Revision of courses in School for Teachers.
Introduction of "Macdonald" Grape.
Sept. 1. Resignation of Dr. Margaret McCready, and appointment of Miss Helen Neilson as Director of The School of Household Science.
Oct. 14. Formal opening of Morgan Arboretum.
1950. Erection of Summerby Memorial Agronomy Greenhouse.
Rebuilding of Horticulture Greenhouse, dividing it into four compartments with automatic controls.
Equipment of six-chamber experimental room for Plant Pathology Department.

OTHER INFORMATION

Assumption of oversight of McLennan Travelling Libraries by Adult Education Service.

Nov. Start on construction of beef cattle barn on former Stoneycroft Farm.

The organization of the School for Teachers into four divisions with Professor Frank Hanson, acting as Chairman of the Division of General Education, Professor C. W. Hall, Chairman of the Division of Methods Instruction, Professor A. M. Henry as Chairman of the Division of Practice Teaching, the Director, Professor D. C. Munroe, as Chairman of the Division of Foundations of Education.

Chapter XVI

RELATED ORGANIZATIONS

Introduction

In the course of its life Macdonald College, its staff and its graduates have been associated with many organizations and movements of benefit to agriculture, to education or to both. In some instances this association has consisted merely in participation in the proceedings of existing societies or in collaboration with established Departments of the Federal or Provincial Governments. The college has taken the initiative in some movements that have subsequently been taken over by Governmental Departments. As in all colleges, individual members of the staff have held membership in societies related to their peculiar interests. In some instances they have organized or suggested the organization of such societies or associations, some of national scope.

The arrangement of topics in this chapter is roughly chronological with reference to the origin of the bodies concerned or to their coming into association with the College.

The Quebec Pomological and Fruit-Growing Association

This association antedates Macdonald College by more than a decade, having been organized at Abbotsford in 1894 in succession to several local societies of earlier date. Its custom has been to hold summer meetings in fruit-growing centres, but the annual meetings are held in or near Montreal in the fall or winter. Early in the history of the College these annual meet-

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ings, including not only addresses and discussions but also an exhibition, began to be held in the Assembly Hall. After 1924 the members found it of material advantage to hold the annual meeting in Montreal, where suitable quarters for their exhibition were usually available, and attendance of prospective buyers of their products more convenient. Members of the College staff and ex-students of the College have freely contributed to the program of this association's meetings.

Quebec Society for the Protection of Plants

As noted elsewhere (p. 111), a Quebec Society for the Protection of Plants was founded in the year 1908 through the efforts of Prof. William Lochhead. Its purpose was declared to be "the investigation of the character and habits of economic insects and fungi". Its headquarters continued at the College until 1938, since which time meetings have usually been held in rotation at Macdonald College, Laval University and the University of Montreal. Prof. Lochhead continued as the President to his retirement from the College Chair of Entomology in 1925. Up to 1938 the office of the Society was in the Biology building of the College, members of the staff (Douglas Weir, J. M. Swaine, B. T. Dickson and E. M. DuPorte) acting as its successive Secretaries.

In developing measures for the control of destructive insects and fungi this society has justified the desires and hopes of its founder. In view of recent developments in the discovery and synthesis of insecticides, fungicides and herbicides, the current organization of societies of national scope, and the recent creation in the Federal Department of Agriculture of a Science Service laboratory devoted to this line of work, it is easier now than in the lifetime of Professor Lochhead to foresee rapid advances in the protection of crops from their natural enemies.

The Journal of Agriculture and Horticulture of the Province of Quebec

French and English editions of a monthly agricultural journal were published by the Quebec Department of Agriculture from 1898 to 1936. The English Edition was edited from 1908 to 1920 by Professor William Lochhead, and from

RELATED ORGANIZATIONS

1920 to 1936 by S. R. N. Hodgins. Contributions from their colleagues of the College staff were important features of this monthly paper.

The Journal was discontinued by the Duplessis Government in 1936, and until the establishment of the Macdonald College Journal there was no official link of publication between the English-speaking farmers, the Provincial Department of Agriculture and Macdonald College.

Student Societies

Student self-government has existed in the College since its earliest years. After a year's experimentation in supervision by staff members resident in the Men's Residence, a Residence Committee of students was formed which had authority to recommend penalties to the College authorities. In the Women's Residence a Court of Honour met monthly to elect an Executive Committee, members of which acted as Monitors of the various corridors. Appeals from the decisions of the Committee could be made to a Court of Appeal, consisting of the President of the Court of Honour, the "Housemother" (Warden) and three ladies of the staff.

In the third year of the College, a Students' Council, representative of the three "Schools" was organized to take general charge of student activities. With modifications, adjusting it to changing conditions, this organization continues to function. At present it consists of seventeen members representing the various student interests. Its President, besides presiding over meetings of the Council and of the Student body, represents the students in their relations with the college authorities, with the Students' Executive Council of the University, and with the public. A fee for student activities is collected from each student and the fund so created is budgeted to certain (at present, eight) subsidiary Societies. Prominent amongst these are the Literary and Debating Society, the Men's and Women's Athletic Associations, the Men's and Women's Residence Committees and the "Publications", all of which are of about the same age as the College, and the much younger Gold Key Society*, which is an Honour Society of limited mem-

*Formed 1947-48; First President William Shipley.

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bership (twenty-two) devoted to welcoming visitors to the College and acting as guides.

In recognition of the generous interest of Mr. and Mrs. Walter M. Stewart in the student activities their names are associated with the Funds of, respectively, the Men's and Women's Athletic Associations.

There are numerous clubs and associations and committees of secondary rank, such as a coffee shop committee, a dance committee, a camera club, a film society and a rural problems club. Outstanding annual events are the Macdonald Royal and the Green and Gold Revue, which though of separate origin are now held in association with one another.

The Alumni Association

In 1912, the year after graduation of the first students in Agriculture, the Macdonald College Agricultural Alumni Association was formed. Upon its Secretary, Robert Summerby, fell the burden of its operation. In 1920 when a reunion was held, a committee representing the various graduation years was set up with Mr. L. C. McOuat as Secretary. At another reunion in 1926, Professors L. C. Raymond and E. A. Lods were elected President and Secretary.

In 1943, this association was replaced by an association which included graduates in Household Science, with Mr. Robert Flood as President, and Dr. F. S. Thatcher as General Secretary.

Following overtures by the McGill Graduate Society, the association was re-organized in 1950 as the Macdonald College Branch of that Society, the President of the branch being Mr. William Shipley, and the Secretary Mr. Beach Payne.

Through a fund established in 1921 and maintained by subscriptions, the Macdonald College Branch offers a scholarship of two hundred dollars to agricultural graduates of the College pursuing graduate studies at the College or elsewhere.

Canadian Seed Growers' Association (C.S.G.A.)

In the same year (1904) that the project of a College for the training of rural leaders germinated in the mind of Sir William Macdonald, his future associate in that project, Dr. James W. Robertson, founded the Canadian Seed Growers'

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Association by calling a meeting of interested persons to Ottawa where he was then serving as Commissioner in the Department of Agriculture. As related in Chapter IV (p. 36) Sir William and Dr. Robertson had been associated in offering a competition for prizes to farm girls and boys for collecting the best heads of barley and wheat on their home farms, to be used for seed, and the new Association was designed to expand one already established amongst these competitors or their parents. In the early years of the College, Principal Robertson being then the perpetual President of the Association, its meetings were held in our halls. Subsequently, the staff members of the Agronomy Department have always been active in its affairs and in its annual meetings, which are now held in various Canadian centres, very often in association with those of the Agricultural Institute of Canada.

The Quebec Women's Institutes

Early in the history of the College, rural women in English-speaking districts began spontaneously to organize local clubs for discussion of their common interests. Applications to the College for guidance were responded to, and on January 27, 1911, Mrs. George Beach of Cowansville and Mrs. Jennie Muldrew — widow of the original Dean of the Macdonald Institute (Guelph) and at the time "Housemother" of the Women's Residence of Macdonald College — visited Dunham (Missisquoi Co.) and established an Institute on the lines of those which had existed in Ontario since 1897. In the same year local Institutes were organized at Howick (Chateauguay Co.) and Cookshire (Compton Co.). In 1913 Miss Katherine Fisher, Head of the School of Household Science visited Pontiac County and, with the local leader, Miss S. J. Armstrong, organized branches in three centres which, later in the year, were associated on a county basis with Miss Armstrong as President.

On February 11, 1914, the first provincial convention was held at the College. At that meeting the name "Homemakers' Clubs" was adopted, but in 1920 the term Women's Institutes was reverted to, to conform with the usage in the majority of the other Provinces.

Under the (Federal) Agricultural Instruction Act of 1913, a Superintendent of Homemakers' Clubs had been added to

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the staff of the College. This was Miss Frederica Campbell, who continued in office after her marriage to Lieutenant N. Cameron Macfarlane, but fell a victim of the influenza epidemic in 1918-19. Her services to the English-speaking women and girls of the Province are gratefully commemorated in the Scholarship in the School of Household Science sustained by the Quebec Women's Institutes.

An Annual Convention of the Quebec Institutes is held at the College in the month of June. When, in 1919, the "Federated Women's Institutes of Canada" and, in 1930, the "Country Women of the World" were organized, the Quebec Institutes became associated with these federations and joined in the patriotic and general enterprises of charity and uplift undertaken by them. Some of the Quebec Institutes, of which there are now more than one hundred, hold separate memberships in the United Nations Association.

Although originally an enterprise of Macdonald College, the Quebec Women's Institutes are independent organizations, receiving a certain measure of support from the Provincial Government. At present this support includes the salaries of a Secretary and two Demonstrators, as well as printing costs and annual grants to the county executives. A liaison officer co-ordinates the work with that of the corresponding French-speaking societies. The College Department provides teachers, information and materials for the short courses given by the Institute. From 1930 to 1939 a monthly four-page journal "Home and Country" was published but since 1940 this has been replaced by space in the *Macdonald College Journal*.

The Canadian Co-operative Wool Growers, Limited

In Chapter IX (p. 96) mention has been made of the organization in Pontiac County in 1914 of local societies for the co-operative marketing of wool. The promoter of this movement was Mr. Angus A. Macmillan, then Lecturer in Macdonald College (p. 100) and afterwards chief of the Sheep and Swine Division of the Livestock Branch of the Dominion Department of Agriculture and the most energetic promoter of the sheep industry of his generation. In the succeeding years, with the collaboration of the Macdonald Demonstrators, several other counties were similarly organized until eventually over 2000 Quebec farmers marketed their wool through the

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County Associations. In 1917, through the efforts of the Livestock Branch, the Commissioner of which, Mr. H. S. Arkell, had been the original Professor of Animal Husbandry in Macdonald College, a central selling agency was established, which obtained a Federal Charter as the Canadian Co-operative Wool Growers Limited. In 1920, Mr. George E. O'Brien, a 1913 graduate of the College, was appointed General Manager with Office in Toronto, and a Branch was established at Lennoxville with Mr. L. V. Parent (Class of 1912) as Manager to handle all the Quebec Province business. Messrs. O'Brien and Parent have continued in office to the present.

Rural Demonstratorships and the Beginning of the Provincial Extension Service

The existence in Ontario of local "Representatives of the Provincial Department of Agriculture" (and, in some of the neighbouring States, of "County Agents" or "Farm Advisers") suggested the placing of some of the graduates of the College in the counties of Quebec in which rural English-speaking persons constituted a considerable proportion of the population, so that the farmers might benefit by the knowledge acquired in College and might pass on questions or specimens to appropriate members of the College staff. Sir William Macdonald financed the establishment of one "Demonstratorship" of this kind in 1911 in the Judicial District of Beauharnois (Beauharnois, Chateauguay and Huntingdon Counties), to which the newly-graduated Gordon Wood was appointed. This was one of the most fertile districts of the Province and had many good livestockmen of Scottish origin. Coming from Argenteuil, another Scot-settled County, Mr. Wood's associations in College and countryside contributed to the laying of a sound foundation for the work he was subsequently to engage in as Professor of Animal Husbandry in the University of Manitoba.

In 1912 five more Rural Demonstrators were appointed from amongst the graduates, and in the succeeding years other such appointments were made up to 1916, when on account of war conditions it was decided to withdraw the financial support. Fortunately, the usefulness of such officers having been demonstrated by the College experiment, the Provincial Department of Agriculture took over the system on a province-wide basis, and graduates of Macdonald and of the French-lan-

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guage Agricultural Colleges, Oka and Ste. Anne de la Pocatière, were employed as "Agronomes". Some of our bilingual graduates are still serving the Province in this capacity.

School Fairs

In 1915 a Demonstrator to Rural Schools, Mr. J. Egbert McOuat, was appointed to the staff of the College. Under his direction collaboration of the College with the Quebec Department of Agriculture was established in the conduct of School Fairs in the Protestant Schools of the Province. The Departments of Agronomy, Horticulture and Poultry Husbandry distributed to the school children liberal quantities of seeds to be sown and eggs to be hatched in preparation for their Fairs. In 1916-17 Mr. McOuat's brother, J. Harold McOuat, joined him as Assistant. The work was continued under Dr. D. W. Hamilton and Mr. M. H. Howitt, Mr. McOuat's successors on the College staff.

The assistance of the District Demonstrators in this work was of course invaluable but, as stated above, these representatives of the College were withdrawn when the Department of Agriculture inaugurated its own extension system throughout the Province.

The Canadian Society of Technical Agriculturists (C.S.T.A.) and the Agricultural Institute of Canada (A.I.C.)

In August 1919 at a reunion of the agricultural graduates held in the College, a resolution was adopted in favour of the organization of a national professional society of those engaged in agricultural education, research, extension and administration. A canvas of graduates of other Canadian Colleges, begun in October 1919 by five graduates of our Colleges resident in Ottawa — Messrs. F. H. Grindley ('11), F. E. Buck ('11), M. B. Davis ('12), G. LeLacheur ('13), F. L. Drayton ('14) — revealed sufficient interest to justify the assembling of a convention in Ottawa in June of the following year. Macdonald graduates took a prominent part in that convention, the outcome of which was the formation of the Canadian Society of Technical Agriculturists, with Dr. L. S. Klinck, President of the University of British Columbia (a member of the original staff of Macdonald College) as Presi-

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dent, and Mr. Fred Grindley (a member of the first class of Macdonald graduates) as General Secretary and as Editor of the Society's journal, *Scientific Agriculture*. Mr. Grindley carried on in these offices with enthusiasm and good judgment to his death on Feb. 14, 1930. A graduate of the Ontario Agricultural College, Mr. L. Howard Trueman, succeeded him as General Secretary and Editor, but at the time of writing, these offices are again filled by a Macdonald man, Mr. C. Gordon O'Brien.

