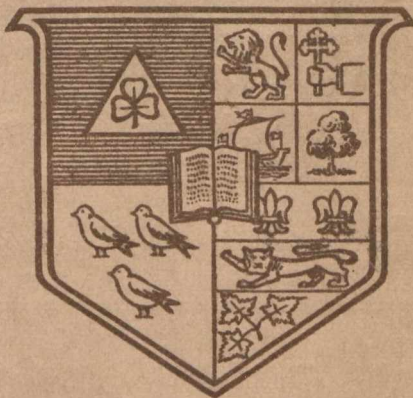


Vol. 7

No. 2

Macdonald College Magazine



1916-17

December

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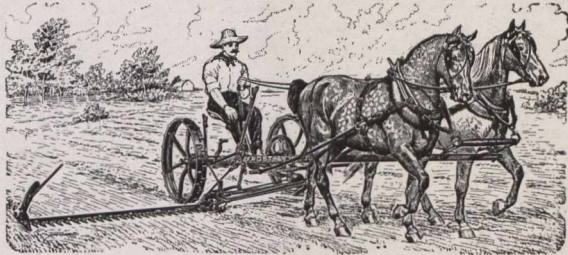
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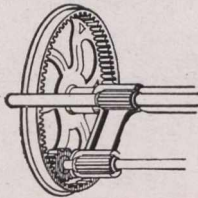
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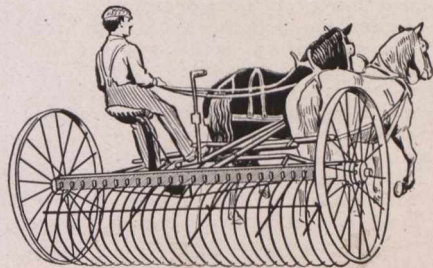


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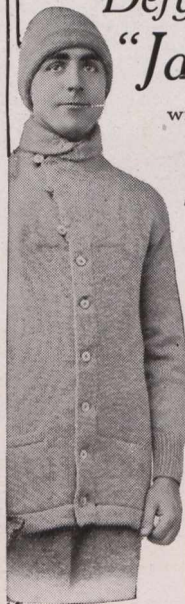
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Butter made from cream separated by De Laval Separators made the usual clean sweep of all highest awards at the great National Dairy Show

held in Springfield, Mass., in October, this year, as it has always done at every National Dairy Show or Convention of the National Buttermakers' Association since the beginning of these important annual contests in 1892. The highest scores in the various classes were as follows:

Whole Milk Creamery Butter

The highest award in the whole milk creamery butter class was made to N. C. Nelson, of Grove City, Pa., who is a user of a De Laval Power or Factory Separator—Score 96.

Farm Dairy Butter

The highest award in the farm dairy or home-made butter class was made to Mrs. P. H. Robinson, of Egypt, Mass., the buttermaker on Thomas W. Lawson's famous farm, and for fifteen years a De Laval user.

Market Cream

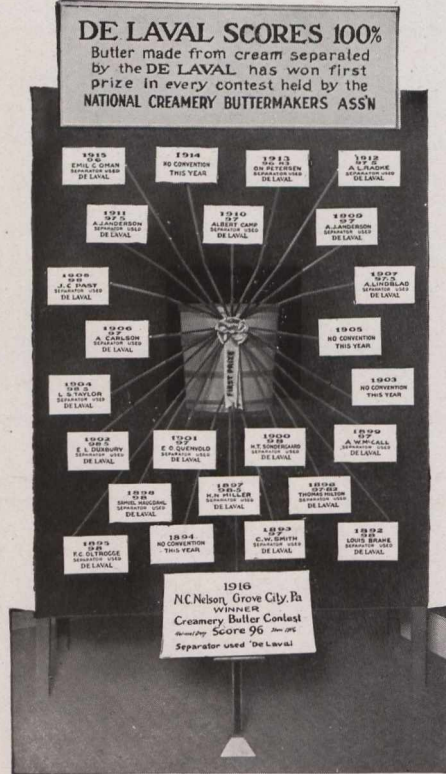
The three highest scoring entries in this class all came from the New England States, and each prizewinner is a user of a De Laval Cream Separator. The scores were as follows:

First:—T. P. Lindsay, Southboro, Mass. Score 96. Mr. Lindsay has used a No. 17 De Laval for five years and says: "It can't be beat."

Second:—Brantford Farms, Groton, Conn. Score 94½

Third:—A. S. Harris, Fitchburg, Mass. Score 93.

Aside from the gold medal and highest awards in these important classes, the great majority of all other awards and highest scores were likewise given to De Laval



This display was part of the De Laval Exhibit at the National Dairy Show. One farmer's wife after gazing at it for a few minutes, was heard to remark to a friend: "That Proves that the De Laval is I-T it."

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The Macdonald College Magazine is published four times during College year by students. Subscription: \$1.00 per year. Address all subscriptions, etc., to the Business Manager, all advertising matter to the Advertising Manager, and all matter for publication to the Editor-in-Chief, Macdonald College Magazine, Macdonald College P. O., P. Q.

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The following have enlisted since our last issue:—

- Crawford, Private William (Live Stock Dept.), No. 1057236, 245th Grenadier Guards, Montreal, P.Q.
 Payment, Private John P. (Live Stock Dept.), No. 1057239, 245th Grenadier Guards, Montreal, P.Q.
 Simmonds, Gunner A. (Live Stock Dept.)
 Weir, Private A. (Live Stock Dept.), 73rd Royal Highlanders of Canada, C.E.F., c/o Army P.O., London, Eng.
 Keddy, Private Russel A., No. 466, Canadian Army Dental Corps, Montreal.
 Maskrey, Corporal Harold T. 117th Eastern Townships Battalion, C.E.F., c/o Army P.O., London, Eng.
 Connell, George, 4th Engineer, H.I.R.-M.S., Mikula Sclianinovitch, c/o General P.O., London, Eng.
 Tawse, Gunner W. J., 64th Battery, C.F.A., Guelph, Ont.
 Creaghan, Gerald Francis, Flight Sub-Lieut., Royal Naval Air Service, Lincolnshire, Eng.
 Edmond, Capt., J. H. W. (Biology Building), Imperial Munitions Board, Quebec.

- Graham, Gunner James W., 79th Battery, C.E.F.
 Hamilton, Gunner Geo. S. (No. 359501), C. Battery, R.C.H.A., Kingston, Ont.

DECORATIONS AWARDED.

- Jacks, Lieut. O. L.—Military Cross—Oct., 1916.
 Hammond, Lieut. H. R.—Military Cross—Nov. 1916.
 Levin, Sgt. Morris T.—D.C.M.
 Milne, Lance Corp. A. R.—Military Medal—Nov. 1916.

INVALIDED TO CANADA.

- Ford, C. R.,—July, 1916.
 Carter, G. B.—October 30, 1916.

WOUNDED.

- Harvey, Private William—1916.
 Kelleher, Private Mortimer—Sept., 1916
 Montgomery, Sgt. A. R.—Nov., 1916.
 Hammond, Lieut. Herbert R.—Nov., 1916.
 Drayton, Lieut. F. L.—Nov., 1916.
 Pye, Private Herbert S.—Nov., 1916.
 Nicholson, Gunner William F.
 Jones, Private, A. R.—Nov., 1916.
 Connor, Private J. O.—Wounded at the Dardanelles.

THE
MACDONALD COLLEGE
MAGAZINE

"Mastery for Service"

PUBLISHED BY THE STUDENTS

No. 2.

DECEMBER-JANUARY, 1916-17.

VOL. VII

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Miss J. Fraser, Sc., '17.
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Photographers—Miss D. Grant, T., '17; Miss K. Waldren, Sc., '17; B. A. Bourne, Agr., '19.

EDITORIAL

WITH the publication of this, the December-January issue, our work with the Magazine is completed. The whole control and responsibility is shifted upon other shoulders. New faces will appear on the Board. New men, full of energy and enthusiasm, will step in to fill our places and carry on the work with renewed vigor.

Already we have the outline of the new Board and it bids fair to be a strong one. One which will be a credit to the Magazine and a credit to itself. One which will have the best interests of our Alma Mater at heart and will not deviate one hair's breadth from that high

standard which is both our boast, and our pride.

For some of us the term of office has been short. Others of us have served the allotted time. At times the burden of responsibility has rested heavily upon us. In the press of other work it was often hard to devote as much time to the Magazine as it seemed to demand. Little we realized, when we were appointed to the Board, the amount of work which was entailed or the constant worry which would be ours. We have been continually asking ourselves:—Where will we get material? Is the material up to the standard? Will the Magazine please the readers? Can we

afford this or can we afford that? All these things have been a source of worry and perplexity.

In spite of all our worries and troubles the work in connection with the Magazine has been a pleasure. The new Board, elected from among the Women students, has proven itself efficient and they are workers every one.

The hearty co-operation of the two boards has done much to smooth away many of the difficulties which beset our path and to make the work more pleasant.

The retiring Advertising Manager, Business Manager and Editor desire to thank the other members of the Board for their loyal support, and to one and all, we extend best wishes for a very Merry Christmas and a Happy New Year.

There has been more delay than usual in the appearance of our first issue this year. We must ask our readers to bear with us in this and not criticise us too severely for something which it was beyond our power to prevent. Circumstances made it impossible to get the issue out on time. In common with other enterprises our Magazine has suffered from the effects of unsettled conditions. Many of our strongest men did not return this year. New men had to be broken in, and with decreased numbers it is difficult to carry on the work with the same swing.

In addition to our studies many of us have other lines of work to carry on and it is often hard to devote time to the Magazine just when we should.

We would ask our readers to remember that we are doing our best. While we regret the delay, our readers have not been forgotten and in due time the Magazine will reach them.

Only a few short weeks and Christmas will be here. The holiday feeling is in the air. With it comes the thought of exams and we suddenly realize that one term of the College year is almost over.

The term has been a busy one and the time has passed all too quickly. We have had the usual ups and downs with the accompanying joys and sorrows. We felt them keenly at the time, but now that they are past, they appear but trifles in comparison with what lies hidden in the future.

At this season of the year our thoughts go back to other years. We recall the faces of those who are far away fighting that we may enjoy our liberty. We recall men who took an active part in our College life and whose places cannot be filled by others.

We have done what we can to keep in touch with them. We have planned that each one shall receive a Christmas box from Macdonald and with it at least one letter from a student here. It seems very little to do but with these things goes the best wishes of the students and a prayer that they may be spared to come back to us.

Wherever they may be we join in wishing them a Merry Xmas and a Happy New Year.

In grief or happiness, in strife or labor,
There is no man but sometime needs
his neighbour.

—*East and West.*

The Reason England Expects Every Man to do His Duty

SOMETHING inauspicious has happened. Something indescribably terrible is taking place. "The world is in agony and is tolling with memorial knells inaudible, which in those ears that hear them will sound louder than any noise of shrapnel or calamity." The intense awfulness of the dreadful event is mitigated, however, by the universal and daily display of the sublimest virtues and by the profound consciousness of the vindication of justice and the inalienable right of self-defence.

The peaceful, happy, and irresponsible atmosphere, which but a brief two years ago we drank as though it held some healthful anodyne is to-day saturated with a strange, I was going to say, almost unintelligible sedative. Each one of us has become a little more serious. We have been compelled to step out of that limiting and obscuring entity, "Self," by heartrending events, eloquent in their tragic silence, demanding our sincerest sympathy, our emphatic condemnation, and our most determined resistance. William the Madman, in company with his insanely assertive paladins intoxicated with insulting and domineering pride, the treacherous source of "vaulting ambition, which o'erleaps itself and falls on the other," has chosen the "auspicious" opportunity to transform a peaceful, beautiful, and industrious Europe into a huge human slaughter house, to which countless millions are being driven to become the innocent instruments of a primitive and savage policy of "Blood and Iron."

I feel that surprisingly little has been done to enlighten the students upon

the epoch making event which we are witnessing to-day, and this in itself is a matter deserving the severest censure. Hence, I do not think it will be inappropriate to endeavour in an only too inadequate way, to contribute to the Magazine a short sketch upon the Great War. This is an intention beset with considerable and inevitable difficulties, which only time can eliminate.

For more than forty years the "Horrible Inevitable" hung over the nations like a Damoclean sword suspended by the frail thread of "Armed Peace." As the ominous rumblings of the "War Clouds" became louder and clearer, the nations of Europe suffering violent spasms of suspense plunged headlong—perhaps unconsciously, my God! what a delusion—into a feverish and monstrously insane preparation for war. Certain far-sighted statesmen became charged with evil forebodings. As early as 1909 the Earl of Rosebery interpreted the sinister signs correctly in the eloquent and penetrating words which he addressed to the Overseas Delegates to the Imperial Conference of British journalists—"I do not know that in some ways I have seen a condition of things in Europe so remarkable, so peaceful, and in some respects so ominous, as the condition which exists at this moment. There is a hush in Europe, a hush in which one might almost hear a leaf fall to the ground. There is an absolute absence of any questions which ordinarily lead to war. All, then, forbodes peace, and yet, at the same time, combined with this total absence of all questions of friction, there never was, in the history of the world,

so threatening and over powering a preparation for war."

With fulminating swiftness the "War Clouds" burst over Europe in all their elemental fury. The incalculable forces, which for more than forty years had been subjected to the uncertain pressure of an inchoate concert of Europe, have exploded with an unprecedented violence, which has engulfed the world in a whirlpool of inestimable suffering and ruthless destruction.

To-day, it is our unfortunate privilege "to witness history in the making, to live through a world's tragedy, to feel the crushing burden and the noble stimulus of hard heroic life; to-day, the greatest moral issue which has arisen in nineteen hundred years awaits judgment before the tribunal of 'Public Conscience,' the rights and wrongs of uncounted millions are at stake, agonies unutterable have dimmed the light of heaven, the whole fabric of civilization rocks in the blast; and the first duty we owe to ourselves and to our brother men is to look facts squarely in the face."

According to the inspiring words of Mr. Lloyd George, "we have been living in a sheltered valley for generations. We have been too comfortable and too indulgent, many perhaps, too selfish, and the stern hand of fate has scourged us to an elevation where we can see the everlasting things that matter for a nation—the great peaks we had forgotten of Honour, Duty, Patriotism, and, clad in glittering white, the towering pinnacle of Sacrifice pointing like a rugged finger to heaven." Too many of us are still wallowing in the sluggish backwater of inaction and are glued to the car rails of slothful indifference, and this perilous condition is obviously recognized by Sir William Robertson, chief of the Imperial Staff, when he says in an appeal made to the council of one of the London boroughs, "There is no doubt

whatever of our ability to win the war if only we really put our backs into it. *We have not yet done this.* We still do not recognize the issues at stake, nor the efforts we ought to make *and can make if we will but try.* I have every confidence in my countrymen, *but they are not yet fully awake.*" Fellow-students, if this appeal applies to anybody, it applies to us. Let us bestir ourselves and become fully awake to the tremendously vital issues at stake; let us become faithful and true disciples of that "New Patriotism, richer, nobler, and more exalted than the old," which will make us grasp the fundamental things that matter in life, and which will make us live up to our magnificent motto—"Mastery for Service."—as we never have before.

In order to appreciate this terrible calamity in its true light we must, under the circumstances in which we are unfortunately placed, endeavour to ascertain the facts. By obtaining a clear perspective of contemporary events we shall be able to appreciate our position more comprehensively and regulate our actions accordingly. In order to discourage the mental attitude which has "a fatigued way of looking at great subjects" it is necessary for us to live in history "upon whose pages, men living between two eternities and warring against oblivion make their indelible record." The knowledge of historical facts balances our judgment by quickening our understanding, by creating standards for us, by giving us the power to contrast and the right to estimate. I say emphatically that it is not enough to give out of our bounty—that is easy—but we must attack the difficult task of trying to make the facts of contemporary events our own. In my humble estimation, knowledge of the Great War, its causes, and the issues which are at stake is just as important and necessary as the knowledge we gain in the pursuit

of our agricultural studies. Please do not misunderstand me, I do not ask you to neglect your technical studies in any way, far from it; but what I do ask you to do is to spend more of your spare time, and with most of us that's a common and plenteous commodity, in trying to become accurately informed upon the stern facts which are making history to-day. Let us try to dodge the "convenient excuse of time" more often than we have been in the habit of doing. A pernicious and insidious influence is trying hard to become established amongst us. Its source is an egotistical obsession, evidently created by an acute suffering caused by the gravity and anguish of contemporary events, and this selfish obsession would impose itself upon us as an unquenchable thirst for patriotic duty. The policy of this deceptive influence would, if it could, enforce the partial and temporary cessation of certain college activities outside of the laboratory and lecture-room. I have no hesitation in saying that this unnecessary policy is stigmatized with stagnation and sterility. It is an unassailable contention that these very activities which this baleful influence would so expeditiously terminate, all but in name, are essentially complimentary to our technical studies and undoubtedly play a very prominent rôle in the perfect development of our college life. The reasons given for this abortive intention are absolutely irrelevant and fail conspicuously to "hit the nail on the head". The war should not be the source of unnecessary inaction. The unprecedented conflict should be a stimulus to action in the established institutions of our College, and not be the cause of the entire abolition of certain social functions and mutual-help societies. I say, do not abolish some of these much needed societies, but inculcate into them a spirit of responsibility and sincerity,

and endeavour to make them realize themselves as mediums for the dissemination of accurate knowledge and healthy enjoyment. If once this pernicious influence secures a firm footing it will undoubtedly do more harm than good.

"The Great War has brought us face to face with realities, and though the illusions of self-deception and ignorance die hard, we have already discarded many cherished beliefs and are ready to view our social obligations and responsibilities from new standpoints. The war has already done much to arouse a genuine and general desire to face the future in a *new spirit of coöperation and endeavour.*" Fellow-students, let us try to understand and apply the lessons which the Great War is teaching us. Let us welcome into our midst the new spirit of coöperation and endeavour. We are living in abnormal times and we must adapt ourselves to abnormal circumstances, which in our case simply means that we must carry on our college activities as usual, but with this difference, we must become more enthusiastic and earnest ourselves and infuse into our various activities the new spirit of coöperation and endeavour; and last but not least, we must enter into the new requirements which are imperatively demanded by the seriousness and urgency of the present—I refer to our military exercises, and in this connection I might mention the Girls' Knitting Club—with a zealous determination to call into play our sincerest and most efficient efforts.

Sir Valentine Chirol, in an article entitled, "The Origins of the Present War" says—"Yet to anyone who studied with moderate care the history of his own times, who watched the evolution of German policy under the Emperor William, who could interpret the signs and portents of German Realpolitik,

who read the meaning of that strange apotheosis of brute force which has gradually possessed not only the whole military caste, but the vast majority of the intellectuals as well as the commercial and industrial classes in Germany, *the coming of the Great War has been for many years past no less certain and inevitable than the ultimate explosion of given forces subjected to given pressure.*"—J. Holland Rose says in his "Origin of the War",—"The militant German of to-day is consciously or unconsciously harking back to the primitive times when the young Teutonic bloods persuaded the tribal meeting to let them lead forth a band of warriors to a land of plenty. The mythical Hengists and Horsas, with their longboats girt about with shields, foreshadowed Kaiser Wilhelm sending forth his legions, his warships, his submarines, his Zeppelins. *The events of to-day are a hideous recurrence to the primeval state.*"

From the conclusion of the Seven Years War, 1763, Prussia became the most powerful state in Germany and took her place as one of the five great powers of Europe. Let us for a moment study the fundamental principles which have dominated Prussia since the inception of her irresistible power and grasping ambitions. "Prussia" says the late Lord Acton, Regius Professor of Modern History in the University of Cambridge, like Russia, was a military Power, living on the hope of expansion. But it was infinitely inferior, as to extent and population. It was not a giant but an athlete; and its future depended, not on the intrusion of foreign elements, but on its own development and practical organization. Nature had done nothing to promise greatness. The country was open and arid, and the inhabitants were hard, unimaginative, and poor. Religion had less power over them than over any other part of Ger-

many. To this day the sky-line of Berlin is more unbroken by church towers than that of almost any other city. Neither their situation on the map of Europe nor hereditary endowment fitted the Prussians for empire. *It was the work of the dynasty that a country which was less than Scotland and was protected by no barrier of land or water, became greater than France.* The Prussian people, by which I mean the people of Brandenburg and its vicinity, were conscious that nature had not favoured them excessively, and that they could prosper only by the action of their government. No people were more submissive, or more ready to suffer, for the sake of the State. And none have gone farther in asserting its omnipotence or in abdicating in its hands. They had no silver streak, no natural barriers. As a consequence of the reformation the dominions of the Teutonic Knights were joined in personal union under the same Hohenzollerns who reigned on the Oder and the Elbe. One was part of the Empire, the other was enclosed in Poland, and they were separated by Polish territory. They did not help each other, and each was a source of danger for the other. They could only hope to exist by becoming stronger. *"That has been for two centuries and a half, a fixed tradition at Berlin with the rulers and the people. They could not help being aggressive, and they worshipped the authority that could make them successful aggressors."* The Prussians adopted "the genuine idea which came in with the Renaissance, and according to which the State alone governs, and all other things obey. Government so understood is the intellectual guide of the nation, the promoter of wealth, the teacher of knowledge, the guardian of morality, the main spring of the ascending movement of man." This is the Machiavelian principle which has developed a

"tremendous power, supported by millions of bayonets and organized and directed by brilliant minds, chiefly at Berlin." It is this formidable power which to-day confronts us and which we must crush, unless we wish to become the slaves of "that specially Hohenzollern policy of widening the inherited boundaries," inaugurated by the Margrave Frederick II, over three hundred years ago. The identical policy of aggressive expansion governs the unscrupulous actions of the German Government to-day. Germany is only an enlarged Prussia.

The one and only way to put a final end to this self-imposed national duty of robbery and violence which "is resolved at all costs to conquer some large part or parts of the world where German Colonists can live and bring up families under the black-white-and-red flag" is to annihilate Prussia. We have only to go to German writers themselves to discover what their impossible ambitions are, and how they must inevitably conflict with the firmly established conditions of the other Great Powers.

F. Von Bernhardi says in "Germany and the Next War"—"We have fought in the last great wars for our national union and our position among the Powers of Europe; we now must decide whether we wish to develop into and maintain a 'World Empire,' and procure for German spirit and German ideas that fit recognition which has been hitherto withheld from them"—a flagrant misconstruction of the true facts. Who could have appreciated German ideas and achievements with more esteem than the British and the Americans? According to Bernhardi, it is either "World Power or Downfall" for Germany.

