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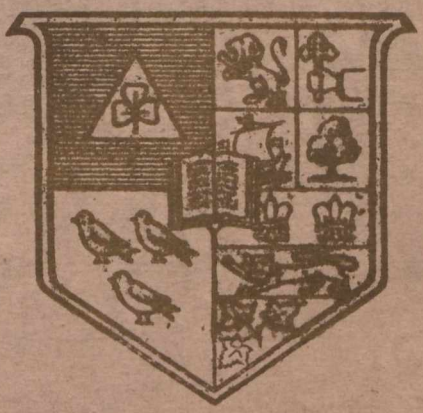

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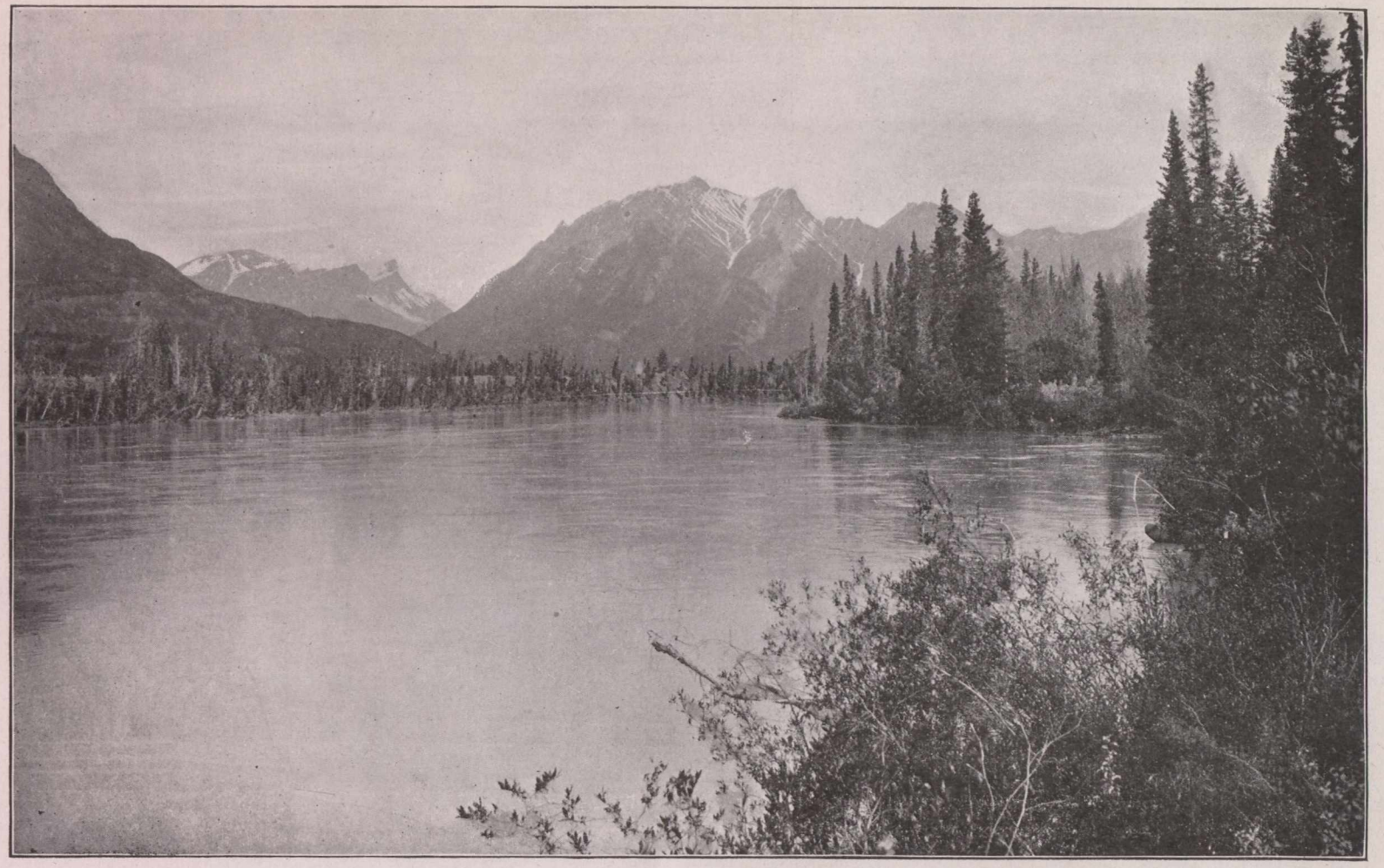

A TYPICAL CANADIAN LAKE SCENE.

Some Courses in Agriculture in the University of British Columbia

By L. S. KLINCK, M.S.A., President.

THE College of Agriculture in the University of British Columbia is an integral part of the Provincial University. Its classrooms and laboratories will, when the university is moved to its permanent site, be on the same campus as those of the other faculties of the university. At present the lectures in agriculture are given at the university's temporary quarters in the city of Vancouver, but all laboratory work in applied agriculture is given at the permanent site, Point Grey.

Although less than three years have elapsed since the first Heads of Departments appointed to the Faculty of Agriculture assumed their duties, five distinct courses have been organized. Of these, two are of university grade, while three are in the nature of short courses.

In this article an attempt is made to treat only those divisions of the work which are of university grade, as the short courses given at the university, or at different agricultural centres in the Province differ in no essential respect from those offered by eastern colleges. The special courses for returned men have been organized as a separate unit, and the success attending them has been so great that financial provision has been made for carrying on four classes concurrently, instead of the two now being conducted.

In the University of British Columbia, students who wish to proceed to the degree of B.S.A. are required to have junior matriculation or its equivalent before entering upon their course. This degree is granted only after the successful completion of four years of lecture and laboratory work. The first two years of this course are devoted to acquiring a knowledge of the basic sciences upon which agriculture rests, in adding to the student's knowledge of mathematics and languages and in laying a foundation for more advanced studies in practical and scientific agriculture.

Approximately one half the subjects required during the first and second years of the agricultural undergraduates course are taken with the Arts students in the Faculty of Arts and Science. During the third year the time of the student is devoted largely, and during the fourth year almost wholly to courses in applied agriculture. In addition, however, to the applied agricultural subjects required during the junior and senior years, the cognate sciences are stressed, certain other subjects are required and an opportunity is also afforded the student to take a limited number of electives. Specialization begins at the commencement of the third year.

The division of work throughout the course is based on the unit system. In the first year eighteen, and one-half units are required. Of this number, three and one-half are in Agronomy, Animal Husbandry, and Horticulture; nine are in Biology, Chemistry and Physics, and the remaining six are equally divided among Mathematics, English, and French or German. Of the eighteen and one-half required in the second year, seven and one-half are in Agronomy, Animal Husbandry, Dairy-

ing, Horticulture and Poultry Husbandry; six are in Biology, Chemistry and Bacteriology, while three are in English and two are in French or German.

On account of the specialized types of farming which must necessarily be followed in many parts of British Columbia, the work in the third and fourth years leading to the degree of B.S.A. has been arranged in major courses so as to admit of a measure of specialization in one of the several recognized branches of agriculture. At the same time, all courses have been so arranged that every student will get the basic work in each branch of agriculture no matter what option is chosen.

Prior to the beginning of the third year every student must indicate in which one of the major options he wishes to continue his study, and must also arrange his elective courses in consultation with the Head of the Department under which that major option comes. Each student is required to elect up to a total of eighteen units in the third and fourth years respectively. During the third year three units in Economics, two units in Chemistry, and one unit in the Principles of Heredity are required. In the fourth year the only required subject is The Evolution of Agriculture.

Five major options are offered, viz.: Agronomy, Animal Husbandry, Dairying, Horticulture and Poultry Husbandry. A detailed statement setting forth the particulars of each option would make this article much too long. The general statement therefore must suffice that in the third year, in addition to the six units required of all agricultural students, not more than eight units are required in any one option. This leaves the student free to select four units from the wide range of electives offered. In the fourth year from eight and one-half units to fourteen units are required, depending upon the option chosen. The remaining units necessary to make up the total of eighteen are, with the exception of one and one-half units, comprised of electives.

From the above statement it will be seen that the courses given in the University of British Columbia differ considerably from those offered in the older Canadian Colleges of Agriculture. The principle involved, however, is not new, and in the Province of British Columbia, where specialisation in agricultural production is developed to a very high degree, the specialised courses outlined meet the needs of the Province much better than courses of a general character.

The two year course, when organized, will be separate and distinct from the degree course. This will necessitate a large staff, but will also render possible the giving of instruction especially planned to meet the needs of the different classes of students who may wish to study agriculture. Instruction adapted to all long course students cannot most successfully be given where all the students are enrolled in one class and where all are required to take the same course, regardless of their previous academic training, practical farm experience, or ultimate object in view.

Since the courses leading to the degree in agriculture have been fairly fully outlined a brief reference should perhaps be made to the course in The Scientific Basis of Agriculture, which has been given for four years as an elective to junior and senior students in Arts.

The graduates of our agricultural colleges are not the only source to which we must look for direction and leadership in our attempt to improve rural

conditions in Canada. Other faculties in our colleges and universities are graduating much larger numbers of students than are our faculties of agriculture. Many of these graduates become teachers in our public or in our high schools; and the success which has attended the summer courses in Rural Science offered by our agricultural colleges, or by our Provincial Departments of Education, bears witness to the fact that the teachers are not only desirous of acquainting themselves with the basic principles underlying agriculture, but are keenly alive to the necessity of acquiring an intelligent understanding of the larger problems of rural life.

To meet this need the University of British Columbia offers, as an elective to junior and senior students in Arts, a course in The Scientific Basis of Agriculture. This course is not designed to give advanced instruction in the sciences upon which approved agricultural practices are based; but definite application of the scientific principles underlying these practices is made in the discussion of the practices themselves.

While a thorough grounding in the sciences in their relation to agriculture is not essential to the student who elects arts, theology, or medicine, it is important that he know enough about the subject to enable him to form an intelligent opinion on matters of public policy relating to agriculture and to agricultural education. Before he can do this he must have a sympathetic understanding of the larger aspects of the rural problem. As many of these problems are, in the last analysis, human problems, it is felt that some time should be devoted in this course to a consideration of the most pressing of these questions which are receiving the attention of governments and of educators at the present time.

In order to accomplish this two-fold object the course is divided into two main divisions. The first embraces a study of the evolution of agricultural practices in relation to tillage, crops, live stock, and plant breeding, and the contributions made by science in the development of each of these are discussed in connection with the advances in the practices noted. The second division deals with the subjects which are the natural outgrowth of the first. It embraces a consideration of economic, social and educational problems in relation to country life, with a discussion of the movements now under way looking to their solution.

The ultimate object in view in planning the degree course for agricultural students and in giving the course in The Scientific Basis of Agriculture as an elective for students in Arts is the training of men and women for efficient rural leadership. At the present time, in the majority of country districts, we are dependent upon our teachers and ministers for this leadership. Many of these men and women are today rendering their rural communities most valuable service. Where agricultural extension workers have gone we have become accustomed to look to these men for help in organizing community movements; but in the majority of our rural districts there are few trained agricultural leaders. It is, therefore, one of the functions of the college of agriculture to train the coming rural-minded leaders, not only from among the students who are specializing in agriculture, but also from among those enrolled as members in any other faculty in the university.

In order successfully to do this, the courses offered must be cultural as well as scientific. The leaders so urgently needed cannot best be developed as the

result of spending four years in the university in the study of agriculture and the cognate sciences alone. Agriculture and agricultural science must be stressed; but the essential elements in a liberal education cannot safely be ignored. The student who spends four years in acquiring a liberal education, and in developing skill in imparting the facts learned, is the one who should be best equipped to render the most acceptable service to the community. Such a graduate would, of course, not be a specialist, but he would have laid a broad foundation during his undergraduate course upon which he could subsequently rear the superstructure of a specialist's career.

Many public men, whose knowledge of rural people is more general than specific, have not yet learned that country people will no longer respond to untrained leaders. Men and women who dwell in the country demand that the graduate of the agricurtural college have not only a sound, practical and scientific knowledge of matters pertaining to his specialty, but they are also coming to insist upon a measure of culture, capacity for imparting knowledge, and some aptitude and training for leadership, which heretofore they have not sufficiently valued.

The Soils of Quebec

By Professor W. Lochhead, B.A., M.Sc.

THE soils of Quebec are of many types, comprising peats, peaty loams, mucks, clays, clay loams, silt loams, loams, sandy loams, sands, gravelly loams, gravels and stony loams. As each type has its characteristic properties or qualities, it is evident that no uniform system of cultivation should be adopted, but rather, the method of cultivation should be based on the properties of the particular type of soil under treatment.

The soils of Quebec belong to four distinct physical districts,—the great *Laurentian Highlands* to the north of the St. Lawrence, the *St. Lawrence Plain* mainly to the south side of the St. Lawrence, the *South-east Highlands,* and the *Clay Belts* between the Laurentian area and the James Bay and about Lake St. John.

The Laurentian Highlands are a region of rounded rocky hills, composed of schists, gneisses, limestones, granites, diorites, etc., and enclosing valleys of considerable richness, and innumerable lakes, rivers and waterfalls. Settlements occur in the isolated valleys, but agriculture is not possible on a large scale.