As "Scientific Agriculture" developed into an exclusive medium of publication of formal contributions to science, it did not fit the requirements of all members of the Society, particularly those engaged in the "extension" work of the Colleges and the informational work of the Federal and Provincial Departments of Agriculture. Hence, a second journal was instituted under the name of "The C.S.T.A. Review".

In 1945 the Society took on a still more formal professional character as the "Agricultural Institute of Canada". The monthly journal, *Scientific Agriculture*, continues publication of scientific contributions under the authority of the Chairman of the National Committee on Agricultural Services and under the editorship of the Institute. The Review, now entitled *Agricultural Institute Review*, is published bi-monthly by an Editorial Board headed by the General Secretary of the Institute, who is also the Managing Editor of *Scientific Agriculture*.

The Institute has twenty-five local branches and over 3300 members. In addition there are 323 student members in five of the agricultural colleges of the country. "Grindley Hall", 338 Somerset Street West, Ottawa, is the property of the Institute and houses its central office. Macdonald College has its own local branch and student organization.

A further extension of the development of a professional attitude among agriculturists had its beginning in Canada in 1937, resulting in the granting of a charter in 1942 to the Corporation des Agronomes of the Province of Quebec, the first such licensing and regulating body established in Canada. Professor E. A. Lods besides being one of the charter members assumed a major share of the responsibility for the organization of the body. Since that time, such professional organizations have been established in many other provinces.

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The Macdonald College Club: 1909-21

In the second year of operation of the College a Macdonald College Club was formed of members of the teaching and administrative staffs. Its purpose was to provide for social intercourse and intellectual recreation. In those days of moderate membership and liberal housing, it was possible to hold meetings in private homes, but occasionally, especially when exhibits were to be made, the use of the Library was permitted.

The Club was formally organized on January 5, 1909, upon the report of a committee appointed at a meeting of the staff held November 9, 1908. The officers elected were William Lochhead, President and Sophie Cornu and Leonard S. Klinck, Vice-Presidents. Although some receipts bearing 1921 dates are preserved, the latest meeting recorded in the minutes of the Club is one in April 1919 when a College team of H. Barton and J. E. McOuat, in debate against Messrs. John Murray Gibbon and J. J. Harpell of Ste. Anne de Bellevue, successfully upheld a resolution in favour of the reduction of customs tariffs.

1935-39

In late 1934 upon a suggestion of Vice-Principal Brittain to the committee on Staff Affairs, a room in the basement of the Main Building was re-decorated and made available to male members of the teaching and administrative staff, where they could meet for rest, recreation and informal discussion. Magazines and easy chairs were provided, and a radio and two billiard tables were presented by friends of the College. Tea was served in the afternoons and members were in the habit of dropping in while waiting for their mail. Formal meetings were for business only. On January 14, 1939, on formal motion, the club was disbanded and the Macdonald College Club of 1939 was formed.

1939

More commodious quarters had been made available in the Glenaladale building, which made possible the establishment of a club to which women members of the staff and wives of faculty members might again belong.

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The facilities at Glenaladale included a dining room operated by the College, and the use of comfortable lounges and a library. These are all on the ground floor. In the basement are game rooms. The billiard tables of the men's club have been moved in and many of the members have become devotees of the game.

The Club has an active play-reading group, which annually presents a play on the stage of the College Assembly Hall. Amongst other activities are sugaring parties, corn roasts, square dances and music appreciation meetings.

In 1950 as the result of an investigation by a "little Royal Commission", headed by Professor L. C. Raymond, a former President of the original Macdonald College Club, a new agreement was made with the College and a revised constitution adopted, under which the best features of the original Club and the facilities for informal association that characterized the Men's Club are combined.

In 1950 the membership stood at 190 — about three times that of the men's Club in 1935 — and included twenty-five of the former members of that Club.

The Macdonald Women's Union is an independent organization of staff members and wives whose hospitality supplements that of the Macdonald College Club. It holds afternoon teas to introduce new members to the College community, to entertain the families and friends of graduating students and visitors on such occasions as baccalaureate services and Women's Institute Conventions, and in general acts as the hostesses of the College community.

The Ste. Anne de Bellevue Horticultural Society

In the time of the World War 1914-18 when home growing of vegetables, fruits and flowers, and home-canning were encouraged as production measures, a Ste. Anne de Bellevue Horticultural Society was organized. Its meetings were held in a class room of the College and were well attended by both staff members and citizens of the town. It received a grant from the Quebec Department of Agriculture and held annual exhibitions in the town. After the war it continued active for some years, but as interest declined the Society died out.

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Quebec Soil Survey

In his editorials in the *Journal of Agriculture and Horticulture*, Professor Lochhead repeatedly advocated the inception of a survey of the soils of the Province of Quebec. Little was done in this matter until 1931 when, under Dean Barton's direction, a Soil Fertility Committee was appointed and Dr. R. R. McKibbin, a graduate of the College, who in 1926 had relinquished an Assistant Professorship in Soils in the University of Maryland to return to his Alma Mater as Lecturer in Chemistry, took the initiative, and cooperation with the College in soil survey work was arranged with the Dominion Experimental Farms and the Quebec Department of Agriculture. Under Dr. McKibbin's direction a staff of six graduates carried on surveys in the summer months for several years and pursued analysis of the collected samples during the winters.

In 1936, when the Duplessis Government came into power and when also Dr. McKibbin resigned his position in Macdonald College, the headquarters was transferred to *L'Ecole Supérieure d'Agriculture* at Ste. Anne de la Pocatière and placed under the direction of the head of that institution. However, two staff members of the Survey continue to carry on their winter work in the laboratories of Macdonald College.

SUMMER SCHOOLS

Teachers

The combination of beautiful grounds, rooms available for meetings, the College Library and residence space for those attending has made Macdonald College a popular place for summer meetings of an educational character. The Protestant Committee of the Provincial Council of Education holds a Summer School for Teachers and, simultaneously, a course for *French Specialist Teachers*. These courses extend over the whole of the month of July and lead to advanced certificates of standing in the profession.

Clergy

From 1917 to 1948 a Summer School for Clergy and other church workers, extending over two weeks, was held in early

RELATED ORGANIZATIONS

August in co-operation with the Protestant Theological Colleges of Montreal. This afforded opportunity for ministers and their wives and other persons interested in religion to enjoy refresher lecture courses and to take part in discussions, sports and friendly intercourse under the conditions of a welcome holiday time. This School was discontinued in 1948 upon the creation of a Faculty of Divinity in the University.

Chapter XVII

REVIEW AND SUPPLEMENT

Macdonald College is so much the embodiment of the visions and the fruit of the labours of its Founder that I have not felt it inappropriate to devote considerable space to an account of the early life of William Christopher Macdonald. For practically all the information I have succeeded in obtaining about his origin and family I wish again to acknowledge my indebtedness to the friendly interest of his niece, Mrs. William Emmet Walsh and her late husband. I must leave it to those better informed to extend the story to his experiences as merchant, manufacturer and capitalist. The chapter on his character is drawn from the writings and conversations of various persons of his acquaintance, notably Mrs. Jennie Muldrew, "Housemother" of the Women's Residence of the College, Miss Ethel Hurlbatt and Mrs. Walter Vaughan, former Wardens of the Royal Victoria College, Miss Clare Harrington, daughter of a deceased Professor of Chemistry and grand-daughter of Principal Dawson, Professors Percy Nobbs, Charles Martin and Nevil N. Evans and Mr. T. Fred Ward, the original Bursar of Macdonald College. As acknowledged in the text, the detailed accounts of the College Departments have been provided by my colleagues and have been used with very little alteration of their memoranda.

In the commemorative tribute to Sir William Macdonald made at his funeral by Sir William Peterson the speaker referred to a carefully marked passage, quoted from Bishop Lightfoot¹ in a copy of the Handbook of Girard College which our Founder had lent him². In view of this it is not unreasonable to conjecture that in his later years Sir William had been influenced by a study of the life and will of Stephen

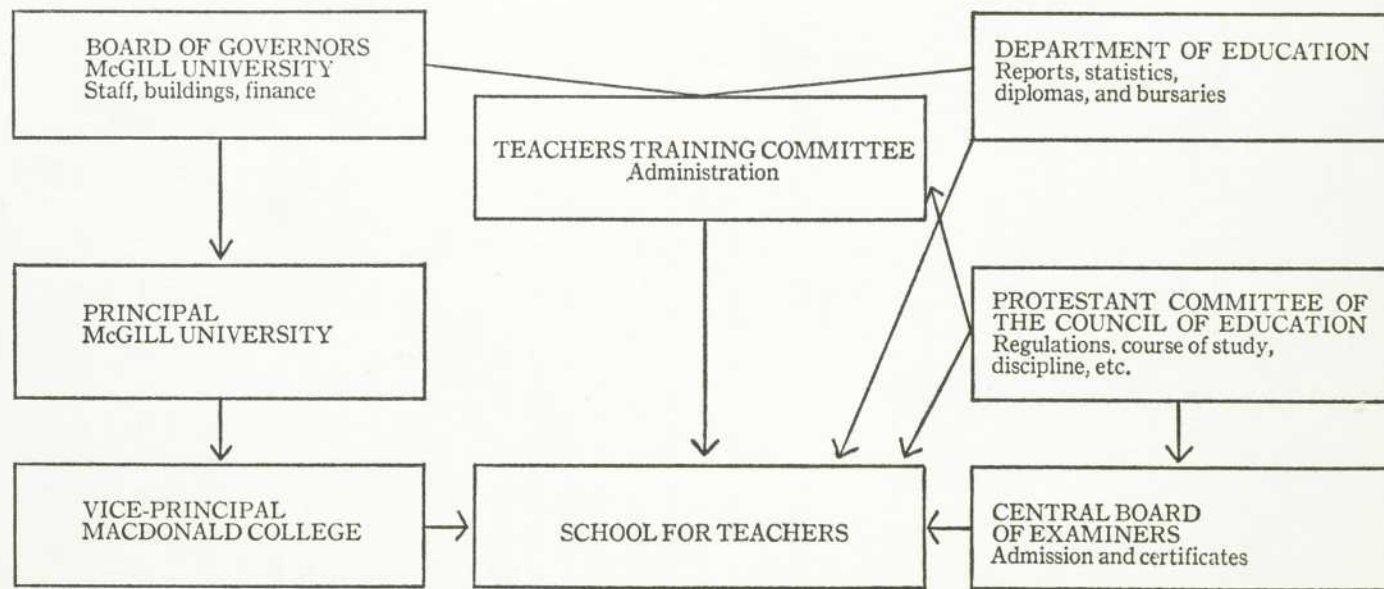
REVIEW AND SUPPLEMENT

Girard, just as in earlier days he had recommended his brother to read Benjamin Franklin's Life as an incentive to study³.

Stephen Girard, who died in the year Sir William was born (1831), was likewise born into the Roman Catholic Church, was denied the education and inheritance accorded to his brothers and, leaving home, made a great fortune by his own efforts in distant and unfamiliar surroundings. Of modest, retiring, studious and self-reliant character, he became and remained anti-clerical, though upright, reverent and philanthropic. His ambition, realized in Girard College, Philadelphia, was to found an institution in which white orphan boys might receive education while protected from the early influence of the agents of any Church. His will enjoined and required that "no ecclesiastic, missionary or minister of any sect whatever shall ever hold or exercise any station or duty whatsoever" in Girard College and forbade the entry of any such person to the premises, even as a visitor. At the same time the will expressed a desire that all teachers in the College should "take pains to instil into the minds of the scholars the purest principles of morality, so that, on their entrance into active life, they may, from inclination and habit, evince benevolence towards their fellow creatures and a love of truth, sobriety and industry, adopting at the same time such religious tenets as their matured reason may enable them to prefer".⁴

At Macdonald College in its earliest days I gathered the impression that Sir William Macdonald would have preferred to erect some similar barrier here against churchmen but found this impracticable on account of the relation of the School for Teachers to the Protestant Committee of the Provincial Council of Public Instruction and perhaps also less appropriate to a college whose students would be older than those for whom Girard College was designed. Concession to the sagacity of the Principals of the College and University, who were members of Christian Churches, may also have had influence in deterring him from too rigid adherence to the model of Girard.

In any event, a congregation of non-Anglican Protestants, organized at a meeting called by Dr. Robertson, did hold religious services in the Assembly Hall for a few years, and subsequently the pastors of St. George's Anglican Church and the Union Church of Ste. Anne de Bellevue have shared in ministering to the College in matters of the spirit.



Organizational Chart of the School for Teachers

Part VI — Postscript 1950-1955*

1. *General*

Dr. Snell's history meticulously records the salient facts of the Macdonald story up to and including the year 1950. The purpose of this postscript is to sketch very briefly the more important subsequent events up to the holding of the Semi-centennial Celebration in 1955. This date marked the end of an old and the beginning of a new epoch in the life of the Institution.

Since these were years of great activity, it is possible to record only major appointments and resignations, and only the most important developments in connection with buildings, equipment and academic matters, and all these are here included as an addendum to Dr. Snell's chronology. Throughout this period the College continued to enjoy the fruits of the generosity of Mr. Walter M. Stewart, whose benefactions were maintained, on an increasing scale. As a consequence, by the time of the Semi-centenary, the College and all its departments were better and more completely equipped for the work it had to do than at any time in its previous history.

During this period the School for Teachers underwent extensive re-organization and re-equipment, the salient facts being recorded in the Chronology. Organization in the School of

*A postscript has been added to Dr. Snell's history to cover the period from 1950 until 1955, thus completing the story for the first half-century of the College's existence.

Household Science underwent few changes during this interval, but in Agriculture one new department, namely that of Woodlot Management, was established — the first since Agricultural Economics was organized in 1926.

As already recorded, the property known as Morgan's Woods came into the legal possession of the College in 1945 and in 1949 the Morgan Arboretum was opened formally. Progress in the development of the area, as a centre for the study and promotion of woodlot forestry, remained slow until the organization of the "Morgan Arboretum and Woodland Development Association" in 1952. The further available funds enabled us to offer academic courses to both degree and diploma students and to set up, within the Faculty, a separate Department of Woodlot Management. This department was first given University recognition on a provisional basis in 1954 for a trial period of three years. Already a good start had been made in improving the woodlot and sugar bush, in the mass planting of appropriate tree species in the open fields, and in the setting out of floral groups so as to provide a very complete collection of native trees together with many exotic species. The added financial support afforded by the various industrial groups and private individuals that formed the Association, enabled the work to proceed at an accelerated pace, particularly after the appointment in 1955 of Mr. A. R. C. Jones, a trained and experienced forester, as the first lecturer in this subject. This appointment initiated a new era in the work of the Department and in the development of woodlot forestry in Eastern Canada. Previous to this time the importance of the farm woodlot and the very idea of trees as a farm crop had not been generally recognized by the different agricultural institutions, though all other farm crops had their corps of experts. By filling this gap, therefore, Macdonald once again pioneered a new field in the training of agricultural students.