But what is more significant than the expression of Germany's world wide ambitions is the realisation by

Germany of the opposition which she will be forced to meet in attempting to carry out her ambitious programme, when he says—"The sphere in which we can realize our ambition is circumscribed by the hostile intentions of the other World Powers"—*in Germany's eyes the right of self-defence, which is the first law of nations and includes the right to preserve the integrity and inviolability of the state, is a hostile act*—"by the existing territorial conditions, and by the armed force which is at the back of both." Treitschke, perhaps Germany's most eminent and influential political historian, states in one of his lectures on politics that "Germany with its forbidding coast-line was yet once on a time *the leading sea-power, and, please God, it shall become so again.*" Heine, a very distinguished German poet made the following prophecy—"Christianity—and this is its highest merit—has in some degree softened, but it could not destroy, that brutal German joy of battle. When once the taming talisman, the Cross, breaks in two, the savagery of the old fighters, the senseless Berserker fury of which the northern poets sing and say so much, will gush up anew. That talisman is decayed, and the day will come when it will piteously collapse. Then the old stone gods will rise from the silent ruins, and rub the dust of a thousand years from their eyes. Thor, with his giants hammer, will at last spring up, and shatter to bits the Gothic Cathedrals." The above prophecy has become only too true, as witness *the German atrocities at Louvain, Dinant, Aerschot and Termonde; the wanton and unnecessary destruction of Rheims Cathedral; the Armenian massacres, the forced exile of thousands of Belgians and French*—God forgive them not, for they know what they do.

The late J. A. Cramb, M.A., Professor Modern History, Queen's College, Lon-

don, who had a wide knowledge of German history and literature and who had many opportunities of conversing with Germans and of reading German periodicals and newspapers says that the following is the line of thought which the average German takes a pride in publishing wholesale—the German of the type of Treitschke—“England’s mere existence as an empire is a continuous aggression. So long as England, the great robber-state, retains her booty, the spoils of a world, what right has she to expect peace from the nations? *England possesses everything and can do nothing. Germany possesses nothing and could do everything.* What edict then, human or divine, enjoins us to sit still! For what are England’s title-deeds, and by what law does she justify her possession? By the law of valour,

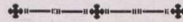
indeed, but also by opportunity, treachery, and violence.”

The following is a very remarkable product and is an illustration of the spirit we have to fight. In his speech to his soldiers on the way to the front the Kaiser said—“*Remember that the German people are the chosen of God. On me, on me as German Emperor, the Spirit of God has descended. I am His weapon, His sword, and His vice regent. Woe to the disobedient*”—the Belgians—“*Death to Cowards*”—the British—“*and unbelievers*”—the French.

The “bottlewash” dispensed in these regions, quite frequently, could not compare with the above piece of dangerous lunacy.

We must do or die. We are fighting madmen.

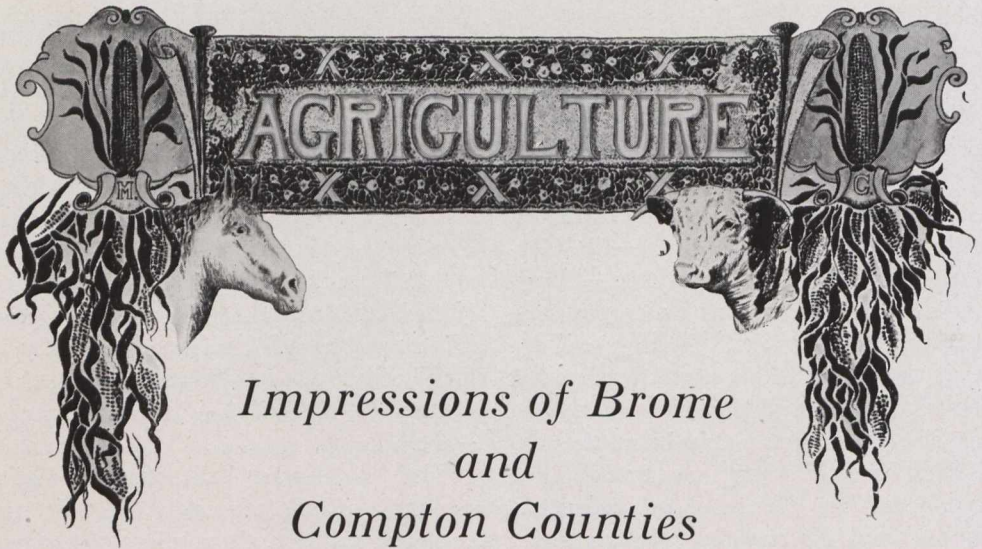
To be continued.



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Impressions of Brome and Compton Counties

EARLY in the month of August the duty of visiting school fair plots in the counties of Brome and Compton devolved itself upon me. Before that time it had never been my privilege to visit those sections of the Province so that it was with a keen expectancy and a great deal of pleasure that I looked forward to the work in those districts about which I had heard so much.

The work of visiting these plots entailed a great deal of driving as it was necessary to visit the home of each child taking such a part in the school fairs. In this way a splendid opportunity was given to see a great stretch of the country, to admire the wonderful scenery, to grasp the general circumstances relative to the farming, and to talk with each farmer about his own particular problems and pleasures.

What impressed me most strongly during the first few days of driving was the grandeur of the scenery. This was especially true of the country surrounding Knowlton, in Brome county, and it has been well phrased that if the people around there could live on scenery they would indeed be wealthy. Certainly

it would be difficult to find more inspiring views than one obtains from any of the hill tops in that district.

In Brome county, Brome Lake serves as a setting for the staid, deep, enduring grandness of the hills, but in Compton county there is an entire lack of any body of water large enough to be termed a lake or even a respectable pond. I found myself continually looking for the expanse of water that I felt sure should be found in a county with so many hills and that was necessary to make the scenery complete. A strong craving for a good swim grew on me until I would have given almost anything for one good plunge; but I had to be content to go without it. I found out later that the peculiar structure of the land, whereby none of the water ever came to the surface to form any fair-sized stream was of great value to every farmer in giving him a unique water supply. Artesian wells and springs were everywhere in evidence. We shall leave the two counties as regards their topography, having in mind that they are both made up of a series of rolling hills and valleys, and I shall try to relate the methods of farming carried on,

giving my impressions of each. It will be left to others, more capable to criticize these methods.

For almost two weeks I did not see a cow belonging to a dairy breed. The country is, because of its location and natural structure, essentially one in which beef raising should be practised. Every farmer has his group of steers and has his work arranged so that they give him practically no trouble during the hot summer months. His returns come in a lump sum in the fall. I shall never forget seeing one farmer salting his beeves and horses. It was a sight plainly indicative of prosperity and capability in farming. There were upwards of a dozen steers and six splendid young horses. All of these would be ready for sale within a year and would bring in a sum of money by no means small. The cattle were largely of shorthorn blood and the horses were Percherons. They were splendid specimens of the breed. Throughout the two counties, but more particularly in Compton county, the breeds of cattle kept are shorthorn and Hereford, and of horses Belgian and Percherons. The statement that the Clydesdale was conspicuous by its absence is, in this regard, very true. The general method of farming gave me the impression that the farmers took time to think and that there was not evident so much of that aspect of a life of continual grind as one often finds on the farm. Just in this connection it would be fitting to say that I was surprised at the almost jolly manner of many of the men whom I met. Every one seemed to be looking on the bright side of things. The oatcrop did not promise well, but more than one hardworking man met such a discouragement with the little joke, "well, it wont cost so much to thresh them, anyway," or some similar remark; and none of them forgot the abundant cutting of

hay. It appeared to me that the work was well planned and was carried out so that each man was ahead of his work.

I could not keep from concluding that there were not enough sheep on the farms on land as rolling as the land in Compton and Brome counties, sheep should find first-rate pasture and I was surprised that I did not see more. In one district I remember startling a few that were feeding near the roads. They bounded off like wild things, their long tails trailing down near the ground. Although this cannot at all be taken as representing the state of the sheep industry, yet it serves to show that a great deal of advance is possible.

One point that I could not help noticing was the number of farmers who make potatoes almost a major crop on the farm. I was taken by several to the potato field, for field it was, and asked if I had seen any more even stand than that. The rich colour of the shaws was pointed out, the freedom from weeds and bugs, and then, as a final proof of his ability, the proud potato-grower would dig for the potatoes. It was seldom that he was disappointed.

To say that no interest is being taken by the farmers in the investigational work being carried on would be terribly untrue. I was plied with questions as to whether there was any reason known for this or if any cure had been found for that. For instance, one man wanted to know why it was that the calyx end of an apple was always more scabby than the other end; another was very anxious to find out the best cure for the white grub because it was ruining his neighbours' hay crops; and a third had been conducting experiments with barley for six or seven years and wanted advice. Everywhere it was the same—a desire to know.

It was a revelation to find out how many farmers had at one time occupied

trade positions. One man had been a saddler, another a carpenter, and still another a trainman, and yet they had all come back to the farm because it attracted them. They, among other real farmers, were the men who talked farming and who were proud to show their crops and stock.

A matter which is of serious importance and which should be brought before the attention of those in authority is that a lot of the people do not know the most harmful weeds. I shall never forget the time when I realized that first. I was judging a plot of oats and saw that the plot was in fair shape. I could see that some weeds had been pulled but what I could not understand was that one large, blooming sow-thistle had been left with all the more room to grow, I mentioned this to the mother of the boy who owned the plot and her reply was in this manner: "Oh, is that a weed? why the girls wouldn't let the boys pull it because it was so pretty. They were going to move it over to the flower border at the house." Is it any wonder that weeds get a hold on the farms? Another instance of this careless attitude was noticed when one boy told me that cattle liked Devil's paint brush better than hay. I have wondered since what kind of hay was grown on that farm. A third person said it was very easy to get rid of paint brush. But the paint brush still continues! Other men are fully alive to the danger of these bad weeds spreading. They keep their roadside and fence-rows mowed and are doing all that is in their power. Individual effort will never succeed in accomplishing anything along such lines. Until a united attempt is made and continued, no permanent good will be effected.

Almost on the last day of my stay in Compton county, and then it was because of a curious condition of affairs, I visited one of the few real dairy farms

in that district. Two brothers were the proprietors. Their neighbours could not do much better, should they desire to enter dairying than to model their surroundings after those found on the — farm. Everything had, and was in, its place. There were feed-chutes, feed-trucks, cement floors, manure carriers. The dairy was slightly apart from but quite convenient to the stable. The feed-room was in a very handy place. Every single thing seemed to have been thought out beforehand; yet the owners pointed out several arrangements that they would have had differently had they known. It struck me that *thought* was used from the time the overhead driveway into the barn was laid on a solid stone foundation in preference to a bridge of planking, to the time when the small gasoline engine was set up to separate the milk; and I could not help drawing the conclusion that dairying was a form of farming entailing more careful and difficult work than did beef-raising. Had I known nothing about either method, I would have all the more surely drawn that conclusion. If that is so, will Compton and Brome ultimately become dairying districts? And following on that, where will our beef supply be produced? These are rambling questions, but they will induce thought along such lines. The general contour of the country will be a large factor in calling a halt to progress.

It was with a feeling of decided regret that I finished my work among those big, round hills. Admitting that they have a poor effect on advanced agriculture and are a drag on the wheels of material progress, yet they have a wealth in themselves. Living among them gives one such a desire to overcome and win out that in the end man is well repaid.

I found the people of these two counties happy and comfortable, and all

that they owned was the same. Their buildings were plenty large and in good repair. The type of buildings varied with the method of farming. Everywhere there were signs of happiness and progress. Each family bent to the task of seeing things through. Such was the spirit seen at every turn. Could anything more be desired? Yes! and most emphatically, yes! The people are striving, and striving hard, but they have their faulty methods and are working in the dark. What they need is help, a sympathetic, continued help. They have the desire to climb but, like a freshman class early in the fall, they are unorganized. No one dares to step up and assume leadership and yet each one is half alive to what is needed. For a time

they had help. They realize its value now and they want it again. In time they will get it themselves but why should months be wasted? Capable men are at hand to go and money is at hand to support them. All that is necessary is for some one to say the word, "Go." Let that someone soon say, "Go!"

After a seventeen day stay in these two counties the impressions left with me were, that I could not have a swim; that the scenery was grand; that there was a terrible number of hills to be climbed; but, (as a contrast to the last) that the people were genial, hospitable, hard-working and progressive and I shall always look back with pleasure to my stay among them.

J. H. McOUAT, Agr. '16



The General Purpose Horse

THE general purpose horse certainly ranks next in importance to the draft horse. A great deal has been written and much said about the draft horse, and rightly so for he is the most important of the equine family. Granting the draft horse his prominent place in the horse kingdom, let us not lose sight of the general purpose horse.

It might be well to explain just what a general purpose horse is. A general purpose horse is understood to be a horse suitable for either the waggon, carriage, buggy, saddle, or plough, and weighing from 1,150 to 1,300 lbs. For such a horse work of some description may be found on the average farm every day in the year. Every farmer has a certain amount of general delivery work and "trucking around" to be done; and for this purpose no other class of horse fills the bill quite so nicely as the general purpose horse.

It is not on the farm alone that this horse is made good use of, for if we

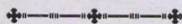
analyse the city horses, we find that a large percentage of the express horses fall into this class. The motor has certainly had its injurious effects upon this class of horses; but for short delivery work, and in all seasons of the year the general purpose or express horse has certainly many advantages over the motor. The demand for this class of horses is quite good, and in many instances nearly as much money is realized as from the draft horse. Many of the horses purchased in Canada for war purposes were of this type. No doubt in some instances they were not the most suitable saddle horses, but many of the choice ones brought very remunerative prices to the farmers.

The question is frequently asked, "Of what breed is the general purpose horse?" We must admit that to-day in Canada we have no definite breed of this class of horses. The majority of general purpose horses that are being raised are of mixed breeding; some

coach blood, some draft blood, and some native or mongrel blood. Some of the coach breeds that have been imported from Europe to the United States and Canada have produced very good general purpose horses. It is not the intention of the writer to encourage the raising of general purpose horses in preference

to draft horses, far from it. But for the farmer who wishes to raise any other class of horses than draft horses, for either home use or city trade he cannot do better than raise good general purpose horses.

A. F. BOTHWELL, Agr. '17.



Lime in Agriculture

FROM the results of recent investigations and soil surveys, it has been found that a large percent of our agricultural soils are becoming more and more depleted in lime. This depletion is not true to all our soils, as a few localities are well supplied with this particular soil constituent, while others have little or no lime whatever. It is with this latter type of soil that farmers have to deal with more particularly as soil lacking in lime cannot produce maximum crops. In certain sections where formerly good yields were obtained, farmers are now unable to grow certain crops, and even in some districts, farms have been given up on that account. The only explanation that can be given for such abnormal state of affairs is that the soil has become depleted in lime, or as it is often called, an acid or sour soil.

Before one can discuss different soils and their requirements, it is necessary that we should have at least some knowledge of their origin. In some localities we find that the soil is of limestone origin, that is, the limestone through the action of different weathering agencies has gradually broken down into fine particles which now go to make up the soil. In many cases soils of this type contain the necessary amount of lime, but even here we find that the lime which was originally in the soil is becoming less every year, and even now some of these

soils would be benefited by an application of lime. We also find soils that have originated from rock which do not contain any lime whatever, and it is only natural for these soils to require lime. Again, soils that have been formed from the decomposition of organic matter such as muck and peat, are also deficient in this particular constituent.

The greater portion of lime which was originally in the soil is lost through leaching. Lime is not soluble in water, but is soluble in weak acids. Plants when growing give off a certain amount of carbon dioxide from their roots, and when this gas comes in contact with the water in the soil a chemical reaction takes place with the result that an acid is formed known as carbonic acid. This carbonic acid dissolves a large amount of lime or calcium carbonate and in this way the lime is leached out of the soil and much of it lost in the drainage water. A good example to show that lime is present in water is the boiling of what is known as hard water. The action of the heat causes the deposit of lime on the inside of the vessel in which the water is placed, and if this is continued for some time quite a thickness of lime will be obtained. If the action of leaching is continued the surface soil becomes depleted of lime, and the result is an acid or sour soil.

All crops are not affected to the same extent by the presence of acid in the

soil. The crops most sensitive to sour soils are those belonging to what is known as the Leguminosae family, such as alfalfa, clovers, peas, beans, etc. These crops have the power of enriching the soil in nitrogen which they obtain from the atmosphere through the action of bacteria which live on the roots of the plants. If these bacteria are not present in the soil, or if conditions are such that their development is prevented, the result will be a material decrease in the yield of these particular crops. It has been found from experiments, that these bacteria cannot thrive in an acid soil, and it is the opinion of some of our leading scientists that the many failures in obtaining a good stand of alfalfa and clover are due to this one cause. Buckwheat will probably thrive better on an acid soil than most other cereal crops, but even here better results are obtained from soils containing a sufficient amount of lime or in other words, an alkaline soil.

Soil acidity may be detected in different ways. A very common method is by the use of litmus paper which can be obtained at any druggist at a very small cost. A piece of blue litmus is placed in damp earth for a few minutes and if the color is changed from a blue to a pink it indicates acidity. Another very practical method is to apply lime to a small portion of a field, and make comparisons between the crops on the treated soil and those on the nontreated portion of the field. Other methods are adopted which cannot be carried out by the farmer, but must be done in the laboratory. The chemistry department of Macdonald College has so realised the vast importance of soil acidity and the great necessity of lime in Quebec soils, that they will test samples of soil sent in by farmers for the purpose of detecting the presence of lime. The method adopted by the chemistry de-

partment is not only very accurate, but the extent to which lime is deficient in soil is also ascertained.

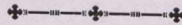
Since sourness is so prevalent among our agricultural soils, the question naturally arises: How can the farmer correct the sourness of his soil? The only practical method known is by applying lime to the soil in some form. By applying lime in the required amount an acid soil can be made sweet or chemically known as alkaline. The two most common forms of lime in Quebec that can be applied to soil are ground limestone and burnt lime but in some sections marl and chalk are obtainable and can be applied with equally good results. Ground limestone is simply the ordinary limestone rock crushed into fine particles, and this form is considered to be the best for general use. It can be applied in large quantities without causing any serious injury to the soil, as it has no caustic action whatever, and it is also easy to apply. The chief disadvantages of ground lime stone is that it is slow in action, and very often it is of poor quality, containing a small per cent of calcium carbonate. When the source of supply is some distance from the purchaser, the extra freight charges makes it rather expensive when large quantities are applied. Burnt lime or quick lime as it is sometimes called is one of the artificial forms of lime, and cannot be applied in as large amounts as in the case of ground limestone. This is due to the caustic action that burnt lime possesses, and if applied too frequently in large amounts, it will act upon the humus or organic matter and in time the soil will become depleted of the essential plant food. In heavy soils, where humus as a rule is generally more abundant, caustic lime can be applied more freely than in the case of lights or sandy soils.

Lime does not only correct soil acidity, but it also improves the physical condition of heavy soils. It is a well known fact that heavy clay soils have a tendency to bake, or in other words, the fine particles which go to make up this type of soil have a cohesive character which causes the soil to become sticky, and in wet weather a running together action is brought about. Lime applied to soil of this character produces a flocculating effect, that is, the fine particles of clay are aggregated together into coarser particles making the soil more easily worked and less susceptible to baking. On light soils such as sandy and gravelly loams, lime is also beneficial, but not to such a marked degree as in the case of heavier soils. In the case of light soils ground limestone should be applied in preference to burnt or quick lime.

The time to apply lime to soil depends largely upon the form of lime used. Ground limestone on account of its slowness in action should be applied in the fall, but burnt lime can be applied in the spring before seeding is com-

menced. When burnt lime is used, it should be put in small piles short distances apart in the field, and covered over with a thin layer of earth. This causes the lime to slake and makes it more easily applied. Ground limestone can be hauled direct to the field and spread over the land. After lime has been spread over the soil it should be incorporated with the soil to a depth of three to four inches.

The chief factor governing the use of lime is its cost. Although it is evident from experiments carried on in different places that actual increase in yields have been brought about by the use of lime, yet it depends upon several conditions whether it can be used profitably. The farmer must use his judgment when purchasing lime as it is quite possible for him to over estimate its value and consequently result in a poorly paying investment. The farmer must consider whether his land calls for the use of lime, and then, if the lime can be obtained at a reasonable cost, its application may be advised. E. G. Wood, Agri., '17.



History of Apple Growing in Quebec

FRUIT growing in Canada started with the first settlers.

Champlain landed May 28, 1608, and we find reports of his having planted two gardens, one in the woods, the other in the meadows, early that year.

He must have introduced very shortly afterwards, for his infant colony, fruit trees along with the other necessities, because Pierre Boucher who wrote in 1663, says, among other statements—“In the woods there are wild plums, which are good, but not equal to those of France, and there are two kinds of

wild gooseberries, prickly and smooth, besides black and red currants, also small red cherries, not bad, and another kind that is not so good. The quantity of raspberries and strawberries is incredible, they are larger and better flavored than those in the gardens of France. There are also blackberries and blueberries, besides many others whose names I do not know. There is abundance of wild grapes, very sour, but they would doubtless improve under cultivation. Some people have introduced grapes from France into their gardens, which bear large and beautiful fruit. Not many trees have yet been intro-

duced except some apple trees, which bear very fine fruit in large quantities.

Besides this we have the historical sketch of the Fameuse showing beyond doubt that apple growing in Quebec had a very early origin. The Fameuse originated in the French settlement on the St. Lawrence from seed brought from France between 1608-1650. It is generally believed that this was done by the Sulpician fathers, the earliest missionaries to establish themselves on Mont-Royal, bringing with them from France seeds of the best French apples to plant in the virgin soil of the Island of Montreal. The Fameuse of to-day is the result of the early selection of seedlings by these Monks. This was shortly after 1642 the founding of Montreal, and by 1700, this variety had been distributed quite freely through Quebec and Vermont.

Outside the Island of Montreal the chief fruit growing sections in Quebec have been in the Abbotsford district, and it is here where we are able to watch the advance.

In 1812 the fruit bearing orchard (seedling) began fruiting. Some grafted trees had been brought to Abbotsford in 1810, but no grafting was done in that district until 1823, when it was introduced by Samuel Jackson. The first budding was done in 1846. In 1827 several plantings of Fameuse, Pomme Grise and Bourassa were planted in that district.

The first commercial nursery was established in 1857 by the late N. C. Fisk. Others followed and in this way thousands of trees were distributed through the Province.

The Fruit Growers Association of Abbotsford was organized in Dec., 1874, and was the pioneer society of the Province. Its work was to appoint a committee which issued letters of inquiry and gathered information from the

experience of over one hundred growers in the Province outside of Abbotsford. They published a pamphlet in 1875 entitled "Fruit List for the Province of Quebec". This was the first list published for the guidance of growers in the Province.

In 1876 the association held its first exhibition, at which 179 plates of apples were on exhibition, besides a very credible showing of vegetables and flowers. In 1879 the society received its first government grant, and in 1881, when Shefford Co. and Abobtsford held a joint exhibition at Granby, there were 577 plates of apples on exhibition.

Spraying was introduced in 1890 when Bordeaux mixture with Paris green was applied with hand pumps

In 1894 the Pomological and Fruit Growers Association of the Prov. of Que. was organized at Abbotsford. The meeting was attended by delegates from all over Quebec and a good delegation from Ottawa. A constitution was adopted, dividing the Province up into nine districts as to-day, each one having a director.