The St. Lawrence Plain broadens westward from Quebec to Montreal and appears about level to the eye. In fact, however, it rises from 100 feet above sea level along the river to 400 feet at the foot of the South-east Highlands. Agriculturally this region is one of the most important in Canada. A striking feature of the landscape of this plain is the linear group of six "mountains" which are remnants of old volcanoes, and which rise abruptly from the level surface. These in order are Mount Royal (770 feet above sea level) St. Bruno (715 ft.), Beloeil (1,437 ft.), Rougemont (1,250 ft.), Yamaska (1,-370 ft.) and Mount Johnson (875 ft.). Two other mountains of a similar nature, Shefford (1,725 ft.) and Brome (1,755 ft.) mountains lie in the South-east Highlands.

The South-east Highlands are an extension of the mountains of Vermont and New Hampshire, and consist of three ridges of hills with broad intervening valleys, trending in a north-easterly direction, and rising to a height of 1,500 to 3,000 feet in several places. A peculiar feature of the drainage of this area is that the main rivers, St. Francis, Nicolet, Becancour and Chaudiere, run across the ridges in a north-westerly direction, while their branches follow the direction of the valleys. (See map.)

In the districts south of the St. Lawrence the bed rock is mostly covered by "drift" which usually consists of a lower layer of *boulder clay,*—a hard grey gritty clay packed with boulders and pebbles—and an upper layer of *stratified clays, sands or gravels.* This drift material has not been derived from rock like that which underlies it, but, as its name implies, it is rock waste which has been transported mainly from the Laurentian Highlands by glacial action and sometimes re-assorted by water.

Prior to the Glacial Period a thick mantle of soil, no doubt covered the rocks as a result of the action of weathering agencies for millions of years. During the Glacial Period, however, extensive ice sheets moved across the country and carried the loose surface

material along with them. With the melting of the ice this debris was left behind as irregular heaps which have been worked over and assorted by stream action into beds of gravel, sand and clay. The confused nature of most of these deposits is due to the fact that there were several successive glacial invasions, each modifying the result of the previous one.

The Soils of the Laurentian Highlands.—In the Laurentian Highlands the soils are confined to the valleys and lake basins. They are varied in type but, generally speaking, along the streams occurs a strip of *alluvial soil* composed mainly of silt loams mingled with much vegetable matter. On each side of this strip occur gravelly or sandy loams, and, at intervals, beds of sand and gravel and stretches of muck or peat occupying the beds of old lakes that have been drained.

The Soils of the St. Lawrence Plain.—The surface of this area is almost level, with a slight rise toward the margin as already noted. The presence of a covering of marine clays over the entire area and of beaches or shorelines along the margin show that at the close of the Glacial Period the lands was depressed to a depth of over 600 feet, and that the valley of the St. Lawrence was occupied by a great inland sea, the "Champlain Sea," which was about 70 miles wide in the longitude of Montreal and extended up the Ottawa valley for a long distance. Into this sea were washed large quantities of both coarse and fine materials which were assorted by the tides and currents. The finer clay sediments were laid down near the middle of the basin and the coarser near the shore. The largest clay area is that which lies west of the Richelieu from a little north of the St. Lawrence to the New York boundary. Another clay belt not so wide extends from the Richelieu to Lotbiniere, but there are considerable patches of sand at intervals.

The portion of the Plain north of the St. Lawrence is narrow, and more than half of it is covered with sand, often of great thickness. Clay terraces, however, occur along the edge of the Laurentian Highlands. Most of the clays are arranged in layers and may contain layers of sand and silt. The greater part of the surface of the Island of Montreal is composed of boulder clay, which goes to show it was an island in the inland "Champlain Sea." There are also patches of stratified stoneless marine clay, sometimes capped by layers of sand. One strip extends as a terrace from Beaconsfield eastward to Bout-de-l'Isle.

The western part of Missisquoi County is underlain with boulder clay, with sand and gravel patches, and stoneless stratified clays are practically absent. This part of the county lies along the margin of the St. Lawrence Plain, while the Eastern hilly part belongs to the South East Highlands. The greater portion of Chateauguay, St. John, Iberville, Rouville, Verchéres, Richelieu, Yamaska and Nicolet counties south of the St. Lawrence, are underlain with clay, but in the three last named counties and in Lotbiniere there are considerable areas of sand.

A belt of sand extends from the east side of Missisquoi Bay along the margin of the St. Lawrence Plain, and partially overlying the clays as far as Metis. The southern part of Huntingdon county, along the New York line, is underlain with a mixture of sand and clay, the sand being largely derived by washing from the elevated sandstone plateau of Covey Hill, and that bordering the Adirondacks in New York State. The best orchards of the pro-

vince are situated on the terraces of the old shore line, as at Covey Hill, Abbotsford, Rougemont, St. Hilaire, and Montreal.

The Soils of the South-east Highlands.—The South East Highlands are composed of the "Eastern Townships" and the counties of the hilly or mountainous districts running north-eastward to Gaspé. A line running from the eastern side of Lake Champlain to Quebec roughly separates these Highlands from the St. Lawrence Plain. As already noted, the region is traversed by three ranges, the *Lake Megantic*, the *Stoke*, and the *Sutton*, intersected by numerous passes and river valleys and separated by wide valleys where are thick deposits of loose superficial material. The widest of these valleys lying between the Stoke and Lake Megantic Ranges, includes most of the counties of Stanstead, Compton and Beauce and forms an undulating plateau with an elevation of 900 to 1,500 feet. The surface of the soil of this hilly upland area of Brome, Shefford, Richmond, Wolfe, Sherbrooke and Megantic, and the counties named above consists mainly of boulder clay, gravels and sands. In most of the valleys there are also terraces of stratified gravel, sand and clay. These may be observed about Lake Memphremagog and Magog and Georgeville, along the Coaticook and Massawippi rivers at Sherbrooke and Lennoxville, at Windsor Mills, Danville and Kingsbury, and many other places.

It is believed that the boulder clay was deposited by glaciers moving northwest from the mountains near the boundary and later by the great glacier moving south from the Laurentian area north of the St. Lawrence. The sands and gravels are in most cases the result of water action during the Glacial Period and later when the valleys were flooded. Alluvium occurs in most valleys as the result of modern stream and flood action.

The Soils of the Clay Belts.—There are two Clay Belts in Quebec, the Northern and the Lake St. John. The former lies between the Laurentian Highlands and James Bay. The clay was in all probability deposited in a large lake formed between the high land on the South and the retreating ice sheet as it stood over James Bay at the close of the Glacial Period. The discovery of this belt opened up a large area of agricultural land.

The Lake St. John region contains the largest clay area of any of the tributaries of the lower St. Lawrence. The clays are stratified, free from pebbles, and of a grey color. In places they are overlain with sand. A considerable area of fine agricultural land borders the lake and many fine farms are to be seen.

THE
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"Mastery for Service"

PUBLISHED BY THE STUDENTS.

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MAGAZINE STAFF

EDITORIAL

REVIEW OF THE YEAR.

THE Session of 1918-19 has been an unusual one for Macdonald, and in many ways a critical period. Among the factors which have combined to make it so are the absence of Principal Harrison, the absence of a graduating year in agriculture, the institution of a definite branch of the Department of Soldiers' Civil Re-establishment at the College, and the small number of regular students in agriculture.

Dr. Harrison has spent most of the College year over in England in connection with the educational organization of the Khaki University. Although the absence for a prolonged period of the head of any institution is far from desirable, yet the College authorities saw fit to release Dr. Harrison on account of the important nature of his work overseas. Many Macdonald students were with him at the headquarters of the university at Ripon.

During the Principal's absence the

administration at Macdonald has been very efficiently conducted by Dean Laird as Acting Principal and Professor Lochhead as Dean of the School of Agriculture.

The staffs of the schools of Agriculture, Teachers and Household Science have undergone many important changes which are mentioned in detail elsewhere in this number, that of most importance, perhaps, being the appointment of Mr. Robert Summerby as Professor of Cereal Husbandry. Prof. Summerby is thoroughly acquainted with the work and should make an able successor to Professor Murray.

The resignation of Principal Peterson from the head of McGill University marks the retirement from activity of a great scholar and a noted figure in public life.

Another faithful worker who has resigned is Professor Kneeland, who has been Professor of English for the last twenty-five years. Both Principal Peterson and Professor Kneeland receive more space in another section.

The number of regular Agricultural students this year has been small, owing to the fact that the Freshman year was small and that there has been no graduating year. The latter, the absence of a fourth year, has had a not unexpected influence on the whole life at the College. The third year, who should have taken the place of the Seniors in administering College activities and maintaining College spirit, were few in number, for the most part came in late, and, it must be admitted, with a few exceptions, showed less interest in the welfare of their Alma Mater than they might have.

Under such conditions it is hardly surprising that the activities of the College have not flourished to the greatest extent this year and the prospect to the student not so hopeful as it should. Sometimes one cannot help getting the impression that not enough encouragement is given to the student. Students are left to make good on their own merits when a little attention and advice to the weaker ones would mean much. The former system has much to recommend it, but where numbers are so few as at present we think that there might be more of the latter practised to advantage.

Still we feel that the year at College has undoubtedly been a success, and a benefit to all who have attended it. For next year the outlook is of the best. Many of Macdonald's best undergraduates who have donned khaki during the war will be with us again and Macdonald should be never more renowned than in the next few years.

The outlook for the agricultural graduate is very encouraging. The need for improvement of farm practice is being appreciated more and more and for a number of years to come the sound agricultural specialist will be in high demand.

THE MAGAZINE.

THE Macdonald College Magazine has just passed through probably one of the most critical years of its existence. There was talk of its discontinuance this year, but it was decided not to let go and we beg our subscribers to excuse any discrepancies on account of the almost entirely new and inexperienced staff which were called upon to do the work. The present editor hands it over to the students of 1919-20 with a wholesome feeling of his inability and with a confidence in the future editor, whoever he may be, to make the magazine more creditable to the institution.

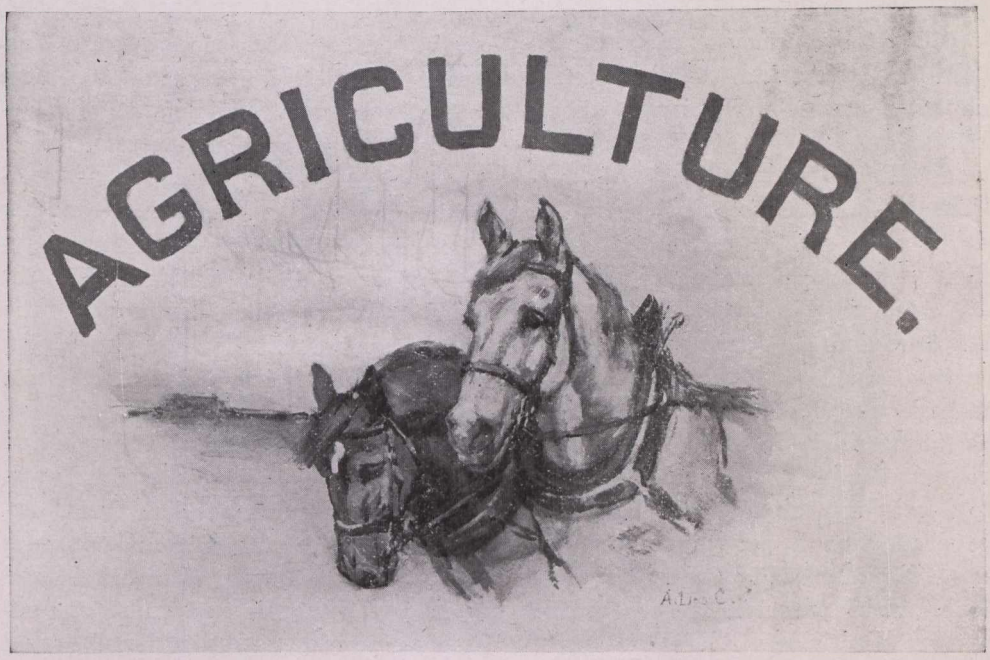
SUBSCRIPTIONS.

IN view of the fact that the number of students who have passed through Macdonald is not small and the price of one year's subscription only one dollar we feel that the number of subscribers is many too small. It is very little to subscribe one dollar to aid the Magazine which will keep you in touch with your Alma Mater and will allow for a better quality publication.

It is felt that all those Macdonald men who have received magazines while overseas will show their appreciation by subscribing regularly.

It is better to know one ounce of wrong in yourself than a hundredweight in someone else.—R. Burns.

Nobleness of life depends on its consistency, clearness of purpose, quiet and ceaseless energy.—Ruskin.



Why Do We Breed Jersey Cattle

IF you can picture a cow small in type, beautiful in form—sleek and tidy with large expressive eyes, graceful in movement and can associate the thought of rich golden milk, cream and butter, you have a fair conception of a Jersey cow. We have, therefore, in the Jersey a triple advantage, of a symmetry of form which renders it an ornament to the gentleman's lawn and paddock; a docility which makes it gentle under the tether and in the hands of the milker, and a richness of production which not only fills the dairy with butter, but that of a firmness which it retains in the heat of summer and a richness through the cold of winter, when the butter of the ordinary cow is barely marketable.

The native home of the Jersey is on the Island of that name in the English Channel, about fourteen miles from the coast of France. Its area is 36,680 acres, of which 25,000 are tillable. The population is about 60,000. This island rises from the level of the ocean on the south in a gradual slope to the north side, which has cliffs about 200 feet high along the ocean. The climate is mild and even, grass remains green throughout the year and is rather fine and nutritious. The cattle are pastured during the day by the tethering system. From May to October the cows, as a rule, remain outdoors all the time. In winter the cows are out in the daytime and in the evening are housed and fed hay, roots and a small ration of bran, or oil cake. But little grain is fed at any time.