2. *Chronology, 1951–1955*

1951. Retirement of Professor L. G. Heimpel from the Professorship of Agricultural Engineering and his replacement by Professor Angus E. Banting.

Retirement of Professor Gordon Burton from his Professorship of Agricultural Economics.

CHRONOLOGY 1951-55

- A new two-year Intermediate Course introduced in the School for Teachers.
- Completion of an agreement whereby the management and direction of the Macdonald High School, formerly operated by the College, was taken over by the Macdonald Central School Board.
1952. Death of Dr. W. E. Swales, Professor of Animal Pathology, and his replacement by Dr. Douglas Dale.
- The holding of "Open House" for graduates and friends, with an attendance of some 3000 visitors.
- Official opening of the "Stewart Phytorium" in the Biology Greenhouse by Mrs. W. M. Stewart.
- Establishment of an undergraduate degree of Bachelor of Education in the Faculty of Arts and Science, with the first two years to be given at Macdonald College.
- Organization of the Morgan Arboretum and Woodland Development Association with the aim of financially assisting the University to develop a centre for the study and promotion of woodlot forestry.
- Construction of a house in Morgan Arboretum for Caretaker.
1953. Construction of a house in Morgan Arboretum for one woods worker.
- Construction of two duplex cottages for foremen in East Cottage area.
1954. Retirement of Dr. E. A. Lods, followed by his post-retirement appointment as Superintendent of the Provincial Seed Farm.
- Department of Woodlot Management given provisional recognition for a trial period of three years.
- Dr. H. G. Dion appointed Professor of Soil Chemistry and Assistant Dean.
- The Department of Education, McGill University, amalgamated with the School for Teachers, and brought together in an Institute of Education under the directorship of Professor D. C. Munroe, who also be-

POSTSCRIPT 1950-55

came Chairman of a new Division of Graduate Studies.

The first course in Woodlot Management given to both degree and diploma students by Mr. Lief Holt, Sessional Lecturer.

Retirement of Professor L. C. Raymond who, however, was given a three-year post-retirement extension as Professor of Agronomy and his continuance for one year as Chairman of the Department of Agronomy.

Instruction of Macdonald High School students in the School of Household Science discontinued in consequence of the provision of facilities in the High School for teaching this subject.

Construction of Foreman's residence on Stock Farm.

1955. Retirement of Dr. W. H. Brittain from the positions of Dean and Vice-Principal and his replacement by Dr. H. G. Dion.

Post-retirement appointment of Dr. Brittain as Curator, Morgan Arboretum.

Professor J. E. M. Young appointed Chairman of the Division of Foundations of Education in the School for Teachers.

Appointment of Mr. A. R. C. Jones as first lecturer in Woodlot Management.

Appointment of Professor H. A. Steppler as Chairman of the Agronomy Department in succession to Professor L. C. Raymond.

Construction started on new Nutrition Laboratory on Stock Farm and its equipment for the study of pigs, steers, rabbits and dogs.

Completion of new annex to Biology Building, with laboratories and offices for Woodlot Management, Plant Physiology and Insect Physiology.

Completion of one duplex residence in Stewart Park and the beginning of three individual houses in the same area for the accommodation of academic staff members.

REGISTRATION OF STUDENTS

Start of construction of Glenfinnan Rink.

Commencement of construction of a new wing for Britain Hall.

3. *Registration of Students*

1950-51 to 1954-55

(a) Undergraduates:

Years	Agriculture	Household Science	Teachers	Total
Up to and including 1950-51	11,192	5,204	6,936	23,332
1951-52	378	144	162	684
1952-53	319	140	193	652
1953-54	326	122	222	670
1954-55	330	100	284	714
Up to and including 1954-55	12,545	5,710	7,797	26,052

(b) Graduate students registered 1950-51 to 1954-55:

Year	Number
1950-51	79
1951-52	73
1952-53	68
1953-54	87
1954-55	79

4. *Some Personal Anecdotes about the Founder*

The founder of Macdonald College was not merely a man of strong character. He was also what is known as "a char-

acter". An anonymous contemporary, writing of him when he was at the height of his gift-giving career, describes him in the following terms: —

"He was a paragon of paradoxes. Though the greatest philanthropist in the British Empire, he lives as simply as a streetcar conductor. Though the richest man in Montreal, he has given away more than he kept. Too conservative to use a telephone until a few years ago, he has spent millions in modern, scientific education for the people. Though he has made millions out of manufacturing tobacco, he has never smoked in his life or used tobacco in any form. He has the spring of incurable energy in his limbs. He has the grit of a lion and the tenacity of his race at its most incorrigible height. No one ever heard him giving an opinion about how to run the nation. He speaks from no platform. His private politics, like his religion and his business and his philanthropies, are a personal matter. Mere amusement is no part of his program. All there is of Montreal outside of the great business that his personality made possible he embodies in the things that swallow his surplus millions."

Many are the stories told of his habits and peculiarities and a few typical ones related below may convey something of the flavour of a unique personality.

Notes on Business Habits

He never advertised. He dealt plainly with his customers and expected them to deal plainly with him. If one of them was slow in settling an account, his name was erased from Macdonald's books. On one occasion a man, who was a customer on a large scale, thought that his name would count for something in getting from Macdonald a subscription for a Methodist Church. He was mistaken. Macdonald erased his name from the list of customers. When people called to see Macdonald about matters in which he was not interested, he would put on his hat, walk out of the office, and not return until they had left.

His offices, on Notre Dame Street near Place d'Armes, were small and dingy. He made no effort to impress the public with the amount of business he was doing by having ex-

ANECDOTES ABOUT THE FOUNDER

pensive office furniture and a large staff of underpaid incompetent clerks. He lived before the days of the efficiency expert.

Among his peculiarities was an aversion to writing cheques. He always paid his bills in cash, no matter how large the amount. Like most men who have made great fortunes, he was very careful about small sums of money.

W. B. Howell,
McGill News,
June, 1932

• • • • •

Mrs. Chapman, wife of the bookstore owner, recalls sitting opposite him on a street car and noticing he used a yellow ticket (8 for 25¢) good from 5:00 to 7:00 p.m. only. The regular tickets were 6 for 25¢.

• • • • •

He would come into the bookstore monthly to pay for his paper — always asked affably how business was, but never bought a book.

Professor S. R. N. Hodgins.

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In the early days of the College it was frequently visited by Sir William Macdonald and on one occasion he arrived at the Poultry Building at a time when the incubators were in full operation. Sir William sat and watched the process of the chickens emerging from their shells for several hours. Finally he arose and remarked to Mr. Elford: "I never knew that that is how chickens came."

Sir William was in the habit of purchasing eggs each week from the Poultry Department and always paid for them personally, the exact change being tied up in a handkerchief, which he would undo and count out the coins one by one. On one occasion the price of eggs had gone up a cent a dozen since his previous visit. When informed of this he remarked: "Eggs were only 25 cents a dozen last week, why are they so high this week?"

Some time later he came to the Poultry Building and advised Mr. Elford, "I have to stop taking eggs from you Mr. Elford, I find that I can get them for 2 cents a dozen less in Montreal."

Professor F. C. Elford

Purchase of McCord Museum Property

It seems that a residential property encroaching upon one corner of the grounds of McGill University — at that time the grounds were somewhat smaller than any well-wisher of the University could desire — came upon the market to settle an estate. Before the University authorities had had time really to consider ways and means to acquire it, this property was snapped up by a local syndicate as the site for a fine hotel. The late Sir William Peterson, then principal of the University, hurried to Sir William Macdonald and explained what had happened. At first Sir William Macdonald seemed but mildly interested, but as the College Principal expatiated upon the indignity which would be offered McGill by the erection of a large hotel backing right onto its campus, the great benefactor's Highland blood asserted itself: "I'll not see McGill made the backyard of any hotel! Leave it to me!"

The following day he approached the head of the syndicate: "You bought the Joseph property for \$142,000?" "Yes, Sir William." "I want it for the University and I'll give you \$142,500 for it. Send for the notary." "But", expostulated the syndicate member, "I am only one . . . we want it for . . ." "I know what you want it for," replied Sir William, "but you can't have it. Send for the others, or I'll ruin every last one of you." This business man knew Sir William never said anything he did not mean. He sent for the others immediately. Within a brief space of time the deed for the property was turned over to McGill.

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Purchase of Ground for McGill Union:

Shortly after the erection of the McGill Y.M.C.A. building, Macdonald gave the money for the McGill Union. "Lord Strathcona and his friends", said he, "are putting up a building for the Christian young men of McGill. I want a building for *all* the young men of McGill."

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Sir William was a frequent visitor to McGill. He never missed a recital at the Conservatorium of Music, and he was to be seen at all gymnastic displays given by the students at

ANECDOTES ABOUT THE FOUNDER

R.V.C. He thought the girlish form and all its movements wonderful and beautiful, and marvelled at its endurance and poise.

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From a letter dated June 20, 1893, to Sir William Osler:

"Inasmuch as the United States persist in carrying off the most valuable crop this country raises (viz., our men) without giving us any adequate return, I propose to adopt a beneficent mode of punishment and continue raising and educating a superior class of men, who will go and improve the standard of the inhabitants of that country until the standard is sufficiently high to admit of its being annexed to Canada."

In another letter he says he has given up investing money merely for income, "other methods of using money proving more agreeable to me".

W. B. Howell,
McGill News, June, 1932

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When Dr. Robertson remarked that it would be an expensive job to make all the buildings fireproof, Sir William's reply was: "We can't bring these fine boys and girls here and expose them to any danger we can prevent. The buildings must be made fireproof at any cost."

Professor C. J. Lynde

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During construction days it was a unique experience to find a man who insisted on money being spent so freely and so quickly. As Sir William explained, "I am getting to be an old man and I am particularly anxious to see this project completed before I pass on."

Professor L. S. Klinck

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In 1903 or 1904, when J. C. Simpson was demonstrator in the Faculty of Medicine at McGill, he occupied a small room in a corner of the old Biological laboratory on the top floor of the Arts Building. One rainy afternoon he heard someone in the big laboratory and, going out, found Sir William Macdonald climbing up onto a table which he had pushed under a

dormer window high up in the wall. Simpson brought a stool and asked if he could help. Sir William replied, in his quiet little voice: "No, I have heard enough about the leaks in this roof from other people, it is time I saw for myself".

Dr. J. C. Simpson

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In 1907 J. C. Simpson was a candidate for an 1851 scholarship. If successful, he was to go to Plymouth for some material and then to Cambridge. However, a decision was not expected until June or July and by that time the necessary material would not be available. Sir William put up a \$500.00 scholarship for Simpson's expenses to Plymouth: if he did not get the 1851 scholarship he was to return in the fall to McGill. Simpson called on Sir William to thank him, and most of the evening was spent discussing whether, in the event of receiving the scholarship, he should repay the \$500.00 out of it. Sir William's point was that Simpson would have had to pay his passage out of the 1851 scholarship anyway, and if he had all that extra money he might waste it. However, Sir William finally decided not to demand its return.

Dr. J. C. Simpson

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Sir William seldom announced his visits to the College, and preferred to wander alone about the campus and fields. He usually came on Saturday afternoons, occasionally asking questions of students who might be at work in various departments. He was a shy and unassuming man and many a student did not know at the time that he was talking with the Founder of the College.

Professor L. S. Klinck

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Dr. Blair once sent a particularly fine specimen of Montreal melon to Sir William, prepaid and carefully packed in a basket. Instead of being delighted, Sir William told Dr. Blair, next time he saw him, never to send him anything from the farm, since everything grown at the College should be sold and the revenue placed in the College funds; he did not want anyone to think he was getting produce from the College.

Professor W. S. Blair

ANECDOTES ABOUT THE ORIGINAL STAFF

Sir William was very loath to appear to be taking up the time of anyone at Macdonald College. Dr. Blair would offer to hitch up a horse and take him around the horticulture plots or to drive him to the railway station — an offer which was always refused even on very hot days. On one such day he came out to the plot where Dr. Blair was at work. Dr. Blair went for a box to make a seat for the old gentleman, who seemed quite annoyed at the attention. However, he got over it, and actually allowed himself to be driven to the station later.

Professor W. S. Blair

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5. *Anecdotes concerning the original staff of the College.*

Under the title "The Aborigines", the following article was written by Professor J. F. Snell for inclusion in "The Macdonald Graduate", Vol. I, No. 2, August, 1944:

"Of those aborigines—those who were here in 1907-08—very few remain. Mrs. Lochhead is no doubt the "oldest inhabitant". Many of the earlier students will recall her generous hospitality in the large brick house on the Avenue. With her husband (Biology) she was here as early as 1905. Mr. Walker and Mr. Ward are the only aborigines still on the active roll of the College. Professor Leonard Klinck (Cereal Husbandry), Dr. Saxby Blair (Horticulture), Dr. Fred Elford (Poultry) and Dr. Carleton Lynde (Physics) respectively, have all retired from the positions they subsequently held: President, University of British Columbia, Superintendent Kentville Experimental Station, Dominion Poultry Husbandman and Professor of Household Physics, Columbia University. Dr. Barton, the present Deputy Minister of Agriculture, was, in that first year, merely Assistant in Animal Husbandry and a recent graduate from Guelph. Miss Lillian Robins (Latin and Mathematics), who retired in 1915, is, I believe, still living in Montreal. Her father, Dr. S. P. Robins, retired from the Principalship of the McGill Normal School when that body was incorporated into Macdonald College. Dr. F. C. Harrison (Bacteriology), who became the second Principal of the College and later Dean of the Faculty of Graduate Studies, has been retired for many years.

Amongst the prominent persons no longer living were the

humorous Professor William Lochhead and Dean Locke of the School for Teachers, both of whom seemed to be constantly surrounded by groups of laughing girls. A more serious train followed Dr. John Brittain (Nature Study) who had an appreciative knowledge of English literature and an excellent command of the language. He was originally assigned the teaching of English in the Schools of Agriculture and Household Science, Professor Abner Kneeland dealing with the Teachers. Dr. Brittain had as assistant Dr. W. Douglas McFarlane, who had studied chemistry at McGill and Goettingen. The English and History were soon turned over to Dr. McFarlane, who was an inspiring teacher. The charming, cultured Swiss, Mme Cornu, taught French in all three Schools.

The original Head of the School of Household Science, a clever, attractive and very unconventional American, was a colourful personage. Chosen by Dean Locke as Art Instructor, she was commandeered by Principal Robertson to organize and conduct the work of the other School. One dark lock of her hair was invariably decorated with a ribbon bow (sometimes green but usually pink) and she did not hesitate to raise her voice to call a janitor from the first to the third floor nor to greet Dean Locke with a cheery "Oo-hoo!" It took years to dispose of the superfluous supplies purchased by Miss Bainbridge.