Until this time, and until some time later, very little orchard cultivation was done. The people for the most part grew hay in their orchards leaving the after grass to lie as a mulch. Others found it difficult to cut the hay, and used their orchards as sheep pastures. This was a much better practice as all weeds or sucker growth was kept down, and at the same time much fertility was returned to the soil. The sheep if well fed did little or no damage to the trees and seemingly proved a very profitable companion crop for the orchard.

To-day the general practice, and at any rate the most economical one is clean cultivation. By this we mean keeping the orchard in a state of cultivation during the growing season to conserve all the possible moisture. While

practicing this, for the first ten years so that revenue may be taken from the land during this period before returns start coming in from the trees. Such companion crops as beans, squash, cabbage, root crops, late potatoes, etc., may be used. These crops require frequent cultivation are not very gross feeders and in this way do not rob the tree of its food. As a general rule, however, do not crop under the branches as it is proved that the roots extend as far as the branches. When the tree comes into bearing discontinue these crops, but cultivate every ten days until July 1st, when a covercrop of clover or rape should be sown to ripen off the wood of the tree before fall and to color up the fruit.

Quebec began exporting apples early, about the year 1896 we find boxes recommended for exporting such apples as Duchess, Fameuse, Wealthy and McIntosh. Barrels were to be used for Golden Russets and Canada Reds. It was some time, however, before these boxes became very generally used largely on account of the commission men in Great Britain. It was a new package to them and they were rather slow to take up the handling of the boxes. But, although as yet, they had not been received well, many believed, there was to be a great future for them, especially for use in packing high grade fruit.

To-day practically all No. 1 McIntosh, Fameuse, Duchess, and Wealthy go into boxes and this practice has proved itself to be satisfactory.

The development of fruit growing in Quebec has taken place gradually. First we get our seedling orchards then by selection and the introduction of grafting our standard trees have been handed down. At first, the methods adopted were as crude as some of the old orchards, but along with other improved methods, orcharding has advanced. It

has had many set backs such as disastrous years as 1895-96, 1903-04, etc., when large orchards were practically ruined by the severe winters. Unscrupulous tree agents also retarded the work, but for all that, advances have gone on until to-day in the province of Quebec we find 1,252,835 bearing, and 859,812 non bearing trees. To aid the farmer in the case of these trees the Provincial Government has established 36 fruit stations in the Province from which advice may be obtained and at these stations different tests are being carried out which are of special interest to the practical orchardist.

Besides this, we have now in the Province seven demonstration orchards which have been a success everywhere. In these orchards, spraying, pruning, cultivating, etc., have been demonstrated to the people and the results noted. The farmer is now able to see first hand the results of systematic and improved methods. Rather than having just to take what bulletins say as gospel, he can see it for himself. Seeing is believing.

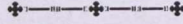
Besides these demonstrations, shipping experiments and new markets were being developed, but the war here as in many other things is making itself felt.

Last year the officials of the Dept. of Agriculture covered 36 counties and gave 1,235 demonstrations in different orchards in the province which should mean a betterment in fruit growing.

Thus we find ourselves to-day a very favoured province for orcharding if we only grasp our opportunities. We have a provincial government which is doing it's best for us. We have as our market the best in Canada, Montreal, which is also the best export point for the old country. We have a climate which produces such apples as Fameuse and McIntosh as they cannot be produced elsewhere and whose very names find

sale for them. Surely, we are fortunate, and the future of the apples in Quebec depends on us to continue the work

begun by our predecessors, and for us to take advantages of our many opportunities. GEO. H. DICKSON, Agr. '17.



Internal Causes Effecting Variation in Fowls

By M. A. Jull, Macdonald College

THE power of growth among animals is exceedingly great, leading to wonderful possibilities of multiplication, and if it were not for the influence of internal causes affecting variation and other factors affecting multiplication this world would indeed present a peculiar aspect. As it is, conditions seem nicely adjusted and correctly balanced to allow development to proceed at a normal rate.

If a pair of fowls produced ten fowls, five males and five females, in one year, and if these five pairs each produced likewise five pairs the second year and if this rate of multiplication continued for fifteen years there would be produced 61,035,156,250 fowls. As far as reproduction alone is concerned this rate of multiplication is normal and the result gives some idea of the stupendous power of growth. Such a result, however, could only be secured if all conditions affecting reproduction were ideal.

Although "like tends to beget like" still no two fowls are exactly alike from which it may be established that the individual is never likely to produce an absolute duplicate. In fact, it seems to be the very essence of a living thing to change. This becomes quite evident in poultry breeding where there are two sexes and where the mode of reproduction involves many complex processes. Many changes in structure have occurred in the successive generations from the wild fowl of India, *Gallus Bankiva*, to the numerous breeds of the present

day. The variations among domesticated breeds of fowl are very numerous and are of various kinds. In comparing the Leghorn, generally having a nervous disposition and well-developed egg-laying qualities, with the Game, noted for its boldness and possessing fighting qualities developed to a high degree, it becomes apparent that the two breeds differ greatly. All domestic breeds have been modified to a greater or less extent through successive generations. There have been many causes for these variations; some variations have been caused by changed conditions of life, come by the increased use and disuse of parts. These are external influences causing variation and they do not by any means account for all of the existing variations among domestic fowls. There are a number of causes of internal origin, that is, they exert their influence from within. In comparing three Barred Plymouth Rock pullets bred from the same cock and hen it will be observed that the three full sisters may not resemble the parent hen very closely, since many of the characteristics possessed by the pullets have been inherited from the cock. The full-sister pullets, moreover, may not resemble one another very closely; one may have a large number of black feathers in her plumage, another may have six points on a fairly large comb, while the third may have considerable white in the ear lobes. Then again, the egg production of the three birds may vary considerably when given exactly

the same care and attention. It becomes obvious that such variations are not due to external influences but are due rather to internal causes. Although we cannot trace the precise relation between cause and effect in regard to a number of variations, yet there are some cases where distinct causes give rise to certain existing variations.

It is clear that the processes involved in growth and reproduction are fruitful sources of variability. Growth is the result of cell division which involves the rearrangement of the cell material. The processes involved in the division may give rise to variations. The manner in which the egg cell and sperm cell unite to form a fertilized egg cell and the development of the fertilized egg cell are sources of variability.

What is the cause in the variation in size between the Light Brahma and the Japanese Bantam? The standard weight for the Light Brahma cock is twelve pounds and for the Japanese Bantam it is twenty-six ounces; the Brahma is more than seven times as large as the Bantam. Is this great difference due to a difference in the size of the cells of the two breeds? It cannot be, since the cells in all breeds of poultry are alike; the individual cells in the Brahma are not larger than the individual cells of the Bantam, but they are more numerous.

The difference in size between the two breeds mentioned is a morphological variation and although we know it is a result of a difference in the number of cells we do not know how the result came about. We do not know what energies decide how far cell division shall proceed and when it shall cease. The fact remains, however, that a morphological variation is due to cell division.

A deviation in pattern such as a chicken with four legs, which is a meristic variation, is due to cell division. In such a case the regular order of

development has been interfered with resulting in an abnormal structure. There may be other irregularities in cell division giving rise to numerous forms of variations. Any deviation from the regular division of the hereditary substance in any stage of growth is likely to result in a variation.

The variation in egg production in the case of the three full-sister Barred Plymouth Rock pullets mentioned above is a functional variation. External conditions could have had no influence in causing one bird to lay more than the others since all received exactly the same care and attention. One has inherited the ability to lay more eggs than the others; the cause is internal and rests upon cell division.

Factors involved in cell division also play an important part in the appearance of substantive variations. The Silky fowl is characterized by the development of a black pigment giving the whole body of the fowl, including the face and comb, a deep-purplish color. In dealing with the origin of this pigment Bateson assumes that since *Gallus Bankiva* has properties similar to those of the Brown Leghorn, the breed used in his experiments, which does not possess any black pigment, therefore the appearance of black pigment in the Silky is a variation which has been added to the breed. The Silky possesses a pigment-producing factor which the Brown Leghorn does not possess. On the other hand, the Brown Leghorn possesses a factor which has the power of restricting the operation of the pigment-producing factor; in this respect the sexes differ, the Brown Leghorn male is able to restrict the operation of the pigment-producing factor completely while the Brown Leghorn female is able to restrict it only partially.

The manner of reproduction in domestic fowls is a source of variation; the

chick is the product of the male and female parent and consequently it differs from either parent. "The new individual is thus the possessor of actual living matter derived from both parents, and thus inherits literally the substance of both, having come into direct possession of material identical with the living matter of both parents. It is a variation, however, confined not only to the characters of the race but also to the family possessions of the particular parents. Bisexual reproduction cannot be looked upon as a means of introducing new characters into the race, and while it is manifestly a fruitful source of never-ending combinations of racial characters in new individuals, yet variations so introduced are comparatively slight except when the two parents belong to separate lines. Fertilization of the ovum is something more than a stimulus to growth. It is a real union of material bodies representing the hereditary substance of both parents. Bisexual reproduction is therefore not only a guaranty of transmission of racial characters but also an assurance of inheritance with some variation." (Davenport).

In the matter of egg production an interesting case is presented regarding the influence of the male on the color and form of eggs laid by a female to which he is mated. The Plymouth Rock lays brown-shelled eggs and the Leghorn lays white-shelled eggs. Now if a Plymouth Rock cock is mated to a Leghorn hen will the eggs laid be brown or tinted? A few experiments have been conducted and while the results obtained are not at all conclusive the evidence is interesting. In plant breeding it is known that where one kind of corn is fertilized by another the result will be a mixture which will show the first year. That is, the foreign pollen has had a direct influence on the seed produced. Such a feature is called *xenia* and it has

been known to exist in plant breeding for a long time. If such a feature occurred in plant breeding would it also occur in poultry breeding? In attempting a solution of this interesting problem Holdefleiss mated a Leghorn cock to Plymouth Rock hens and Armin von Tschermak attempted to throw light on the question by breeding canaries and finches but in both cases the results proved little if anything. On the other hand, Walther performed some careful experiments the results of which seem fairly conclusive. In his experiments he crossed breeds which laid eggs differing in shell-color and in size and he took into consideration the weight, the shape, the glossiness and the color of the egg. Briefly, he found that: first, the cock had no effect whatever on the weight of the individual eggs laid by the hen; second, the cock had no influence on the form of the eggs; third, the cock had no influence regarding the glossiness of the surface of the eggs; and fourth, apparently the cock had no influence on the color of the shells. It seems probable, therefore, that *xenia* does not occur in poultry breeding.

There is yet another phase of supposed internal causes of variation to be considered. For many years the idea was prevalent among animal breeders that all offspring of a female resulting independent of the first mating would be affected by the first mating. This phenomenon is called *telegony*. It should be pointed out at this time that many cases cited to support the phenomenon are not based on exact observations and that the reality of the phenomenon is doubtful.

With regard to *telegony* in general it may be added that very little real evidence has been produced and as far as the breeding of poultry is concerned it may be accepted as a fact that the influence of *telegony* does not exist.

MACDONALD COLLEGE EXTENSION WORK FOR RURAL SCHOOLS

Self Criticism for Rural Teachers

Sinclair Laird

SO MANY of our rural teachers are engaged in teaching schools far from centres of trade or industry that they have really very few opportunities of meeting with other teachers of their own class to discuss their successes and failures. It is a comparatively easy thing in a city for teachers to get help in their difficulties, consult experienced teachers with regard to better methods and receive assistance from supervisors and principals; but in our country districts practically the only visitor is the school inspector, who comes to the rural school twice a year and stays for half a day at a time, on an average. It is quite clear that very little help can be received in such a short, hasty visit, which is rather intended to estimate the status of the school than to give assistance to the teacher, who has her own difficulties in grading the pupils, arranging for a suitable time table, seeing that the proper prescribed books have been bought and frequently working with insufficient apparatus and material. The rural teacher's lot is not a happy one and she finds few opportunities for encouragement and still fewer occasions for being congratulated on her successes. Indeed, there is practically

no method for rating teachers in our rural schools. It is true that bonuses are given to teachers who make a certain percentage according to a fixed form in their school work, but these methods are far from exact and must, in the nature of things, be very superficial and haphazard.

In many of our cities, scales have been devised and adopted for the purpose of rating teachers according to their success, although in some smaller cities printed forms are at present unknown. The superintendent or the principal of the school depends upon his own judgment without referring to details. In general the estimate formed by the superintendent, the principal, and the supervisor is combined or supplemented by the record of the teacher's education, training and experience. Usually stress is laid upon successful experience, but in some cases previous training and continued professional training are considered to be valuable items in estimating the teacher's standing.

Among our rural schools there is great variation in the importance which various localities place upon the various phases of teaching ability. There are, of course, certain large factors which are

agreed upon as being very important. These include questions of practical efficiency, such as successful management of children, instruction, and attention to details of school business, and also professional qualities, such as scholarship, personality and character, professional interest and growth. Naturally such a scheme leaves a great deal to the general impression made on the mind of a person who is attempting to rate the ability of a teacher. Experience teaches the superintendent or inspector that there are certain conditions which stand out in lessons of a good grade, which enable him to state that the class is being taught well or badly. This is true possibly of reading or arithmetic. Such a scheme, however, is very unreliable in general use and is not so trustworthy as a system which goes more into details.

Other rating forms contain a long list of unclassified items. Such a system is in force in Milwaukee, Denver and Toledo, where there is no evidence that an attempt is being made to get a thorough analysis of the teacher's ability and where there is neither uniformity, logical sequence, nor consistency in the items. They are merely a collection of unrelated questions which deal, more or less, with the efficiency of the teacher. For instance, "The Preparation of Lessons." This can hardly be estimated by an outsider unless he judges the amount of preparation by the success of the teacher when teaching or the ability of holding the attention of the class or the success in discipline or the spirit of the class. Then again, a casual visitor will hardly be able to estimate the teacher's attitude towards the children, towards the parents and towards other teachers, nor whether the teacher coöperates with the principal, although these matters are all of vital importance towards the success of a teacher in the community

as well as in the school. Nor will a casual visit reveal the most successful part of the teacher's work nor the weakest. Then again, only the principal or immediate supervisor can give information as to whether a teacher has been punctual every day, how many days she has been absent or how often she has been late. Finally, no estimate of a teacher's ability should be accepted from any person who is unwilling to state also on the record the number of times he has visited the teacher's room during school hours. The average form for rating a teacher would contain a majority of the larger points upon which an estimate is desired, together with details for each of these points to enable the supervisor to give definite values to each of the larger factors.

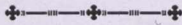
Probably one of the best of the forms is that which is used in Cleveland and discusses more particularly teaching power, executive power, personal influence, professional sincerity, general culture and under each head there are certain detailed questions which help one to make a serious effort at analysing the real ability of the teacher. This form is given herewith, not so much to show how teachers are rated in big cities, but rather to give rural teachers an opportunity for self criticism and for thoughtful consideration of the various points from which outsiders are inclined to judge their teachers. For instance, it is not enough that pupils should make progress in their instruction and acquire more information, but it is important that they should be greatly encouraged to develop the power of learning in such a way that they can afterwards do without a teacher. Then again, discipline is not merely good order, but the development of such a working spirit in the class that the pupils will go on with their work in the teacher's absence. Success as a teacher does not mean merely that

she is worth her salary every month, because when a teacher is a good teacher, develops enthusiasm in her pupils, inspires them to independent judgment and influences them for good, then a salary of fifty thousand dollars a month would not be too much for such an ideal personal influence. The attitude also of a rural teacher will determine her success. She must still maintain the attitude of a student and improve her professional training, continue her professional reading, so as to receive new suggestions and maintain within herself the attitude of a learner without which no teacher, lecturer or professor will be a success. General information and scholarship must likewise be cultivated as a matter of course. Naturally all rating forms tend to be mechanical, but they act as a sufficient guide to the main points on which it is agreed that real success depends. Rural teachers, therefore, should, from time to time, examine themselves and ask themselves questions as outlined on the Cleveland form. The power of self judgment will reveal to them their successes and failures, points in which they are weak and should strengthen themselves. A real self examination will not tend to conceit and self pride, but rather to humility and sincerity. Rural teachers are, therefore, recommended to consider their own ability from this standpoint and with the assurance that proper attention to the main points will secure a favorable criticism from school commissioners and school inspectors, because these are the main factors that determine the value of a teacher to her school and her community. Isolation, therefore, instead of meaning stagnation should develop the power of self criticism, self control, and self development.

Teacher rating form used in Cleveland, U.S.A.

1. TEACHING POWER:
 - a Does she apply thought and method to the preparation of her daily work?
 - b Is she definite in her instruction? Thoughtful?
 - c Does she develop power in her pupils?
 - d What kind of results does she obtain?
2. EXECUTIVE POWER:
 - a Is she successful in discipline?
 - b Does she secure a responsive working spirit in the school?
 - c Are her relations with the principal's office satisfactory in matters of reports, care of property, discipline of pupils, etc.?
 - d What are her relations with the patrons of the school?
 - e What are her strong points?
 - f What are her weak points?
3. PERSONAL INFLUENCE:
 - a Does she inspire her pupils and develop in them enthusiasm for work?
 - b Does she inspire her pupils to independence in work?
 - c Does she influence her pupils for good beyond the time they are in her presence?
 - d Are her relations with other teachers in the building wholesome?
 - e Is her work interfered with by outside pleasures or duties or the state of her health?
4. PROFESSIONAL SINCERITY:
 - a Is she sincere and earnest in her work?
 - b Does she measure thoughtfully the outcome of her practice?
 - c What is her attitude toward the large interests of her profession?

- d Is she frank and candid in her dealings with pupils?
 - e In what spirit does she receive the suggestions of the principal and supervisors?
 - f Does she regard them as personal or professional?
5. GENERAL CULTURE:
- a Are her scholarship and general information accurate and adequate.
 - b Are her manner, control of voice, and use of English satisfactory?
 - c Is she alert, progressive, and open-minded to new ideas?
 - d What are her special interests?
 - e Has the teacher's personality been sufficiently faulty to require serious criticism?
 - (1) Have you made such criticism?
 - (2) How often?
 - (3) With what effect?



Some Suggestions of Games Useful in Rural Schools

By Lynette H. Wren, Instructor in Physical Training

A TEAM RACE is a form of game which is of great value both from a physical and from a moral standpoint. It provides good exhilarating bodily exercise, and at the same time the spirit of the game, i.e. one plays for the side, rather than against every other player, encourages the growth of that sense of co-operation, which is essential to the well-being of a community.

Any number of children from three upwards can form a team, the number in a team and the number of teams naturally varying according to local conditions in the size of the school and playing place. A good average number to take is six on a side.

The simplest form of a race is to line the children up in even teams, to make a clear starting mark for each team and to appoint a place for each team round which its members, one at a time, shall run, returning to the starting place and handing on to the next player some light object (stone-stick-flag). The referee must always insist that the recipient has both feet behind the starting mark when taking the object. That team wins

whose last runner first returns to the starting place.

One can ring endless changes on this simple form by substituting for running some such method of progression as hopping on one foot, returning on the other, walking, jumping with feet together, jumping on feet and hands alternately (rabbit), jumping with knees bent outwards (frog).

By arranging the children in columns one can use this game in a very limited space. Mark the front place and the rear place and watch that the front and rear children keep to the line. Then the game is played by the first child in each column running down it on one side, round the bottom and up on the other. On returning to her own place, she hands on a small object to the second player who then runs *round the first* and behind the last player and up to her own place, thus entirely circling round her own team. The game goes on similarly till the last player takes her turn. She runs up the line, round the leader, round the back of the line and up again to her own leader. That side wins whose leader

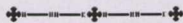
first receives again the flag, etc. This is a pretty game played with flags. Care must be used to see that the second player in the line runs round the leader.

A form of this team race can be played in a schoolroom full of desks, in which case each child must sit still until she receives the flag and then run round her own row of desks, handing on the flag to the girl behind her.

While the weather is fit for outdoor games, a relay race round the schoolhouse provides an exciting game. Each member of the team carries her flag round the schoolhouse, handing it on her return to the second player of her

side. If the distance is too great for every player to run—it is a simple matter to place the children at regular intervals of, say, a quarter the distance to be covered so that each child only runs a quarter of the way round the house.

One of the strong points in favour of games of this type is that they can be played irrespectively of the age of the participators. It is wise in arranging them to have the sides as nearly as possible of equal strength and to put one of the good runners in the last place in each team as this sustains the interest in the game longer.



The Glacial Period

(Continued.)

By Prof. A. W. Kneeland

IN MY discussion of this subject, I have endeavoured to furnish the teacher who has not access to suitable books, and who cannot easily investigate for herself, material for making her lessons upon topics connected with my subject, interesting and profitable for her pupils.

The tendency of the unprogressive teacher is to make the text-book the sole source of her material; hence it is that lessons are lean and marrowless, and the pupils are bored or disgusted with what might be of vital interest to them, if it were made a living reality.

At the close of my last article, I summed up what had been established in the statement that the ice-drift theory can alone account for certain facts brought out in the discussion.

I have now to discuss the causes of the phenomena which do not seem to be made clear by the Glacial Theory.

As Sir Wm. Dawson says, a considerable slope and quantities of perennial snow are necessary for glacial formation and movement.

Now when we remember that this continent was supposed to have been covered with a moving ice-cap as far south as Philadelphia, we have a fact or theory before us big with possibilities.

I have made some calculations relating to this matter, which are somewhat startling, to say the least.

The mean summer temperature of that part of the continent in the latitude of Philadelphia is about 70 degrees, Fah., ranging up to 100 degrees rarely and down to 60 more rarely.

Now in order to make it possible for a permanent ice-cap to exist in that region, the temperature must never rise above 40 degrees for any considerable amount of time, or we may say, must have a mean of about 20 degrees above zero.

In other words, the mean of about 70 degrees must have fallen to a mean of about 20 degrees, or a fall of 50 degrees.

This, taking 300 feet of elevation as necessary to a fall of one degree of temperature, the elevation given by Gilbert and Brigham from the results of late investigations, and opposed on the one hand to the maximum of 400 ft. and on the other to the minimum of 200 ft., as given by earlier investigators, we find that the necessary elevation above the present level in the neighbourhood of Philadelphia would be 15,000 feet, and that with a slope sufficiently great to enable a glacier to overcome the irregularities of the land surface and especially those of the Laurentians which in the Pleistocene period were cloud-piercing ranges, we should have at the Arctic Circle an elevation of over 29,000 ft. above the present level, even if we allowed the slope to be but 10 ft. to the mile, an utterly insufficient allowance, as all must agree.

An ordinary locomotive can haul a train up a slope of 80 ft. to the mile; and a great Mogul can do much better, so that our slope should be at least ten times the ten feet that I have named, even if there were not high mountains to be passed over; hence the elevation at the Arctic Circle must have been, at least, 127,000 ft. above the present level.

There is absolutely no evidence of any such oscillation of the earth's crust; and all the known facts of Geology are opposed to it.

The oscillations that have taken place within historical times, at various places and especially along the coast of Norway and the eastern United States, have not reached a maximum of more than about six inches.

It must be remembered that widely extended and great world-movements

are the work of ages and not of a few centuries.

These calculations, which are based upon the most modest estimates of necessary conditions, enable us to see to what extreme and impossible conclusions the Glacial Theory leads us.