The Island of Jersey itself, with its genial southern exposure, has a stock varying between 11,000 and 13,000 head. The outstanding superiority of Jerseys as milking cattle dates back nearly 200 years, and the introduction

of foreign blood has been prohibited since 1763 by various "Acts of the States of Jersey," to maintain purity and give protection against disease. Tuberculosis is practically unknown among Island bred cattle.

The cattle have been bred and improved with special reference to butter production for about 100 years. In 1834 a scale of points was made out for both cows and bulls and prizes offered for the animals conforming nearest to the scale of points. The breed began to improve from that time on . At the present time the cattle on the Island are a very uniform lot, but their average production is probably lower than that of equally good representatives of the breed in America, largely because they are feed a less liberal ration, especially of grain.

The distribution of the Jersey is world-wide. According to the American Jersey Cattle Club in a booklet—"The Jersey Cow in America," the Jersey spread to France where it is now bred in large numbers, and from there to Canada, although absolute record of this is not to be found. It is probable, however, that the French settlers in Canada brought over some of their Jersey stock. The breed also soon spread to England, where it became, and is to-day, very popular.

"In 1817 the first Jerseys were imported into the United States by the captain of a sailing vessel who had a country place near Philadelphia. In 1840, however, a much larger importation was made into Kentucky by Henry Clay. Other importations rapidly followed in Connecticut and Massachusettes, for American travellers in England and the Island of Jersey were greatly impressed by the richness of the milk of the Jersey, her beauty and heavy-producing ability, and brought cattle back to the United States with them." The breed soon spread to Australia and New Zealand, and has more recently become very popular in Denmark, until today the Jersey is said to be the chosen breed of this country, notwithstanding the fact that another popular breed of dairy cattle had its origin close to Denmark and was the common breed of that country.

Thus we see that the Jersey has shown its ability to thrive and flourish in a variety of climates and conditions. And, not only does the Jersey succeed and produce very profitably under favorable conditions, but she has always exhibited great hardihood and endurance and has proven herself to withstand and flourish in climates and under circumstances in which another breed would soon die out.

The Jersey has been found to be the most suitable breed for the South, where in many sections scanty pastures and excessive heat prevail. In the North the Jersey has successfully competed with even the most rugged of the beef breeds in point of hardihood, and the most northern herd of dairy cattle of which there is a record is a herd of pure-bred Jerseys. The Champion butter cow of Canada, Britain's northern most colony, is a Jersey, and it is interesting to note that the champion butter cow of Britain's southernmost colony as well, New Zealand, is also a Jersey.

When the Jersey was first imported to America the bulk of the milk and butter used was produced by the so-called general-purpose breeds, such as the Shorthorn, then called the Durham, and the Devon, Ayrshires and Holsteins were also used to a certain extent. The beauty of the Jersey soon attracted the men of means who enjoyed farming and were deeply interested in stock breed-

ing. These gentlemen took up the breeding of Jerseys as much for their love of the cattle, with their great beauty of color and form, as for the butter-producing ability of the breed: yet the general dairymen and farmers were not slow to appreciate the value of the Jersey for commercial herds, and Jersey cows soon became money-makers in eastern dairies.

The cows were privately tested for butter—production by the churn method early in their history, and the private tests soon attracted great attention to the breed. The Jerseys were smaller than the average cattle of the country, and the fact that these cattle produced so much more butter than the larger grade cattle in the dairies aroused great interest in the breed. But it was at the World's Columbian Exposition in Chicago, 1893, that the Jersey first leaped into the limelight and definitely proved her great superiority as a dairy cow. At this exposition a competitive test was arranged between all the important dairy breeds, and the Jersey was promptly entered in the contest, in competition with Guernsey and Shorthorn cattle. Barns had been built for herds of Holsteins, Devon, Red Polled, Brown Swiss and Ayrshires, but no cows of those breeds were entered.

The results of the four tests, which were conducted from May 12th to October 20th, 1893, proved that the Jersey, as compared with the other breeds:

1. Gave more milk.
2. Made more cheese.
3. Made more butter.
4. Gave more milk solids other than butter-fat.
5. Required less milk to make a pound of butter.
6. Required less milk to make a pound of cheese.
7. Produced a pound of butter at less cost.
8. Made butter of higher quality.
9. Made cheese of higher quality.
10. Demonstrated their ability to profitably assimilate a greater quantity of feed and return a greater net profit.

"As a result of this great victory, thousands of herds of Jerseys were soon founded, and the spread of the breed was given great impetus."

Following the World's Fair came the St. Louis Dairy Demonstration, held at the Louisiana Purchase Exposition at St. Louis, in 1904. Here was another grand opportunity for the dairy breeds to compete upon a world's stage. The Jersey had won her place in public estimation by the churn tests — actual butter production; so when it was proposed to conduct a great competitive test by means of chemical analysis only, some breeders at first expressed doubt of the wisdom of staking the reputation of the Jersey on a method of testing involving delicate chemical operations. The American Jersey Cattle Club and its Exposition Committee had no fear, however, of putting the Jersey on any kind of fair test in competition with the other breeds.

The dairy demonstration was conducted by experts from the United States Department of Agriculture and the State Agricultural Colleges, Jerseys, Holsteins, Brown Swiss and Shorthorn herds were entered, the Jersey definitely demonstrated superiority as a dairy cow.

The basis of the awards at St. Louis was economic production. The Jerseys proved to be the most economic producers of butter-fat and butter and of milk for all purposes of dairying. In butter production, the leading cow was a Jersey, the best four were Jerseys,

fourteen of the best fifteen were Jerseys, seventeen of the best twenty were Jerseys, nineteen of the best twenty-five were Jerseys, and the best herd was the Jersey herd. The Jerseys returned one pound of butterfat for every twelve pounds of nutriment they consumed. The Holsteins required 14.839 pounds nutriment per pound of fat produced, the Shorthorns required 15.52 pounds, and the Brown Swiss 16.919 pounds. To produce a pound of milk solids, the Jerseys consumed 2.955 pounds nutriment whereas the Holsteins required 3.283 pounds, the Shorthorns 3.421 pounds, and the Brown Swiss 3.638 pounds. The most economic producer of the seventy cows of all breeds in the test was a Jersey, and she was followed in order by thirteen other Jerseys, there being no place won by a cow of any other breed until the fifteenth.

Prof. T. L. Haecher, from the results of the St. Louis breed test, prepared the following table:

Food Consumed and Yield in Relation to Live Weight.

Breed.	Dry Matter. Lbs.	Nutriment. Lbs.	Milk. Lbs.	Fat. Lbs.	Solids not Fat. Lbs.
Jersey	37.61	24.50	43.78	2.04	3.83
Holstein	31.23	20.88	41.45	1.42	3.29
B. Swiss	28.87	20.28	33.31	1.20	2.95
Shorthorn	24.48	16.02	28.00	1.03	2.41

"This table shows that the Jerseys yielded the most milk, the most butterfat and the most solids not fat in proportion to their live weight. The Jerseys, per 1,000 pounds live weight, consumed daily on an average 17 per cent more nutriment than the Holsteins, 20 per cent more than the Swiss and over 50 per cent more than the Shorthorns; but, on the other hand they returned 43 per cent more butter-fat than the Holsteins, 70 per cent more than the Swiss and 100 per cent more than the Shorthorns. That is to say, the Jersey proved herself to be the most efficient and economic dairy machine. Another fact brought out, and perhaps a surprising one, the Jerseys consumed the largest amount of nutriment in the form of roughage, the Holsteins were second, the Shorthorns third and the Swiss used least."

After the test was ended, Mr. W. R. Goodwin,, editor of the *Breeders' Gazette*, wrote:

"The St. Louis demonstration, conduced in the fierce light of publicity that beats upon a world's exposition, projects the remarkable results in the dairy barns with such unchallenged force and directness as to brush the blinding cobwebs from the eyes of many farmers. The farm papers may plant and the cattle clubs and associations may water, but such demonstrations give the increase to the farmer's confidence in the value of improved blood. On this account alone it is worth all it cost."

It should be noted that the Chicago and St Louis tests were the only competitive tests of the dairy breeds in which the associations representing the breeders were invited to enter herds. This is particularly significant, for the herds entered in those competitions were representative herds selected by the breed associations. The fact that the Jersey was victorious is all the more important for this reason.

Thus we see that the Jersey cow is the product of at least 200 years of breeding. During the latter half of this period she has been subjected to constructive breeding—breeding with certain objects more or less clearly in view. Only the best of the Island cattle were imported to America, and these animals constituted the foundation stock of American Jerseys. Systematic breeding

was thus begun and in the only way which promised lasting success—viz., by men of energy, foresight, good judgment, and sufficient means, who chose livestock solely on the basis of exceptional quality as dairy animals.

At this point I think I can do no better than make reference to what Prof. C. H. Eckles, of the University of Missouri, has to say about the Jersey cow. Mr. Eckles is one of the country's greatest authorities on dairying, and sums the Jersey up as follows: "A good Jersey cow is the model of what is generally taught to be the dairy form. She has pronounced wedge-shape, an immense barrel for her size, a well-develop udder, and does not carry a pound of superfluous fat while in full flow of milk. Jerseys are easy keepers. They do better than other cattle on rough and scanty pastures. In economy of production of butter-fat the breed has always led where opportunity has been given to make fair comparison with other breeds."

In this article it has not been my intention to cast any unjust reflection on any of the popular breeds of dairy cattle. Neither have I attempted in any way to advertise the breed; far be my intention from this, because, I feel that the choice of a breed and success with a breed, depends absolutely on the man himself. I have, however, attempted to give the Jersey her just due and to emphasize some of the things that are most outstanding and the points that have influenced men to breed Jerseys. I have attempted to show that while it was the beauty and form of the Jersey cow that first drew the attention of men that it was her ability to economically produce butter-fat that was responsible for her world-wide expansion.

This article would not be complete without describing in a measure some of the Jersey activities in Canada. I think I have shown you why it is that Jerseys are the most popular dairy cattle in the United States and now if I can drive the matter home by showing you that the Jersey has proved her ability in Canada as well, you will readily understand why we breed Jerseys.

At the annual meeting of the Canadian Jersey Cattle Club, held in Toronto Feb. 5, 1919, it was announced by the President, Mr. D. O. Bull, that Jersey cattle occupy first place in the Record of Performance Test in Canada, and that there is now a higher percentage of Jerseys qualified in Record of Performance than of any other breed. In addition, the average production of butter-fat of all cows qualifying in each class last year was higher in the case of the Jerseys than of any other breed. This is true also of the years since R. O. P. was first instituted. It was also announced that the record cows of two of the four classes are Jerseys. Sunbeam of Edgely, first in the mature class, with 926 lbs. of fat, leads all breeds, all ages. Beauty Maid, leader of the four-year-old class with 872 lbs. of fat, is second in general standing all breeds, all ages.

After all, the best test of a dairy cow is shown by the Yearly Authenticated Test or Record of Performance, as it is called in Canada. It is an association that takes in all breeds and tests under the same rules and requires a certain number of pounds of milk as well as fat according to age of cow, and the cow must carry calf at least six months during test to qualify. Persistency in yield being one of the Jersey cow's strong points, no tests shorter than one year can fully demonstrate her qualities.

Very briefly let us consider the conditions under which Beauty Maid of

Woodstock, No. 298803, made her test. At the time of test she was owned by Mr. D. A. Doyle, of Woodstock, Ont., where her test was made. Her caretaker, feeder and milker was a boy nineteen years old, who had no previous experience with Record of Performance work. Beauty Maid had no great variety of feeds, principally those grown on the farm, and stood in a stanchion with other cows in an old-fashioned barn. She was turned out to water and exercise with the rest of the herd and was milked only three times a day.

Beauty Maid began her test at four years seven months of age under conditions stated above, and made the wonderful record of 15,852 lbs. of milk, 872 lbs. of fat, 1,026 lbs. of 85 per cent butter, averaging 60 lbs. of milk each day the first two months, and over 40 lbs. for every day of the year, and dropped a living bull-calf sixty-five days after completing the test.

Besides this, Beauty Maid has proved her merit as a show cow. She was undefeated in strong classes at three of the world's greatest exhibitions in 1918, National Dairy Show, Columbus, Ohio, the Canadian National Exhibition, Toronto, Canada, and at London, Ontario. The fact that three judges placed Beauty Maid at the head of strong classes at these exhibitions would seem to indicate some relationship between type and production—the dairyman's one great desire.

Lastly, there is one other thing that plays a big part in answering the question, "Why do we breed Jerseys." More especially is this a dominant factor in stirring times like these when we are continually hearing of increased production and of the urgent necessity for cheaper feed. And just here do we come to what is really the acid test of all dairy breeds, and the one that positively proves that the Jersey cow is the most profitable producer of all dairy cattle when given general care in the hands of the small farmer.

In the Pan-American Exposition in 1901 the Jerseys stood second among the breeds in profitable fat production, the Guernseys leading. In the Louisiana Purchase Exposition the Jerseys surpassed the Holstein and Brown Swiss in butter and cost of production, the average cost per pound being 10½ cents for the Jersey, 13½ for the Holstein, and 14 2-3 for the Brown Swiss. In ninety days in this test the Jersey cow Loretta D. No. 141708 produced 280.16 pounds of butterfat at a net profit of $50.52. The Junior two-year-old cow, Brampton Central Princess, Central Experimental Farm, Ottawa, produced butter at 10.98 cents a pound. Valuing her butter at thirty-five cents a pound and skim-milk at twenty cents a hundred weight, she made a profit of $156,000 over feed. Valuing her milk at eight cents a quart she made a profit of $232.37 over feed. It will be interesting to note that the feed cost of milk was sixty-eight and one half cents a hundred.