Dr. Harrison's Dutch assistant, Jan Vanderleck, now of Ottawa, afforded considerable amusement by his various sport outfits and his persevering practice of the English language. He, however, won the heart of Miss Emma Bigelow of the Household Science staff and they now have a grown-up family.

Over us all was the diligent, kindly, sanguine Dr. Robertson, bearing his heavy burden cheerfully. His constant aim was to unify the divergent elements brought together in the organization of the new College. Most of us gave him loyal support but Dean Locke could not reconcile himself to the unorthodox methods of the Principal. After a year and a half, to the great regret of his worshipping Teachers, he resigned to accept the position of City Librarian of Toronto. Miss Bainbridge had left at the close of the first College year. At the end of the year 1909 Dr. Robertson himself resigned, having occupied the Principal's residence, Glenaladale, for only a few months. As Dr. Harrison had another residence, Glenaladale

SEMI-CENTENNIAL CELEBRATIONS

was converted into a residence for women of the College staff.” (And more recently into the home of the Macdonald College Club. — Ed.)

6. *The Semi-Centennial Celebrations, June 3 and 4, 1955*

In 1954 it was decided to hold a Semi-Centenary celebration the following year — just fifty years from the turning of the first sod for the new buildings and, incidentally, corresponding with the retirement of the Vice-Principal after twenty-one years in office. A strong committee was set up under the able chairmanship of Mr. W. C. Shipley, Agriculture '48. The planning was meticulous and imaginative, with the result that a balanced and streamlined program was presented to the hundreds of graduates and friends who gathered from near and far to take part in the event.

The usual festivities characteristic of such affairs were provided for in good measure. On the more serious side, a Special Convocation of the University was held at Macdonald College, and the degree of LL.D. (*Honoris Causa*) was conferred on Mr. W. B. Davis (Agriculture '12) and on the retiring Vice-Principal, who also gave the Convocation Address on the theme, “The First Fifty Years”. Two brief, though colourful ceremonies took place immediately after the Special Convocation. In the first, Mrs. Walter Stewart gave the name ‘Brittain Hall’ to the old Men’s Residence, in honour of Dr. W. H. Brittain. In the second, Dr. Brittain gave the name ‘Stewart Hall’ to the old Women’s Residence in honour of Mr. and Mrs. Walter Stewart.

On the following day a Symposium was held in the Assembly Hall under the Chairmanship of Principal F. Cyril James, during which an examination was made of the problems facing the University world in the next fifty years. The three distinguished guest speakers, who took up different aspects of the problem, were Sir Phillip Morris, Vice-Chancellor of Bristol University, Dr. Kenneth Neatby, Chief of the Science Service Division, Canada Department of Agriculture and Dr. Kenneth Galbraith, Professor of Economics, Harvard University. These three thought-provoking addresses were followed with eager interest by a large audience, and their publication in pamphlet form has been welcomed by many who were unable to attend the main event.

Greetings were received from graduates in many lands and, in addition, simultaneous celebrations were held in various centres where graduates were concentrated, including practically all of the Canadian provinces, England, Scotland, Barbados, Trinidad and Jamaica. An illustrated booklet that gives full details of these events was subsequently published and copies were forwarded to all graduates whose addresses were known. The Committee compiled also a complete Scrap Book wherein are recorded full details of all the local celebrations, complete with photographs and signatures. This Scrap Book has been deposited in the College Library; it provides an informal record of a happy occasion in the life of the College which those who were present will not easily forget.

7. *The First Fifty Years**, by Dr. W. H. Brittain

Introduction

Fifty years ago today the spot on which we now stand was the scene of great activity and turmoil, reminiscent of that distant time when the race of men gathered on the Plain of Shinar to erect a tower that would reach to heaven. There were no great bulldozers moving earth or gigantic motorized shovels digging ditches, nor were there great trucks to carry off the debris. Such things did not exist at that time. In place of them, picks and shovels, wielded by the sturdy arms of Italian labourers, supplied the power; and wheelbarrows and horse-drawn dumpcarts were there in place of trucks. Most of the bricklayers and mechanics spoke with a cockney accent, while the Scottish burr was thick on the tongues of those who worked the land. Poles, Rumanians, and other racial groups mingled with English and French-speaking Canadians in many and varied tasks.

The buildings here being erected were not designed to reach the stars in any physical sense. They were the start of a unique institution which was to be devoted to the arts associated with the farm, the home, and the school. As with all in-

*The text of an address given at the Special Semi-Centenary Convocation at Macdonald College, June 4th., 1955. It is included here because it traces developments at the College in its first half-century and attempts to appraise those developments.

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stitutions, the idea behind it came to birth in the heart and mind of a man. That man was Sir William Macdonald (1831-1917), a successful Montreal businessman, a magnificent benefactor of McGill, and a friend of education generally. The basic idea was a simple one, namely, that the three most fundamental institutions of the country were the farm, the home, and the school. He noticed that nothing was being done at the university level in Canada to elevate these institutions, though the universities were turning out trained practitioners and leaders in law, medicine, engineering and kindred subjects.

Sir William realized that it would not be possible to found a higher training centre without taking account of the general situation in the field of primary and secondary education, and he wisely decided that all improvement in the educational process should begin with the foundations, that is, in the public schools. He realized that something must be done to improve the school plant from the standpoint of organization, construction and equipment, but he was convinced that this alone would be inadequate without the provision of devoted, capable and well-trained teachers. It was to the task of effecting these improvements that he chose a man of kindred ideals and unbounded enthusiasm — a man of great vision, drive and organizing ability — in the person of Dr. James W. Robertson, then Commissioner of Agriculture, who became Sir William's agent, and eventually gave full time to carrying out his schemes.

The Beginnings

It should be emphasized here that the College was but the culmination of a whole series of activities known collectively as "The Macdonald Movement". This included the introduction, for the first time, in our public schools, of courses in the industrial arts, together with courses in general science, household science and kindred subjects. These schools were specially selected in Eastern Canada, mainly in the Maritime provinces, and at certain of these centres the first consolidated schools in Canada were erected, equipped, and, for a time, operated at the expense of Sir William Macdonald. It was only after all this had been accomplished that he launched Macdonald College on its way as a great national headquarters for all his endeavours to improve education along the lines of training

and development rather than mere book learning. His final admonition was, "Remember that buildings are only the shelter. The work of the College will depend on men and women".

A unique feature of the new institution was the association on a single campus under unified direction of three such apparently divergent interests. This arose from the conviction of Sir William already mentioned, and it was because he regarded them as the three basic national institutions that he felt they would flourish best if conducted in one place, under a single management, and in a setting and atmosphere conducive to their development. Sir William felt that the professions of homemaking, of agriculture, and of teaching, required as gifted scholars, as highly trained scientists, and as skilled and devoted teachers as any of the so-called "learned professions". The conditions of residence life and the accessibility of senior staff, all living together on the same campus, would, he felt, make it possible to achieve something like the medieval ideal of a community of scholars rather than a series of autocratic departments.

Faculty of Agriculture

The changes in the teaching of agriculture, and in the research program that has accompanied it, have been influenced by the rapid transformation in agricultural methods that has taken place since the inception of the College — from an individualistic type of subsistence or semi-commercial form of agriculture carried out without benefit of tractors, combines, or heavy machinery to the highly mechanized agriculture characteristic of the modern day. The first curriculum had a strongly vocational slant, but as time went on the faculty pioneered in offering a university type of course based on the physical and biological sciences, engineering and economics. Further, it pioneered graduate instruction in the various branches of agriculture and allied sciences. Such activities find their ultimate justification in the fact that research maintains the spirit of critical inquiry and, of necessity, enjoins a fitting academic humility on its practitioners. Finally, it pioneered in a type of extension work which endeavours to promote the general welfare of rural people through organizations manned and operated by themselves.

When new needs arose, new departments were established to meet them, including Agricultural Engineering, Economics,

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Parasitology and, more recently, Woodlot Management. New laboratories have been set up in space formerly unused, and new buildings have been erected when it was necessary to do so. Finally, it has become necessary to provide new residence facilities, which are now in project, and upon which construction will soon begin.

Sir William Macdonald equipped the College on a grand scale for the work it then had to do. Since that time, new needs have inevitably arisen, with the rapid advances of these later days. It is pleasant, therefore, to record that, owing to the interest and generosity of Sir William's successor, these needs have been provided for on an equally grand scale, so that today no staff member or graduate student is held back from undertaking any line of work by reason of inadequate equipment — a situation which must be very unusual in this country. It should be added, also, that from this same source we have been able to provide exceptional facilities for the carrying out of extra-curricular activities on the part of our students, including everything needed for a wholesome and constructive program. To these will soon be added a new artificial ice rink.

All these new developments would be useless without students, and it is pleasing to note that students are coming to us in increasing numbers and with improved training from all parts of the free world. As regards staff, it would be indeed difficult to surpass the original faculty recruited by Sir William Macdonald, who were almost without exception men of superior attainment as regards training, teaching ability and enthusiasm for their work. It has been our aim throughout, however, to maintain the high standard of staffing laid down in that day, and to combine continuity of tradition with that intellectual invigoration which is only to be secured by recruitment of new staff with fresh and challenging outlooks on their fields. We feel that we can claim here some measure of success.

Other Schools

Macdonald College is not, however, an agricultural college alone. Sir William designed it as a unit with three main divisions, and the Schools of Household Science and Teachers have been affected by trends similar to those which have influenced the Faculty of Agriculture.

Household Science has evolved along very similar lines to Agriculture, from the provision of vocational training in the arts and skills of homemaking in its narrow sense to a university course. Today the demand for graduates in this field exceeds the supply of home economists, whether dietitians or teachers. Those who still regard Household Science institutions as mere cooking schools would no doubt be surprised at the depth of the science training required of our undergraduates, while training in the practical aspects of the subject is maintained at a high level.

At its inception, the School for Teachers took over from the old McGill Normal School the task of supplying elementary and intermediate teachers for the Protestant Schools of Quebec. During the last few years progress has been made in vitalizing the whole teaching program and in achieving a fine spirit of cooperation between all elements concerned with the training of teachers. Many new facilities have been provided and many new techniques developed. The work of the School is now fully integrated with the McGill Department of Education, and the first two years of a new course leading to the Bachelor of Education degree are carried on at Macdonald. In all this progress one can discern a continuation of the traditions established by the Founder, and the promise of further invigoration of the academic life of the College.

Residence Life

Great efforts have been made to exploit to the full the advantages inherent in our residential system. Within this framework, the principle of student self-government has been developed to the greatest possible degree.

A case could be made out for the view that residence life is one of the most important things we do in the matter of inculcating responsible attitudes. We enjoy some advantages here in the matter of size. This, we believe, does much to offset the narrowing influence of a campus limited to three main fields of academic activity, though it may be doubted whether the average student in one of our larger institutions of learning has any wider intellectual interests in spite of his apparently greater opportunity. For while there can be no doubt that wide cultural contacts are available in large institutions, and while greater attention to English and cultural subjects gener-

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ally will no doubt play a more important part in future curricula, the conditions of work at larger institutions may not favour student participation. In fact, these conditions undoubtedly preclude participation in as wide a range of interests as is possible at Macdonald College; rather do they favour the spectator attitude, instead of that of the participant, which our conditions tend to encourage.

Conclusions

From all that has been said, it may be seen that Macdonald College was not the outcome of any transcendental theory of education, but was founded in response to a definite need. It is quite true that fifty years ago only a few people appreciated the existence of any such need, but that few included a man possessed of the energy, the determination and the means to found a College devoted to the satisfaction of that need.

In the course of the years, it has been necessary continually to reappraise our methods and progress; but there has been no inclination on the part of the staff to concern itself with the debate between adherents of the "full-time ivory tower" concept of higher education, and those who advocate the ideal of the University as an "intellectual service station."

Perhaps it has been the spirit of our motto that has preserved us from such dissipation of our energies. "Service" and "Mastery" have never seemed to us to be alien to the highest academic aims. We have striven, firstly, to discover definite needs and, secondly, to study their susceptibility to that fundamental approach that distinguishes the methods of the University. In exercising a special concern for the needs of the farm, the home, and the school, and in accepting certain responsibilities to the community without our walls, we have found full scope for that fundamental approach.

In our teaching we are ineluctably involved in the training of an *élite*. But we do not claim that all our graduates fall into this category. Indeed, we have never learned to detect future members of that *élite* when they enter our halls at 18 years of age. We have been more concerned with the outlook and capacity of our students when they leave us than when they enter. We believe that we can offer ample facilities for growth and development to those endowed with exceptional intellectual capacity. We also think that we can do work of major

social significance if we can teach those of only average endowments to use their minds well and to acquire that sense of civilized responsibility that is one of the marks of an educated man. Much, perhaps most, of the useful work of the world is done by men and women of average endowments. It might well be asked what more useful service could we perform than to give them the training and inspiration fully to realize and apply their abilities?

Leaders in education have warned against the danger of excessive premature specialization — a danger of which we have been fully conscious. We have sought increasingly to move specialized work into the later and postgraduate years, and to avoid the undue fragmentation of knowledge by appropriate consolidation and integration, in order to reduce necessary duplication and to stress principles rather than details. We know that we have still far to go — but we shall persevere with this policy as quickly as employing agencies and others can be convinced of its desirability and cease to demand that our graduates should be finished specialists — a situation that is maturing faster than we had dared to hope. With that achieved, we can hope for a further transformation in curricula which will put things in the proper order, achieve the desired emphasis, and introduce, in some vital way, elements which are now lacking. We look to the distinguished authorities who will speak tomorrow to give us a lead in this respect.

To attempt the redemption of the technological student from technological barbarism with fragmentary and unrelated courses in philosophy, history and the fine arts, would seem to us futile and illusory. Any such policy would be inconsistent with our concept of "Mastery", which can only be the fruit of disciplined study. Moreover, if the science student is not attuned to the acceptance of purely cultural courses — and this is too often the case — he is likely to acquire an active distaste for such subjects insofar as they are forced upon him. Such a distaste may well prejudice his judgment in later years, so that his maturity may be impoverished intellectually and emotionally.

It is here that we face some of the most serious of our problems. How can we foster the love of learning as an end in itself? How can we provide that opportunity for withdrawal and contemplation which was never more needed than in this modern age? How — as Vice-Chancellor Ashby has put it —

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can we bring to life that "vision of greatness" essential to any true education? Unfortunately, economic necessity tells the student to prepare himself in some technical field within a limited space of years and to bring to his job that which his employers demand. Perhaps if we could contrive so that the student might see his own specialty in relation to economics, to politics, to history and sociological development, then he might come nearer to gaining some vision of what is meant by that apparently arid and formal phrase, "a liberal education".