It seems to be accepted by all scientists that the "Glacial Period" was a period of extreme cold in the regions affected by the phenomena attributed to it, whatever they were, for all land-life seems to have become extinct.

Of course a universal ice-cap would have brought about that result as well as extreme cold or a flood; but the fact of extreme cold remains, even if we should follow the lead of Lyell, Darwin and Dawson and adopt the "Drift Theory," for vast fields of floating ice and icebergs could not have existed as far south as the south of Europe and the centre of Pennsylvania under modern conditions of temperature.

To what was this lowering of temperature due?

Perhaps few questions connected with Geology or Physical Geography, have been more discussed than this one; and perhaps scientists will never agree upon the point; but it may be profitable, for a few minutes, to glance at some of the theories advanced.

First of all there is the theory already referred to, of a great and somewhat rapid elevation of the whole of the northern regions of the globe, which theory is absolutely necessary to support the glacial theory, for without it, there could have been no wide movement of land ice from north to south; but we have seen to what this theory leads; hence we must, however reluctantly, reject it.

A second theory was advanced at a very early date; namely, that a change took place in the obliquity of the earth's axis, whereby those regions that

are now temperate in climate became frigid.

Modern scientists hold this to be impossible, for the earth's fixity of position is well established; and there are no evidences of counter effects of such a change in obliquity, in the southern hemisphere.

James Croll, in 1864, 1875 and 1889, discussed and supported the theory that the earth's excentricity at that time was greater than at other times, and, hence, that the temperature of the whole earth would be materially lowered.

To this there are, it seems to me, insuperable objections; and (1) the time would be too short to bring about the conditions that prevailed; namely four or five months of a single year, while the work of the period demanded ages, not a few months. (2) Mid-summer and mid-winter temperatures are not directly and exactly proportional to the amount of the sun's heat.

A third explanation has been put forward by such men as Prof. Chamberlin, in which they attempt to show that the cold of that period was due to changes in the nature of the earth's atmosphere.

Prof. Chamberlin says: "An attempt to frame a working hypothesis of the

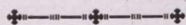
cause of glacial periods on an atmospheric basis argues that the fall in temperature at such times was due to the depletion of CO₂ from the air, which would undoubtedly bring about that result."

Unfortunately for the theory, the atmosphere is the most mobile thing in the world; and any attempt to confine that portion of the atmosphere, that had lost its CO₂, to any one quarter of the globe would result in failure.

So the battle has raged from century to century, though most of us are content to accept the oft-repeated fable that the refrigeration of the earth during this period was due to a wonderful and somewhat rapid oscillation of the earth's crust, whereby all those regions affected, were raised many miles above their present level, and so entered the realm of thin air and absence of heat.

I quote a recent writer in concluding this part of my discussion, who says:—

"Until a greater degree of unanimity can be approached in the interpretation of observed facts, particularly as regards the substantiality of interglacial epochs, the very foundations of a sound working hypothesis are wanting."



Instruction in Poultry Culture in the Schools

By M. A. Jull, Macdonald College

Instruction in the Class-Room

A GENERAL knowledge of the subject of poultry culture is useful and necessary to all who keep polutry, and more particularly to the young people of the country who are to become the food producers of the nation. Instruction in poultry culture includes a great variety of topics, many of which may be considered in the class-

room. Information imparted in the class-room should give the students knowledge of various subjects which cannot be gained from practical experience.

Lessons on poultry culture. Some of the lessons given in the class-room should be of such a nature as to impress upon the students the services of

poultry culture in supplying man with valuable products for consumption.

Lessons on eggs. The structure of eggs makes a very interesting subject of study which lends interest to problems of egg production. When students understand the structure of eggs they also know why eggs lose moisture when placed in a warm, dry room. They also know how eggs absorb odors and why they should be stored in clean places before being marketed.

Lessons on poultry. An interesting line of study might include a study of the characteristics of fowls. Students could take representative specimens of the various breeds and varieties of poultry to the schools where the specimens could be studied in detail. An advanced line of work in this connection would be the holding of judging classes where students should be asked to name the different breeds exhibited, giving their characteristics. Classes could also be held in judging fowls for vigor; the strong and weak fowls should be selected and discussed.

Instruction in Practical Work

One reason that the subject of poultry culture is so well adapted to student life is that many projects may be carried on at home. Such projects, if properly planned and well carried out, tend to develop the observing and reasoning powers of the students through vital things that affect their daily lives. Interest is aroused in practical problems, and through these problems the intelligence of the students is trained for the business of profitable poultry production.

Boys' and girls' poultry clubs. A poultry club is an association of boys and girls who undertake the organization of home projects. As far as possible the superintendents and teachers of the schools should take an active

interest in and direct the affairs of the poultry club, and the poultry club should have the support of some external agency, such as the Agricultural College or the Department of Agriculture.

The objects of the club should be to teach the school pupils the elementary lessons of poultry culture and to give them useful and practical information which will show them the increased revenue to be derived from poultry kept under proper methods of management. The principal work of the club should include the organization and direction of such home projects as hatching and rearing contests.

Hatching and rearing contests. In a hatching and rearing contest the objects are to stimulate interest in poultry raising and to test the ability of those who take part in the contest in raising to maturity a small flock of chickens. Settings of hatching egg are distributed to school pupils free of cost on the condition that each applicant who receives a setting agrees to give the chickens hatched the best of attention and to show all the chickens, but no others, hatched from this setting at a school poultry fair where prizes are provided.

A few of the general rules and regulations of the contest are submitted here as a guide.

1. Each member receives one setting of eggs only.
2. The eggs distributed in one district should be of one breed only.
3. The eggs distributed in one district should be distributed at the same time.
4. Each member who receives a setting of eggs must agree to show all the chickens hatched at a fair held in the fall of the year.
5. No other chickens but those hatched from the eggs distributed can be shown at the fair.

6. Data must be kept regarding the amount and cost of feed consumed and the number and value of chickens reared up to the time of the fair.

7. A complete record of the results must be presented at the conclusion of the contest.

The object of the poultry show at which the pupils exhibit their chickens is to provide a means of comparing the chickens raised. The chickens of one pupil are judged and compared with the chickens of the other pupils.

The display of birds makes an attractive feature. The pupils are taught to realize the value of poultry and to recognize the differences among different birds. Thus, they become acquainted with the proper type of the breed in the competition; they learn something of the standard requirements of the breed. They carry from the show-room many ideas concerning the qualities of good poultry and later these ideas may be put into practice.

The prize list is arranged to stimulate keen competition and to provide as large a number of prizes as consistent with the object in view. A suitable prize list is submitted here; the number and value of prizes offered may be changed according to the number of settings distributed.

Class 7. Poultry

Sec. 1. To the pupil with the largest and best lot of chickens.

10 Prizes—\$1.00, 90c, 80c, 70c, 60c, 50c, 40c, 30c, Ribbons.

Sec. 2. To the pupil with the best pen of five chickens.

(Winners in Sec. 1 not allowed to compete).

10 Prizes—90c, 80c, 70c, 60c, 50c, 40c, 30c, 20c, Ribbons.

Sec. 3. To the pupil with the best trio of chickens.

(Winners in Sec. 1 and 2 not allowed to compete).

10 Prizes—80c, 70c, 60c, 50c, 40c, 30c, 20c, 10c, Ribbons.

Sec. 4. To the pupil with the best pair of chickens.

10 Prizes—80c, 70c, 60c, 50c, 40c, 30c, 20c, 10c, Ribbons.

Sec. 5. To the pupil with the best cockerel.

10 Prizes—80c, 70c, 60c, 50c, 40c, 30c, 20c, 10c, Ribbons.

Sec. 6. To the pupil with the best pullet.

10 Prizes—80c, 70c, 60c, 50c, 40c, 30c, 20c, 10c. Ribbons.

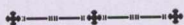
Rural School Fairs 1916. The rural school fairs held in 1916 were the most successful ever held since their inception in 1913. The number of fairs held under the auspices of Macdonald College have increased from three in 1913, to nine in 1914, to fourteen in 1915, to thirteen in 1916.

The number of settings of eggs distributed in the various districts and the number of chicks exhibited at the various fairs in 1916 are given below:—

<i>Fairs.</i>	<i>Settings distributed.</i>	<i>Chicks exhibited.</i>
Huntingdon.....	45	199
Howick.....	22	69
Hemmingsford...	12	45
Cowansville.....	20	48
Cookshire.....	111	299
Scotstown.....	77	229
Knowlton (West Bolton).....	14	51
Lennoxville.....	55	225
Danville.....	25	61
Richmond.....	43	147
Bristol Corners..		96
Shawville.....	117	79
Chapeau.....		82
	541	1,630

The poultry exhibits in 1916 were a decided improvement over previous years, which is partly due to a larger number of chickens being raised per pupil and to more efficient management in the organization of the fairs, which has developed greater general interest in the fairs. The interest displayed by the teachers is one of the most encouraging features of this line of work and it is to

be hoped that arrangements will be made to have the teachers co-operate in the management of this form of industrial education. A large number of fairs are proposed for 1917 and their success depends, to a large extent, upon the interest of the communities in which the fairs are being held as well as upon the support of the teachers.



Teaching Rote Songs

By G. A. Stanton, Instructor in Music

PERHAPS there is scarcely any other lesson which is at the same time so interesting and yet so exacting, both to teacher and class, as the teaching of a song "by rote" or imitation. The novelty and attractiveness of the subject-matters easily account for the interest; but in spite of this, or maybe *because* of this, the method of teaching is so elusive as to defy reduction to a pedagogical formula. The truth is that every song demands a method of its own, varying according to its content, rhythmic, melodic, verbal, and emotional; so that in writing of method it is only possible to give some general hints which must be adapted to fit particular conditions.

The prime factor of success is that the teacher herself should know the song thoroughly. The reasons for this trite observation are so very obvious that it is not necessary to detail them. It is sufficient to mention the supreme importance of the teacher's "pattern," which is bound to suffer if the song has not been carefully studied in advance of the lesson.

It is a good plan to let the pupils hear the song two or three times before it is actually taught, in order to give them a

fairly definite idea of the goal to be reached. This can be done at the end of a singing lesson, or the song can be correlated with history, geography, or some other study, according to its subject. A few suitable questions will prove whether the children have been listening intelligently. The teacher ought to give the very best rendering she can, accurate in time and tune, good tone, clear enunciation, artistic in expression and style, for what she sows in her pattern she will surely reap in the children's imitation. The song as a whole should not be lost sight of in the necessary piecemeal study of the parts.

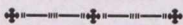
As regards detail, only a few straggling hints can be given, for every teacher will treat every song differently. The chief care must be to see that the pupils are *thinking* all the time. Mere mechanical imitation on the do-it-again principle will result in the deadest travesty of good class-singing. Then, rhythm is vital. Time must be adequately sensed, because inaccuracies in this matter are much more difficult to correct than wrong notes. Taking the song phrase by phrase need not be monotonous work if the teacher is careful to infuse a little variety into her

method. To do this, the purely imitative treatment may be varied by such a device as responsive singing; for example, teacher and class sing alternate phrases, or the class may be divided in numerous ways for this purpose. In this connection it would be well to remember that a skilful teacher never sings *with* the class, except perhaps a few tones very occasionally by way of assistance at stumbling places. The children must not trust to the teacher's "lead," but should learn to be self-reliant in singing as in other matters. Another "pointer,"—the less the teacher talks the more will be accomplished. Explanations, instructions and so forth should be terse and pointed. Good tone and clear enunciation must be insisted upon in every attempt. Memorising the suc-

ceeding stanzas can be treated as in teaching poetry. Expression and style may be evolved during memorisation.

To sum up. (1) The children should have a good general idea of the song before attempting to sing. (2) The reproduction is not likely to be as good as the pattern therefore the pattern should set a high standard. (3) Important as tune is, time is more important still. (4) Variety in method preserves interest. (5) The class must not rely upon the teacher's lead.

Finally, the pleasurable aspect of singing should be uppermost throughout the lesson. To parody a well-known saying, "When the drill-sergeant comes into the music, pleasure flies out of the singing!"



Penmanship in Schools

By Prof. A. W. Kneeland

IT IS not my purpose, in these articles, to discuss this subject in all its aspects, but rather to set forth some considerations that may be of value to the untrained teacher.

There can be no question as to the value of good penmanship; and by "good penmanship" I mean a hand that can be easily read and somewhat rapidly executed.

In order to secure these two desiderata, there must first of all, be a system that lends itself both to speed and legibility.

That a system demanding at least a moderate slope, lends itself to greater speed cannot be successfully denied, although individual penmen writing a vertical hand, may attain to a greater speed than other individual penmen who write a sloping hand.

The only fair test of speed is that which shows the results of the work of a large number of pupils, writing, some a vertical and some a sloping hand, and all unconscious of the fact that their speed is being tested.

Such tests have been frequently made; and the results show that the average number of words per minute, written by those who write a sloping hand, is at least one third greater than the average for those who write a vertical hand.

The question as to what degree of slope is preferable has not been fully settled; and until the results of the use of the semi-upright system now employed in this province, are more fully known, I do not propose to enter into a discussion of that phase of the question.

The teachers of the province, whatever be their personal opinions or practices,

should loyally endeavour to follow this system, assured that should it prove a failure after sufficient testing, it will be discarded.

As to legibility, there are grave doubts whether the claim of advocates of the upright system can be substantiated; and it seems to me that the most that can be claimed for it is this, that good upright writing is more legible than poor writing in any other system.

One of the best samples of vertical writing, from the standpoint of beauty and regularity, that I have ever seen was that of a well-known official of this province, but one had to decipher much that he wrote, by counting the number of strokes and curves in a word.

Bad writing cannot be easily read, whatever the system followed; and good writing can be easily read whether it be vertical or have an extreme slope of 30 or 35 degrees.

As to the hygienic effects of the different kinds of writing, it would be well not to be too dogmatic, for recent investigations go to show that the hygienic effects

of moderately sloping writing are no more objectionable than those of vertical.

The hygienic effects of the use of any particular hand or the reading of any particular hand are more due to other causes than to the slope of the letters; such as movements, posture, penholding and custom.

In my own experience, having to read many thousands of pages of written matter annually, at least 75% of which is written in a sloping hand, I find that when a vertical hand is lighted upon, an unusual eye-strain is at once experienced; and I have no doubt but that the same would be the experience of another, if the tables were turned.

Freeman, in his work on "The Teaching of Handwriting," holds that eye-strain and other unhygienic results are to be avoided, not by changing from a sloping to a vertical hand, but by keeping the paper on which one is writing, in a proper position in relation to the eyes, and the eyes at a proper distance from the paper.

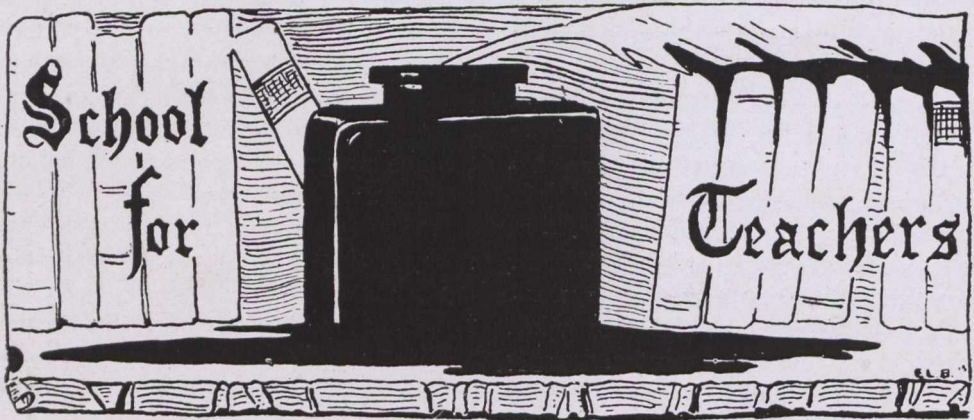
(To be continued.)



The Y. M. C. A. Executive

Standing: Messrs. Hay; Smith; Fiske; Mace.

Seated: Messrs. Craik; Jones, W. N.; Jones, L. R. (Pres.); Graham; Buckland; Patinall.



Kindergarten '17

ONCE more the small Kindergarten class of Macdonald College is launched upon its way, but not as small as in former years. Last year three girls had things more or less their own way, but this year there are ten of us each girl contributing her own individuality and therefore making it a more interesting class than ever before.

A visit to the Kindergarten is all that is necessary to show the truth of the above remarks; for there the reader may see an interesting display of the work the girls have done since the beginning of September. There, adorning a large table, are dolls made out of stockings and dressed in all manner of ways, Montessori frames, cardboard animals, the latest styles in paper and wool millinery, furniture, clay modelling, books of free-hand cutting and representation of life forms.

The work of the Kindergarten goes on in a systematic way. Each student taking her own share, each student busy and each very interested in the different types of children, who are a never ending source of amusement. No two children are alike in disposition and character,

and many very funny little stories could be told about the different things they say and do. One father has in his son the seeds of a future lawyer and diplomat rolled into one. This little boy is one of the most interesting of the children, although each child has his own individual attraction.

The Kindergarten room is decorated entirely by the children's own work and as the aim of the Kindergarten is to develop the child's individuality this is as it should be. Many people have the idea that Kindergarten is all play, but this of course is an entirely mistaken one, for the children work very hard, although things are presented to them in the form of play. In this connection it may be well to mention our play-room. Here the children are given a sufficient amount of material to keep them interested and busy and they are allowed to do with it what they will, and it is here that very interesting character study is made.

During the fine weather the children were taken outside to play games, and their imagination ran riot. After "Field Day" each little boy wanted to run races round the track and the poor

teachers were forced to do marathons, the children in most cases being able to outrun the students. Many kinds of games were indulged in, but now that the weather has become cold it is not so easy to take the children outside, and they have to content themselves with playing games either in the Kindergarten room or the basement.

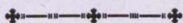
Much could be written and much could be said on this very interesting Kindergarten of ours, but space will not permit, and we will close by inviting everybody to come over and see for themselves the work we are doing and the work the children are doing.

With ten students putting forth their

best efforts we hope that the coming year will be the most successful year from the Kindergarten point of view that there ever has been in Macdonald College.

The Kindergarten had been studying the wind all week—its power, effects, etc., until the subject had been exhausted. To stimulate interest the teacher said in her most engaging manner, "As I came to school in the car this morning, something came in the door and kissed me softly on the cheek. What do you think it was?" And the children joyfully yelled, "the Conductor" !!

I. D. ROBERTSON, Kg. '17.



My Experiences as a Rural Teacher

AFTER having been told what I should and should not do in governing a school, I started for my destination. I visited my school-house that day and it was in rather poor condition. No less than six panes of glass were broken, two of the six windows were minus curtains, the stove was minus a hearth which had been broken off. One thing that the stove did have, was large cracks on either side so that there were more ashes on the floor than inside the stove. The desks were said to have had slivers broken off them but in my estimation, they were rather large slivers, for in some cases half of the top of a desk was gone. With the co-operation of both pupils and parents, the school-room was transformed into a real, cosy room. Thus, I was ready to begin school the next day, as I had already consulted my notes, "The first day at school."

Next morning, I awoke filled with plans and ideas for my first day at school. Happening to look out of my

window, I saw groups of children laden with book-bags and lunch-boxes, wending their way to school. All seemed to be looking in the direction of my boarding-house, no doubt wondering "what the new teacher looked like," and each wanting to catch the first glimpse of her. I soon learned that the pupils went to school about half-past seven so as to have "a good, long time to play."

What a strange sensation I had, as I rang the bell for the first time in earnest, feeling that I was the teacher and must be "upon my dignity" as I had so often been told, instead of thinking up some mischief by which I could annoy my teacher. How important I felt as the pupils of various sizes trooped in, some even taller than myself, and stood at their seats, awaiting my next command.

The day passed very quickly with the usual routine of work and I found it necessary to keep asking myself whether I should use the Heuristic method or

the Genetic method in other subjects as well as arithmetic. I learned that I must act as janitor as well as teacher, so, armed with broom and dust-pan, I performed these duties; locked the door which was secured with a large chain and padlock and wended my way home, thinking over my first day's experiences.

The days and weeks passed; the only excitement was a visit from the Inspector. After I had been there a few weeks, I received an invitation asking me "if I could not come home with Susie and spend the evening?"

The next week an invitation asking me to come home with Johnnie and spend the evening and so on until I had visited every home in the parish and the parents did all that was possible to make me feel at home.

Winter was fast setting in and I began to realize some of the hardships which a rural teacher must endure. The walking became impossible and sometimes days passed before even a team could get through the snow-drifts. I was always glad to accept rides on loads of lumber, potatoes, logs, or even in teams conveying pigs and calves.

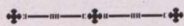
The days passed swiftly, and I began to love the work which once had seemed a bore. I enjoyed nothing better than to have a bunch of innocent, little pupils around me, busily engaged in school work.

One chap on being asked if his teacher was cross, replied, "No, everybody told us how cross she was going to be, but she isn't, so I guess it must be her sister who is so cross." The answers which I sometimes received were very amusing. One little fellow, about five years of age, would persist in saying that Jesus was born in a box-stall, and that Jesus' mother's name was Bessie.

Spring came quickly, and I had a chance to teach my pupils about the returning birds and flowers. How they did enjoy walks through the woods and the little tots took the greatest interest in gathering and learning the names of specimens. I began to realize that my term was drawing to a close and that I must send in my resignation; I must soon leave the dear pupils which I had rejoiced with in their gladness and sympathized with in their sorrows.

The last day came. I said "good-bye" to each and all with no little feeling of sadness. I often look back over the year and feel that with all its joys and sorrows, that a lesson of patience and contentment had been learned. It is my humble opinion that the rural schools should have the trained teachers and no teacher has gotten the most out of life until she has spent a few years in a rural school.

C. B. BOOMHOUR, Teachers, '17.



The Task

Great duties are before me and great
songs;
And whether crowned or crownless
when I fall,
It matters not, so as God's work is done.

—Alex Smith.



In Alberta

THE number of different thoughts stimulated in the minds of this Magazine's readers and "hasty-leafers," by the phrase, "In Alberta," is impossible of estimation, is it not? To my mind, however, there at once comes a vivid picture of the Vermilion School of Agriculture and almost at the same instant a realization of the work of the Women's Institutes in Alberta.

The three Schools of Agriculture, situated beside the Government Farm at Claresholm, Olds and Vermilion, are meeting the needs of many Alberta boys and girls,—just as their organizer, the Honourable Duncan Marshall, Minister of Agriculture, foresaw, some three or four years ago. Instruction is given in agriculture and in household science, and a staff, therefore, of at least seven or eight is employed in each school.

After leaving Macdonald College in 1914 I accepted the offer of a position on the Household Science staff at Vermilion; and in September of that year those instructing in the three schools met at Olds for a very brief Normal Course and to plan the winter's work, that the course given might be practically the same in each school. We

had a most enjoyable month, with excellent instructors, the pleasures of practice teaching, and the social life one of the oldest and best Alberta towns.