We are living in a period of dollars and cents, a time when money talks if it ever did. These are a few of the reasons why we breed Jerseys.

W. E. A., Agric. '20.

Progress In Poultry Breeding

By M. A. JULL, B.S.A.

THERE has been a greater advance in our knowledge of the fundamental laws of heredity, as applied to poultry breeding, during the past ten years than in the entire previous history of this field of knowledge. Many Mendelian enthusiasts have assumed that coincident with this advance in our knowledge of the fundamental laws of heredity, there has been an equal advance in the practical art of poultry breeding. Such is not the case, however, for the fact is that the practice of the art of poultry breeding, instead of being guided by the science of genetics, is immeasurably in advance of that science. The results achieved by breeders of exhibition and bred-to-lay stock, as observed at poultry shows and egg laying contests respectively, challenge the ability of the most learned geneticist to produce finer specimens. The principal value of genetic science to the practical poultry breeder lies in the fact that the recent discoveries in the field of poultry breeding have brought to light and have established certain general principles which enable the practical breeder to better understand and interpret his methods and his results. The recent discoveries, it is true, have influenced an important industry in a remarkable way by enabling the practical breeder to carry on his work with a greater degree of certainty. The practice in the past has been to breed together those that seemed most likely to produce what was required and to a considerable extent such practice was almost entirely empirical and in some measure wasteful. The discovery of the Mendelian principles of heredity has already reacted upon the old methods of breeding and by establishing the presence of unit characters has given the breeder a more definite knowledge of his problems, enabling him to gain his end more quickly and with greater economy of time and material.

The chief contributing factor for the remarkable advance in our knowledge of the fundamental laws of heredity in poultry breeding is the adaptability of poultry to experimental breeding work. The domestic chicken, as a subject for experimental breeding, possesses many characteristics mich make it one of the most popular as well as one of the most valuable animals for the study of genetic problems. Chickens are greatly diversified as to form and color of skin and plumage. Differences are great and contrasts are sharp in such characteristics as comb form, crest, earlobe, color, feather form, vulture hock, shank feathering, and egg production. The comparatively small size of chickens with the resulting feasability of keeping a large number at a relatively small cost is also a factor greatly in their favor. In addition, it takes but a short time to bring them to maturity and, because of the relatively high fecundity, a large number of offspring may be secured from a single pair.

Plumage Color.

Although we have a good knowledge of the appearance of the many breeds of poultry, we have a very poor knowledge of the constitution of any one breed, so far as the character-complex is concerned. We know that individuals of a so-called pure breed, when bred among themselves, produce birds having the required standard plumage pattern, but we do not know what to ex-

pect, in the majority of cases, when two breeds are crossed. We do not know, except in a few cases, what hidden characters a breed possesses beneath its apparent standard color.

Blue Andalusians, when bred among themselves, produce white, blue and black Andalusians, in the proportion of one white to two blues to one black. If a white bird is mated to a black one the progeny are all blue andalusians. The blue color in the Blue Andalusian is, therefore, called a hybrid color; that is, it has not become fixed, in the ordinary sense of the term. The inheritance of plumage color is along Mendelian lines.

Black Langshans, when bred among themselves, produce solid black chicks. Barred Plymouth Rocks, when bred among themselves, produce black chicks, the majority of which have a light spot on the head, but all develop into typical barred birds. Each breed is said to breed true. Now what happens when these two breeds are crossed? When a Black Langshan female is mated to a Barred Plymouth Rock male, all the progeny are barred in color. The barred color is shown to be dominant to the black. When the barred progeny are interbred, there are produced barred males and females and black females, in the proportion of fifty barred males to twenty-five barred females to twenty-five black females. This is a case of sex-linked inheritance, where the barred factor is correlated with the sex factor; no black males are produced.

When a Barred Plymouth Rock female is mated to a Black Langshan male, all the male progeny are barred and all the female progeny are black. When the progeny are interbred, there are produced barred males and females and black males and females in equal proportions. This case differs from the first one inasmuch as in the second hybrid generation in the second case there are twice as many black birds and consequently only half as many barred ones as in the first case and moreover, in the second case there are as many black males as barred ones, whereas in the first case there are no black males. Thus it is shown that barring is dominant in the Barred Plymouth Rock male only and in this respect barring is sex-linked.

Comb Form.

Some very interesting facts have been ascertained in regard to the inheritance of the form of the comb of the fowl, the comb being characteristic of the genus Gallus. Davenport found that when a single comb Minorca is crossed with a pea-comb Brahma the pea comb is dominant. When a single comb Leghorn is crossed with a rose comb Minorca the rose comb is dominant. When a single comb Leghorn or Minorca is crossed with the paired rudiments of a comb found in the Polish and Houdan fowl a Y-shaped comb is produced. Thus it is shown that both pea and rose combs are true Mendelian dominants over single comb.

Crest.

The crest is an ornamental tuft of feathers developed on the heads of Polish, Houdan and other breeds. It has been found that when a Polish is crossed with a Minorca or when an Houdan is crossed with a White Leghorn "crest is inherited in Mendelian proportions, and is dominant over crestless head." When a Silky is crossed with the wild fowl, Gallus Bankiva, crest is dominant, but it is an imperfect dominant since the crest is diminished in the first generation.

Earlobe Color.

Red is primitive and is to be seen in all American and Asiatic breeds. White is a new variation, occurring in

Mediterranean breeds, which is probably due to fat or other articles in the skin, and is consequently positive. Only in extreme cases is red wholly eliminated from the earlobe. In three series of crosses of the red-lobed Dark Brahma and a white lobed race the earlobes were prevailingly red, but had some white at their centres. Likewise, in two series of crosses of the red-lobed Cochin and a white-lobed Leghorn, red dominated in the hybrids, but did not always perfectly exclude white. Red is therefore apparently dominant, but very imperfectly so.

Feather Form.

There are two breeds of fowl which possess a very peculiar form of feather. The plumage of the Silky consists of webless feathers of very fine texture, resembling somewhat the down condition on young chicks. Silkiness is a new characteristic and is recessive to non-silkiness. In the Frizzle the ends of the feathers over the entire body do not lie normally, but are curled upwards, giving the birds a peculiar rough appearance. Frizzling is also a new characteristic, but is dominant over non-frizzling.

Vulture Hock.

A vulture hock is a bunch of stiff quill feathers growing on the thighs and extending backward beyond the hock, or knee-joint. Vulture hock constitutes a disqualification in Brahmas and Cochins where there is sometimes a tendency toward development. In the Sultans, however, vulture hock constitutes a standard qualification of the breed. Davenport has found that the character for vulture hock is imperfectly recessive, so that Brahma and Cochin breeders should have no difficulty in eliminating it from their flocks.

Shank Feathering.

Shank feathering is common to Brahmas, Cochins, Langshans and a few other breeds. When any such breeds are crossed with breeds having no feathering on the feet it is found that the great majority of the birds of the first hybrid generation have shank feathering, showing that shank feathering is dominant, but it is imperfectly so.

Egg Production.

The effects of domestication upon egg production, are of far-reaching importance, as is to be seen in the continued removal of eggs from the nest of a wild bird. The wild Mallard duck in a state of nature lays only 12 to 18 eggs, but Austin secured from 80 to 100 from different ducks by confining the birds in a pen at night and removing the eggs as fast as they were laid. By removing the eggs regularly from the nest Hanke got 48 eggs in succession from a common Wryneck. In the same way Wenzel brought the production of the house-sparrow up to 51 eggs.

Much improvement in egg production has resulted since the domestication of the wild fowl, and while environmental factors have had great influence in the past it is now evident that only by adopting superior methods of breeding can best results be accomplished.

The ability to lay eggs is inherited, and it requires careful and consistent selection to improve production. The best layers are those with sound bodies and vigorous constitutions, for continuous egg production is a heavy strain upon the vitality of a hen. Soundness and vigor are shown by bright, clear eyes, well developed bodies and fairly active dispositions. There are a number of factors correlated with egg production which should receive the attention of those who are anxious to develop bred-to-lay strains. A study of these

factors will enable one to select breeders intelligently and to mate them with a reasonable degree of certainty as to results.

The more eggs laid the more surplus fat used up from the body, and in yellow skinned breeds this loss of fat is readily noticeable in the loss of yellow color. The different parts of the body tend to become white, depending upon the amount of fat extracted for egg production. The Plymouth Rock, Rhode Island Reds, Wyandottes and Leghorns are breeds with yellow colored skins and shanks. This yellow color is due to a layer of colored fat which lies under the skin, and the fat is colored by a pigment called carotin, which is much the same as melanin pigment in man. In white-skinned breeds such as Orpington and Dorking this yellow pigment is very nearly or completely absent.

The change of color takes place first at the vent and a layer can be distinguished from a non-layer by a white or a pink vent. The next part of the body to bleach out is the eyering. Then the earlobe, in white-lobed breeds such as Leghorns and Minorcas, bleaches out. Longer and greater production will next bleach out the beak and shanks. The color leaves the lower mandible faster than the upper and begins to leave first at the base, bleaching gradually toward the tip.

It has been noted by a few observers that, in yellow shanked breeds, the heaviest laying birds usually have the whitest legs at the end of the laying season. The egg yolk also contains the yellow pigment called carotin, and the hen requires a certain amount of this pigment material for the yolks. Most feeds are deficient in pigment matter, and consequently the hen must draw upon the pigment of the body, which results in a bleaching of the legs. The yellow color bleaches out rather slowly, bleaching taking place first on the front of the shanks and finally from the scales on the rear. With considerable practice a breeder should be able to select the heaviest producers in the months of June, July and August.

The high producer is the late layer, and hence a late moulter, and it usually takes her a longer time to moult than a poor layer.

A close study of all the points enumerated here will enable the breeder to select the heavy producing hens to be used as breeders. This is important because it is only through efficient selection that a bred-to-lay strain of fowls can be established. Especially important is it to use a male breeder selected from a heavy producing female since an analysis of breeding results has shown that the factor for heavy egg producing is sexlinked, being transmitted by the male only.

Conclusion.

As a result of the remarkable progress in poultry breeding and the resulting advance in our knowledge of the fundamental laws of heredity several important principles of poultry genetics have been established. Firstly, it has been demonstrated, as described above, that specific characters, or groups of characters, are inherited as discrete and definite units. Secondly, it has been demonstrated that in the great majority of cases the Mendelian law of segregation and recombination of characters operates. Thirdly, it has been demonstrated that the fundamental basis of all inheritance is to be found in the germinal constitution of the individual rather than in the body or soma.

Because of these facts poultry genetics has demonstrated that the practical breeder may cast aside the mass of tradition and superstition formerly involved in breeding problems and may interpret the results of his breeding operations and plan intelligently the next steps with a certainty hitherto unattainable. Such a contribution of genetic science to practice in breeding signifies that the breeder may dispense with the unessential in his empirical methods and more directly and uniformily attain the desired end than before.

Timely Tractor Talks

By J. A. Starrak.

Talk No. 1.—To the Farmer About to Buy.

WITHOUT doubt a good many of our farmers have been giving the tractor problem some consideration. Any machine costing as much as a tractor, merits careful consideration. He has, first of all, to decide whether or not he will buy a tractor and, second, if he arrives at an affirmative decision, what type of tractor to buy.

In debating the first question a farmer should question himself somewhat along these lines: 1st. Is my farm large enough to make a tractor prove an economical investment? 2nd. Does the type of farming I pursue necessitate a considerable or a large enough amount of heavy work? 3rd. Is my farm too stony, wet or hilly for the economical use of a tractor? And 4th. Do I possess the peculiar disposition, knowledge and capabilities to enable me to become a successful tractioneer?

As a guide to the farmer in his deliberations the following information derived as a result of an investigation should be of value. 1st. Although tractors have been made to pay on a few small farms of 75 acres or so, still the great majority of failures were on farms under 150 acres. When possessed of much less than this we believe a farmer should greet the tractor agent in a kind but firm manner. 2nd. The type of farming practised is important, for it is only in heavy work, such as ploughing, disking, etc., that a tractor can compete successfully with horse. The type of farming, as well as the size of farm determines also the number of days work a farmer would have for his machine. Investigations show that tractor should be called upon to do at least 50 days' work per year. Have you this much work for a tractor? 3rd. Wet, stony and hilly land practically prevent the successful operation of a tractor. A tractor once mired is difficult to extract, and the farmer had much better invest the cost of tractor in underdrainage. Stones cause losses in the breaking of machinery and waste of time. Hills handicap a tractor to a large extent since it has very little reserve power, and its weight and that of the implements is added to the drawbar pull in direct proportion to the gradient. Herein lies one of the horse's greatest advantages as he can for short periods exert a pull equal to 5 or 6 horse power. 4th. This is a matter of the operation of tractor more important than it seems at first sight. Indeed, a great many tractor owners regard the

operator as the most important factor in tractor operation. The prospective buyer should have considerable knowledge and mechanical skill or, at least, be capable of acquiring the same.

A great many tractors have failed to give satisfaction chiefly, if not entirely, through fault of operator. The same is true to a somewhat lesser extent in the case of all farm machinery and the farmer who finds it difficult or fails to operate and keep in repair other farm machines satisfactorily should give the tractor in its present state of development a wide berth.

What Type of Tractor Should He Buy.