Once it has been glimpsed, that vision will remain throughout life, compelling the student to widen and deepen his experience and comprehension and to seek the citadels of wisdom and understanding.

To some who have followed me thus far, it may seem that our attitude has betrayed a degree of complacency. We may even seem to speak as though we had actually accomplished some end, whereas we have only tried. But this, after all, is our Jubilee and perhaps we may be forgiven if, on this one day, we should, for a moment, dwell on our aspirations.

Earl Grey, when Governor General of Canada, once made this statement, "I am convinced that future generations will place Macdonald College in the forefront of the great forces and factors in the building of this country, and the name of the Founder will go down in the centuries with that of the great Founder of the University itself." In what measure this dream is to become a living reality, those of us whose season of labour now draws to its close must leave to our successors.

We charge them to see to it that the unity of Macdonald College is preserved and maintained in the years ahead; that the splendid facilities bequeathed to us by our Founder continue to be employed for the purposes for which they were designed; and, finally, that the ideals and aims that inspired him fifty years ago continue to animate the staff of all departments.

Today, we are all too conscious that our strivings have not always been crowned with complete success. But we like to think that the light kindled fifty years ago did not flash with a mere temporary radiance — for we know that something of that ideal is built into the fabric of Macdonald College. It has shown itself in the lives of devoted service of men and women who have laboured here. It has been made plain by the spirit

shown by our undergraduates in wisely using the liberties and freely accepting the responsibilities that our system entails. It was shown in resplendent form by those students, graduates and staff who, during two great crises in world history, freely responded to a call which their manhood would not permit them to ignore. If all members of the Clan can but continue to be animated by the same spirit, they can take their place among those teachers and scholars, thinkers and scientists, farmers and warriors, who have brought distinction to this University, have made her name known around the world, and whose deeds, even today, impart an added lustre to the laurels of Old McGill.

Notes to Chapters

Notes to Chapter I—*His Ancestry and Family Connections*

1. Brief accounts of the lives of Conn and Somerled are given in the Dictionary of National Biography.

A Pedigree compiled by Lady Macdonald of Sleat and appended to Mrs. A. M. W. Stirling's "Macdonald of the Isles" (London, 1913) shows fifty-three generations from Conn to Godfrey Middleton (born 1887). Donald appears in the thirty-first, and Ronald (Reginald or Ranald), the ancestor of Clanranald, in the thirty-fourth, generation. The claim to the ancestral title of "Lord of the Isles" was long in dispute amongst the chiefs of Clanranald, Sleat and Glengarry (M'Donnell) but in 1911, the three chiefs signed a treaty, agreeing that since, owing to the dispersion of the Clan, the rival claims could not be settled by a vote in accordance with the laws of tanistry, precedence should be determined by lot on every occasion upon which more than one of them should be present.

There is a three-volume history of "The Clan Donald" by the Rev. A. Macdonald of Killearnan and the Rev. A. Macdonald of Kiltarlity and a "Book of Clanranald" in "Reliquiae Celticae" Vol. II.

2. Tables I—III represent the Macdonald and Table IV the Brecken connections of Sir William Macdonald.

3. An eloquent account of the eighteenth century family is given by Ada (Mrs. Neil) Macleod in "The Glenaladale Pioneers," Dalhousie Review, 1931, Vol. II, pp. 311—24.

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4. According to J. P. Maclean, "An Historical Account of the Settlements of Scotch Highlanders in America Prior to the Peace of 1783" (Cleveland and Glasgow, 1900, p. 232), this action of Big Alexander was in imitation of the sixteenth century action of Hector McLean in the Island of Rum, who used "a polished yellow-brown malacca stick, much taller than an ordinary walking stick" to separate his tenants, declaring "Those who pass the stick to the Kirk are very good tenants and those who go on the other side may go out of my Island." In his "Journey to the Western Islands of Scotland," Dr. Samuel Johnson also tells this story (Works, Oxford, 1925, Vol. 9, p. 124). Amongst the Catholic Highlanders Protestantism was commonly referred to as the "religion of the yellow stick" (*creidamh a bhata bhuidhe*).

5. According to records in the Confederation Chamber, Charlottetown, the original grantee of Lot 35 was Alexander Maitland, and those of Lot 36 George Spence and John Mill, merchants of London; but deeds in the possession of Montreal members of the family show that Lot 36 was obtained by John and Donald McDonald from James Montgomery, Lord Advocate of Scotland, on a three thousand year lease from May 15, 1771 (the indenture being dated November 19, 1770) and that from July 14, 1795 to April 1, 1806, Lots 35 and 36 were mortgaged to William Macdonald of St. Martins, Scotland, in the sum of 4500 pounds. This is, doubtless, the mortgage referred to in Capt. McDonald's memorial (1803) as having been taken to enable him to purchase a further extent of land — probably Lot 24 in which he was "half concerned" and which was settled by Acadians whom he had retained in the Island. Another document shows that in July 1807 Lot 36 was mortgaged to the Earl of Selkirk for 635 pounds.

6. The terms of the grants required the settlement within ten years of one person for each 200 acres of land. Thus Donald's party was sufficient to fulfil the requirement for two lots. The stipulation that settlers were to be either American residents or Protestants from His Majesty's non-British (i.e. German) possessions was never enforced.

7. Harvey, D. C. "Early Settlements and Social Conditions in Prince Edward Island" — *Dalhousie Review*, January 1932, Vol. ii, pp. 448—461. The clan of Macdonald was well represented

CHAPTER I

also in the still earlier settlements in North Carolina, Georgia and New York. The heroic Flora herself played a prominent part in the North Carolina Colony.

8. A list of the officers of the Second Battalion of this regiment as mustered at Halifax on January 21, 1778, is given in an addendum to the copy of MacLean's "Settlement of Scotch Highlanders in America" in the Redpath Library of McGill University. John Macdonald is named as Captain of the Ninth Company. The muster roll of the Ninth Company (of the same date) is preserved by his Montreal descendants. In a personal communication, Dr. D. C. Harvey, Archivist of Nova Scotia, states that none of the thirty-three original Island recruits to the Regiment (first battalion) were enlisted by McDonald but that some of his former dependents appear to have joined the second battalion in Nova Scotia.

9. It is said that while serving with a small detachment in an outpost in Nova Scotia he captured an American ship, part of whose crew had gone ashore on a pillaging expedition, sailed it into Halifax harbor, and returned with reinforcements to take the shore party prisoners.

10. Quitrents were small annual payments to the King in lieu (or "acquittal") of feudal services. Those of the Island lots varied from two to six shillings per hundred acres. Lot 35 was in the six shilling, Lot 36 in the four shilling, class. At the time of the Holland survey, Lot 35 was described as "very good land and good timber where it has not been destroyed by fire," and Lot 36 as "tolerable good ground and timber on the south part; on the N.E. almost entirely destroyed by fire" (Report concerning Land Grants in Prince Edward Island, 1767, *Canadian Archives*, 1905, Vol. I, Part II, 22 pp.). In the memorial referred to in the succeeding note, Capt. John Macdonald refers to the description of the surveyors as "superficial" and complains of a "defect" in Lot 36.

11. Detailed accounts of the career of John Macdonald are given in a lecture by the Very Rev. Dr. McDonald, published in the Charlottetown *New Era*, February 4, 1881, and in an article by Miss Anna Macdonald of Charlottetown, Massachusetts, entitled "A Knight of the Eighteenth Century" published in *The Messenger* in 1902 and reprinted in pamphlet form. In the *Catholic Encyclopedia* also there is a brief account from the

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pen of Miss Anna Macdonald. The original source of some of the information is a memorial which the Captain himself prepared sometime after 1798 and had printed to accompany a petition to the Home Government to have the arrears of his quitrents remitted and the officers of the Island government dismissed.

12. Warburton, A. B., "A History of Prince Edward Island" (Saint John, 1923), pp. 168-72, where the resolutions are quoted at greater length.

13. Macdonald, Miss Anna (note 11) and MacLean's "Settlement of Scotch Highlanders in America" p. 284 (See Note 4).

14. John Macdonald's letter to his daughter is quoted in full in the essay of Miss Anna Macdonald referred to in Note 11.

15. Macdonald, Miss Anna and Macdonald, R. C., "Sketches of Highlanders," Saint John, N.B., 1843, p. 45.

16. The other children (cf. Note 2) were Flora (Mrs. Alex Macdonnell), William (drowned at sea), John (a priest) and Roderick C. The youngest son, Roderick C., born about 1800, became a Lieutenant Colonel of the Castle Tioram Regiment of Highlanders and the author of a pamphlet "Sketches of Highlanders," published in Saint John, N.B. in 1843. He was a pioneer in the promotion of public education in the maritime colonies and accepted the Paymastership of the 30th Regiment in order to devote his time and energies to the establishment of schools. He died in the Ionian Isles in 1856. His only son, John Alistair, became a Jesuit priest and his daughter a nun.

17. In a letter to his widowed mother, the "Queen of Tracadie", written in July 1813 while he was in the College, Donald refers to a suggestion of hers that he should spend some time in an attorney's office before returning to the Island. He says he would have liked to qualify as an attorney but on enquiry had found the course too long and too costly for his mother's means. In later life he sent his two elder sons to the same College and he may have contemplated sending William also had not amicable relations between them been interrupted in the adolescence of our Founder.

18. Ryerson, Egerton, "The Loyalists of America," Toronto, 1880, Vol. II, pp. 213-16. The originals of the report of Lt.

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Col. Robinson to the Hon. William Wyndham, Secretary of War, 1797, and the letter of Hon. Robert Hodgson quoted by Dr. Ryerson are in the possession of members of the Brecken family in Charlottetown.

19. Clipping from a Charlottetown Newspaper. This was probably the same slave who had accompanied Mrs. Robinson in her flight through the forest.

20. Of the persons named, the Breckens, the Havilands and the Peakes are descendents of Matilda Robinson (d. Dec. 3, 1842) and, consequently, more closely related to Sir William Macdonald than the Hodgsons, who derive from her sister, Rebecca Robinson (d. May 13, 1925). Ralph Brecken, Esquire, the husband of Matilda Robinson and grandfather of Sir William, was an Island landholder of English extraction, possibly Yorkshire, as there is record in 1827 of the death at Kingston-on-Hull of an eighty-four year old John Brecken who had lived for some years in Prince Edward Island.

The two sons of Ralph Brecken and Matilda Robinson, Hon. John and Hon. Ralph, both had sons named Ralph. John was also the father of Hon. Frederick de St. Croix Brecken who was Attorney-General of the Island from 1859 to 1863 and again from 1870 to 1873. Judge Leith A. Brecken is the son of Hon. Frederick.

One of the five daughters of Ralph Brecken and Matilda Robinson married a gentleman named Lewis, owner of an estate near Kinsale, Ireland. The other four married prominent Islanders, namely, Hon. Thos. H. Haviland, Hon. Donald McDonald (Sir William's father), Hon. James Peake (a merchant and shipowner who became President of the Legislative Council) and Dr. John Mackieson (who in 1848 was appointed Surgeon General, succeeding Dr. Benjamin St. Croix). Hon. Thomas Haviland and Jane Rebecca Brecken were the parents of Hon. T. Heath Haviland (1822-95) who was thrice Colonial Secretary. As a delegate to the Quebec Confederation Conference of 1864 and to the Ottawa Conference of 1873 which arranged for the adherence of Prince Edward Island to the Dominion, he is accounted a Father of the Confederation. On the admission of Prince Edward Island as a Province he became a member of the Dominion Senate. From 1879 to 1884 he was Lieutenant-Governor of the Island.

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Hon. Robert Hodgson and Rebecca Robinson were the parents of another Father of Confederation, Sir Robert Hodgson (1798–1880). After serving a score of years (1829–51) as Attorney-General and a like time as Chief Justice (1853–74) and thrice as Administrator during the absence of Governors and being honored with knighthood (1809), he became the first Lieutenant-Governor of the Island as a Dominion Province (1874–79).

Notes to Chapter II—*The Founder—The Story of His Life*

1. The spelling of the family name had been McDonald for several generations but as, in accepting knighthood in 1898 Sir William adopted the full form of "Macdonald", the latter will be used henceforth in reference to him, except in quoted phrases or passages.

2. The other children were four daughters and two sons, see Chapter I, Note 2, Table III.

The first born and the fifth of the family became Ursuline nuns. The youngest was also educated in the Ursuline Convent in Quebec and did not marry. The eldest son, John Archibald (third of the family), succeeded to the estate of Tracadie, married at the age of forty and became the father of twelve children. Augustine Ralph, the fourth of Hon. Donald's children, was for some ten years a partner of his younger brother in Montreal. Their business was originally in oils but later (from 1858) in tobacco. In 1868, two years after the marriage of John Archibald, the mother and the second sister, Helen Jane, accepted the invitation of William Christopher to live with him in Montreal. Mrs. Donald McDonald died in Montreal, July 22, 1877 and Miss Helen in Florence, Italy, November 20, 1889. The eldest of John Archibald's daughters, Anna Rebecca (now Mrs. W. Emmet Walsh), who was also a member of the Montreal household, succeeded her aunt as the housekeeper and continued so until her first marriage in 1894.

Sir William's family relations, including many names prominent in the history of Prince Edward Island, are more fully dealt with in the article "Sir William Macdonald and his Kin", *Dalhousie Review*, October 1943, Vol. 23, pp. 317–330.

3. *Montreal Gazette*, June 11, 1917. His aversion from the

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rites of the Roman Catholic Church appears also in his youthful letters to his eldest brother.

4. The year 1849 was, of course, that of the great "gold rush" to California. The young man asks his father to refrain from mentioning his threat to his mother lest she would be worried about his safety "in rounding the Horn."

5. Some seven or eight hundred deaths from cholera occurred in Quebec in the summer of 1854 — Hagerty, John H., "Four Centuries of Medical History in Canada" (Toronto, 1928) Vol. I, pp. 202—211. Hon. Donald's death was reported in the weekly *Islander* on August 4, 1854, as having occurred suddenly "a few days since".

6. While in Boston Augustine had been carrying on business with Canada. A libel (afterwards contradicted) in the Boston *Traveller*, had represented him as having "run away to Canada" to escape debts. It is notable that his name does not appear in any of the Annual Directories of Montreal. The Directory for 1854-5, which was revised in May and June, 1854, carries the name "McDonald Bros. & Co. oil merchants, 23 St. Peter St." That for 1855-56 lists W. C. McDonald under "Paint, Oil and Glass Stores" and has "McDonald, R.C." (obviously misprinted) in its alphabetical list as "oil merchant and manufacturer." The directory for the succeeding year gives "McDonald, W.C., oil merchant and manufacturer, 25 St. Sacrement St.," while those for 1857-58 and 1858-59 give the same address but describe him as "importer and general commission merchant," include him in the list of commission merchants, and give the further information that he "boards at St. Lawrence Hall". In 1859-60 the office address is 235 St. Paul Street and in the succeeding years, to 1866, 252 St. Paul Street. The main factory was in Water Street and in some years an additional factory address is given.