The Household Science course in these schools covers a period of two sessions of five months each. It has been suggested that at the completion of this course the girls have the opportunity of continuing their studies in a Household Science Department at the University in Edmonton, but such a Department has not yet been established. A number of boys from the schools, however, are now working on their course in the Faculty of Agriculture. But a great many students are not qualified to enter the University. The academic standing of those whom I knew varied from Grade III in the Public School to Public school teachers. The reader will understand, therefore, the problems occasionally confronting instructors in these schools, but a great deal can be accomplished with the aid of a pupil's sincere interest. Those more advanced in the elementary work often coach the less fortunate and great progress is made. The very fact that the environment of the schools is a farming environment

has induced the attendance of many boys and girls who, because of their lack of even a good public school education, could, or would, not go elsewhere. The only expense necessary is the price of a few books, board and room, and a small deposit for breakages, etc.

For our work we had a class-kitchen (with excellent pantry) equipped for twenty-four students, a well-furnished practice dining-room, a comfortable class-room, and a sewing room equipped with sewing tables, machines, etc. The Elementary Science laboratory and

The school had its numerous student activities, literary and social, and deserving of special mention was the Girls' Hockey Team, but no details please!

An exhibition of students' work in cooking and sewing and an "at Home" closed the first five months' session. During the previous winter merely a six weeks' course had been given to each school in turn by the same two or three teachers, but in 1914-15 the average attendance of twenty-five justified the engaging of three separate staffs.



dairying-room on other floors of the building are also used by the girls. The course included English, Foods, Cooking, Sanitation, Anatomy and Physiology, Home Nursing, Arithmetic, Chemistry, Horticulture, Dairying, Poultry, a little Bacteriology, Sewing, Laundry, Household Administration and Household accounts. The work of the instructor in the four last named might have been better done, I fear. The physical training was not entirely neglected but the school at Vermilion is situated about a mile from the town and those who have walked that distance with the thermometer at 30 or near below, will appreciate why we were not very insistent on compulsory gymnasium work.

Now it so happens that the work of the Women's Institutes in Alberta is also under the Department of Agriculture and the teacher in charge of the Household Science in each school is occupied during the remaining seven months of the year in visiting the different Institutes in her district. She is known as the supervisor for that district, and reports all work to the superintendent in Edmonton.

In the early part of the summer of 1915 my work was chiefly organizing new institutes, as the northern third of the province is not so thickly populated and more recently settled than the central and southern portions which have many old settlers and a larger number of better homes. But this is

only because the people have been longer on the land; in the few long-settled parts of the north there are just as many signs of prosperity as elsewhere in the province.

Organizing Institutes is interesting and important work. An easterner cannot know the value of an Institute in an outlying district of the west. One can there meet women who get to town only very occasionally—perhaps, spring and fall—and life in the home district sometimes becomes quite monotonous. The men go for coal, flour, etc.—and the women tend the stock at home. The more progressive families, I found, had organized a sort of Literary Society for the winter months, but in many cases these were only short-lived. It took too much time and patience to hitch and unhitch the horses, or a narrow-minded So-and-So would remark that if Such-and-Such could not speak better English *it* should not take part in any programme.

But with the Institute it is different. I need not explain the nature of the organization, its possible avenues of work, its privileges, etc. Surely everyone knows the Homemakers' Clubs of Quebec! Such is the work of the Institutes.

During the short winter days many of the Institutes meet about one o'clock in the afternoon so as to get home before dark, and the interest in these meetings seems to endure. Government assistance is given in many ways, sending out speakers, lending libraries, giving grants, etc. For instance, if I remember correctly, each Institute holding a Horticultural Exhibition is given a grant of as many dollars as have been expended for prizes.

In the summer of 1915 the Provincial Government assisted by the Dominion Government sent out a Demonstration Train which visited districts not touched the year before, and which itself was

more representative of the Department's work. There were cars devoted to exhibiting work done by students in the Schools of Agriculture.

I should like to describe in detail the Household Science Car but space will not permit—Home Nursing, Sewing, Cooking, Laundry and Household Administration were represented. In the section for which I was responsible (Laundry and Household Administration) the Exhibition was not exactly student's work but designed to give people an idea of the course in these subjects. Briefly in the Laundry division we had samples of Homemade Soaps, Textile tests with samples Table of Mordants, tests for Bluening (with stages of experiments shown in bottles) samples of different home made preparations for use in the Laundry, paper models of certain articles correctly and incorrectly ironed, and samples of colored materials correctly and incorrectly laundered, all mounted on card-board, wherever possible, and accompanied by typed explanations. In the Household Administration section we had a properly set dining table, printed cards on:—"May we be Inquisitive about your Kitchen," "Ironing made Easier," and "Methods of Softening water," and we had also rented different labor-saving articles for exhibition purposes.

In another car there were given at each stopping place demonstrations in some subjects. But alas, I was not to enjoy the Demonstration Train beyond the hours of preparation for it! On the morning of our first stop I discovered that in my earlier days I had neglected something quite important, namely,—the taking of measles. After two weeks in an Isolation Hospital I returned to the Institute office in Edmonton and the train still continued its tour for five or six weeks.

In the Autumn for several reasons I remained at the Institute office and when not visiting rural districts we were busy attempting to prepare an adequate system of filing our library of clippings. In addition to loaning boxes of books we sent out articles gathered from about thirty different magazines, and one may easily imagine the difficulty of trying to file an article continued from one page to another, while several other articles very different but equally worthy of filing are on other parts of these pages. This Clipping Library is very much appreciated, for a magazine is an impossible luxury in many homes.

I well remember a visit to one part of the province which had had three successive crop failures. This particular Institute of which I write was in a farming district over twenty miles from town and it afforded, therefore, practically the only social life of the women there. My meeting was held in the school-house one evening and it seemed to be such an unusual thing for an outsider to visit that part that the men also attended. We drove in a lumber waggon drawn by mules and stopped on our way for another woman who seldom got out anywhere. She took the small children along (her husband had been away for several days after one load of coal) and during the meeting they slept on coats on the floor behind the door.

To many of these people it means a good deal to be told that the government is keenly interested in their welfare and is ready to assist them in so many ways. A number had taken no newspaper for a year or two. They profit from the social side of meeting together; they take a renewed interest in life, and are made to feel that they are necessary for the best development of Alberta. But this was an exceptionally poor district. The next morning we drove ten miles (with the same two mules) to the home of a

prosperous American family. The meeting that afternoon was attended by many women from very good homes. They lived nearer town; they saw and heard a little more of the world than did their not very distant neighbors, and yet the congeniality of both districts was about the same. We often receive a sincere welcome on the threshold of an eastern home but real hospitality belongs to the west.

“Out where the handclasp’s a little stronger,

Out where the smile dwells a little longer;

That’s where the west begins.”

About the middle of the winter a train conducting short course school of three days duration was sent out. In connection with this, numerous varied and interesting experiences could be related. Our engine, one day, refused to take us farther so we were towed by a freight train to the next town, spending a lost half day keeping warm in the caboose, for the Pullman Car had been steam heated by our engine and now many box cars stood between the new engine and ourselves. There were several of us therein assembled but few had ever thought so well of a journey in a freight caboose.

I was much amused when on one occasion a lady brought a stained piece of table linen for demonstration purposes in the laundry period. She afterwards very kindly admitted she had not expected to take the article home clean, for she had intentionally decorated it with spots of red ink, blue ink, grease, rust, coffee and stove polish!

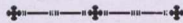
In the spring an excellent convention programme was being prepared by the superintendent and the provincial executive of the Women’s Institutes; unfortunately I could not attend this con-

vention though I know that many steps in advance were taken, for example the placing of nurses in certain districts far from medical aid. Since I left the work there have also been improvements in other directions; the schools now have an equipped laundry-room, the Demonstration Train of this past summer was much improved, a popular and necessary change being the addition of a nursery where children might be

left under proper supervision during demonstrations and lectures.

I am sincerely sorry to have occupied so much space with this collection of facts, but when one has been engaged in a work whose interests are so varied and fascinating (at least to those in close connection with them) it is difficult to make many omissions.

ALEXUIS T. KELSO.,
Homemakers, '14.



Institute Work on Prince Edward Island

IT IS little over three years since the first Women's Institute was organized on Prince Edward Island. To-day there are thirty-five active Institutes with a membership of approximately seven hundred. Each

Every alternate meeting is visited by one of the Supervisors, except during the winter months when the Short Courses are held in Charlottetown. During these months the members conduct their own meetings. Some of the Institutes have



Short Course Students

Institute receives an annual grant of five dollars and the admission for each member is but twenty-five cents a year. Miss Hazel L. Sterns is the Supervisor, and has with her in the work Miss Adele Gordon and Miss Alberta M. MacFarlane. The Institute meetings are held on regular days each month.

regular printed programmes for the winter months. These meetings with fixed subjects and an interchange of ideas prove interesting and instructive. Latent talents are often discovered among the members which would otherwise probably never have found an outlet.

Every day the Women's Institute Movement in this little Province of Prince Edward Island is gaining in numbers, and every hour its influences for good are being felt. The Institute motto is, "For Home and Country." The presence of an Institute in a community is very marked. One to the first steps of an Institute is to see that the school is put in a good condition. In many cases hardwood floors have been laid, drinking fountains with individual drinking cups have been installed, school libraries for the benefit of the children have been purchased, and many other improvements and transformations have taken place, all through the work of the Women's Institutes.

All the Institutes have been busily engaged in Red Cross work since the outbreak of the war. It is impossible to estimate the total amount of work done by each Institute. It might, however, be mentioned that the Montague Women's Institute together with the W. P. A., with a membership of less than fifty, contributed last year for patriotic purposes the sum of twelve hundred and seventy-two dollars.

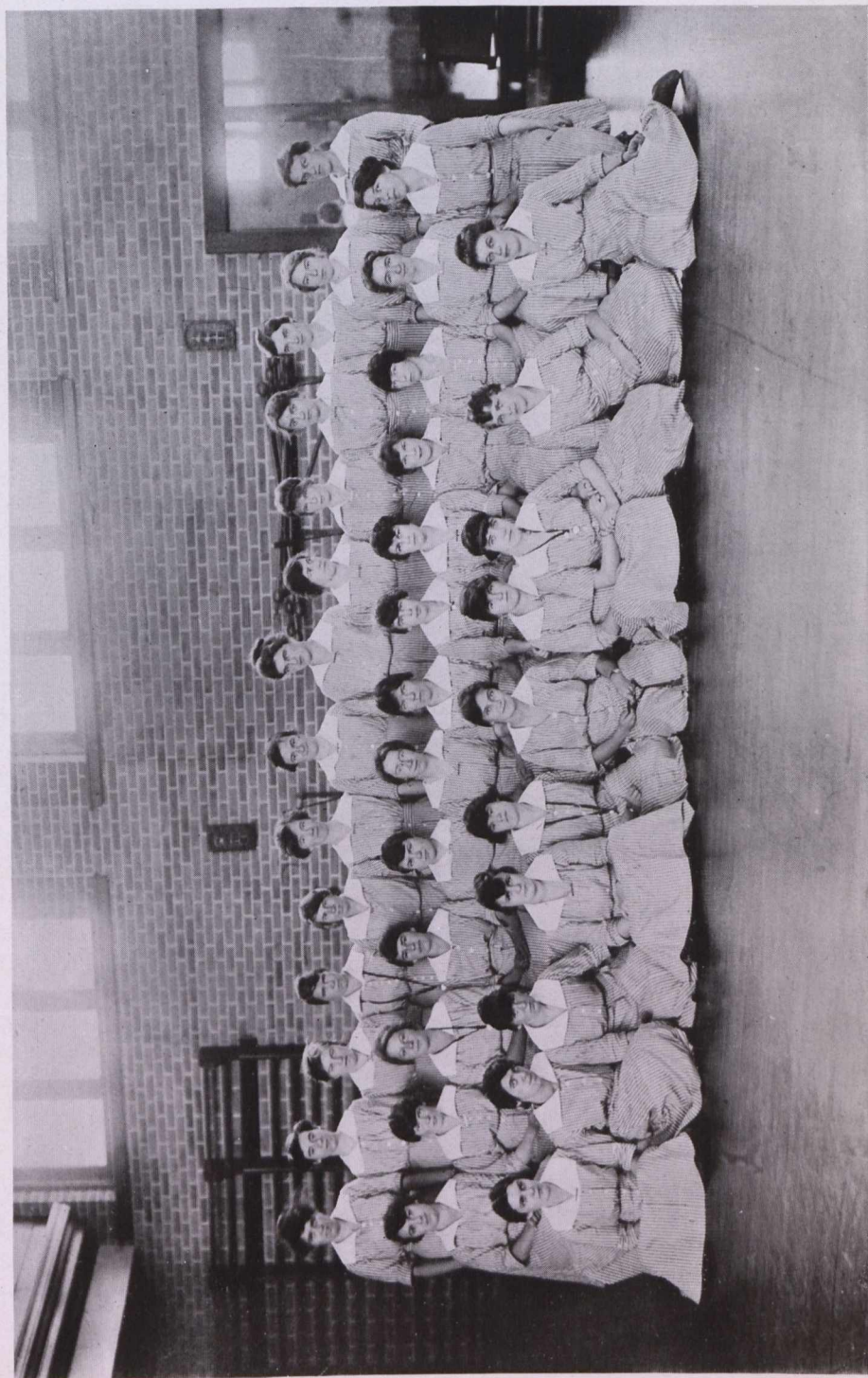
During the winter months a series of Short Courses are conducted in Prince of Wales College, Charlottetown. Each course lasts for a period of two weeks. Last year as many as three hundred applications were received, but only one hundred and eighty could be accommodated, between twenty-five and thirty being accepted for each course. All subjects relating to homemaking are taken up, and the pupils are instructed in Cooking, Laundry, Home Nursing, House Furnishing, Millinery, Flower-Making, Stencilling, Table Set-

ting and Serving, Household Administration, Hygiene and Sanitation, Prevention of Tuberculosis, Poultry-Raising, Vegetable Gardening, etc. Only the Institute members and the women from the rural section are given the privilege of attending these courses.

On July 27 and 28 of this year the Women's Institutes held their third annual Convention in Prince of Wales College, Charlottetown. The Institutes were well represented by delegates and members. The reports of the secretaries showed that the work for the past year had been most successful, especially along the lines of school improvement and patriotic work. Among the many interesting features of this convention were addresses by Miss E. J. Guest of Belleville, Ont.

The Women's Institute movement has spread rapidly on Prince Edward Island and now reaches from Wellington on the western part of the Island to East Point in the Eastern section. Each Institute is a strong link in a chain that draws together the distant parts of our little Garden of the Gulf. The meeting together of the members helps to relieve the strain of loneliness and monotony in many of the rural districts, and tends to broaden minds that would inevitably grow narrow. Solomon, the wisest man that ever lived, said: "Iron sharpeneth iron, and a man's wit sharpeneth the countenance of a friend." Unconsciously Solomon's teachings are felt in our Institutes and our wits are always sharpened after meeting together in a social gathering known as a Women's Institute.

ADELE GORDON,
ALBERTA M. MACFARLANE.



The Junior Science Girls

Faculty Items

THE Macdonald College Club held its second meeting on October 5th. Mr. W. D. Lighthall of Montreal spoke on "The Indian History of the Island of Montreal." Miss Portrey contributed a violin solo. At the third meeting of the Club, held December 7th, Miss Susan Cameron, lecturer in English in the Royal Victoria College, discussed "Present Day Literature and its Trend."

The Ladder Competition of the Macdonald College Golf Club was closed on Nov. 30th with Dr. R. F. Kelso at the top and Prof. S. Laird second. Prof. Laird's achievement in coming from the bottom of the ladder up to the second place, playing scratch against large handicaps, is worth especial mention, while Dr. Kelso's record for his first season has been exceptional.

A combined competition of (1)driving, (2) approaching and putting, and (3) score for nine holes, was held on Nov. 4th with the following results.

	<i>First.</i>	<i>Second.</i>
Driving.....	Laird.....	DuPorte
Approaching and Putting	McWilliam.	Laird
Round.....	Laird.....	McWilliam
Total.....	Laird.....	McWilliam

In the C.O.T.C. the following members of the College staff (together with a number of the students recorded on another page) qualified as "Instructors in Elementary Musketry" after taking the special course given here by Sergeant Major Werry:—H. S. Hammond, M. A. Jull, E. A. Lods, W. P. Fraser, H. Barton, A. R. Ness, R. Summerby, A. H. Walker, and T. G. Bunting.

Corporal (Prof.) Bunting has been appointed commander of the staff (No. 1) section of Platoon No. 1, C.O.T.C.

Principal Harrison and Dean Laird spent a few November days with their rifles in the woods of northeastern Ontario. We are glad to report that their expedition was successful. Several members of the staff received substantial evidence of their prowess. From all reports everybody appears to have had the choice piece of venison.

Prof. Lochhead attended the annual meeting of the Entomological Society at Guelph, November 2nd and 3rd, and contributed a paper on "Insects as Material for the study of Heredity."

The College community is indebted to Mr. Stanton for a most enjoyable and instructive course of popular lectures on music, illustrated by lantern views, gramophone numbers and experiments. The first lecture of the series, given Oct. 2nd, was entitled, "Pleasure in Listening," the second held Nov. 9th, "Instruments of the Modern Orchestra." The third lecture, one on "Sound," was given by Dr. Lynde on Nov. 25th.

Mr. Sadler is studying the bacteria in canned fish. Last summer he spent some weeks in the laboratory of Marine Biology at St. Andrews, N.B., in this work.

Messrs. Vanderleck and Duporte are investigating the bacterial diseases of grasshoppers with a view to modifying the premium rates of the Grasshopper Life Assurance Societies.

Lieut. Robert Newton, formerly Demonstrator at Shawville, is Adjutant of the Ninth Brigade of Artillery.

Veterinary Captain Savage is attached to the Eleventh Field Artillery Brigade as Veterinary Officer.

Lieut. Engineer Charles Stephen, R.N., is serving in the North Sea aboard H.M.S. Glorious.

Miss Stewart has organized a knitting circle among the women students.

A Rifle Club has been organized among the members of the Staff. Prof. W. P. Fraser is Secretary.

The annual reception of the Teachers in Residence, which was held Oct. 27th, was, as usual, much enjoyed by those

present. Music was rendered by Miss Portrey of Ste. Anne's and Miss Hogg of Montreal. Mrs. Gibbon contributed a humorous recitation.

Mrs. Katherine Hopkins of Halifax, a thoroughly trained and broadly experienced teacher of needlework and dressmaking, has been appointed Instructor in these subjects for the special course in dressmaking to be given by the School of Household Science in January.

We regret that in our last issue, owing to an Editorial lapse, Mrs. Rutter's Teacher's Dip'loma in Household Science was referred to as a "Housekeeper's Diploma."

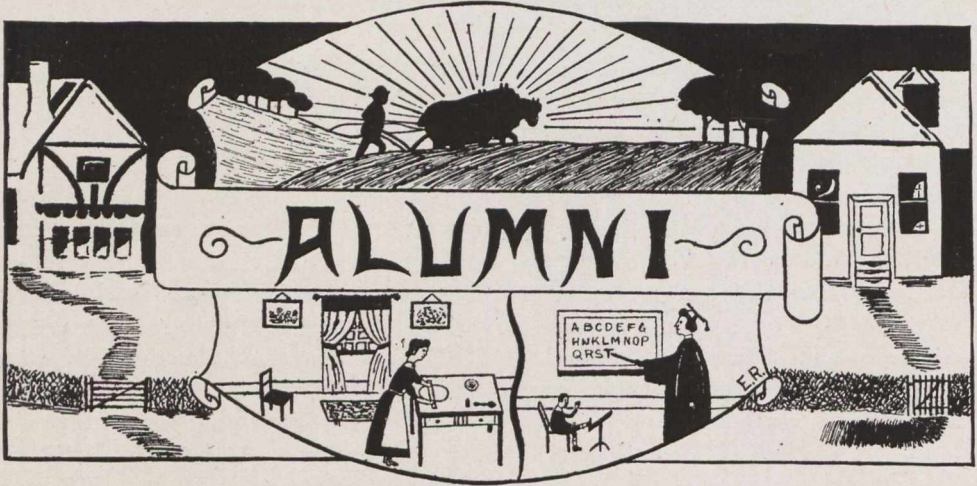


The Students Council

Standing: Messrs. Jones; Tilden; Cunningham; Ness; Bothwell; Dickson; Dogherty.

Seated: Misses, Ussher; Montgomery; McConnell; Mr. Hetherington (Pres.); Misses, Kirby; Carpenter; Mrs. Newton.

Seated on floor: Misses, Cameron; Cavanagh



Agricultural Graduates

Class '12.

D. B. FLEWELLING who went over with the 4th University Coy., and was reported wounded in the last number of the Magazine, has recently been heard from. He was suffering from a shot through the lungs and although he laid on the battle field for fifty two hours before being found we understand that he is doing well. When last heard from he was at the Red Cross Hospital, New Town Hall, Torquay, Devonshire, England.

Since the last issue of the Magazine R. S. Kennedy has been heard from. It appears that he is so severely injured as to be unable to return to active service again, but is likely to recover. Any mail addressed to him in case of Mrs. Barret, 27 Bloomfield St., West Hill, Higate, London North, will be sure to reach him.

Class '13.

W. A. Middleton has severed his connection with the Thomsen Chemical Company and is now at Midmar Ranch, Vernon, B.C.

Class '14.

H. J. M. Fiske when last heard from was managing the Cobalt Branch of the farm of Herbert Peters Wholesale Fruit and Commission Merchants of Toronto, and he reports life in the mining town to be very interesting. We are led to believe that his interest is largely due to the presence of many young ladies.

Besides taking a leading part in agriculture W. L. Macfarlane has found time to establish himself in politics, having recently been elected municipal councillor for his district, leading the race as was to be expected when his past performances are considered.

Congratulations, Mac.

O. A. Cooke is at present manager of the Richmond Ranching Co., at Macklin, Saskatchewan. Having identified himself with a more or less mixed farming proposition he has not suffered as extensively as some during the past season, thus registering another victory for Science in Agriculture.

Class '15.

Sergt. V. B. Durling did not return to Canada and his address is No.

132488 D. Company, 73rd Royal Highlanders of Canada, Army Post Office, London, England.

One of the college staff visited H. B. Roy, a short time ago at his demonstration office in Sudbury, Ont. He reports that Roy is carrying on much useful work and that he has organized a large coöperative creamery association which promises to be a decided success. Our friend is surely not only progressive but modern for he possesses a moving picture outfit.

In a letter recently received from G. C. Boyce he reports business as brisk but claims that he longs for the halls of Macdonald. To be exact we may state that the farm George is managing has 15,010 acres within its boundaries.

Class '16.

Since the first issue of the Magazine, letters have been received from most of the members of Class '16 and it is very pleasant to be able to say that all are well and busy. During the last month or six weeks some changes have been made in the ranks. Charlie Gooderham has been good enough to inform us that he has left us in the back-ground and finds it hard to get time to write letters of any kind. He is a very busy but a happy man now. Why? Because he thinks there is nothing like Britain. If you must have the whole truth, he's married and he says he isn't sorry. Herein we wish him health, happiness and everything else that is good.