As an excuse for continuing we will assume that the farmer decides after giving the matter the consideration it merits and being guided by the above discussion to invest in a tractor. Just what type of tractor will he buy? At a safe distance from a tractor salesman he should give the matter close study. He will find a great difference in the design of the various tractors on sale. He will find tractors with one, two and four cylinder engines, and with two, three and four wheels. He will find tractors on the market ranging in sizes from 5 to 10 h.p. to 50—100 h.p., or more. He needs some unbiased and disinterested advice just here. He should know that the four cylinder motor is being more used as a tractor motor each year, and that no manufacturer making a four cylinder motor tractor has changed his design to one of the others. The great majority of tractors have four cylinder motors. Of course, they have some disadvantages, being somewhat more complicated and possessing more parts to adjust and care for, but their advantages overbalance these failings. He should also know that the four wheel tractor with two large rear drive wheels has beyond doubt proved most satisfactory for all farm work. He should know, however, that the caterpillar type is excellent in wet or soft land, but is subject to excessive wear in its treads and besides land too wet for an ordinary large wheel tractor to work on is too wet to cultivate at all.

He should also know that a tractor is more often overloaded than not, and moreover that overloading a tractor is poor business. This inclination to overload a tractor is probably due to the over-enthusiastic salesman who claims his 10—12 tractor will handle 3 ploughs in any soil. Now experience has shown that at least 4 and probably 5 h.p. drawbar rating should be allowed per plough. We are forced to believe, by experience of others, that a 3 plough tractor is the smallest size consistent with economy. This would mean at least a 12 h.p. drawbar rating. It would seem that if a farm is too small for a 3 plough tractor it is too small for any tractor.

The farmer should also know that carburetors are now made which enables kerosene to be burned satisfactorily, thus effecting considerable economy in fuel; that a good governor is an essential feature of an efficient tractor; that some tractors because of faulty design have a tendency under certain conditions to rear up and fall backwards sometimes with fatal results to operator, and that gears should be protected as much as possible from dirt and dust and are best lubricated by running in an oil bath.

There are many other points in tractor construction, but the above are perhaps the most important. Armed with this information and advice the prospective purchaser can now advance and meet the tractor salesman with a fair chance of emerging from the en-

counter with a well designed, efficient tractor and one well suited to his particular needs.

TALK No. 2.

To the Farmer Who Has Bought a Tractor.

We will assume that the farmer has bought a tractor of good design and suited to his needs. The chief factor affecting its success as an investment will now be the operator. In the great majority of cases on our farms the operator is the farmer himself. Other things being equal, the farmer is more interested in the machine and will give it better attention, than any hired help he may have. We would emphasize the fact that a tractor does need careful attention. The successful operation of a tractor demands greater care and closer attention than an automobile. This is due to the fact that a tractor engine is working under a full load most of the time while the automobile is never called upon to produce its maximum power for anything but very shorts periods. A tractor engine, therefore, though closely resembling an automobile engine in general design, is made heavier and stronger.

Our first advice to the farmer is to study very closely his machine. Nothing can help him as much in this study as the small handbook which is sent out with the machine. The average farmer does not consider the booklets accompanying farm machinery as of much importance and worthy of his attention. He is decidedly wrong. Manufacturers of tractors as well as of other machinery are by means of these instruction books honestly endeavouring to insure that their machine will give satisfaction. By the intelligent use of all instruction books of this nature the farmer would derive much more benefit than the manufacturers themselves, and they evidently consider the publication of these books a good investment, although the cost is considerable.

With the aid then of these instruction books the farmer should study his tractor carefully. Locate each part and learn its purpose. Study carefully the various adjustments, why, when and how to make them. Become familiar with the carburetion, the ignition and the lubrication systems. The last mentioned is particularly important because while trouble in the first two systems would exhibit itself in the failure of the engine to run properly or at all, insufficient lubrication or faulty operation of the system would only be noticed by the amateur after considerable damage had resulted to the engine since lack of oil would not be accompanied by any very apparent symptoms until too late.

After familiarizing himself with the different parts of the engine, the transmission system needs consideration. He should follow carefully the directions for starting, stopping, etc., and realize the importance of always following these instructions.

He is now ready to start his machine. Let this be done in a place with plenty of room, and if possible free from spectators who would only serve to confuse the operator.

TALK No. 3.

To the Man Who is Beginning His Second Tractor Year.

A season's experience with a tractor should make an operator familiar with his machine and the writer only proposes to draw his attention to certain parts of tractor which probably need attention.

First, make a careful examination of all parts of tractor starting at some par-

ticular part and making the complete round systematically and carefully. Clean out fuel system. Carburetors and fuel pipes are liable to become more or less clogged with dirt.

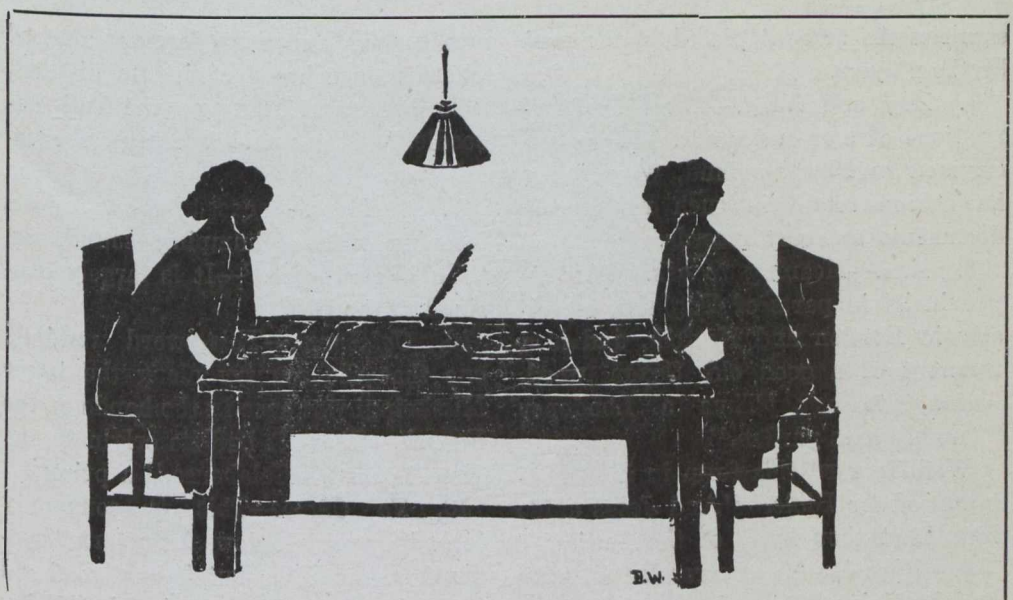
The valves should be inspected. Probably they will be gummed up and will need grinding. Perform this according to instructions given by company. See that all valve stems are clean and straight and that springs hold valves firmly on their seats. If kerosene were used for fuel last season the cylinders probably need carbon removed. Run over the timing of the valves as they may have become deranged. Do not make any adjustments unless certain they are needed and be careful when replacing any parts which are operated by gears, that gears are put in proper mesh with one another. The teeth are usually marked in some way to insure proper assembling. Flush out crank case with kerosene to remove old oil and any foreign matter. Inspect connecting rod bearings carefully. Test for wear by grasping connecting rod and jerking it quickly up and down. It is usually necessary to remove bottom of crank case to do this. If looseness is felt, one of the liners or shins between the parts of bearings should be removed. A slight looseness sideways in bearing is necessary and should not be regarded as needing adjustment.

This work of overhauling the tractor should not be neglected until the tractor is needed, but should be done in periods of leisure during the winter.

By ordering your repair parts early you will safeguard yourself against delay in delivery and also aid the manufacturer and distributor.

The importance of having the tractor ready for work whenever needed cannot be over-emphasized, particularly on our small Eastern farms. The loss of even a few days at the first of the seeding time might easily be the deciding factor in the comparison between tractor and horse power, and results in the tractor making an unfavorable showing.

In other words, it is the writer's humble opinion that only by the widest possible use of the tractor can it prove a good investment on our farms in this province, and even then other conditions must be favorable.



School for Teachers.

Provincialisms

By Professor A. W. Kneeland, M.A., B.C.L.

(*Concluded.*)

IT is of great interest to a student of any subject to know the cause or source of the phenomena which present themselves to his view during the course of his study; hence to the student of the English language, as we find it, I shall offer, so far as possible, the satisfaction of knowing the probable source of many of the Provincialisms, so common in colloquial speech of our people; and these I shall arrange in alphabetical order:—

1. *Acre,* as a measure of length. Confined to the French parishes of the Province of Quebec, where it means the length of one side of an arpent or French acre, or about 13 rods.

2. *Ajee.*—Confined to the United States and the border counties of Canada. It is a quaint substitute for "Askew," e.g. "Your cravat is all ajee."

3. *All-fired.* — Heard in England, the U.S. and Canada, is probably corruption of "hell-fired," with which it is synonymous.

4. *All-possessed.*—This is a kindred expression, whose origin is self-evident. It is often used as a noun in such expressions as, "The horse tore along like all-possessed."

5. *All-to-smash.*—This is current in England and America. Halliwell gives an example in the Lincolnshire dialect, where a workman is made to say: "Master, master, dam's frossen, and aw's to smash."

6. *Anti.*—This in the south-western States means to risk or to move quickly. It is derived from *Anti,* a name used in the game of poker, where it

signifies the amount placed in the pool by the players.

7. *Ary* and *Nary.*—These are corruptions of e'er and ne'er. They are common in New England, where they have been found in such respectable documents as court records.

8. *Axe.*—Meaning to ask. This is provincial in parts of England, especially in London and Norfolk, and is a remnant of a good old Saxon word, *acsian,* to ask. Thus a Londoner " 'umbly axes pardon."

Wicliffe used this form in his translation of the Bible. "And Jesus axide him, 'Art thou kyng of the Jewis?' "

9. *Bime-by.*—A contraction of "By and by," is common in Somersetshire, Canada and the U.S.

10. *Blacktrap.* — Common in England, Canada and the U.S., but with different meanings. In England, it means the common wine of the Mediterranean borders, in the United States it means gin and molasses, or molasses alone as it does in Canada.

11. *Blazes.*—This is largely confined to the U.S., although it is sometimes heard in Essex and Suffolk, England. It was originally synonymous with the *devil.* A.S., blaese, a flame.

12. *Boss.*—From the Dutch, *baas,* master. It is provincial in Canada and the U.S.

13. *Boughten.*—Common to the N.E. States, New York and the North of England. Its meaning is evident.

14. *Bug.*—Confined to the U.S. and Canada. In England *beetle* is used instead, with one or two exceptions.

15. *Buncum.*—This word is derived from the name of a County in North Carolina. It is common in Canada and the U.S., where it means boastful talk or, sometimes, large or important.

16. *Caboodle.*—Sometimes supposed to be an Americanism; but it is common among Yorkshire farmers, one of whom I once heard saying to his son, "Go down and bring up the hull caboodle."—It means, of course, the *totality.*

17. *Cachunk.*– A case of onomatopoea, meaning with a thumping sound, as, "He fell cachunk."—It is largely confined to the U.S.

18. *Calaboose.*—This word reminds one that the country along the lower Mississippi was once in the hands of the French. There it had its origin in the French word, "Calabouse," a prison.

19. *To Chaw.*—This is commonly looked upon as a low slang term, confined to the U.S.; but it is a good old English word. Spenser, in his "Fairy Queene," speaks of "Chawing Vengeance"; and Dryden says: "It might make one laugh to see a jury chaw the prickles of unpalatable law." It is from the A. S. *Ceowan,* where the *C* had the sound of *ch.*

20. *Chock.*—Commonly pronounced *chuck,* is from the French "Choquer," to encounter. It once meant to stop by putting a block or wedge under a wheel to stop it. Now it may mean a double horn-shaped metal fixture found on the gunwale of a ship, over which hawsers pass; or it may mean to throw carelessly. It is used in Canada, the U.S. and England, with one or other of these meanings.

21. *Clever.*—This is provincial in the U.S. for *goodnatured;* in England it means *proper, skilful,* etc.

22. *Conniption-fit.*—This is *supposed* to mean a *faint.* I believe that it is confined to the U.S., although I have heard my father use the term; but I did not understand his meaning.

23. *Cookey.*—Name dear to childhood! It comes from the Dutch *Kockje,* a little cake. It is common to the Northern U.S. and Canada.

MODEL TEACHERS (1918-19)

24. *Coon,* from *raccoon.*—This name was formerly applied to the Whigs in England. At one time the Montreal Star popularized it in Canada; but it is now rarely heard here.

25. *Cute.*—Meaning clever, sharp, bright, etc. This is confined to the Eastern States and the border counties of Canada. Its derivation is obvious.

26. *To get one's dander up.*—This is a case of synecdoche, where the *dander* or *dandruff* is used figuratively for the hair.—It is heard in England, Canada and the U.S.

27. *Dessert,* meaning *pie* or *pudding,* is provincial in the U.S. In England, it means the *fruit* that sometimes follows the former.—It comes from the French, *desservir,* to remove from the table.

28. *Eend,* for *end.*—This is common in various parts of England, the U.S. and Canada. I once heard the blue-coated policeman at Bonaventure Station reply to a stranger's question, "Is the railroad (train) in?" "One eend of it is."

29. *Emptyings.*—Usually pronounced "emptins," is confined to the North-eastern States and the southern counties of Ontario and Quebec.—It is so-called from the substance left in a beer barrel after the good beer has been emptied out.

30.—*Fid.*—This is the provincial term in the South of England for a small thick lump, as a fid of tobacco. It is also used as the name of a block used in handling heavy guns, and as a marine name for a certain pin or bar of metal.