For two years, 1864-65 and 1865-66, a full page advertisement appeared in the Montreal Directory, announcing that Messrs. Forester, Moir and Co. were agents for the sale of all "McDonald" tobaccos in Canada, naming eleven brands and cautioning against the imitations of two of them which had appeared upon the market. This advertisement, showing a trademark with a red tobacco leaf on a blue background with white lettering shaded in red, was the most conspicuous feature of

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the directories of those two years. Whether the idea was that of Messrs. Forester and Moir or not, the advertisement, the agents, and the "Brothers & Co." disappear and there is no further advertising, though "W. C. McDonald" continues as a subscriber to the directory.

Though there is no evidence, it would appear possible that a quarrel with Augustine Ralph occurred in connection with these changes.

7. The New York daily papers on October 29, 1885, published reports of a motion made on the preceding day before Judge O'Gorman of the Superior Court to grant a new trial to Augustine Ralph McDonald who had been held in the Ludlow Street Jail since 1879 on a charge of contempt of court. It appears that, possibly through the influence of General Thomas Francis Meagher, who had been a schoolmate and friend of Augustine in Stonyhurst College, he had been commissioned by President Lincoln in 1863 to negotiate an agreement between commanders of the opposing armies to abstain from destruction of certain stores of cotton. These had been placed under protection of the British flag. He had invested his private fortune in cotton, which had been similarly stored. After the war an International Commission had awarded him \$200,000 for the loss of his cotton, which had been burned by a Federal Army. A claim for a fee of one fourth of this amount made by a firm of Washington lawyers had been rejected by the Supreme Court of the District of Columbia on February 16, 1875. McDonald received the amount in dispute (approximately \$50,000) and, if we may credit the word of his opponents, "leaving Washington, hurriedly, secretly and by unusual conveyance", took it to New York. Two years later the Court had reversed its decision and ordered the money restored to its custody. Ignoring this order, McDonald had been arrested and imprisoned in New York on February 7, 1879, on a charge of contempt of court. Appeals to the Superior Court of New York and to the Supreme Court of the United States had failed to secure his release or retrial. Judge O'Gorman's decision was that the judgments of previous courts were in order and that no claim to a new trial had been established. Augustine must later have been set free, for sometime in the nineties he is known to have visited Montreal, though rumor has it that Sir William refused to receive him.

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8. The broader portion of St. James Street was formerly designated "Great" and the narrower portion "Little" St. James St.

9. These letters of William C. Macdonald to his mother and sister are quoted at considerable length in the article "Sir William McDonald and his Kin", *Dalhousie Review*, Vol. 23, No. 3, pp. 317-30, October, 1943.

10. No. 3 Prince of Wales Terrace is now No. 995 Sherbrooke Street West, and is the residence of Mr. Walter M. Stewart.

11. Alain Chartier Macdonald (1867-1897) was a son of de Bellefeuille Macdonald (1828-1894), son of John Macdonald of Garth (1774-1860), whose autobiographical notes (1791-1816) appear in Hon. L. R. Masson's "*Les Bourgeois de la Compagnie du Nord-Ouest*" (Second Series, Quebec 1890). Upon his retirement from the service of the North West Company in 1816, John McDonald of Garth settled at Grey's Creek in Glengarry County, Ontario. His son (Antoine Eustache) de Bellefeuille Macdonald married Louise, daughter of Hon. Robert Unwin Harwood, M.L.C. Alain was the youngest of five sons. The name "Alain Chartier" was a traditional one in the family of Mrs. Harwood, who was Louise Josephe, daughter of Hon. Michael Eustache Gaspard Alain Chartier de Lotbinière (1748-1822), son of that Marquis de Lotbinière (1723-99) who built Fort Carillon at Ticonderoga on Lake Champlain, the possession of which was the occasion of several battles in colonial times. The Lotbinières claimed descent from the homely but gifted fifteenth century poet and orator, Alain Chartier, whose sleeping lips, a romantic but ill-founded legend says, the Dauphine Princess Margaret of Scotland, kissed in honor of the golden words that had issued from them.

Alain Macdonald's brother, Archibald de Léry Macdonald, and his mother, Mme. de Bellefeuille Macdonald, were actively interested in the Numismatic and Historical Society of Montreal, the former being its Secretary. It is interesting to note that amongst the portraits loaned for one of the Society's exhibitions in the Chateau de Ramezay were some belonging to "W. C. McDonald".

Why our Founder objected to his niece's marriage with a scion of such illustrious families, a young man of unimpeachable character, he never explained, even to her. The most

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probable conjecture is that he recognized in this marriage the defeat of a cherished hope of weaning his brother's family from the Catholic faith. Rumors that de Bellefeuille Macdonald or one of his sons had offended Sir William by approaching him for financial support in asserting a claim to that title of "Lord of the Isles", which had for centuries been in dispute amongst the various branches of Clan Donald, are discredited by members of the family and are inherently incredible since John Macdonald of Garth derived from the House of Keppoch, a different sept from Clanranald and also because it was well-known that Sir William was of too practical a turn of mind to be interested in such a question. It is said that he curtly rejected a suggestion that he establish a chair of Gaelic in McGill. "Let that old language die", he said.

The "de Bellefeuille" of Alain Macdonald's father's name appears to have been derived from that of an uncle by marriage. De Bellefeuille's mother was Amelia, a daughter of Dr. Andrew McGillis of St. Andrew's East. Another daughter had married LeFabeur de Bellefeuille, Seigneur of St. Eustache. According to Mrs. A. M. W. Stirling's "Macdonald of the Isles" (London 1913) the House of Keppoch claims descent from Alastair Carrach, Lord of Lochaber, fourth son of "Good" John of Isla, Lord of the Isles, by his second wife, Princess Margaret Stewart, daughter of Robert II and grand-daughter of Robert Bruce. The Clanranalds, on the other hand, claim descent from the first marriage of John, that to Amie MacRuari. Both wives were cousins of John and it would appear that his "goodness" to the Church procured him Papal dispensation for both these unlawful matches.

12. W. Emmet Walsh, Litt D. (Université de Montréal) was an authority on Celtic literature and wrote a number of books and articles referring thereto, as well as a book of travel and some charming romances of ancient Irish life.

13. Principal Dawson is best known by the knighthood title of "Sir William" bestowed upon him by Queen Victoria in 1884.

14. Annual Report, McGill University, 1913-14, p. 4.

15. Professor Percy Nobbs, McGill News, Vol. 4, No. 3, June 1923.

CHAPTER III

16. The points of similarity of Stephen Girard's career with his own may well have aroused Sir William's interest in the Philadelphia College.

17. One can imagine the stanzas of Pope's noble poem appealing to one of Sir William's reverent spirit. For example:

"What blessings Thy free bounty gives
Let me not cast away
For God is paid when man receives
T'enjoy is to obey.
Save me alike from foolish Pride
Or impious Discontent
At aught Thy wisdom has denied
Or aught Thy goodness lent."

18. *Montreal Gazette*, Wednesday, June 13, 1917.

Notes to Chapter III — *The Founder — His Character*

1. Prof. Percy Nobbs, *McGill News*, Vol. 4, No. 3, June 1923.
2. Dr. W. B. Howell, *McGill News*, Vol. 13, No. 3, June 1932, pp. 31-33.
3. Sir Arthur Currie, 25th Anniversary, Macdonald College, 1932, pp. 8-11.
4. Mrs. Wm. Muldrew, in a letter to the Author.
5. Augustus Biddle, "Sons of Canada", Toronto, 1916, pp. 3-10.
6. Mrs. Susan Vaughan, 25th Anniversary, Macdonald College, 1932, pp. 6-7.
7. One version of this story refers to a Catholic, another to a Methodist, church. Either is credible. The story is dramatically told by Augustus Biddle. (5)
8. See Note 7 to Chapter II.
9. Amongst the ministers of the St. James Methodist Church during the life of Sir William's mother in Montreal were the Reverend Doctors George Douglas, John Potts, and Alexander Sutherland. The Rev. Edward Sullivan (afterwards Bishop of

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Algoma) was curate of St. George's Church from 1862 to 1868 and rector from 1879 to 1882.

10. The Gazette, Montreal, Wednesday, June 18, 1917.

11. This is confirmed by the Montreal members of the family. Both these Jesuit Fathers were first cousins of Sir William. Alistair was the son of Hon. Donald McDonald's youngest brother, Lieut. Col. Roderick C. McDonald. Alain (or Allan) MacDonnell was the son of Hon. Donald's sister Flora. See Chapter I, Note 2, Table III.

Notes to Chapter IV — *The Macdonald-Robertson and the Hoodless Movements*

1. Morgan, Henry J., "Canadian Men and Women of Our Time", Second Edition, p. 951, Toronto, 1912.

2. This account is based upon information conveyed to the author by Dr. Robertson in conversation.

3. Out of this modest enterprise grew the Canadian Seed Growers' Association, whose operations have signally contributed to the wealth of Canada and its farms as a source of cereal and other seeds of high quality. The "Seed Branch" of the Department of Agriculture, later the Plant Products Division of the Production Service of the Dominion Department of Agriculture, also owed its origin to this initiative of Dr. Robertson. It was under Mr. George H. Clark, the young man chosen by Dr. Robertson to supervise the seed selection project, that the Seed Branch developed and expanded.

4. Robertson, James W., "The Macdonald Movement for Rural Education", Evidence before the Select Standing Committee of the House of Commons on Agriculture and Colonization, Ottawa 1907.

5. Howes, E. A. "Macdonald Consolidated School, Guelph, Ontario". *The Teachers World*, Toronto, Vol. 1, pp. 123-127, December 1906.

6. *The Teachers World*, Toronto, Vol. 1, pp. 145-147, December 1906.

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7. Kidner, T. B., "Municipal Consolidated School in New Brunswick", *The Teachers World*, Vol. 1, pp. 133-140, December 1906.

8. Hamilton, D. W. "Macdonald Consolidated School, Kingston, N.B.", *The Teachers World*, Vol. 1, pp. 128-132, December 1906.

9. Mackay, A. H. "Consolidated Rural Schools in Nova Scotia", *The Teachers World*, Vol. 1, pp. 141-144, December 1906.

10. Jones, J. W., "The Macdonald Consolidated School, Hillsboro, Prince Edward Island", *The School Trustee*, Toronto, Vol. 1, pp. 162-166, January 1907.

11. *The Patriot*, Charlottetown, P.E.I., July 3, 1908; *The Charlottetown Guardian*, July 3 and July 4, 1908; *The Daily Times*, Moncton, N.B., July 6, 1908.

12. *The Patriot*, Charlottetown, July 2 and 3, 1908. *The Charlottetown Guardian*, July 2, 1908.

13. According to a report of the Prince Edward Island Chief Superintendent of Education for the school year ending in September 1906, the annual expense of operating the school was approximately \$5500, of which amount the Provincial Government provided \$1190, and the ratepayers only \$201. As the average attendance is given as 125, this represents a cost per pupil per annum of about forty-four dollars, of which Sir William provided over thirty-two, and the Provincial Government over eleven dollars. The Report of the Superintendent for the year 1912 states that the School closed that year. There is no doubt that, Sir William's contribution having been discontinued, the lack of financial support was the reason. The building has now been demolished.

In the preparation of its report, which was published in 1913 as Sessional Paper No. 191d, the Royal Commission on Industrial Training and Technical Education, of which Dr. Robertson was Chairman, visited the Hillsboro School. This was probably during its last year of operation (1910-11). The enrolment was then 142, including 29 from outside districts. The average attendance was 74 per cent as compared with 60 per cent before consolidation, and in the five years of opera-

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tion twenty pupils of the district concerned had passed matriculation examinations, as compared with one pupil in the preceding five-year period. The gardens and kitchens were self-sustaining and the manual training department was costing only fifteen dollars per year.

14. Private communications from Mrs. H. M. Bostwick, Hamilton, Ont., daughter of Mrs. Hoodless; Mrs. J. M. Lickley, Toronto, formerly Mrs. W. H. Muldrew; and Miss Olive M. Cruickshank, Director of the Home Economics Department, Macdonald Institute, Ontario Agricultural College, Guelph.

Notes to Chapter V—*The Property*

1. Copies of the deeds of the various properties of Sir William Macdonald and of his deeds of gifts to the University, kept in the office of the Bursar of McGill University, have been examined in the preparation of this chapter. The map has been made from a 1940 Cadastral map of Montreal Island published in 1940 by the Provincial Department of Lands and Forests and maps which are in the offices of the Vice-Principal and the College Department of Buildings and Grounds.

2. Robert Wilson Reford (1831–1913), of Irish birth, came to Canada with his parents at the age of fourteen, completed his education in Toronto and entered the grocery and shipping business. In 1866 he opened an ocean shipping office in Montreal and soon became an important factor in the development of Canadian foreign commerce. He became a Governor of McGill University in July 1906 and took an important part in a campaign for its funds in 1911. In his enterprise, uprightness and self-discipline he resembled Sir William Macdonald but, unlike the latter, "he took an active part in civic affairs, fighting untiringly for reforms". Roberts and Tunnell, *Standard Dictionary of Canadian Biography*, Toronto, 1938; Morgan, *Canadian Men and Women of Our Time*, Toronto, 1912.

3. The original register of real estate under the Sulpician Seminary, which was Seigneur of the whole Island of Montreal, was known as the "Terrier". Upon the abolition of seigneurial

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tenure this was replaced by the "Cadastre" which is still the official register. In the "Columbian" English edition of Désiré Girouard's "Lake St. Louis" (Montreal 1893, with Supplement 1903) between pages 254 and 255, there is inserted a map of the Terrier lots around the end of the Island from Pointe Claire to St. Genevieve. Pages 254 and 255 contain a table showing both the terrier and the cadastral numbers of these lots, together with the names of the first grantees and those of subsequent proprietors. According to this table, Lot 296 (Terrier No. 104) was granted to Jean-Baptiste Migeon de Branssac and Aimé Lecompte in 1678 and passed to Guillaume Meloche, to Jean-Baptiste and Dolphis Crevier, and to Robert Reford, while Lot 297 (Part of Terrier No. 105) originally granted in 1678 to Cibard Courreau *dit* Lacoste, was subsequently owned by Simon Fraser (the explorer), by Toussaint and Louis Crevier, by Alexander and Gilbert Crevier, then by Robert Reford. A portion of Lot 296 between the River and the road was retained by the Creviers. This has passed by inheritance to Mr. Emile Pilon, the well-known fishing guide, who now lives upon it. Another portion, fronting on the River Road, which in 1897 had been sold by Mr. Reford to Dame Margaret A. Jordan and bequeathed by her to her husband and children, was bought from her executor, John William Crowe, by Sir William in December 1904, four months after his original purchase of the Reford farm.