We have received the information that the No. 6 McGill Heavy Siege Artillery is now known as No. 271 Canadian Siege Battery, C.E.F. All our fellows in that unit are in the best of health. They are now receiving training in England.

George Hay finds that he has no difficulty in keeping busy out in Telkwa,

B.C. He says that any time he feels tired of the office he can get astride his horse and go for two hundred miles at a stretch, in his own territory. Poor horse!

Walter Sutton reports business on all sides. As he has a large farm to manage we can sympathize with and congratulate him.

A. E. Hyndman is gaining a valuable first hand knowledge of conditions in Eastern Canada. He expects however to spend Christmas in Victoria, B.C., and if he does it is not hard to imagine George Hay taking the one thousand mile step from Telkwa in order to share some fun with him.

C. J. Wilcox after spending several months in England, in the hospital, has recovered sufficiently to be able to return to active duty and has returned to France.

Agricultural Undergraduates

Ernest G. Middlemiss, '19, who distinguished himself by heading his class list in the Xmas examinations last year, is at home on the farm at Sawyerville, Que., this year, endeavouring to do his "bit" towards increased agricultural production.

Chris Loamis, '18, and Gareau, '19, are also doing their "bit" to increase production, but in a different line. Loamis is working in a munition factory in Sherbrooke, and Gareau in a munition factory in Lachine.

Nellis Hodgins, '17, has taken unto himself a wife, in the person of Miss Ethel Jean Paul, daughter of Mr. and Mrs. Thomas Paul of Bryson, Que. The marriage ceremony was performed on November the first at St. Andrew's church, Bryson. We take this opportunity to wish Nellis and his bride much joy.

Ernie Muir, '17, is successfully managing his own ranch at Grand Coulee,

Sask. This report we had from his brother George, who called in at College recently.

Russel Derrick, last year's President of Class '18, is working on the Experimental farm in Ottawa this year. He must find this rather mild after guiding his class through the sophomore period of its existence.

When last heard from, "Farmer" (Ellis) Hodgins was starting for the West, taking with him a bunch of horses. "Farmer" Hodgins was a freshman along with the members of the present Senior year.

Morris Singer and A. N. Pesner of Class '19, are both in Montreal this year, preparing to take the course in Medicine at McGill.

Bill Corrigan, '18, is another Shawville man who believes that practising scientific agriculture is better than preaching it.

Clifford G. Standish, '18, is doing big things these days. He has been appointed Superintendent of the Royal Agricultural Schools at St. Adolphe de Howard, Que. These schools, we understand, are being established for the purpose of educating the children of soldiers in the science of agriculture, and for this purpose have large farms in connection with them.

As far as we know, George Buckley, '17, is at home in Halifax this year. He was unable to return to College this fall to specialize in Horticulture, as he had intended doing, but we hope he may return next year.

It is our pleasure to announce the birth of a daughter to Mr. and Mrs. R. Gervers. Mrs Gervers was formerly Miss Kitchener, a niece of the late Earl Kitchener, and was a member of Class '17.

Sidney Cameron, '18, is working on his father's farm at Adamsville, Que.,

and working hard too, no doubt, if we may judge by his record at College.

Miss Portrey, '17, is still living in the neighborhood of the College. She lives with her mother in Ste. Annes village, and is organist of the Union church.

School for Teachers

Rebecca Echenberg, gold medalist of Teachers, '15, found that teaching did not satisfy her ambition, so took a training in nursing and is now a nurse in a hospital at Rugley camp, England, doing good work for the cause.

We are very sorry to hear that Kenneth Beatty of Teachers, '16, who joined the forces in the spring of 1916, has had to have his right arm amputated having received a severe bullet wound in it.

Dorothy Davidson and Violet Watt of T., '16, are both astounding the children of Royal George School, Notre Dame de Grâce, with their knowledge, learned at Mac.

Mable Roy, T., '16, is teaching in East Sherbrooke while Mollie Peabody, of the same year is teaching in Central School, Sherbrooke.

Frances Ewart and Katie Goodfellow, both of Teachers, '16, are teaching in the same school in Buckingham School.

The pupils in one class in Alexandra School, Montreal, are progressing favourably under the amiable guidance of Annie French, of Teachers, '16.

We hope that Stanstead Model School has profited by the addition to their staff of Marian Watson, T., '16.

Greta Johansson, T., '16, shows her knowledge of Educational Theories and school management in her work at the Lachine High School.

Two of our Teachers of class '16, Dorothy Lavers and Lorna Kingan, carry their high standards to pupils of Strathearn School, Montreal.

Grace M. Watson, of T., '16, has found that her teaching is very much appreciated by a class in Maisonneuve School.

Grace LeGallais, Elem. T., '16, is doing her little bit for social good in Bury School.

Household Science

Miss Jennie Fraser, Senior Science, '13, has been visiting the College in connection with her work in Nova Scotia. Her old friends were glad to see her.

Miss Winnifred Orde, Short Course, '14, is doing Red Cross work in Ottawa.

Miss Ida Mills, Science, '16, is pursuing her studies of music at home in Ottawa.

Miss Irene Buckland, Homemaker,

'13, is taking the nurse's training course at New York Hospital.

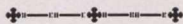
Miss Effie Robinson, Senior Science, '13, is dietitian in the Homeopathic Hospital, Montreal.

Miss Margerite MacNaughton, Senior Science, '13, is assistant superintendent of the Fernery Tea Room, New York.

Miss Ethel Wathen, president of Senior Science, '13, is now the wife of Rev. Mr. Anglin, Winsor, N.S.

Mrs. Kelso, wife of our college doctor, was the popular president of the Home-maker Course in '13, when she was "Alie" Carlyle.

Congratulations to Rev. Mr. and Mrs. Lancaster on the birth of a daughter. Mrs. Lancaster, *née* Miss Cox, was a graduate of the senior year in 1914.



Let Us Be Kind

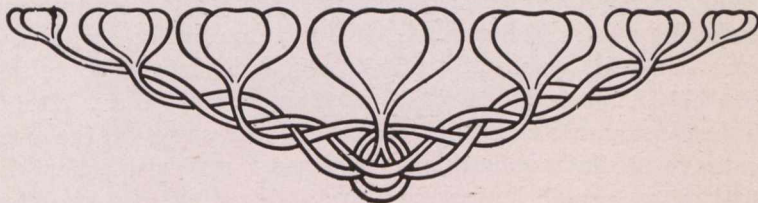
We cannot know the grief that men
may borrow,

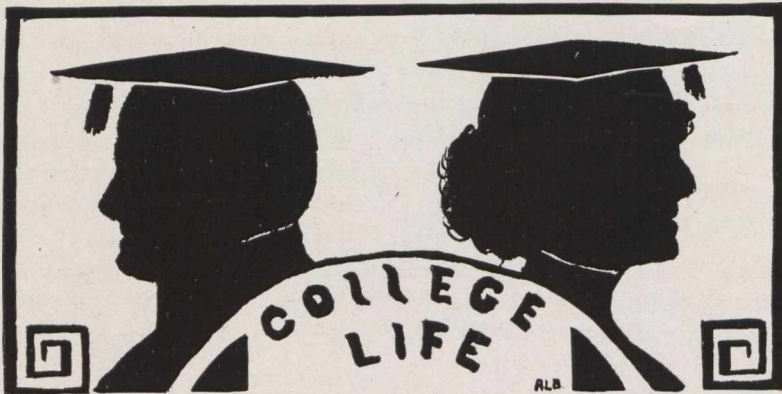
We cannot see the souls storm-swept
by sorrow,

But love can shine upon the way to-day,
to-morrow—

Let us be kind.

—*East and West.*





The College Y.M.C.A.

THE Young Men's Christian Association of Macdonald College has been very fortunate thus far this year, in having secured some very good speakers on subjects which are of interest not only to every college student but of special interest to us at Macdonald.

On Sunday, Oct. 15th, we were addressed by Dr. Lynde, of the Physics Department, who took for his subject, "Service." This talk was addressed particularly to the freshmen, but we all derived much benefit from it. At this meeting it was suggested that one of the men from the school for Teachers should represent that body on the executive. Mr. Craik was elected to the position.

At the Sunday morning service of Oct. 22nd, the Rev. Mr. McLeod addressed the meeting. His subject was, "What is the Goal of your Life?" He emphasized the fact that we should have our ideas on the future and not on things of the past; that we should be looking for Jesus' second coming, and purifying ourselves even as He is pure; and lastly, that we should be more thoughtful, serious, and earnest, as this life is

not all, but only the fitting ground for a greater and nobler life beyond.

As there was no scheduled speaker for October 29th, our worthy president, Mr. L. R. Jones, read a very instructive chapter from a little work entitled, "As a Man Thinketh," which struck us all quite forcibly and gave us much food for thought. After a few hymns the meeting closed with the Lord's Prayer.

The speaker for November 5th was Mr. Wilfred Saddler, who in his usual pleasing manner gave us a short resumé of the life of David Lloyd George, the present Minister of Munitions in the Coalition Government of the Motherland. Notwithstanding the short period of time given to Mr. Saddler in which to prepare his address, he spoke with great interest and enthusiasm.

Prof. Lochhead gave us a very interesting and instructive address at the meeting held on Nov. 12th, taking for his subject some of the conditions in Germany responsible for the present war. As Prof. Lochhead's son, Dr. Lochhead, has been a prisoner in Germany since the war began, he is able to get a much broader insight into happenings in the interior of that country than

have many who have only hearsay from the outside on which to base their conclusions.

On Sunday, Nov. 19th, the speaker was Mr. Calhoun, Secretary of the Central Y.M.C.A., who spoke on the subject of Bible Study. His address was quiet, clear, and to the point, clearly showing us all that we do not spend nearly as much time as we should on the study of the Scriptures. Many of us left the meeting with the resolve that we would try to remedy this fault, in our own lives at least, by spending more time with our book of books.

The speaker for the meeting of Nov. 26th was Dr. Gifford of the Wesleyan College, who took for this subject, "The Fight for Character." He showed us very concisely that this fight for character is based upon three main principles, namely, bodily strength, mental strength, and social strength. The term bodily strength includes self control and power of will; the term mental strength includes the kind of thoughts we think; and, what we think to-day decides our to-morrow; the term social strength includes our social life or environment, and it behooves us to pick and choose our companions of daily life for what they are so will we be. In closing, Dr. Gifford told us that we should not think of work as a toil, but as a discipline and an opportunity which would enable us to gain the fight for character. Dr. Gifford's address showed us how far we one and all will have to go, before we can hope to reach the goal of a perfect christian character.

The Sunday Evening "Sing-Songs," another phase of our Y.M.C.A. activities are worthy of mention here. These are held every two weeks in the Assembly Hall, immediately after the evening church services. Besides giving us all a chance to sing many of the old favorite hymns together, they offer us program-

mes of exceptional interest and merit from a musical standpoint. Much credit is due the members of the fair sex from "across the campus" who have contributed to these programmes, as much of the pleasure received is due to them. Mr. Stanton also merits our thanks, as does Mr. Buckland, the musical leader, for the able manner in which he carries out these "sings."

In closing, a short explanation of the purposes of the Society will not be out of order. Its main object is to develop a true and manly Christian character among its members. Here at Macdonald, our intellectual and physical growth is provided for by the College, its athletics, and its Officer's Training Corps, but no man's development can be considered complete, if the spiritual side of his nature be neglected. It is this neglect of the spiritual side of a man's nature that the society attempts to overcome, offering to him the opportunity of activity which is essentially character building. Hence, we should all coöperate with the officers of the association and aid them in every way possible. The best way in which we can do this is for us all to turn out for the Sunday morning meetings, thus giving the speakers, especially strangers from a distance, a hearty welcome to our College. No speakers can express themselves well to empty seats; it is impossible for them to put as much vim and "pep" into their addresses as they would do, had they a crowd of listeners. May I also add a line of urgent protest against the extremely unpleasant habit of whistling, singing loudly or of slamming doors in the proximity of the gym, during the progress of these meetings. No speaker can enjoy giving an address to the above accompaniment and I am sure that if we are all a little more thoughtful in this regard much annoyance will be done away with.—G.C.C.' 19

Y.M.C.A. Executive.

The executive of the Y.M.C.A. for the sessions of 1916-17 is as follows:

President, L. R. Jones '17; vice-president, W. N. Jones '18; sec.-treas., J. W. Graham '19; musical leader, A. J. Buckland '18; Bible study leader, to be elected; committee-men, R. C. M. Fiske '17, H. S. Mace '18; D. Patenall '19, A. L. Hay '20, R. Templeton '20.

A Lecture on Pepy's Diary

OWING to the kindness of the Women's Club, the Senior Administration Students had the pleasure of hearing a very interesting and instructive lecture on Pepy's Diary, delivered by Dr. Birne Taylor.

The value of Pepy's Diary is the insight it gives us into the time of Oliver Cromwell and Charles II, and many of his descriptions have aided in history making.

His various experiences, both domestic and business are very humourously and cleverly told, and he even includes such details as a dinner menu, and the price of a frock coat in 1660.

He managed to amass considerable wealth by means, which in the present day, would be called dishonest, but which he considered quite legitimate. In one year, with a salary of £250, he managed to save £1,000. In spite of his increased wealth, he was very frugal, except where the money concerned his personal pleasure or dress.

The chief delight to his readers is, that all his writings are so human that they contain his thoughts, which he did not write for public effect. He was forced to discontinue his diary after ten years faithful recording, owing to blindness. The diary was written in short hand and was not translated until 200 years after his death.

Home Economics Club Executive

ON Thursday the 21st of September, 1916, a meeting of the School of Household Science was called to elect officers for the Home Economics Club, Macdonald College.

Miss Laura Kirby, President of the Court of Honour, presided and the elections were as follows:—

Hon. Presidents—Miss Fisher, Miss Hill. President—Miss D. McGregor. Vice-President—Miss L. Kirby. Secretary—Miss E. Muchall. Treasurer—Miss E. Muchall. Representatives—Sr. Sc., Miss E. Law; Jr. Sc. Miss Hutcheson; Homemakers, Mrs. Newton; Short Course, Miss Ussher.

Home Economics Club

THE opening meeting of the Home Economics Club was held on Thursday, the 19th of October, 1916, at 7 p.m. in Room 207, Main Building.

The President, Miss McGregor, was in the chair, and introduced the speaker of the evening, Prof. Lochhead, who gave a very interesting and instructive lecture on eugenics.

Prof. Lochhead stated that there were three influences or fates directing one's life, namely, environment, function and heredity and that heredity was the most important. Recent investigations show that the only thing handed down is heredity. As every generation starts over again. Weismann, a celebrated German scientist in biology, formulated the theory of the continuity of the germ plasm. Characters are not acquired, but germ diseases inherited.

Mrs. Newton moved a vote of thanks to the lecturer, which was seconded by Miss Gladys Ross.

The President also thanked the lecturer for his kindness in addressing the students.

The meeting was brought to a close by the singing of the National Anthem.

E.M.M. Sc.

The Senior Science Theatre Party

ALTHO it was November 18th—about the time when chicks and allowances seem to have gone that road, from which, like many other things, there is no returning, unless you have lent it to a reliable friend—several of the Senior Science girls managed to get together the where withal to go to town to see Sir Herbert Tree, in *Henry VIII*. It was rumored that one of the class had taken it upon herself to see that the rest of the class would get into town together, but it fell thru, she alone knows the reason.

Leaving Ste. Annes on the 6.27, four of us, with Miss Fisher, arrived in Montreal just in time to miss a Windsor car; which would take us to Guy Street and "His Majesty's," but after a short wait, we joined the rest of the party at the theatre.

The play far surpassed our expectations, especially those of us from small towns, where such opportunities are rare, but I am sure that all of us appreciated to the full, our being able to be present, and for once, realization was better than anticipation, as some of us who were not very well acquainted with the drama, and were a little afraid that we would find it tiring, such being my own case. I must confess, however, that our interests never flagged, from first to last.

The drama was most interesting from a historical standpoint, as it brought in so many facts, even King Henry and his courtiers disguised as sheep, breaking in on Wolsey's dinner party.

The scenery and costumes alone, were worth seeing, aside from Sir Herbert

Tree's wonderful impersonation of Cardinal Wolsey, especially in his dawning all, Act III, Scene 2. The climax was reached in the scene of Anne Boleyn's coronation, which could hardly be surpassed for beauty and splendour.

Owing to the forethought of our chaperon, in having the train held a few minutes, we were able to stay until the end, although it was a rush getting our train even then, especially as two of our number were slightly lame, and two were always having to catch up to the rest, thus holding them back.

We got back to the College during the first half hour of Sunday morning, hoping that we would enjoy another such evening in the near future.

"SCIENCE '17."

Sophomore Chicken Feed

On Saturday evening, Oct. 28th, Class '19 of Macdonald College, gave a chicken dinner at the Hudson Bay House at Ste. Annes. It has been the custom for some years now for the Sophomore Year to give a chicken dinner at the close of the annual poultry fattening competition. And this year the dinner was greatly enjoyed by all present. The tables were tastefully decorated, and when the guests had assembled, presented a sight not soon to be forgotten.

The president of the Sophomores, Mr. Franklin Dogherty, presided, and acted as toast master.

After the toast to the King, Mr. Graham, in fitting language, proposed a toast to the guests. This toast was replied to by Prof. Lochhead. Prof. Lochhead also told one or two amusing stories, which were much appreciated.

Jack Welsh proposed a toast to the Macdonald boys who are overseas. In proposing this toast, Mr. Welsh remarked that while we were enjoying

the evening, we could not forget the many fellows from the College who are doing such splendid service overseas. Mr. Jull replied to the toast on behalf of the men at the front. He said he felt it would be unnecessary for him to speak for the boys at the front, as their actions spoke for themselves.

Among the guests were Professor and Mrs. Lochhead, Miss R. Stewart, and Messrs. Jull, Bergey and Taylor, of the College Poultry Department.

days in anxious work and pleasant expectation, before the night of our party.

When the night at last arrived, the excitement was intense. Weird noises, peals of laughter, and the cry, "you can't come in," were heard all over the building. At eight o'clock we went to the gymnasium, though pausing many times on our way, to look at the weird and fantastic costumes of each other.

On arriving at the door, we were graciously received by Miss Stewart,



Some of the Masqueraders.

Towards the end of the evening, Mr. Bergey announced the winners of the poultry fattening competition. They are: First, Boyce; second, Nesbitt; third, Dogherty.

F. W. D., '19.

The Girls' Hallowe'en Masquerade

EACH year around Hallowe'en, it is customary for the girls to have a masquerade, and this year proved no exception to the rule.

We set the date for the Friday night following hallowe'en, and spent many

our lady superintendent, and some of the officers from the different classes. We, then, looked around. Was this our gym? The place where we were wont to march and counter-march, and form fours by the right? Not at all, it was an enchanted hall, of which the walls were hung with flying witches, cats, bats and grinning pumpkins; ghosts stood at the entrance, and weird faces hid the lights from view; cosy corners draped with rugs and cushions softened all the angles, and the whole presented an appearance that stood for pleasure and enjoyment.

After all the guests had arrived, from the dignified and stately lords and ladies to the fun provoking clowns and jolly sailors, the fun began. The grand march came first, and then we danced. Here, there was no distinction made in station, gay lords danced with milkmaids, and gold dust twins with queens.

Half way through our program, we paused for refreshments. How delicious were the sandwiches and cakes, and how fragrant the coffee, and how hungry everyone seemed!

We danced again, and then the judges awarded the prizes for the costumes. A gay ballet dancer was awarded first prize for the girls' costumes; for the boys', a Highland laddie won both our hearts and the prize. A special prize was awarded the gold dust twins who proved to be two dignified and stately seniors.

After singing Auld Lang Syne and the National Anthem we said good-night. Then we hurried off to each others' rooms to talk it all over.

L. K. Sc. '17.

The Macdonald College Rink

At a meeting of the student body on Friday, Nov. 17th, the rink manager for the coming season was elected. The lucky man to receive that honour was Jim Adams, '19. It was suggested also at this meeting that, in view of the fact of there being a very considerable amount of work connected with the administration of the rink, the manager should have an assistant. The suggestion was acted upon, and William Woodward, '20, became the assistant.

These two men are right on to their job, and Saturday afternoon saw the materials for the rink moved out from their summer quarters. Arrangements are made for having the wiring and lights erected immediately, and also the rink

and houses will be assembled in the near future. Thus everything will be in readiness as soon as the cold weather sets in, to go ahead with preparing the ice. If the same promptness and energy is shown by these men, who have the rink in charge, throughout the season, there will be no doubt as to its success and we can look forward to an enjoyable winter on the ice.

Theatre Night for Juniors

On Thursday evening, Nov. 9th, the Juniors journeyed to town to see Mr. Robert Mantell, in Shakespeare's popular tragedy "Macbeth." As the play had just been studied by the class in connection with our English course, it was very interesting and pleasing to see the way in which the different parts were acted by famous players. Upon leaving the theatre we "dropped" down very quickly to Bonaventure station and caught the 11.25 for Ste. Annes. After seeing the ladies safely "home," and after giving a few yells and songs, '18 turned in to "hit the hay."

Macdonald College Glee Club

The first meeting of what was to be the Macdonald College Glee Club, was held in Room 207, Main Building, on Wednesday, Oct. 26th, with Mr. G. A. Stanton, instructor of music for the College, in the chair. As the number present was nearly all of the fair sex, the matters of business connected with the formation of the club were postponed until the next meeting, which was called for a week later. After the practice at this meeting, the organization of the Club was proceeded with. Mr. Stanton called for nominations for the position of a general Secretary-Treasurer, and Mr. A. J. Buckland, '18, was elected to the position. At the next meeting each one of the sections will choose a Secre-

tary-Treasurer for themselves, and these will all act under the management of the general Secretary-Treasurer.

Mr. Stanton has also brought about the formation of a Student's Orchestra, which meets at the same place, on Tuesday evening of each week. We are particularly fortunate this year in having with us such a large amount of musical talent and this of no mean order, as witnessed by the excellent numbers rendered at the various meetings of the student body held thus far this year. Hence, many enjoyable evenings in the near future are being looked forward to by all.

G. C. C., '19

Macdonald College C.O.T.C.

THE Macdonald College Canadian Officers' Training Corps was organized by Major F. C. Harrison, Principal of the College, in the fall of 1914. Major Harrison, as his rank would indicate, assumed command of the corps, and did his utmost despite the difficulty in obtaining rifles and other requisites for bringing the unit to the same state of efficiency as that found in neighbouring corps where more capable assistance was available.

Like all other Canadian Officers' Training Corps, the Macdonald College C. O. T. C., was organized to make it possible for the students, and all others interested, to obtain either an "A" or a "B" certificate. The "A" certificate, which is the one most sought, qualifies one for a lieutenancy.

During the first year (1914-15), the authorities were unable to obtain uniforms, and all drill was done in ordinary civilian dress. During the second year, uniforms were furnished by the Militia Department, and the drill progressed much more quickly. More drills were given during the second than were given during the first year, and in addition,

the men had mastered the rudiments of the drill book. In this way it was possible to advance from indoor rifle drill to outdoor platoon and company movements.