31. *To flummux.*—This means to give up or die in certain parts of the U.S.; but in England, where it is common, it means to *bewilder, mystify* or *maul.* It probably comes from the Welsh *llymrig,* harsh, sharp, severe.

32. *Froughy.* — This comes from frough, a slattern. It is provincial in the North of England, but is sometimes heard in Canada. It means rancid or sour.

33. *Gum game.*—This is a pure Americanism. It has its origin in the trick of the oppossum which hides himself in the top of the sweet-gum tree. Its meaning is clear.

34. *Gumption.*—This comes from the A.S. *geomian,* to observe, and means wit or good sense. It is common to parts of England and America.

35. *Where do you keep?*—Confined to eastern England, for "where is your place of business?"

36. *Keep the pot a-boiling.* — With various meanings. Current in the North of England and all the English-speaking lands.

37. *Keeping-room,* for *parlor,* is used in the north-eastern States. In Norfolk it is the common sitting-room of the family.

38. *Kibblings,* pieces of fish, used for bait. This is found with this meaning in Newfoundland. It comes from a provincial English word, *kibble,* to grind coarsely.

39. *Knicker.*—From the Dutch *Knikker.* It means in New York State a clay marble, while in England it represents one oiled for use in playing "Knickers."

40. *To lam.*—This is provincial in the N.E. States, Yorkshire and parts of Canada. It comes from the Belgic word *lamen,* to beat soundly.

41. *Lope.*—This is contracted from *gallop,* and is confined largely to the S.W. States.

42. *Loafer.*—While the word is provincial in the U.S., the genus seems common to the world. It comes from the German *laufer,* a runner, or from the Spanish, *gallafo,* a vagabond.

43. *Lummox.*—The word is from the O.E. word *lummock,* a lump, common in Leicestershire, England, and means a stupid person.

44. *Marvel,* to move off, seems confined to a small section of Pennsylvania. It is rarely heard in Canada, although I have head it. Fr. Merveille.

45. *Meeching.* — Meaning skulking, was a current word in Shakespeare's time. It is now confined largely to New England and New York State. It comes from the O.E. *michare.*

46. *Molasses.*—As a plural is often heard in the South-Western States, and occasionally along our Southern border, where one may hear, "A few more molasses."

47. *Mosey.*—Meaning to sneak away. This had its origin in the night-flight of one Mr. Moses, who was a local P.M. It is confined to New York State and some of the other bordering States.

48. *Muss, Mussy.* These are from the Dutch *morsig,* meaning mixed up. It is confined to N.E. States and parts of Canada.

49. *Peart,* brisk or lively.—It is common to England and the Atlantic States. It comes from the O.F. *apert,* open. *Perk* is also used with the same idea.

50. *Pickanniny.*—This is current in the Southern States, where it means a little child. It comes from the Spanish piqueno nino.

51. *Pucker.* — Meaning excitement, etc. This comes from the fact that one excited or "flustered," is apt to show wrinkles or puckers on the brow. Gaelic, Poca, a bag.

52. *Puncheons.*—Hold rum or molasses in Canada; but in Georgia, they are split logs, hewn smooth on one side, and used for floors. The word comes from the French *poinçon,* having various meanings, as awl, crown, kingpost, etc.

53. *Rile.*—To make angry. Common in England, Canada and the U.S. It is from an O.E. word, roil. . . . . .

54. *Suzz.*—In such expressions as "Dear me, suzz." It is common to the N.E. States and Canada, and is a corruption of *Sirs.*

These are but a few among the many; but if an interest has been aroused in the study of unusual words, I am satisfied.

My Idea of a Rural School

A RURAL school, as you very well know, is an important place in the rural districts. It is a centre of interest. Everyone seems to be interested in the school. Everyone wants it to be successful.

In the past, rural schools have not been made as attractive to the pupils as they should have been. I feel sure, however, that when the "Elements" of 1918-19 get into the schools there will be more progress made. As school is the place in which a child spends a great deal of his time, he likes to look forward to school as a pleasure. I think it will not be long before that condition will exist. Most pupils in the country—are very full of activity. They enjoy games in the school yard; also physical exercises during school hours. I believe they all have high aims; they desire to get a good education that they may become good business men and women.

I think that success in a rural school depends upon the teacher a great deal. The teacher in a rural school cannot depend upon a principal to plan her work for her. She must be independent. If the teacher is interested in the school you may be sure the pupils will be. If the teacher is more interested in letter-writing and chocheting, than in her school work (I'm sorry to say some are) you cannot expect the pupils to take much interest in their work. I find that whatever subject I am very much interested in the pupils will also appear to be very much interested in that, too.

My pupils have asked if they may have a school-garden. I do not think they can as there is not a place for one; but we shall plant a few flower seeds—and try to make the school yard attractive. We also plan to have house plants in the school-room as soon as the weather is warmer. My pupils seem anxious to make the school surroundings look as nice as possible. The school gardens, and the growing of vegetables at home for the school fair, are both very good for the pupils in district schools.

Perhaps you wouldn't mind if I tell you about my first experience as teacher in a rural school. About two weeks before school opened, I went to find a boarding place. I found a very satisfactory place with an elderly lady and gentleman. As this gentleman was manager of the school, he asked if I would like to go and look at the inside of the school-house. I was very glad of the chance to do so. As I stepped inside the door the first things I saw were twenty, old-fashioned, wooden desks. I next noticed the teacher's desk. It was a small table with no place to lock up the books. Howover, I began to look for the good points after that. The school-house was nicely sheathed and had a good hardwood floor. There were good window-shades at the windows and altogether, it was not such a bad place, after all. I went home wondering how I should like there.

Two weeks soon passed—and I fonud it time to begin school work. On the first day I arrived at the school-house at 8.15 a.m.—as I had been instructed to do by the instructors at "Mac." I sat at my desk wondering how many of those "trouble-some little angels," I should have to teach. When nine o'-clock came I found that I had the large number of five. I expected more to come in late, but up to this time nc more have arrived. I set to work to get those five busy as quickly as possible. I wanted to leave, on the first day, the impression that work had begun in earnest. The first day passed well, as the others have.

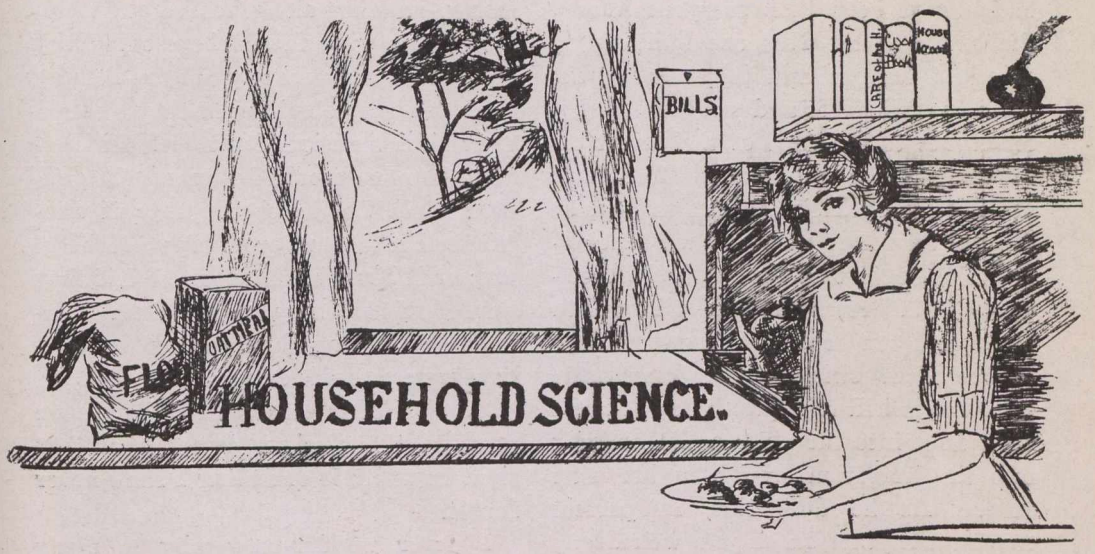
One little girl, on being asked the first night how she liked the new teacher said, "Oh, I like her all right; she looks like a big doll mother." I'm sure all the teachers would like to get such compliments. Wouldn't you, girls?

To-day, I was treated to a peppermint, two butternuts and one-fourth of a one-cent stick of candy. These were given by my promising pupils. I accepted them all as gracefully as I could. I know they thought I appreciated it: I did, too. My pupils are very bright, and are doing well in their school work.

Rural schools are not as bad as they are thought to be by some people. Through the school much good may be done for the community. There the young obtain a foundation of learning upon which they may build in later years.

A former student.

L. J. S.



A Trip Up The Nile

SIX o'clock in Cairo! Very sleepily we have our breakfast in an almost deserted dining-room in Shepheard's Hotel, then hurry out to a delapidated victoria in which we are driven through winding, deserted, cobble-stoned streets, past modern hotels, native houses and shops, the Khedive's palace and gardens, the British consul's beautiful house and gardens, the barracks, in the grounds of which native troops are already being drilled, and, just as we come to the banks of the river, the famous museum.

The crowd at the boat is chaotic, a mixture of trunks, cabbies and guides in native costumes, post-card vendors who won't take "No" for an answer, and of course the passengers who are of great interest to us and to each other, as we are about to spend 9 or 10 days in a fairly small space. There are naturally two or three couples on their honeymoon, the most interesting of these proving subsequently to be a young French officer and his bride, a pretty girl of 17. It was not very long before we all heard that their marriage had been arranged between their families when the girl was born and that they had never seen each other until the day of their wedding. They seemed to consider this a perfectly normal state of procedure, and were as happy as the day was long, and were a continual source of interest to the rest of us.

At about eight o'clock the confusion was finally calmed a bit, and the boat's old fashioned paddles started to churn and we were at last on our way up the narrow, winding, shallow, dirty, but inexpressibly fascinating Nile!. A place which as a child, I had thought of as being as remote as other parts of Bible and fairy stories. At first as we left the Cook's Tourists' boat-sheds, it was hard to picture this river with modern buildings ever having been the scene of stories of ancient Egypt, but we had not been on our way more than an hour before our modern civilization had gone from our minds and we needed no imagination to picture the country as it

had always been. As everyone knows, the banks of the Nile are built up to save the villages and crops each year when the Nile rises and would overflow, sometimes to the edge of the desert often as far as a mile away. This bank necessitates artificial irrigation and as manual labour is cheaper than machinery, the ancient methods are still employed. A brown man in a loin-cloth will spend ten hours a day on the edge of the river swinging a home-made bucket attached to a primitive stick and rope, first into the river and then over into the irrigation trough in his little crop. As he does this, in perfect time and rhythm, he sings a weird song which is always the same. Back of this is usually a village of mud huts, built in a circle and seething with figures of all sizes.

We had two days on board before taking our first excursion, but we were never dull or without plenty of interesting pictures to watch from morning till night. Our staterooms opened out on the deck, and as the boat stopped at sunset and was tied to the shore till sunrise we were always wakened then by the starting of the paddles, so had the full benefit of its glorious colouring without getting up.

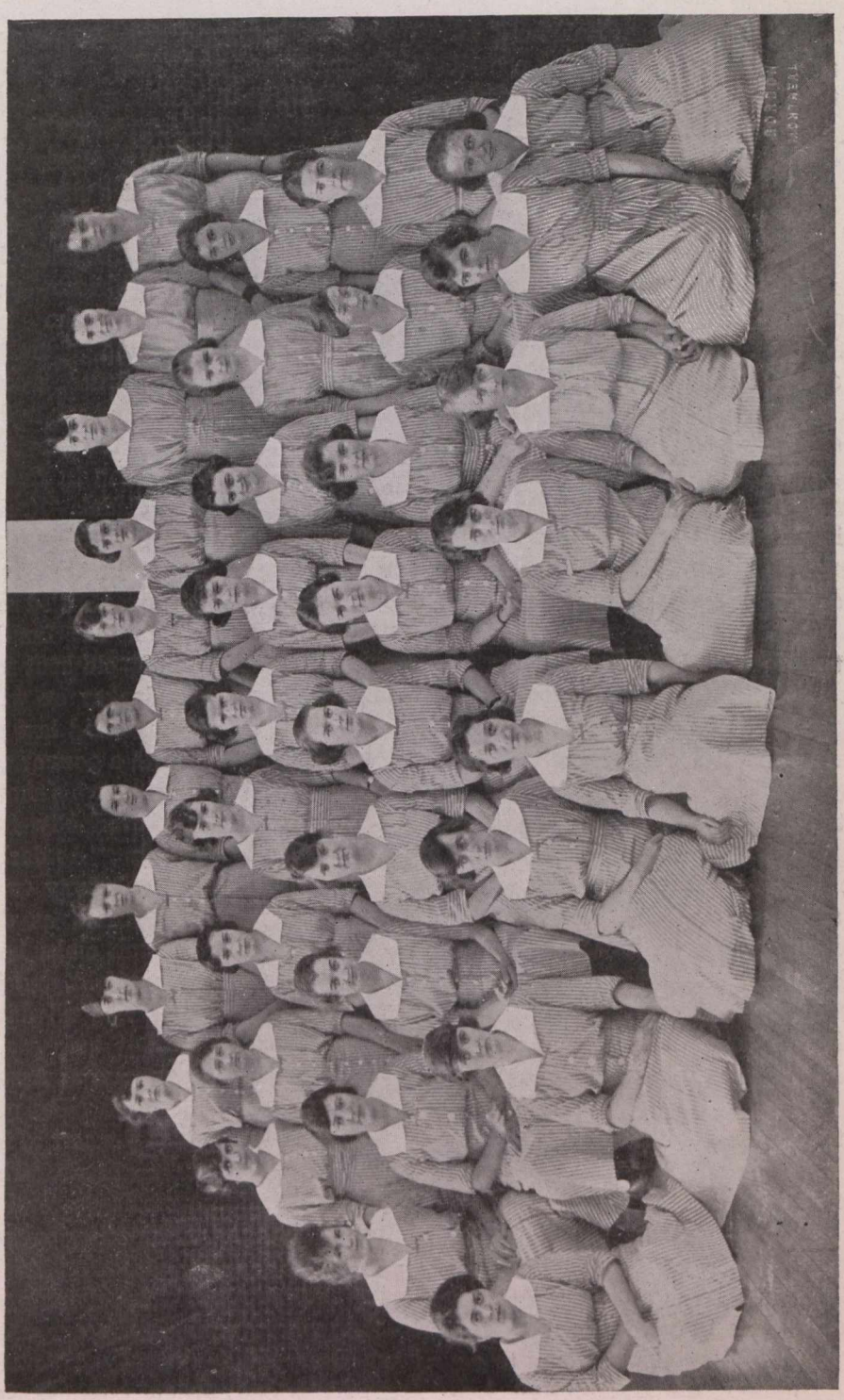
There was great excitement when the time came for our first sight-seeing picnic. Our two guides busied themselves with large picnic baskets containing our lunch, everyone put on riding-clothes, and as soon as we stopped and went on shore we found about fifty donkeys, watched over by as many shrieking, fighting donkey-boys, dressed in blue cotton coats about to their knees, bareheaded and barefooted. We had our donkeys and their boys chosen for us by the guides and after much adjustment started off, a huge cavalcade. The boys were very talkative and funny, running along behind us, whipping and egging the donkeys on. They had an ingenious way of re-naming their animals to suit what they guessed their rider's nationality to be. If English, the name would be Queen Victoria, John Bull, Lord Roberts, etc.; if American, Uncle Sam or George Washington; or if French, Napoleon, and if they were doubtful they called them Telephone or Telegraph, meaning the donkeys were as swift as their names.