Mr. Boden continued in charge of the Reford farm until in 1907 John Fixter of the Central Experimental Farm, Ottawa, was appointed Farm Manager for the College. At that time the farm buildings stood on Lot 296, north of the railway. The main barn with its basement stables was set on fire by lightning at the close of harvest in 1907. Temporary stables for the cattle were built upon the surviving foundation and later converted into the sheep-sheds which now occupy the site. In the next year fire-proof stables and a feed-barn were erected on Lot 297. The stables have stood the test of time, surviving two feed-barn fires.

Lot 251, adjoining 296 to the west and extending from the railway to the Ste. Marie Road, was also included in the Reford Farm. The concrete piggery which had been built by the College on Lot 251 lost its tiled roof in the 1907 fire. It was re-roofed and is still in use.

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On Lot 296 stand, north of the railways, the Farm House, the sheep and swine sheds and the North Cottages, and, south of the Metropolitan Boulevard, the High School, Men's Residence, Glenaladale, Chemistry Building and half of the Main Building. Lot 297 has the horse stable, the cattle stables with their feed barn and, south of the Boulevard, the eastern half of the Main Building, the Biology Building and the Women's Residence; also between the River Road and the River, the unsightly building erected for a C.W.A.C. drill hall, the land used as skating rink and tennis courts and that formerly used as sewage-exposure beds.

4. The College buildings on Lot 298, the Dawes Farm, are the Poultry Building, the Agriculture Building, the small "Cluster" Apartment Building and the Power House.

The eastern boundary of Lot 298 is the straight road, commonly referred to as the Main Farm Road, running the whole way from the River Road to the Ste. Marie Road. It passes between the Women's Campus (at present occupied by the temporary "Campus Apartments" for veterans) and the horticulture lands, between the Poultry and Parasitology Buildings and across the Stock Farm. On the map in the office of the College Department of Buildings and Grounds (Note 1) it is designated "Dawes Lane".

5. On Lot No. 302 (the Coron Farm) now stand Harrison House and the three adjacent residences, the Horticultural Barn and the Parasitology Building. Lot No. 303 (the Basile Crevier property) is Stock Farm fields and has no buildings.

According to Girouard's Table (see Note 3), Terrier Lot No. 106, which includes Cadastral Lots 298-302, was granted in 1678 as a "Fief" to Antoine de la Fresnaye, Sieur de Brucy, and had as subsequent proprietors Antoine Deschamps, Mark Dawes and George Dowker. (Lot 303, which had no River front, is not listed in the Girouard table.) As related by Girouard on pp. 439-440, de la Fresnaye had been a lieutenant in the company of Sieur François-Marie Perrot of the regiment of Auvergne, who became Governor of Montreal. In 1676, the Governor, who had been for some years a secret partner of de la Fresnay in trading illegally with the Indians, whom they intercepted on the way to Montreal with furs, granted a fief on "Ile Perrot" to his partner, making him Sieur de Brucy. On this fief on Ile Perrot, de Brucy had a fine establishment in-

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cluding a residence for himself and his wife, H  l  ne Picotte de Bellestre. — Girouard, pp. 439—440.

6. The Deslauriers Farm, Cadastral Lot 304, ran the full length from the River to the Ste. Marie Road and, like Lots 302—303, broadened from the river towards its northern boundary. Girouard's table gives it the name "Fief Blainville" and the date of grant 1686, the name of the grantee being Jean-Baptiste Celoron, Sieur de Blainville. The date is that of the marriage of de Blainville with H  l  ne Picotte de Bellestre, widow of Antoine de la Fresnay, Sieur de Brucy. Like de Brucy, Celoron was an army officer, turned merchant as well as seigneur. From a footnote to p. 440 of Girouard's book it would appear that the land subsequently known as Fief Blainville was granted in 1683 to de Brucy by Dollier de Casson, who was a companion of de la Salle on his first expedition to the west, and that it passed to de Blainville on his marriage with de Brucy's widow. De Blainville was killed in war with the Indians in 1691.

The subsequent owners of Fief Blainville were, according to Girouard's Table, Octave Pilon, Basile Crevier and Leon Legault. It is from the last mentioned, who was "*dit Deslauriers*" that Sir William purchased the farm. Some of Legault's descendants retain the family name, others have adopted "Deslauriers". The present (1950) Mayor of Ste. Anne de Bellevue, Mr. Elmo Deslauriers, is of this family.

On the riverside just east of the property purchased by Sir William stands what was then the farm house and is now the residence of Mr. W. M. Spriggs. The original farm house, a stone building known as "The Chateau", stood on the river side property acquired by Sir William. This house was burned while the College buildings were under construction.

The buildings on the southern part of Lot 304 are the Rivermead group of staff residences and the eastern group of employees' residences, known as the East Cottages.

7. Between Lots 302 and 304 at their southern extremities, ran for about one-fourth the distance between river and railway, a lot (No. 301) of two acres belonging to Mr. Leslie Dowker, the bachelor with whom Sir William Macdonald failed to come to terms (see Chapter III, p. 25). Some years after Sir William's death Mr. Dowker deeded this lot to a servant, Miss Bourbonnais, from whom the University purchased

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it in 1935. At the same time the two-acre portion of Lot 304 situated between the River and the River Road was bought from a Mr. Gould Snasdall-Taylor to whom Mr. Dowker had deeded it as a gift. The small lots 299 and 300 and the part of 301 on the river front are not University property but form part of the village of Baie d'Urfe. The same is true of the portion of Lot 298 between the River and the River Road.

8. The three Robillard lots (Cadastral Nos. 43, 44 and 45) are bounded on the south by the Ste. Marie Road. This road which, up to the line between Lots 37 and 38 forms the northern boundary of the Main College Farm, diverges at that point from the farm boundary (curving as it ascends a hill) and continues its eastward course in a more northerly position. Extensions of the eastern boundary of Lot 304 (Main Farm) and the western boundary of Lot 43 (Ste. Marie Farm) would meet at an angle of about seventy-five degrees at a point 350 yards south of the road and seventy-five yards east of the Main College Farm.

9. The Stoneycroft Farm included Cadastral Lots 26, 28, 29, 34, 36, 39, 41 and 42, most of P27, P35, P38, and parts of P8, P9, P10, P11, P16, P17 and P20. Lots P8-P11 are in the village of Senneville. A map of the property showing the situations and areas of the lots is in the office of the Department of Buildings and Grounds. That map shows a "proposed road" forming a detour from the Ste. Marie Road which would cut off the unpurchased parts of Lots P35, P37 and P38 and so make the road the southern boundary of the block throughout.

10. The following summary of the College Lands is based on a memorandum provided by Mr. J. H. Holton, Secretary of the College, who is also Assistant Bursar of the University:

Original farm property	561	acres
Maple Avenue lots	6	"
Robillard Farms (Ste. Marie Farm)	200	"
Bourbonnais lot	2	"
Snasdall-Taylor lot	2	"
Stoneycroft Farm	910	"
	1681	"
Less land surrendered:		
For the Metropolitan Boulevard	13	"
For the Hospitals	60	
	73	
Area at end of 1950	1608	"

CHAPTER VI

11. When the College opened in 1907 it undertook to provide instruction for the Protestant children of the District of Ste. Anne de Bellevue. There was in existence a one-room school building on the lot on the south side of St. George Street between Maple and Perrault Avenues — the land now used as tennis courts. In the years 1907–1909, the school had two teachers, and some classes were held in the Chemistry-Physics Building. The extension of the High School Building in 1912 almost doubled its capacity. The old school building was converted into the Parish Hall of St. George's Church.

12. Thomas W. M. Cameron, "The Institute of Parasitology", *McGill News*, Autumn 1940.

13. The Cadastal numbers in Table I are those given in the deeds of sale.

Table II is based on the plan of the Town of Ste. Anne de Bellevue in use in the Town Hall in June 1947.

Notes to Chapter VI—*The Period of Organization and Construction*

1. Sir William Macdonald made financial contributions to Dr. Tory's work in the establishment of both the McGill University College in British Columbia and the University of Alberta.

2. Adams, John, "The Protestant School System of the Province of Quebec". Longmans, Green & Co., London, New York and Bombay, and E. M. Renouf, Montreal 1902 (137 pp.)

3. Annual Report of the Governors, Principal and Fellows of McGill University for the year 1904–05.

4. Mr. E. C. Drury, afterwards Premier of Ontario, had been offered the position of Farm Manager but, finding himself in disagreement with Dr. Robertson as to plans, declined the appointment.

5. The McGill Normal School was established in 1857 at the instance of Dr. John William (afterwards Sir William) Dawson, Principal of the University, who also found it necessary to bear the burden of the Principalship of the School for thirteen years. In 1870 William H. Hicks, an English-trained teacher,

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who from 1853 to 1859 had carried on a training school under the Colonial Church Society, which had been absorbed into the McGill School, was advanced to the Principalship. He was succeeded by Dr. Sampson P. Robins who, like Mr. Hicks, had been a member of the original staff of the School. See Dawson, "Fifty Years of Work in Canada", London and Edinburgh, 1901, and Parmalee, George W., "English Education", in Short and Doughty's "Canada and its Provinces", Toronto, 1914, Vol. 16, pp. 485-488.

In the fifty years of its existence the Normal School had trained 2988 teachers and had granted 4118 diplomas of four grades — Academy, Model School, Elementary and Kindergarten.

6. Annual Report of the Governors, Principal and Fellow of McGill University for the year 1905-06, pp. 11-12.

7. The Royal Institution for the Advancement of Learning was organized in 1818, under an Act of the Legislature of Lower Canada, adopted in 1801, to inaugurate a system of public education. The will of James McGill, which was made in 1811 (about three years before his death), directed his executors to convey the property and endowment bequeathed by him for the founding of a University or College, to the Royal Institution, whose organization he anticipated. The transfer was made in 1819. The charter of the University granted in 1821 provided for a Board of Governors, and contention between these two bodies as to the definition of their respective authorities was only terminated in 1852 by a revision of the charter making the two bodies identical. For an account of the early difficulties and struggles of the University, see Macmillan, Cyrus: "McGill and its Story," London, New York and Toronto 1921, to which are appended an extract from the will of James McGill and copies of the original charter and its amendment.

8. W. J. H. "Memories of a Gargantuan Cheese", Winnipeg Free Press, March 2, 1916.

9. Scrap-books in the office of the Vice-Principal contain over a hundred clippings from articles referring to Dr. Robertson's activities published between 1898 and 1911. Amongst the later ones referring to the College are some by reporters, others by writers of such prominence as George Iles, William E. Curtis

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and Frederick C. Mears. The article published in the *Christian Guardian*, August 5, 1908, included pictures of the College buildings and of Sir William, Dr. Robertson and Dean Locke (son of a Methodist minister). It elicited from one of its readers on August 19, a letter of protest against its "extolling the 'almost unparalleled munificence of that good steward of the grace of God' who had made his millions by blighting the bodies and damning the souls of thousands of innocent boys — Sir William Macdonald". The writer was doubtless unaware that Sir William not only abstained from personal use of tobacco but discouraged its use by others (see Chapters II and III), but had possibly heard of his antagonism to organized religion.

Notes to Chapter VII — *The Staff*

1. The successive heads of Departments in the Faculty of Agriculture have been the following:

Agricultural Engineering		Bacteriology	
G. E. Emberley	— 1914-21	F. C. Harrison	— 1905-26
L. G. Heimpel	— from 1921	J. R. Sanborn	— 1927-29
		P. H. H. Gray	— from 1930
Agronomy (Entitled Cereal Husbandry to 1921)		Biology	
L. S. Klinck	— 1905-14	Wm. Lochhead	— 1905-21
James Murray	— 1914-19	Department then divided into Entomology — Zoology and Botany.	
Robert Summerby	— 1918-46		
L. C. Raymond	— from 1946		
Animal Husbandry		Botany	
H.S. Arkell	— 1906-10	B. T. Dickson	— 1921-26
G.S.H. Barton	— 1911-32	Title of Department then changed to Plant Pathology.	
A. R. Ness	— from 1933		
Animal Pathology and Veterinary Service		Chemistry	
There had been a resident Veterinarian since 1912 and Dr. Conklin had held this position since 1922 but was not a member of the Faculty until 1923.		J. F. Snell	— 1907-36
		W. D. McFarlane	— 1936-47
		R. H. Common	— from 1947
		Economics	
Raymond L. Conklin	— 1923-1940	J. E. Lattimer	— 1927-1947
Wm. E. Swales	— from 1946	David L. MacFarlane	— from 1947

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English		Parasitology	
W. Douglas			
MacFarlane	— 1908-19	T. W. M. Cameron	— from 1933
H. D. Brunt	— 1919-42		
(Member of Faculty from 1923)			
J. M. Paton	— 1943-49		
H.R.C. Avison	— from 1949		
Entomology and Zoology		Physics	
W. Lochhead	— 1921-26	C. J. Lynde	— 1907-24
W. H. Brittain	— from 1926	W. C. Quayle	— 1925-30
		W. Rowles	— from 1931
Horticulture		Plant Pathology	
W. S. Blair	— 1905-12	B. T. Dickson	— 1926-28
T. C. Bunting	— 1913-39	A. H. Gilbert	— 1928-29
H. R. Murray	— from 1940	J. G. Coulson	— from 1930
Nature Study		Poultry Husbandry	
John Brittain	— 1907-12		
Nutrition		F. C. Elford	— 1905-12
E. W. Crampton	— from 1946	M. A. Jull	— 1912-23
		W. A. Maw	— from 1923

2. A very brief account of Miss Bainbridge's career is given by her foster mother, Mrs. Lucy Season Bainbridge, in her autobiographical "Yesterdays", New York, 1924, pp. 106-108.

3. A group photograph of the majority of the staff was taken in the Women's Gymnasium before the arrival of the students. In addition to staff members it includes Sir William Macdonald (characteristically in the background), Mrs. Robertson and Mrs. Lochhead. On the back of one of the prints a humorous title was written by Professor Lochhead: "A Group of Early Christian Martyrs, Awaiting the Lions in the Colisseum". A copy of the photograph appeared in the *Illustrated Witness* on June 11, 1908. Individual pictures of the original heads of the Departments of the School of Agriculture appeared in the *Central Canada Citizen* on Friday, September 30, 1910 together with those of a few other members of the College staff in office at that date.