This year, the third, everything gives promise of a very successful year for the corps, especially as compared with what has been done in past years. During the summer those men, staff and students alike, who remained at the College, organized themselves as a small unit, and were drilled by Lieut. A. N. Shaw, also of the College staff. That these men accomplished a great deal during their spare moments in the summer, is made very evident now, when the drills have once more begun.

In addition to taking these drills just mentioned, Messrs. M. A. Jull and A. R. Ness spent a month at Valcartier, attached as lieutenants to the 171st Battalion, and Mr. A. E. McLaurin qualified as instructor in physical training and bayonet fighting, after taking a twenty-one day course at Camp Borden. Now, with these and with others of the staff, together with members of the faculty, and with some of the students who had previously fitted themselves as officers and instructors, the work of the C. O. T. C. goes steadily forward.

Although the number of men in the unit was larger in previous years than it is this year, yet, because all who are enrolled attend regularly, the average attendance will not be much less than in former years. When one realizes that there were more men in the Freshman class when the corps was organized than there are in the whole student body this year, he can readily understand why so many less are enrolled. The organization of the unit is essentially the same as formerly, and the staff is arranged as follows:—

Officer Commanding—Major F. C. Harrison.

Second in Command—Lieut. A. N. Shaw.

Platoon Commanders — Lieuts. H. Barton, M. A. Jull, A. R. Ness.

Officer in charge of musketry instruction—Lieut. H. S. Hammond.

Officer attached to Corps—Lieut. C. Spicer.

Instructor in physical training and bayonet fighting—Sergt. A. E. McLaurin.

Non-commissioned officers—C. S. M. Cunningham; Sgt. R. Summerby, Q. M. S. McPhee.

With such a staff of officers and instructors, the drill is going ahead much more rapidly than in former years. Major Harrison, who has been actively engaged all summer as Assistant Adjutant General at Petewawa, has just returned and his valuable direction will soon be felt. This year the drills, lectures, etc., are scheduled as follows:—

Monday, 4.45 to 5.30—Physical training and bayonet fighting for 3rd and 4th years and staff.

Monday, 4.45 to 5.45—Musketry instruction for 1st and 2nd years.

Monday, 6.55 to 7.55—Drill for the whole company.

Tuesday, 4.45 to 5.45—Musketry instruction for 3rd and 4th years and staff.

Tuesday, 4.45 to 5.30—Physical training for 1st and 2nd years.

Tuesday, 7.00 to 8.00—Lecture (voluntary attendance), "A" and "B" certificate requirements.

Wednesday, 3.00 to 4.30—Drill for whole company.

Saturday, 8.30 to 9.15—Lectures on "A" certificate requirements.

The corps has been fortunate in obtaining from the Headquarters Staff of Militia District No. 4, the services of

Sergeant-Major R. Werry, formerly of the McGill C. O. T. C. A special course for musketry instructors was given by Sergt.-Major Werry, and as a result of this work thirteen members of this unit have qualified as "instructors in Elementary Musketry."

In conclusion, it would seem fitting to mention that one who was an earnest member of the corps while he was with us has given his life in defence of the cause which we all know to be just. We refer to Lance-Corporal J. H. McCormick, of Agr. '15, who very recently died of wounds received when under heavy artillery fire. His chums, and ours, are fighting still. It surely behooves us at home to further with all our powers, all movements aiding our comrades in putting an end to the struggle which has already made unspeakable havoc among the best we had to offer.

"Lit." Society Meeting

The first open meeting of the Macdonald College Literary and Debating Society was held in the College Assembly Hall, on Thursday evening, Nov. 2.

The College Literary Society has always played an important part in the development of the aesthetic side of college life. Besides being of considerable educational value, the "Lit." meetings are a source of splendid recreation, and make the social life at college much more attractive.

As a rule the meetings take the form of a debate, elocutionary or public speaking contest. However, general programmes, in which those with musical talent are in the foreground, are sometimes held. Such was the character of our first meeting.

Mr. Cunningham, Agr. '17, president of the society, acted as chairman. He does not believe in orations from the

chair, so confined himself to a few brief remarks, and then announced the programme of the evening, which consisted of:—

Organ solo, Mr. Stanton; vocal solo, Miss Black; piano solo, Miss Rexford; vocal solo, Mr. Buckland; recitation, Miss Whyte; violin solo, Miss Reynolds; vocal solo, Miss Lovett; organ solo, Mr. Stanton.

The talent displayed by all those taking part was of a high order, and it was appreciated by the audience, who heartily encored every number.

All those present spent a delightful evening, but the success of the meeting must be attributed largely to the talent and efforts of the girls across the campus who were the chief participants in the programme. The boys were very much in the minority, but we feel sure that they will make good at future meetings, when debates and orations are in order.

G. E. A., '18.

First Patriotic Dance

THE first of the series of three dances, which are being held to raise money with which to send Christmas boxes to the Macdonald boys at the front, took place in the Men's Residence on Saturday, November 11th.

These dances have been a subject of heated discussion about college for the past two weeks. Would there be enough boys who would dance to go around? Would enough of the girls come to provide partners for all the boys? Would there be any refreshments? How long would the dance last? All these points were discussed, and a great deal of dissatisfaction arose due to the fact that definite information could not be obtained regarding the dances.

The Students' Council was making all arrangements, and that august body was called upon to exercise considerable

tact and diplomacy to assure the success of the dances, and consequently was not in a position to announce details in regard to them until Wednesday. Then a student body meeting was held, and the President of the Students' Council, Mr. T. Hetherington, called upon the Chairman of the Dance Committee, L. R. Jones, for the details of the Patriotic Dances.

Mr. Jones responded with a speech that will live in the memory of every Macdonald student, man or girl, who heard it. He spoke of the lonesomeness that every one of us feels when away from home, and loved ones at Christmas; of how our friends in the trenches, fighting for all we hold dear, have that same feeling intensified a hundred fold; of what a small sacrifice it needs on our part to remind the boys at Christmas time that we have not forgotten them, that they still hold in our hearts a place that none can usurp.

Mr. Jones was applauded to the echo, as well he deserved to be, for his words had brought our hearts into our mouths, had made us realize how despicable was all talk of whether or not the dances would provide pleasurable evenings for us, had filled both men and girls with a determination to make any sacrifices necessary to assure the success of the Patriotic Dances this fall.

The sentiments that Mr. Jones expressed are felt by all of us at times, but the power to put them into words is denied us; and largely to Mr. Jones we owe the success of our first Patriotic Dance, as well as that indefinable thing which makes Macdonald men and girls "pull together," that thing which we know as College Spirit.

On Saturday night, Miss Stewart, Mrs. Harrison, Miss Carpenter, Mr. Jones and Mr. Hetherington received our guests.

The gym. was decorated with the class banners and pennants, cosy corners were arranged in isolated spots, and the punch-bowl and candy booth placed in very conspicuous ones.

The Dance Committee had decided that informal dress would be in order, but the girls had evidently decided against the committee, for they were present in evening creations which were quite beyond the pen of a mere man to describe, albeit they were very much admired and commented upon by the men, who wore everything from full evening dress to flannels and blue coats.

The dancing was particularly noticeable, due to a few new steps introduced by some of our husky athletes, who had indulged in the Senior-Junior soccer game, or the Senior-Soph. vs. Junior-Freshie rugby game earlier in the day. The dancing of the girls was such that even the poorest of dancers among the men felt that *he* was doing remarkably well.

Mrs. Harrison honored us by playing for two dances, which proved to be the most enjoyable of the evening.

Major Harrison was unfortunately unable to be present, as he had to leave for Petawawa early in the evening.

The playing of Miss Cleary was much appreciated by all, and it is hoped that the Dance Committee will be able to get her to play again for us.

Although but an informal affair, the opinion was general that our first Patriotic Dance had been an unqualified success.

The Elocutionary Contest

THE Macdonald College Literary and Debating Society held its annual Elocutionary contest last Thursday evening, November 16, in the Assembly Hall, which was made extremely attractive by a magnificent

display of brilliant and gorgeous chrysanthemums, evoking well merited comment of excellence from everyone present. The student body owes Mr. Jones, the expert and painstaking grower of these beautiful flowers, a debt of gratitude. Fellow-students, love and be thankful for all that is beautiful.

A large audience gave the eight contestants their appreciative and hearty support. Five ladies—Misses Anna White, Douglas McGregor, C. Russel, E. M. Holding, Mrs. R. Newton, and three men—Messrs. C. Morris, F. Dogherty, E. D. McGreer contested for the prizes, three of which were competed for by the ladies and two by the men. Miss R. L. Stewart, in her always charmingly graceful manner, presented the prizes, which the judges awarded as follows:

1—Miss E. M. Holding, "The Bear Story," by James W. Riley.

2—Mrs. R. Newton, "The Ballad of Yaava," by E. Pauline Johnson.

3—Miss Douglas McGregor, "Leap-year Mishaps," by Mary T. Marshall.

1—C. Morris, Lord Roberts' Speech on Preparedness, delivered at Manchester, Oct. 22, 1912.

2—F. Dogherty, "Fluevette," by Robert W. Service.

The meeting was concluded with the singing of College Songs and the National Anthem.

From an elocutionary standpoint, the ladies did excellent work, and showed a surprising superiority. Comparatively speaking, the men were mere beginners, hardly evincing an appreciation of the most elementary principles of the art of Elocution.

The reason for this appalling dearth of appreciation on the part of the men, generally speaking, may be attributed to three causes; lack of favourable opportunity, woeful indifference, and last but not least, the entire absence of

elocutionary practice in the Year Debating Societies. The Macdonald College Literary and Debating Society plays an unquestionably important role in the perfect development of college life, and is one of the activities outside of the lecture-room and the laboratory, which is essentially complimentary to our technical studies. The Inter-year Debates, I am extremely glad to say, have always been of the very highest order, but we must not confuse Debating with Elocution. In our case, both Debating and Elocution serve as a means to an end, namely, "Good Speaking."

By the art of Elocution we try to develop the organs which are so essential to the proper control of the voice, and the subsequent production of a rich and pleasing tone. A beautiful voice is a priceless acquisition, which exerts a powerful and magnetic influence. Secondly, the art of Elocution endeavours to cultivate that subtlety of expression and delicacy of movement, which is all important in good speaking. Subtlety of expression and delicacy of movement is to the art of good speaking, what a beautiful and appropriate gown is to a plain woman, blessed with that inexplicable something, called "personality."

Space does not permit me to contrast the three sisters, Elocution, Debating and Good Speaking, but it must be perfectly obvious that a strong, harmonious, well-controlled voice supported by the talent for appropriate expression and well-timed movement are of invaluable assistance to good speaking.

It is absolutely necessary to give a poem or a piece of prose due consideration and thorough preparation in order to be able to give a satisfactory recitation. One cannot hope to master the art of Elocution unless one endeavours to make the necessary application of thought and practice, which will help

one to understand the elementary and fundamental principles.

Allow me to say, in all good faith, that you are doing an injustice to yourself and you are wasting the time and attention of your audience, when you have "the nerve" to mount the platform in the Assembly Hall and give a recitation upon which you have spent a meagre few hours—in some cases less—distributed over ten to two days. You simply cannot do it, that's all. Your whole belated attempt is a pathetic farce. Do not think you "know it all," just because you happened to win a prize. You see, there was no competition. The remedy is the Year Debating Society. The Year Debating Society is your opportunity. Make the best of your opportunity. Use the Year Debating Societies as stepping stones to a worthy ideal—a fluent and a capable speaker. Your profession demands it of you.

R.D.

"Mac." Men Visit Ottawa

Prof. Bunting and the seniors specializing in horticulture were in Ottawa Friday and Saturday, Oct. 27th and 28th, visiting the Central Experimental Farm, and the city parks. Under the guidance of Mr. Macoun, Dominion Horticulturalist, the party inspected the arboretum, orchards and greenhouses at the farm. The large collection of species and varieties of evergreens in the arboretum received special attention from the class. The greenhouses and just been prepared for a chrysanthemum display, and were filled with a mass of immense, variegated blooms. This collection of 'mums contains many rare and most beautiful varieties. The extensive and beautiful parks and drives of the city were gone through rather hurriedly in an automobile, but not too hurriedly to prevent the attractive natural arrangement of Ot-

tawa's "beauty spots" from making a lasting impression in the minds of Macdonald's budding horticulturalists.

The Editor's Life

In the morn when I wake, at the ring of the bell,

And make an appearance in the house where we dwell;

The boys all salute me, with a laugh and a shout,

Hulloa! Mr. Editor, when's the Mag. coming out?

I go to the dining hall, both early and late,

It matters not when, I share the same fate.

For a feminine voice at my elbow will say,

Please, Mr. Editor, will the Mag. come to-day?

I attend all the lectures and pay strict attention,

To all that is said about science and invention.

The Prof. will remark (perhaps 'tis only in fun),

Say! Mr. Editor, will the Mag. never come?

I once took a pleasure in reading my mail,

But now I would rather be beat with a flail.

Each letter I open seems to have this same tune,

Dear, Mr. Editor, is the Mag. coming soon?

In class room, at dinner; at work or at play,

Most any old time I hear of delay.

It grates on my nerves, and I get in a pout;

And I don't care a rip when the Mag. does come out.

You have here a story of the trials of my life,

A story of sadness, of worry and strife, And when you have read it I hear your glad shout,

Hurrah! Mr. Editor, the Mag. has come out.

Exchanges

So far very few of the Exchanges on our list have been received. We trust their numbers will not decrease but that those which we have not received have been delayed in the printing, as has been the case with our own Magazine.

Among those received we acknowledge *The Agricultural Gazette*, *The MacGill Daily*, *The Cornell Countryman*, *Acta Victoriana*, *Mexican Review*, *Conservation*, *Famesis*, *O.A.C. Review*, *The Laurentian*, *Dalhousie Gazette*, *The University Monthly* and *The Argosy*.

All of these contain many articles of interest and we are sorry that as a board we have not had time to give them the attention they merit.

News From the Front

THE number of the No. 6 (McGill) Overseas Battery, Canadian Siege Artillery, has been changed. It is now known as the 271st (Canadian) Siege Battery.

The following Macdonald men went overseas with this unit and are at present under training in England:—R. S. Baker, G. B. Boving, M. B. Davis, W. G. Dunsmore, J. G. C. Fraser, E. C. Hatch, W. D. Hay, I. P. MacFarlane, G. D. Matthews and A. C. Norcross.

A photograph of this group appears in the frontispiece of this issue.

Lieut. Quentin McLaren, of the Black Watch, has been killed. Lieut. McLaren was studying in the Guelph Agricultural College at the outbreak of the war. His second year in Agriculture he took at Macdonald College in the winter of 1912-13.

Lance-Corporal Harry J. Evans, formerly of No. 3 General Hospital (McGill) has been promoted to the rank of Lieut. in the Army Service Corps. The following is his present address:—Lieut. Harry I. Evans, Canadian Reserve Park, 2nd Army, No. 2, C.A.S. Corps, c-o Army P.O., London, England.

Another Macdonald graduate has gone overseas in the person of Miss Rebecca Echenberg. Miss Echenberg was a student in the school for teachers in the term of 1914-15. Her present address is as follows:—

New Military Hospital, Rugeby Camp, Staffordshire, England.

It is reported that Edgar Viane is fighting with the Russians, on the Caucas front, against the Turks. He

is Chief Petty Officer of B section Squad 21, No. 8020 armoured car attached to the Russian Legion. He went overseas with the 24th Victoria Rifles, Montreal.

Pte. Mortimer Kelleher (Mike) of the 47th Battalion, C.E.F., has been wounded. He was admitted to No. 13 Stationary Hospital, Boulogne on Sept. 20th, 1916, with gunshot wound in the jaw. Pte. Kelleher enlisted at Goderich, Ont., in October, 1915.

Lieut Herbert R. Hammond, Artillery, has been awarded the Military Cross. He obtained observation, and directed fire under very trying conditions, with great courage and skill.

It has been reported that Lance-Corporal Arthur R. Milne has been awarded the Military Medal. We have no particulars.

Private S. K. Beattie of the 165th Battery, Canadian Siege Artillery, has received wounds which resulted in the loss of an arm. Private Beattie was a student in the school for teachers 1915-16. He enlisted in March, 1916, and had only been in action three days when he received his wound.

Corp. C. R. Ford, 5th Canadian Mounted Rifles has been invalided home. While in the trenches he was struck with a piece of shell which resulted in the loss of the sight of his left eye, but not the eye itself. He is now teaching in Stanstead College. Corp. Ford is one of four brothers, all of whom enlisted. One brother was killed in action, another was wounded and invalided home, while the other brother is in a base

hospital in France suffering from shell shock. Corp. Ford was a student in the school for teachers, 1910-11.

The following are extracts of letters from Macdonald men at the front.

Oct. 15, 1916.

It is with sincere sorrow and regret that I write to tell you of Sgt. McCormick's death. Perhaps you may have heard of it already, but I thought a word or two would not be out of place and would let his old friends at the College know that he died like a good soldier and hero—doing his duty on the field of battle. It was on Sept. 15th, while our battalion was advancing to the attack through a heavy German artillery barrage, that McCormick received the wounds which caused his death. A big shell landed amongst the men, killing some and wounding several. McCormick was badly cut about the thighs and trunk, I understand, though the stretcher-bearers dressed him and got him out right away he had very little chance and word has since been received that he died in one of the hospitals.

He was an excellent soldier, who knew his duty and did it, and in the Army, which rubs off corners even more than does college life, I got to know him better and to have a better appreciation of his good qualities.

Our little bunch of seventeen that left in March of 1915 is now pretty well broken up.

McCormick dead; Paterson wounded and prisoner of war; Kelsall, McMahon, Buckland, Fred Hislop and Boulden all wounded; Bradford convalescing in England; Spendlove in a convalescent home on account of his eyes; Flood commissioned in an Imperial regiment; MacFarlane back in Canada with a commission; Brunt in No. 1 Can. Gen. Hospital; Ashby in B'de. M. G. Trans-

port; Brighton now on Brigade; Jones (who has returned) out here with me in the battalion, and Bailey in the Engineers.

But reinforcements from the College have arrived and gone in part again. Dick Heslip is still on deck, Scotty Rankin is much in evidence as a runner and Clarence Skinner has not yet managed to connect with any German form of frightfulness.

On the other hand Jim Currie took sick some time ago and is still away. I hear rumours of his being in the Navy. Hackshaw, who used to be in the Biology building was killed on Sept 15th. Flewelling managed to pick a "blighty"; Jack Blynn got one, his second trip in, but such is the fortune of war.

For myself, I am still well and with a whole skin, which is very lucky after being in France for 15 months! But "I am touching wood," if the addition of that saying will help my chances for further protection from harm. My birthday was Sept. 16th and I spent it in the trenches in territory which had been Fritz's the day before, so that it will be a memorable one.

We are back at present and I just missed seeing Lisle Drayton on his way up. I have seen Durling several times, and ran into Huntley Gordon the other day on the street. A few of us also spent a couple of very pleasant evenings with Capt. (Dr.) Savage while in Belgium.

ARTHUR R. MILNE.

Boulogne, Sept. 21, 1916.

You will think me somewhat tardy in thanking you for your kind letter and certification of my character and education in regard to my prospective commission. It was only this week, however, that I received my final essential recommendation, following upon a personal interview, from a Colonel of the Royal Artillery. I now await orders to proceed

to England for training. I hardly need add that these orders may be a long time coming through.

Lieut. Eric Boulden was recently in hospital near here pretty well covered with flesh wounds, twenty-two to be exact, caused by a shrapnel shell bursting almost on top of him. All the Macdonald boys of No. 3 were of course down to see him. Boulden was able to get up for a short time the day prior to his being taken over to "blighty." He was in the best of spirits.

At the beginning of this week I was in Etaples for a few hours, I accordingly made a point of going to No. 1 Canadian General Hospital where I saw Brunt. He had just received a letter from Spendlove in England where the latter is at a special hospital undergoing treatment for eye trouble. Spendlove does not expect to see the firing line again, but rather to sail for Canada in the near future.

The "P.P.'s" have just been in the thick of it again. We are hoping hard that our boys have yet once more been in Luck's way rather than in the direct way of shot and shell.

HAROLD F. WILLIAMSON.

Belgium, July 22, 1916.

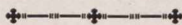
About half of our total strength is employed on working parties. They are located at another camp nearer the line, sleep most of the day, and ride out to their work in the evening, where they stay until just before day breaks.

I was up there a few days, but am now back at my company headquarters. I had to leave a very comfortable billet, at the last village where we were quartered, and am now living in a tent. Our tents have been painted a dull brownish red with big green patches. This makes them more or less invisible to aeroplane observation, and this means a lot, as Fritz often comes over in the early morning, or in the evening and drops a few souvenirs in the way of bombs.

Last week I ran across "Critch." He has done very well, and is now Major Critchley.

He was one of the prominent figures in the heavy fighting last spring and was wonderfully lucky, being one of the three surviving officers after the big scrap.

J. R. N. MACFARLANE.



To My Lad Accross the Sea

"This Morn! mine eyes are heavy still
with tossing, weary slumber,
But like a jewel rare the thought of
thee lights up my heart;
And the longing pain is soothed into
content when I remember
That God is Love. Then, let me do
my part.

'Tis Noon! A varied host of thronging
duties pressing on me
Has filled my willing hands since early
dawn awake with thee;
But in this hour of noon my whole
heart turns with joy of yearning
To thee, dear love—so far across the
sea.

'Tis night! the gladsome day has flown
like magic in its richness.
Now every thought again goes out to
thee, so dear to me;
The sob and tear of longing end in peace,
yea, turn to gladness,
For God is Love, and ever guideth
thee.—*Emma Read Newton.*



Rugby

The prospects of having a rugby team, worthy of the name, at Macdonald, were very bright at the beginning of the season, but the fact that there was only one afternoon a week when the team could practice, put an end to any hopes of a college team. This is due to the fact that on Mondays and Tuesdays drill is the order of the day, and on Thursdays and Fridays the two upper years are prevented by lectures from being on the field. This made it impossible to get a team into good working order; so it was decided at a meeting of the rugby enthusiasts to give up the idea of a college team for 1916. But in order not to let the rugby spirit die out, it was decided to organize two teams, the first from the Second and Fourth years, and the second from the First and Third years, and play as many games as possible.

The idea proved a good one, when on Saturday, November 11, the first of the games was played. It was a keen competition throughout, and aroused an enthusiasm to get into the game that has never been felt by so many Macdonald men before. The game resulted in a victory for the Third-First years, the score being 10-6.

It is hoped that we will be able to play at least one more game this season, and that the spirit of keeping rugby as one of Macdonald's best and most important games will never drop. With this spirit the rugby situation at Macdonald will always be a bright one.

R. J. M. R., '18.

The Interclass Indoor Games.