After riding for half-an-hour, we came to the glorious desert, the first sight of which is one thing I shall never forget.

I never wonder now why so many people are inspired to write songs and poems about it, though it seems to me to be indescribable, and I felt when I first looked at it that I had never even heard of it, or anything resembling it, before. We rode for another hour before coming to the ruined temples, and were indeed glad to have a rest and change from our donkeys' jigging. For an hour or so we followed our guide, who explained the temples and images in a most amusing way. In one place he pointed to a carving of a man and woman and said, "This picture goes to show and to prove that the 'kissing business' was invented before Cleo and Tony came along and had it so bad," his language showing the influence of American slang.

By this time we turned a corner and on one of the old stone tables saw our very attractive luncheon spread. We all felt a little eerie sitting down to a modern picnic on benches thousands of years old and with the same sun that had always been glaring and blazing down through the roofless ruins from the clear and cloudless blue sky.

After our lunch and rest we rode for another half hour up the side of some



HOMEMAKERS, 1919.

hills which seemed to be made entirely of sand and from a distance looked as though they had been burrowed into by giant rabbits. These holes proved to be the openings to the Tombs of the kings of ancient Egypt. Each being had been mumified and buried, sometimes as deep as a mile in the ground. Their tombs were not discovered till fairly recently, and there are no records of them. A description of them would need at least an article by itself, as we walked miles in an endeavour to see them all. We bought strings of beautiful beads, carved by hand from stones of every imaginable soft shade, and which, in the ages B.C., served as money all of which was always buried with its owner. These, of course, are scattered all over Egypt. Naturally they are imitated, but people anxious for a genuine string of mummy beads have them certified by the museum in Cairo.

On almost every day after this there was an excursion of varying length, scenery, etc. In fact, everything varied except the donkeys and their boys, the former jigged and the latter always chattered. Sometimes our trip would be to a native bazaar in a larger village or town in which we saw the natives pounding the famous brass bowls, etc., or hammering with endless patience, the bits of silver or gold on those scarfs of net with patterns in small pieces of silver. These villages contained many quaint and some terrible sights, the worst of the latter being the number of people with their eyes wholly or partially eaten away, their poor ignorant and superstitious mothers having believed that to brush the flies from a baby's face was to drive away the good spirits and to allow the evil ones to get at it. However, the English and American missionary schools are working hard to change all that.

I think I enjoyed the sunsets more than any other part. We were always back on the boat, which was anchored, and we sat on deck watching the moving panorama of figures darkly and clearly silhouetted against a sky of brilliant orange fading to creamy yellow and of deepest crimson blending into palest pink, the narrow brown bank was the base, the stately palm trees were the scenery, and the characters might have come in this order, a camel with a load of straw on its back and on top of that its rider in the inevitable blue cotton coat. A woman in flowing black, yashmak and sandals (might come next), walking gracefully erect and balancing on her head a home-made pottery jar of simple lines, filled with the supply of water for her family's evening meal, then an old, old bent man, leading a fuzzy, grey donkey on which rides a small brown child, and last perhaps a stooping man with a goat or calf-skin full of water slung over his shoulder. The light would gradually fade, till suddenly it was dark. "As dark as Egypt!" This is the only way to describe the Stygian blackness, as dark ten minutes after the sun sinks below the horizon as it is at midnight, and just as surprisingly cold, though all day it may have been unbearably hot.

The last stop we make was at Assuan, at the head of the Lower Nile, quite a large town and a winter resort of four or five luxurious modern hotels. There we spent three days making several excursions, the most fascinating being to the Island of Philae, with the beautiful and sacred temple of which there is such a lovely photograph outside our dining room door at Macdonald. This is at tremendous cost, being guarded from

the waters of the Nile which would otherwise submerge it.

The little stories and incidents which are, to me, the most interesting parts of such a trip must necessarily be left out of this would-be description, or else have one composed of only incidents and details which would probably make an article hardly worthy of the name. So, briefly, I had better say that, unfortunately, we were in such haste that we had to take train back to Cairo instead of the boat, but I will never cease to hope for the time to come when I may spend one month at least, in a boat on the Nile.—H. N., '19.

Farewell to Homemakers, '19

OUR year at Macdonald and, for many of us, our stay at Macdonald is over. We have had a great time here together, besides having learnt many things, but now the time has come for us to part and leave Macdonald to others. How many of us can say, "It is good for us to have been here," and again, how many can say, "It has been good for Macdonald to have had me here."

It would be sad indeed if College had not done us some good that can be passed on. It has always been "Mastery for Service," but is it not almost of more importance to have done something for Macdonald? Have we ever put ourselves to any trouble to uphold our Alma Mater? It is something to have done that. Have we ever worked overtime or any time to do something to make it better? If we have, do we understand the feeling of pride which creeps over us at the mere mention of the name Macdonald? Do we know how to sing "All Hail, Macdonald!" and to yell our "Faiet ye."

Our year here has made us a part of a wonderful whole, and the more we keep that in mind the easier it will be to live up to our ideals.

We have learned much here. Others have not had the same advantages and can never have them. Let our watchword be "Pass it on," and let us teach others, more by our example than in any other way, the niceties of living that we have learned. Let us show them, too, that the way to happiness is through "Service."

And, once more! 1—2—3.

Ana-boo-ba! Ana-boo-ba!
Ana-boo-ba-boo-ba-boo!
Ana-zib-zab! Ana-zib-zab!
Ana-zib-zab-zib-zab-zoo!
M.H.S.! M.H.S.! Roo! Roo! Roo.
Zib-zab-zibbety-zaw!
Homemakers '19! Rah! Rah! Rah!

Senior Science Class, 1918-19

Marjorie Cochrane—

Lennoxville, Que.; King's Hall, Compton; Ste. Agnes' School, Belleville. Short Course, Spring, 1915. President, Senior Science Class, 1918-19.

"Keep cool, and you command everybody."

* * * *

"I slept and dreamed that life was beauty
I woke and found that life was duty."

Jean Anderson—

Buckingham, Que.; Buckingham Academy. Trafalgar, Montreal.

"I want a hero, an uncommon want;
When every year and month sends forth a new one."

* * * *

"A merry heart goes all the day
Your sad tires in a mile 'a."

Mabel Boulden—

Ste. Anne de Bellevue; Edgehill, Windsor, N.S.

"A true friend is forever a friend."

* * * *

"At sight of thee my gloomy soul cheers up,
My hopes revive, and gladness dawns within me."

Mary Brummell—

Buckingham, Que.; Buckingham Academy, 1912.

"Deeds, not words."

* * * *

"There is a gift beyond the reach of Art, of being eloquently silent."

Bessie Carruthers—

Charlottetown, P.E.I. Prince of Wales College.

"Comb down her hair: Look! look! it stands up right!!"

* * * *

"How doth the little busy bee
Improve each shining hour;
And gather honey all the day
From every opening flower."

Susie Crane—

St. John's, Newfoundland. Bishop Spencer College.

"How green you are, and fresh, in this old world."

* * * *

"Beautiful in form and feature
Lovely as the day!
Can there be so fair a creature
Formed of common clay? (!!)"

Marguerite Magee—

Merrickville, Ont.; Prep. School, Merrickville; Smith's Falls Collegiate. Secretary, Senior Science Class 1918-19.

"Those dark eyes—so dark and so deep!"

* * * *

"Yes, we must ever be friends, and of all who offer you friendship,
Let me be ever the first, the truest, the nearest and dearest."

Charlotte Magee—

Merrickville, Ont.; Prep. School, Merrickville; Smith's Falls Collegiate.

"Oh! Keep me innocent, make others great!"

* * * *

"Deep brown eyes running over with glee
Blue eyes are pale, and grey eyes are sober
Bonnie brown eyes are the eyes for me."

Forence Martin—

Grand View, P.E.I.; Prince of Wales College, Charlottetown.

"Reason shall prevail with me more than popular opinion."

* * * *

"Up! up! my friend, and quit your books
Or surely you'll grow double,
Up! up! my friend, and clear your looks
Why all this toil and trouble."

Mary Mowat—

Pictou, Nova Scotia; Pictou Academy. President, Y. W. C. A., 1918-19.
"For she is constant as the Northern Star."

* * * *

"The best portion of a good man's life
His little nameless unremembered acts
of kindness and of love."

Helen Murray—

Sussex, New Brunswick; Sussex High School.
"The more mischief, the better sport."

* * * *

"To those who know thee not, no words can paint!
To those who know thee, know all words are faint!"

Jeanette Orr—

Kensington, P.E.I.; Prince of Wales College, Charlottetown.
"While the tall maid is stooping
The little one hath swept the house."

* * * *

"What shall I do to be forever known
And make the age to come my own?"

Marjorie Ross—

Westmount, Que.; Ottawa Collegiate. Homemaker year, 1916-17.

"Her virtue and the conscience of her worth
That would be wooed and not unsought, be won."

Helen Wetmore—

Clifton, New Brunswick; Macdonald School; Kingston, N.B. 1st Vice-President Literary and Debating Society, 1918-19.

"Action is eloquence."

* * * *

"Ye gods! it doth amaze me,
A maid of such a feeble temper, should so get the start of the majestic world,
And bear the palm alone."

Frances Thomson—

Westmount, Que.; Roslyn Avenue School; Trafalgar, Montreal. Business manager of College Magazine, 1918-19.

"Early to bed and early to rise
Makes a man healthy, wealthy and wise."

* * * *

"Thinking that nothing was done if anything remained to do."

Margaret Taylor—

Kingston, Ont.; South Hampstead High School, London, England; Trafalgar, Montreal. President, Home Economics Club, 1918-19.

"Much may be made of a Scotchman if he be caught young."

* * * *

"You'd scarce expect one of my age
To speak in public on the stage.
But if I chance to fall below
Demosthenes or Cicero,
Don't view me with a critic's eye,
But pass my imperfections by."

Class Presidents (Agriculture)

ANGUS L. HAY.

Zealous, yet modest; innocent, though free;
Patient of toil; serene amidst alarms;
Inflexible in faith; invincible in arms.

Lucky Lachute; she has had the honor of producing yet another Macdonald president. Angus was born at Lachute, Quebec, in the late fall of 1896. The days of his infancy were spent at the Lachute Academy, where he finally graduated from in the Spring of 1916. In the meantime he was also spending much of his time on his father's live stock farm, he soon acquired a keen interest for the stock and we believe to this day that he intends to be an animal man.

Angus has always been a shining light at College. In his freshman year he was a member of the Y.M.C.A. executive, and also a member of the Literary and Debating Society executive. He ably helped the class along in all the athletic activities and in his Sophomore year was vice-president of the Athletic Association, besides this position, he was a member of the first team in basketball, he was on the Y.M.C.A. committee and also on the magazine board. He spent the summer of 1918 in the employ of the government, his duty was to show the people of New Brunswick how to grow potatoes, hence the large crop of potatoes in New Brunswick last fall.

This year when there were so few students to carry on the various activities, Angus was brought to the rescue. He was elected President of the Junior Year, President of the Students Council, Captain of the Basketball Team, and it was largely due to his efforts that the patriotic dances were successful this year, besides these, Angus was connected with a number of other college activities too numerous to mention. Although he filled many important offices, he discharged his duties without fear or favor and to the satisfaction of all.

JOHN G. BROWN.

"A man o' independent mind,
He looks and laughs at a' that!"