CHAPTER VII

4. Academic Qualifications of the Teaching Staff of Macdonald College. Comparison of 1909-10 with 1939-40 and 1947-48.

Faculty of Agriculture

	Doctors	Masters	Total Advanced Degrees	Bachelors	No Degree	Total
1909-10						
Number	6	3	9	8	6	23
Per Cent	26	13	39	38	26	—
1939-40						
Number	20	12	32	2	2	36
Per Cent	55	33	89	6	6	—
1947-48						
Number	27	16	43	8	0	51
Per Cent	53	31	84	16	0	—

School of Household Science

1909-10						
Number	0	0	0	0	6	6
Per Cent	0	0	0	0	100	—
1947-48						
Number	1	3	4	7	0	11
Per Cent	9	27	36	64	0	—

School for Teachers

1909-10						
Number			3	1	4	8
Per Cent			37	13	50	—
1947-48						
Number	2	4	6	4	1	11
Per Cent	18	36	54	36	10	—

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Notes to Chapter VIII — *The Curricula*

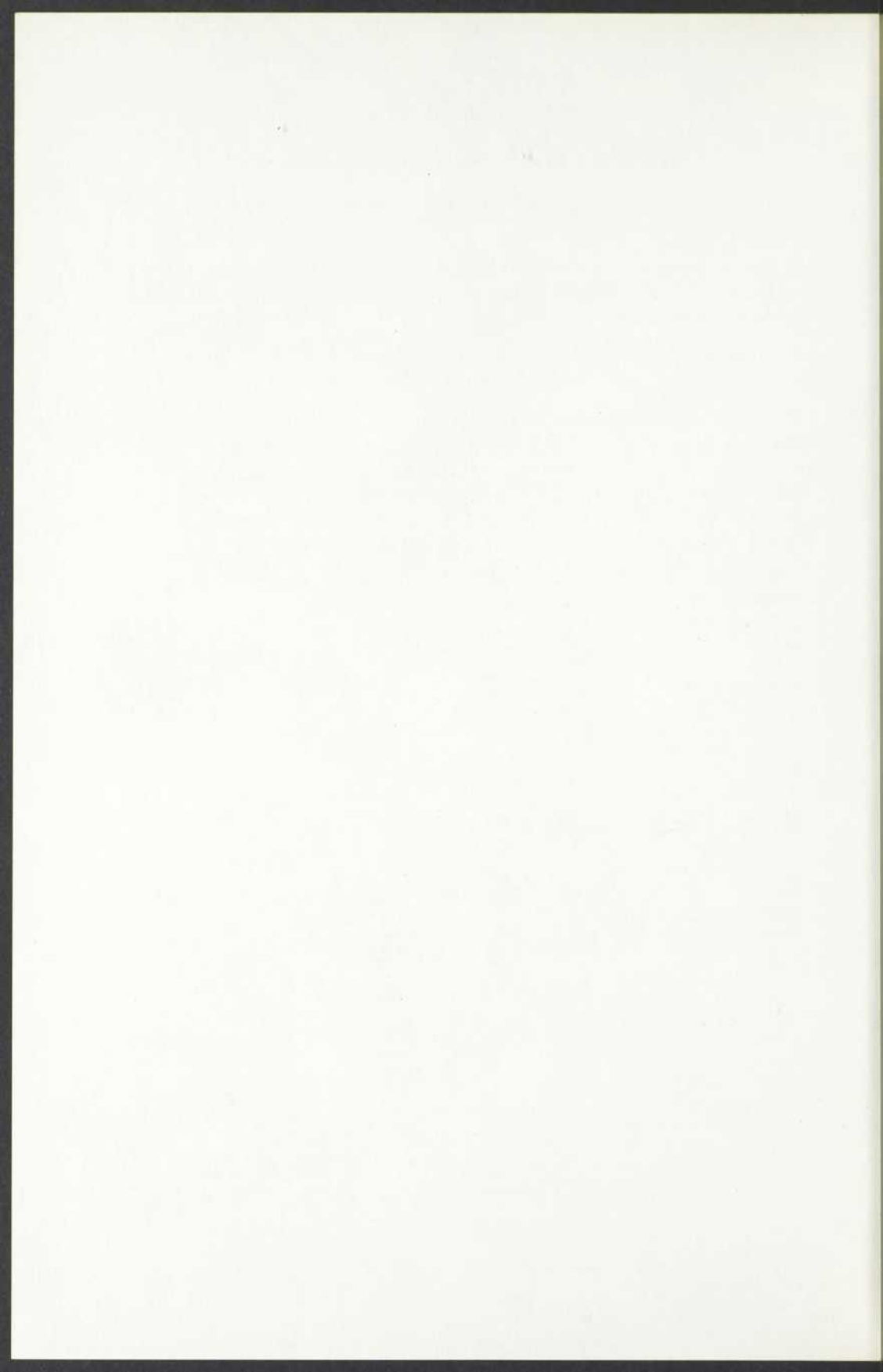
1. The sources of information on this topic are the Annual Announcements and the Minutes of the Faculty of Agriculture.
2. The Announcements of 1908-09 provided for three options — agriculture, horticulture and dairy husbandry — but no class had completed the course when the options had been modified to those referred to in the text.
3. Since Professor Lochhead's retirement the subject of Geology in relation to soils has been dealt with in the Departments of Agronomy and Chemistry.
4. Corporation was a body similar in authority to the present Senate. Curricula in the various Faculties of the University had to be submitted to it for approval.
5. From 1917-18 to 1934-35, the Elementary course was given twice annually, being thus reduced to a four months' course.

Notes to Chapter XII—*In Wartime*

1. Fetherstonhaugh, R. C., "McGill University at War". McGill University, Montreal, 1947, pp. 76-7.
2. Fetherstonhaugh, pp. 77-8.
3. Letter from Mr. Moynan, August 1950 and Faculty Items in Macdonald College Magazine, Vol. 10, 1920, No. 1, p. 111, and No. 2, pp. 80-81.
4. Based on memorandum of Dr. T. W. M. Cameron.
5. Fetherstonhaugh, pp. 303-309.
6. Fetherstonhaugh, pp. 165-7.
7. Memorandum of Dr. Cameron.
8. Fetherstonhaugh, pp. 210-11.
9. Fetherstonhaugh, p. 312.

Notes to Chapter XVII — *Review and Supplement*

- (1) Joseph Barber Lightfoot (1828-89) Bishop of Durham, England.
- (2) See p. 16. The Handbook referred to was a small pamphlet published in 1888, at which date Sir William Macdonald's age would be fifty-seven.
- (3) Snell, J. F. "Sir William Macdonald and his Kin", *Dalhousie Review*, Vol. 23, No. 3, October 1943, pp. 326-7.
- (4) The author's knowledge of the life and will of Stephen Girard is derived from "The Girard College and its Founder" by Henry W. Arey, Secretary of the College, Philadelphia, 1869. There are later and more extensive biographies of Girard. The two-volume work of J. B. McMaster, "Stephen Girard, Mariner and Merchant" (1918) is regarded by the Editor of the Dictionary of American Biography as the most authoritative.



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NOTE: Abbreviations such as Mc, St., and Ste. are listed as of their full form.

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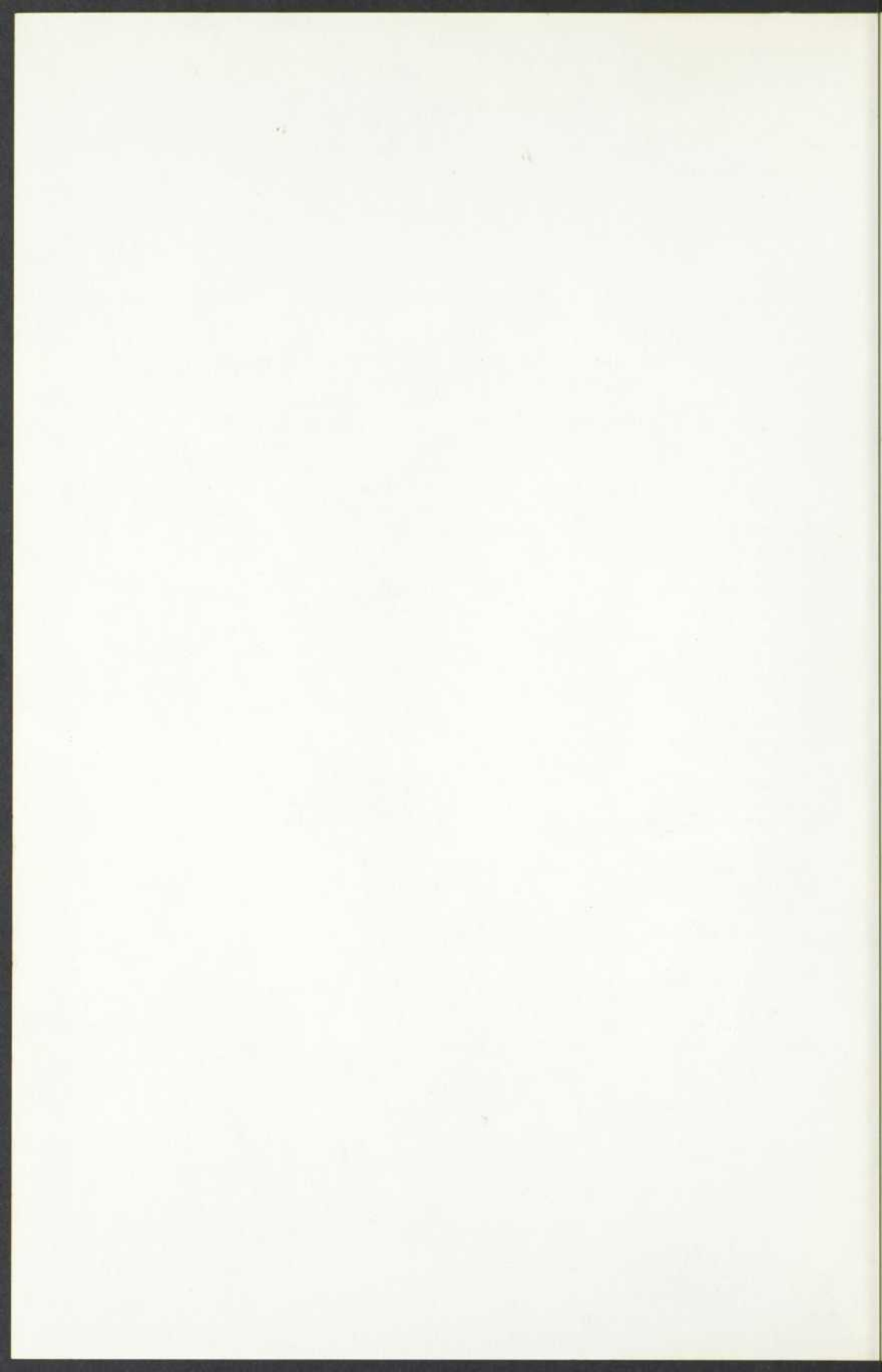
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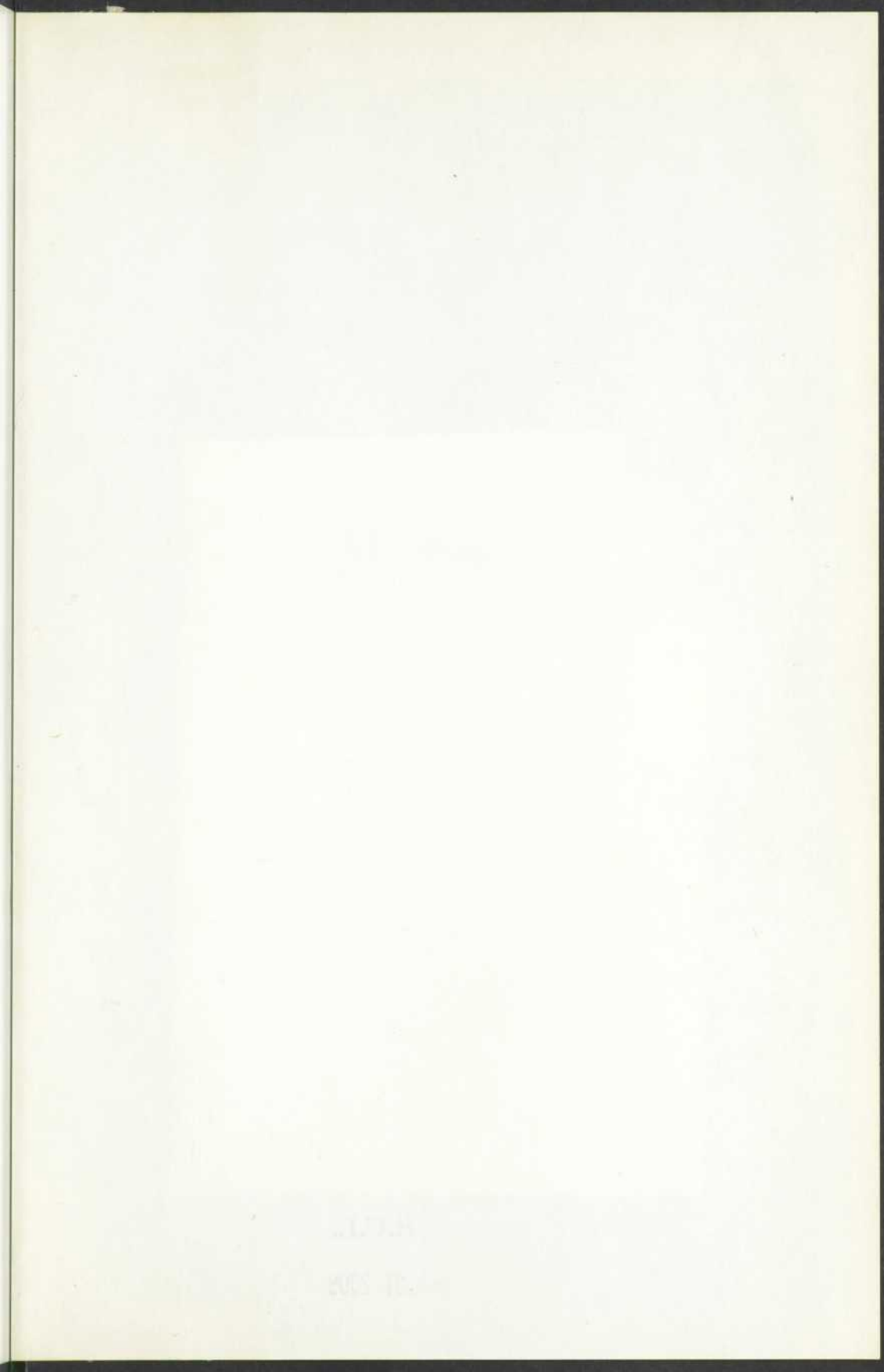
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Dr. John Ferguson Snell joined the Faculty of Agriculture at Macdonald College in 1907. He was Chairman of the Department of Chemistry and on retirement became Emeritus Professor of Chemistry and Honorary Historian. A *Postscript* covering the years 1950-55 has been written by Dr. W. H. Brittain, former Vice-Principal.

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