The indoor interclass games form a very important part of the winter's programme of events at this College. A schedule of games has been drawn up, in which each year is featured against every other year in both basketball and indoor baseball. Each year has the exclusive use of the gym during stated periods of the week, which gives them an opportunity to attain efficiency. The Robertson Shield, presented by the former principal of Macdonald College, and emblematic of the indoor sports championship, goes to the class winning the greatest number of scheduled games.

The objects achieved by these interclass games are several; they give a large number of men the opportunity of partaking in competitive games; they develop players for the higher positions, on the College teams; they are a form of diversion or recreation for the men

students, and are a source of entertainment for the fair sex during the long winter evenings.

The schedule of interclass indoor games for the season 1916-17, reads as follows:

Nov. 9—Seniors vs. Sophomores—Basketball.

Nov. 16—Juniors vs. Freshmen—Basketball.

Nov. 23—Seniors vs. Sophomores—Baseball.

Nov. 30—Juniors vs. Freshmen—Baseball.

Dec. 7—Teachers vs. Sophomores—Basketball.

Jan. 11—Seniors vs. Freshmen—Baseball.

Jan. 18—Juniors vs. Sophomores—Basketball.

Jan. 25—Teachers vs. Seniors—Basketball.

Feb. 1—Juniors vs. Sophomores—Baseball.

Feb. 8—Seniors vs. Freshmen—Basketball.

Feb. 15—Seniors vs. Juniors—Baseball.

Feb. 22—Teachers vs. Freshmen—Basketball.

March 1—Seniors vs. Juniors—Basketball.

March 8—Sophomores vs. Freshmen Baseball.

March 15—Teachers vs. Juniors—Basketball.

March 22—Sophomores vs. Freshmen Basketball.

It will be noticed from the above that the last game is to be played very close to the end of the term, therefore it is desirable and essential that nothing be allowed to interfere with the programme, and it is up to the teams concerned in each case to see that the games are played as scheduled. Those four games, wherein one of the contesting teams

represents the male student teachers, are simply practice games, and the results will not have any bearing on the awarding of the cup.

Seniors Win at Basketball.

The first of the series was played between the Seniors and the Sophomores on Thursday, Nov. 9th, at 7 p.m. A very keen spirit of rivalry prevailed, but the Seniors, with their more experienced men, were the final victors. The Sophomores had during the first few minutes of the game, due mainly to the efforts of one man, Patinall, who played remarkably well, scoring a total of eight baskets; but he lacked the support from the rest of the team to see him through to the finish, with the result that the Seniors gradually made up the difference, and then gained headway, winning the game with a score of 32-22.

The line-up was as follows:

Seniors:

"Pop" Roy.....Right Forward.
Morris.....Left Forward.
"Bumpus" Jones.....Centre.
Dickson.....Right Guard.
Fiske.....Left Guard.

Sophomores:

Don Patinall.....Right Forward.
Jim Graham.....Left Forward.
J. Adams.....Centre.
F. Dogherty.....Right Guard.
Jack Welsh.....Left Guard.

Juniors Win at Basketball.

On Friday evening, Nov. 17th, the Freshmen suffered defeat at the hands of the Juniors in a basketball game, with a score of 19-13. The Freshies started off very strong, scoring three baskets and making good on a free shot in the first few minutes. This rather startled

the Juniors, who had to tighten up a bit, after which the representatives of Class '20 were not so fortunate in making baskets. The end of the first half saw the Freshmen leading with a margin of two points. However, during the last period the Juniors did most of the scoring, running up a total of 19 points. Many fouls were called on the Juniors, but unfortunately the Freshmen failed to utilize the majority of them to advantage. The game was refereed by Mr. A. R. Ness, assisted by Mr. Sam. Skinner.

The line-up of the two teams was as follows:

Class '18.

Tilden..... Right Forward.
 Arnold..... Left Forward.
 Cass..... Centre.
 Jones..... Right Half.
 Reid..... Left Half.

Class '20.

Ness and McGreer..... Right Forward.
 Woodward..... Left Forward.
 Templeton..... Centre.
 Peterson..... Right Half.
 Buchanan..... Left Half.

Seniors Defeat Sophomores at Baseball.

The first interclass indoor baseball game of the season was played on Thursday night, Nov. 23, between the Seniors and Sophomores, the former winning out by 5 runs. At the end of the fifth inning the score was 19-9, the Seniors having struck a lucky streak, one inning netting them 10 runs. After this the Sophomores settled down to even up the score, and were doing so rapidly when time was called.

The lack of encouragement from the gallery was very noticeable, being explained however, by the absence of our staunch supporters from across the

campus. The battery of the Seniors was "Bumpus" Jones and "Pop" Roy, of the Sophomores, Jim Adams and "Chic" Hyde.

Interclass Soccer.

A series of three interclass soccer football games are to be played each year by the students in agriculture for the P. A. Boving Cup. This cup is a challenge trophy, was presented in the fall of 1915, and was won that year by class '18, due to the efforts of their captain, "Doug." Matthews. These games were arranged for as usual this year, and although the teams did not get in much practising, yet the games showed keen competition.

Sophomores vs. Freshmen.

The first game of the series was played on Saturday, Nov. 4th, between the Sophomore and Freshmen classes. The afternoon was favorable for a fast game, and the boys turned out in good spirit. The kick-off was made by the Sophomores. The first half was fairly fast, keeping the ball in the centre of the field most of the time. Near the finish of the first half a foul was made by one of the Sophs., and a penalty kick by Millinchamp of the Freshmen, got the first goal. This made the game more interesting, as both sides took a better grip and made the finish much faster. The first half finished in favour of the Freshmen.

The second half started fast, and continued to be so right through to finish. The rooting from the side lines was in favour of the Freshmen. The two teams were evenly balanced, and both played a hard game. A second goal was made by a penalty kick by the Freshmen. The game finished in favour of the Freshies with a score of two to nothing.

Seniors vs. Juniors.

The second game of this series was played on Saturday, Nov. 11th, when the Seniors and Juniors clashed at soccer. The toss-up gave the Juniors the benefit of the wind, and although they worked hard to utilize this advantage with results, the half-time whistle blew with no score made.

The Seniors assumed the offensive in the second half with the wind to favour them, but the ball fluctuated evenly between the two goals. No score was recorded at the end of the second half, so an agreement was made for five minutes overtime play each way. Before the first five minutes was up, the Juniors made a run the length of the field, and after a slight combat with the opposing defensive, managed to put the ball within the goal. This turned out to be the first and last point scored, giving the game to the Juniors with a score of 1-0.

Juniors vs. Freshmen.

The result of these two games meant a play-off between the Juniors and Freshmen. This final game, which was to decide the winners of the cup, was played Nov. 25th. Weather conditions were rather unfavorable, but the members of both teams braved the elements and lined up for the kick-off at 1.30 p.m. Various minor casualties sustained by members of '18 team rendered their line-up incomplete, so they played the game without any half-back line, against the Freshies complete eleven.

Mr. Walker, the referee, set the ball in play. The Juniors being fortunate enough to gain advantage of the wind for the first half, kept the ball continually around the Freshmen goal. Within the first five minutes, Kinsman, '18, by a brilliant manoeuvre, and some skilful "handling" of his feet, played the

ball home, scoring the point which finally meant the winning of the game. The remainder of the time saw the ball in continuous play but ineffective as far as scoring was concerned. However, the side-line population was frequently amused with acrobatic feats stayed unconsciously and generally unwillingly by the players.

The two teams lined up as follows:

Juniors:

Hawke.....	Goal.
Reid.....	Right Back.
Jones.....	Left Back.
Kinsman.....	Outside Right.
Cass.....	Inside Right.
Tilden.....	Centre.
Mace.....	Inside Left.
Arnold.....	Outside Left.

Freshmen:

Ness.....	Goal.
Hebert.....	Right Back.
Peterson.....	Left Back.
Mr. Greer.....	Centre Half.
Ladd.....	Right Half
Smith.....	Left Half.
Buchanan.....	Outside Right.
Burt.....	Inside Right.
Millinchamp.....	Centre.
Woodward.....	Inside Left.
Hay.....	Outside Left.

The results of these three games means that the Boving Cup will still remain in the hands of Class '18 for another year.

Basketball.

Indications to date point to the fact that basketball promises to be the major sport at Macdonald this year. The rugby team fell through here this year, and the Athletic Association are straining every nerve to maintain the standard of the basketball team, if not to better it. As usual the team will enter the

Provincial Y.M.C.A. League, and aside from this, several other games have been arranged with Ottawa Y.M.C.A. and the University of Bishop's College.

"Pop" Roy, the worthy captain of the basketball team for season 1916-17, has had his men down practicing regularly for some time back. Some of the available material is in rather rough state as yet, but the new coach, Sergt.-Major Werry, who has been on the job for two weeks, is doing much to improve these men, and the general playing of the whole team. The first game of the season is being looked forward to, with much interest.

A practice game was played with the Junior Faculty and Staff on Saturday, Nov. 4th. The resulting score was 33-12 in favour of the students. As the game was played before the first practice was held, it could hardly be taken as any indication of the strength of the team; but it showed one thing, however, that although they made a good showing against the opposing team, there was considerable room for improvement in the team work.

Indoor Baseball.

The condition of the indoor baseball team seems very critical just now. We

have lost nearly all the faithful adherents to this line of sport. L. R. Jones, the captain of the team will have his own troubles in organizing a team worthy of the name. He will be up against the necessity of developing his players into that state known as efficiency. However, being cognizant with the capabilities of the captain, we do not doubt but that this will be possible, and we express the hope that before long we will see a College baseball team take its place on the gym floor ready for *business*.

Mac. vs. 245th Batt. at Indoor Baseball.

A very interesting game of indoor baseball was witnessed in the Men's gym. on Saturday afternoon, Nov. 25, played between teams representing the Junior Faculty of Macdonald College, and the officers of the 245th Battalion. The game was doubly interesting in that the opposing team was captained by Lieut. L. C. Raymond, a member of the Junior Faculty of Macdonald, previous to enlistment.

The game was fast and exciting throughout, keen competition being noticeable. The soldiers played hard, but were unable to prevent the College men from leading throughout the game. The final score was 19-11 in favor of Macdonald College.

The Plough.

I am a worker.
 Sleep on and take thy rest.
 Though my sharp coulter shows white
 in the dawn,
 Beating through wind and rain,
 Furrowing hill and plain,
 Till twilight dims the west,
 And I stand darkly against the night sky.
 I am a worker, I, the plough.

—*Everybody's.*

Girls' Athletics

Tennis.

Owing to unforeseen circumstances the tennis matches arranged to be played with R. V. C. were not played off.

We regret not having been able to display our skill and trust that R.V.C. will renew the challenge next spring.

Basket Ball.

This is now played indoors. The outdoor games were voted a success and we trust it will now be an established custom every fall.

The girls are now getting into shape for the section games which are soon to be played off.

The victorious section in the school for teachers playing science for a trophy which is competed for every year.

One new factor in indoor basketball which adds to the interest of the game, making it much swifter and more exciting to watch as well as, must one say,

rougher, as the lines having been removed we now play "Boys' Rules."

Swimming.

The tank is still open at least twice a week and the girls seem to be as keen about swimming now as when the tank was first opened.

Baseball.

The season for out door games is at an end for this year. Baseball has been practically abandoned till after Christmas as basketball has been given the preference for the time being.

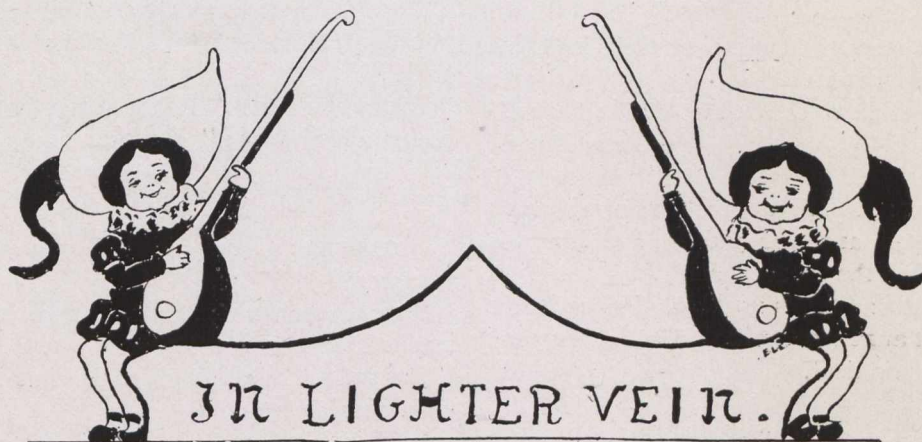
Aside from our own games there is a decided interest taken in the games across the campus and there has been a very good attendance in the Boys' Gym on the several occasions that we have been granted permission to attend different matches.

G.W.E.R. Sc. '17.



Girls' Athletic Executive

Standing: Misses Longworth, Reynolds, R., Reynolds, M., Carpenter, Binning, Rutherford, G.
Seated: Misses Rutherford, J. Cameron (Pres.), Ross, Pullan.
Seated on floor: Misses Dickson, Grant, Pick.



Little drops of water
Freezing on the walk,
Make the naughty adjectives
Mix in students talk.

Modern Ethics.

“Harold! you mustn’t strike your father when he’s asleep.”

“But, mother, I’m a submarine.”

KID: Why does the cannon roar, papa?

PAPA: I guess they charged it too much sonny.’

“Be sure and get the right tooth, doctor.”

“Don’t worry, I will get it if I have to pull out every tooth in your head.”

But That’s Serious.

Some girls seem to slip along through life without any more serious worries than how to keep the shoulder straps of their evening gowns in place.

JAMES: Yes, sir, my wife always finds something to harp on.

MARKS: I hope mine does, too.

JONES: What makes you say you hope she does.

MARKS: She’s dead.

Heard at the Dance.

“My dear, you look sweet enough to kiss!”

“That’s the way I intended to look, Jack.”

HIM: There is a good looking girl, isn’t she?

HER—Yes, but even an old barn looks good with paint on it.

Over the ’Phone.

Brother Jim got dressed quite early,
And has left to see his girlie,
Sister Sue has gone to see a movie play;
Father, Mother, and the baby,
Went to call on some nice lady,
And they left me here at home alone
to stay.

John the butler’s gone out walking,
And the maid is busy talking
To a friend who lives down by the mill;
So I wish that you would hurry,
Come right over or I’ll worry,
And we’ll talk about the weather—yes,
we will.

SHE: What, Fanny Jones engaged?
Well, I’ve always said that no matter
how homely a girl may be, there’s
always some goat ready to marry her.
Who’s the poor man?

HE: I am.

Too Critical.

"Doesn't that girl over there look like Helen Brown?"

"I don't call that dress brown."

—*Yale Record.*

PAT: I had a deaf uncle who was arrested and the judge gave him his hearing the next morning.

MIKE: That's nothing. I once had a blind aunt who walked in a lumber yard and saw dust.

Accommodating Pop.

SON (just back from M.A.C.): Say Pop, drive more carefully, I lost my equilibrium then.

POP: Wal now, I'll back up and you can get out and look for it.

VOICE: Is this the Weather Bureau? How about a shower tonight?

PROPHET: Don't ask me. If you need one, take it.

"You wouldn't kiss a girl against her will?" asked the leap year maiden.

"No, I would not."

Then she had another try.

"Would you resist very much if a girl tried to kiss you?"

HE (as team goes by): Look! There goes Ruggles, the half back. He'll soon be our best man."

SHE: "Oh, Dan! This is so sudden!"

"Did you hear that Jiggs was killed while traveling in Kentucky?"

"No, how was he killed?"

"In a feud."

"And I always told him not to ride in those cheap cars."

Infinity.

"A kiss is nothing divided by two."

"Bah! That's old stuff. A kiss is two divided by nothing."

YOUNG LADY (hopefully): "What do you think is the fashionable colour for a bride?"

FLOORWALKER: "Tastes differ, but I prefer a white one."

Between Dancers.

BOTHWELL: How old did you say you were?

SHE: I didn't say; but, I have just reached twenty-one.

BOTHWELL (consolingly): Is that so, what detained you?

A bishop, accompanied by two charming young ladies, stood entranced by the beauties of a passing stream.

A fisherman happening by and mistaking his occupation, said: "Ketching many, friend?"

"I am a fisher of men," replied the bishop, with dignity.

"Well, you sure have the right bait," replied the fisherman with a glance at the two girls.

"Mother," asked four-year old Mary, "did you hear the step ladder when it fell over?"

"No, dear," said mother, "I hope papa didn't fall."

"Not yet, he is still hanging onto the picture moulding."

"Pa, what is an echo?"

"An echo, my son, is the only thing that can cheat a woman out of the last word."

WIFE: Please hurry. Haven't you ever buttoned up a dress behind before.

HUBBY: No. You never had a dress that buttoned up before behind.

SHE: Am I the first girl you ever kissed?

HE: Why-er-I don't know. Your face is familiar.

Macdonald College Organizations, 1916-17.

Students' Council: President, T. Hetherington; Secretary, F. W. Dogherty.
 College Magazine: Editor, H. S. Cunningham; Business Manager, L. C. Roy.
 College Literary Society, President, H. S. Cunningham; Secretary, G. E. Arnold.
 Men's Residence Committee: President, A. F. Bothwell; Secretary, R. Kingsland.
 Court of Honor (Women's Residence): President, Laura Kirby; Secretary, Annie McConnell.
 Young Men's Christian Association: President, L. R. Jones; Secretary, Jas. Graham.
 Young Women's Christian Association: President, Dorothy Longworth; Secretary, Mrs. R. Newton.
 Men's Athletic Association: President, Geo. Dickson; Secretary, S. F. Tilden.
 Girls' Athletic Association: President, Isobel Cameron; Secretary, Jean Rutherford.
 College Orchestra: Leader, Mr. Stanton; Secretary, G. A. McGreer.
 College Glee Club: Leader, Mr. Stanton;

Class.

Agr. IV: President, Thos. Hetherington; Secretary, R. M. Elliott.
 Agr. III: President S. F. Tilden; Secretary, J. Buckland.
 Agr. II: President, F. Dogherty; Secretary, W. A. Maw.
 Agr. I: President J. E. Ness; Secretary, F. Millinchamp.
 Teachers—Model: President, Annie McConnell; Secretary, Hazel Rexford.
 Teachers—Elementary: President, G. Montgomery; Secretary, E. M. Holding.

Household Science.

Institution Administrators: Senior—President, Irene Carpenter; Secretary, Nan. Garvock.
 Junior—President, I. Cavanagh; Secretary, M. McFarlane.
 Homemakers: President, Mrs. R. Newton; Secretary, Gladys Ross.
 Autumn Short Course: Representative, Miss Irma Ussher.

Class Literary Societies.

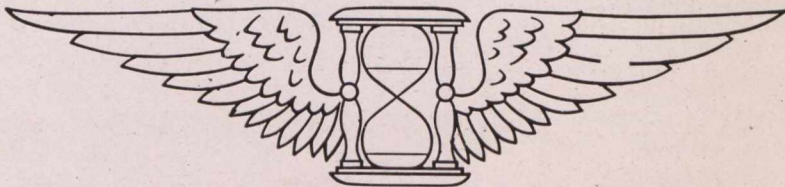
Agr. IV: President, L. R. Jones; Secretary, J. Newton.
 Agr. III: President, Miss Newton; Secretary, G. E. Arnold.
 Agr. II: President, R. Kingsland; Secretary, J. Welsh.
 Agr. I: President, A. Birch; Secretary, Mr. Buchanan.

Teachers.

Section "A": President, Miss M. Ellis.
 Section "B": President, Miss M. Hope.
 Section "C": President, Miss Stikeman.
 Section "D": President, Miss Montgomery.
 Household Science (School) Home Economics Club: President, Miss Douglas McGregor; Secretary, Miss M. Muchall.
 Animal Husbandry Club:
 Horticultural and Apiary Club:

Macdonald College Agricultural Alumni Association: General Secretary, Robert Summerby.
 Class '11: Secretary, R. Summerby.
 Class '12: Acting Secretary, F. S. Browne.
 Class '13: Secretary, E. M. DuPorte.
 Class '14: Secretary, G. W. Muir.
 Class '15: Secretary, J. E. McOuat.
 Class '16: Secretary, J. H. McOuat.

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 Tennis Club: President, J. Vanderleck; Secretary, E. M. DuPorte.
 Golf Club: President, Dr. Harrison; Secretary, Dr. Shaw.
 Officers' Training Corps: President, Major Harrison; Secretary, Lieut. Shaw, Acting Adjutant.
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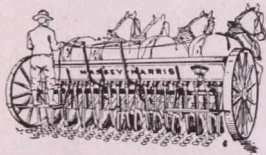
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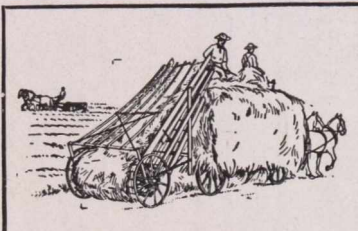


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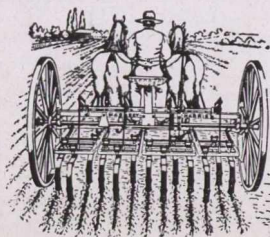
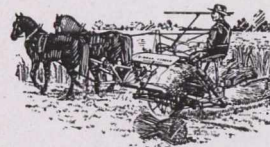
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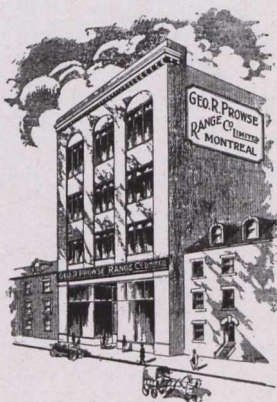
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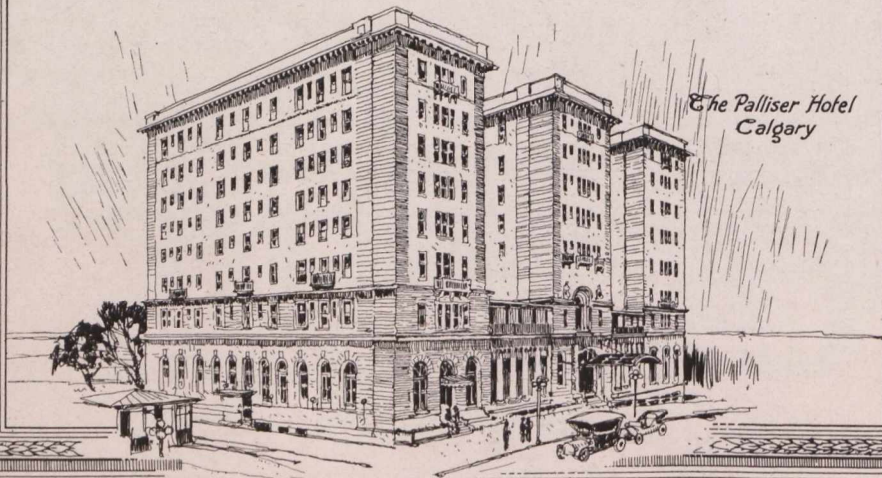
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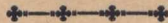
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