Born at Houghton-le-Spring, County Durham, England, Jack Brown is a worthy member of that race of "Islanders" which has stamped the name of Britain all over the map. Jack was not born with a silver spoon in his mouth, but difficulties are there only to be overcome, and his twenty-odd years of contact with the world have presented us with a man possessing considerable familiarity with human nature; steadfast in purpose, faithful to his friends and incapable of hypocrisy. This is the man who has led the Sophomore class through the difficult session of 1918-19, trying at all times to maintain the standard set for us by college tradition in a year when college spirit has dropped at times dangerously low, and no one of his classmates will regret their choice of him as their president.

In everything he has taken up Brown has carried it through thoroughly, he has been eminently successful as Pre-

sident of Class '21, has done good and consistent work as Treasurer of the

Students' Council, and, above all has been a steady "fusser." So in the same way we can predict that in everything he ever attempts he will be successful. We leave him now with every confidence in his future and with the everlasting regard of those friends of his, who know him best.

J. A. PEWTRISS.

One of the by-products of Beaconsfield on the Island of Montreal, Jack Pewtriss, has been the leading spirit of the Freshman year ever since he came into College last Fall.

Being a returned soldier, and a born leader Jack was without hesitation chosen to lead Class '22 through the first stages of college life. This he did most successfully, being as popular at the end of the year as when he was first elected president. His counter-attack after the initiation was very plucky, if futile, and it is said that it required the combined efforts of six Sophomores to subdue his exuberant spirits.

Besides being on the College basketball and hockey teams, Jack represented his class on the Students' Council, in which he held the office of secretary, and on the Y.M.C.A. Everyone looks forward to seeing Jack Pewtriss among the throng of faces next fall, when "Mac" opens her doors once more.

Who's Who? and Where?

Class '20 Agriculture

MISS M. L. MACALONEY

A. L. HAY

W. D. HAY

J. N. WELSH

A. H. W. BIRCH

A. E. MATTHEWS

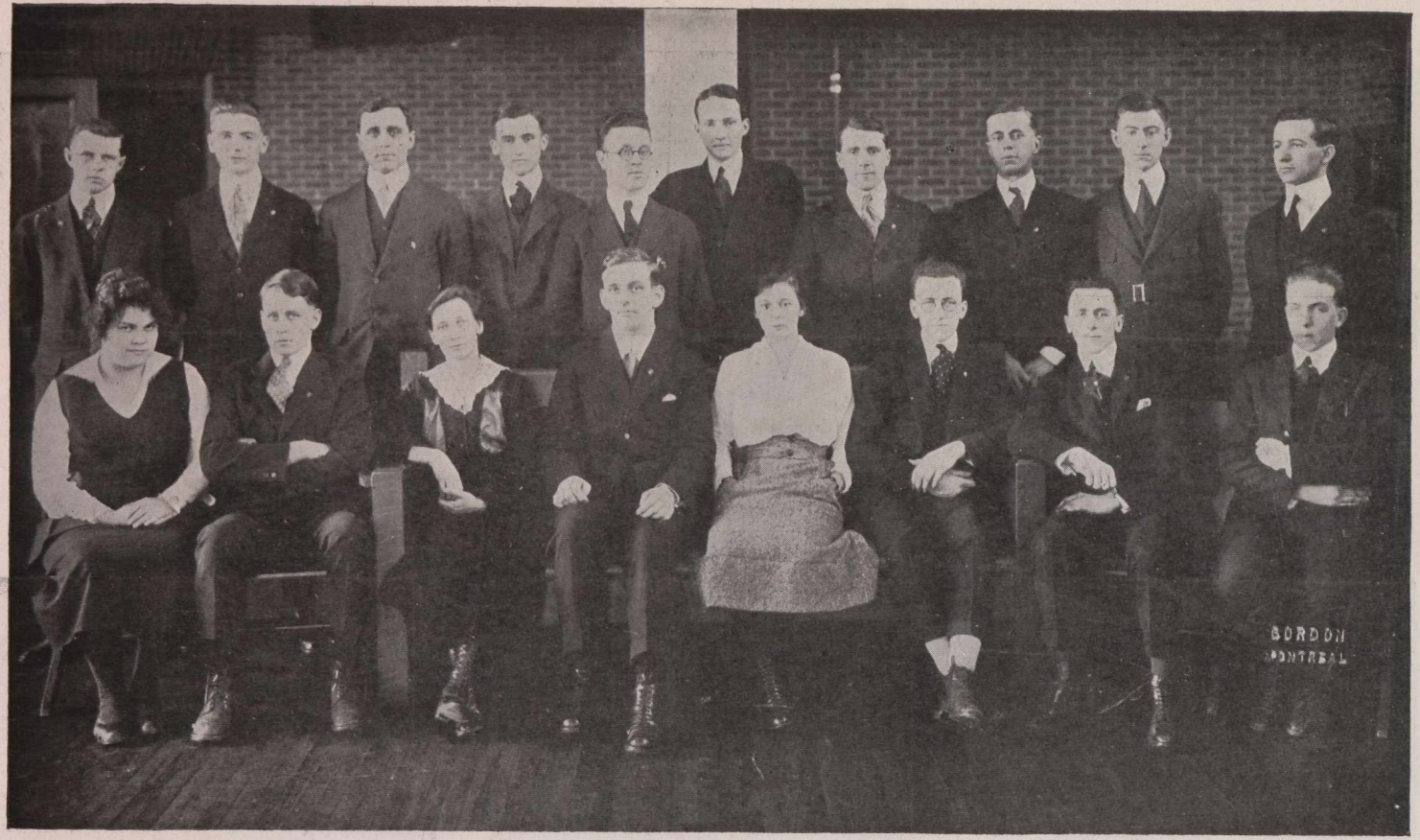
L. G. SAUNDERS.

W. E. ASHTON

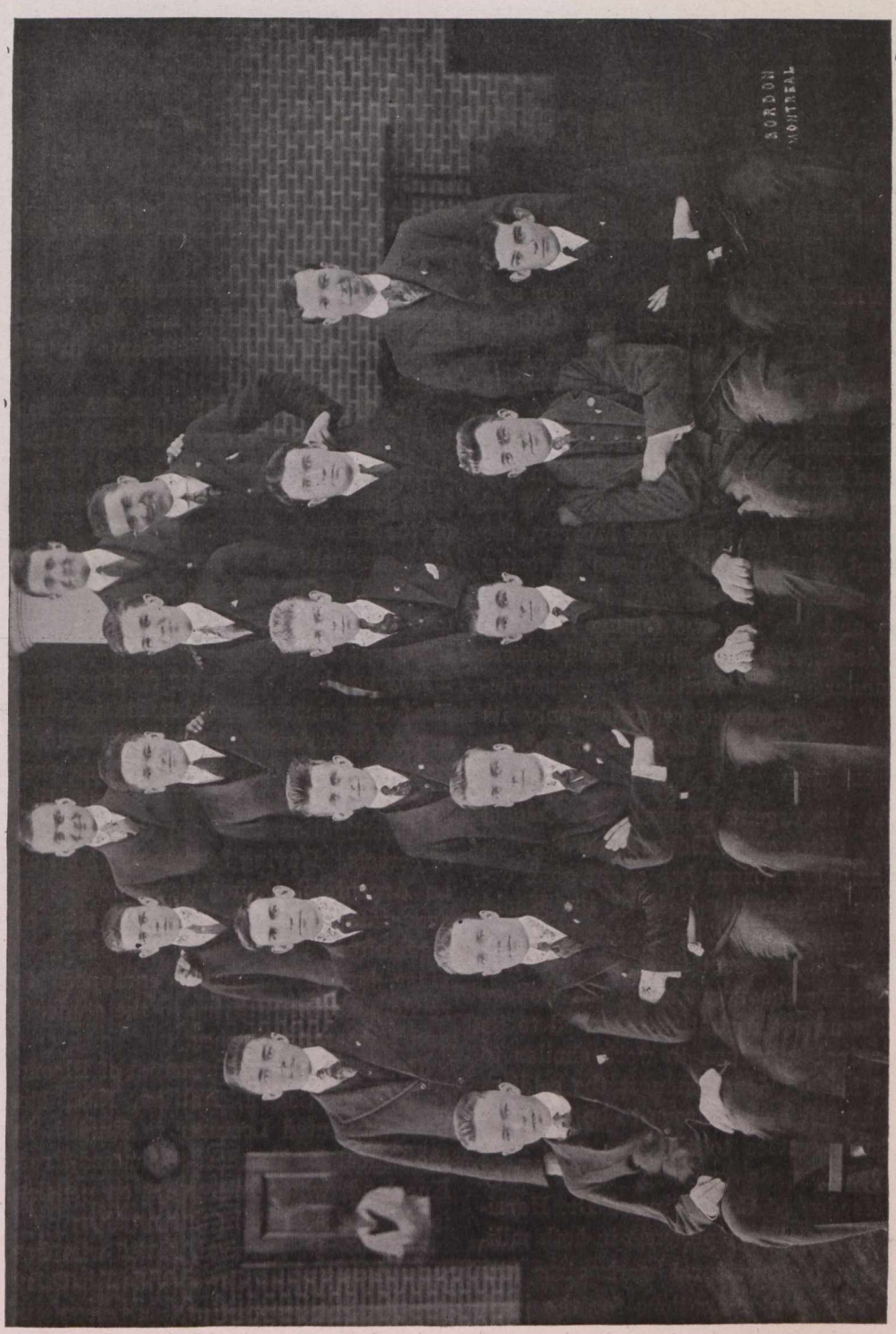
W. A. MAW

J. E. NESS

A. N. PESNER



AGRICULTURE '21



AGRICULTURE '22

-·- Faculty Items -·-

SPRING is normally the "open season" for changes in College staffs, but the number of such changes in prospect here this spring is more than normal. A change in the Principalship of the University, referred to in more detail elsewhere in this issue, heads the list. The Faculty of Agriculture has lost Prof. Murray, the School of Household Science is losing two members of its staff by resignation and has lost two during the year by death, and the School for Teachers is undergoing a veritable "reconstruction" in personnel, retaining only its Dean and two or three others of its present staff.

At the urgent request of Colonel Tory, Director of Educational Service, Principal Harrison has again gone overseas to join the staff of the Khaki University. He sailed March 14th and expects to be absent three months. Appreciating the honor done the College in the urgent invitation extended to its Principal to return to work similar to that he had done amongst the soldiers in the fall and desirous to be of every possible service to the men who have served Canada overseas, the Faculty of Macdonald College urged Dr. Harrison to go. His experience in both military and agricultural work gives him exceptional qualifications for the work in hand. He has been put in charge of all the agricultural instruction of the Khaki University and has the oversight of nearly 2,000 students in all areas.

Mr. Robert Summerby, B.S.A., has been appointed Professor of Cereal Husbandry. Mr. Summerby is one of the first class of graduates as well as one of the first class graduates, and is the first graduate to be promoted to a seat on the Faculty of Agriculture. He is also the first native of the province to be appointed to the Faculty. Mr. Summerby has been a member of the college staff ever since his graduation in 1911, having been Assistant for two years and Lecturer from that time until his promotion to the Chair. His special line of investigation has been the breeding of cereals. Having been brought up on an Argenteuil County farm he is well acquainted with the practical side of Agriculture as practised in this Province, and is thoroughly equipped to render excellent service to the students and farmers of Quebec.

Dr. H. D. Brunt, Principal of Bloomfield High School, Halifax, N.S., has been appointed Lecturer in English in the School for Teachers to succeed Prof. Kneeland, whose retirement on pension is noted elsewhere in this number.

Mr. W. P. Percival, B.A., who has been Principal of Cowansville Academy for the last seven years, has been appointed Lecturer in Mathematics.

Mr. A. A. Lockhart, B.A., Principal of Sherbrooke High School, has been appointed Lecturer in Elementary Education, succeeding Dr. Steacy.

Miss L. Tanner, a graduate of Macdonald College School for Teachers, has been appointed Lecturer in French to succeed Mlle. Bieler, who has resigned to devote herself to higher work in French in the United States. Miss Tanner has had teaching experience in Stanstead and for some years has been engaged in the Department of Public Instruction at Quebec. During the present spring as Special Examiner in French she is making an inspection of all the High Schools of the Province.

Miss Dorothy Hodges has followed the path of her predecessor, Miss Wren, from the gymnasium to the hearth.

Mr. Emberley has returned from his munition work and has resumed his duties as Lecturer in Manual Training and Supervisor of the Repair Shop.

Dr. Hamilton has accepted an appointment as Associate Professor of Agricultural Education in the Iowa State College of Agriculture, Ames, Iowa. Iowa State College is the largest agricultural college in America, having an attendance of over 3,000 regular students and a staff of 400. Dr. Hamilton lectured in their summer session last year and will do so again this summer, at the same time completing the course for the degree of Master of Agriculture.

Miss McCredie has resigned her position in the High School and Miss Hilda Fowlie, who won the Prince of Wales medal in the Model class last year, has been appointed to fill her place. Miss Fowlie has been teaching in Aberdeen School, Montreal West, this year.

Miss Antonia Seider, B.A., French specialist in Cowansville Academy, has accepted the position of French Specialist in the High School. She is a McGill graduate and holds an Advanced Specialist Certificate.

Miss Stewart, the Superintendent of Residences and Miss Russell, her Assistant are both leaving this year. Miss Russell is going to Regina in June to undertake work in the new department of School Hygiene which the Province of Saskatchewan is instituting.

Miss Hodge, who has been so successful as College dietician, has resigned her position.

Miss Zollman, who has been for some years a valued member of the staff of the School of Household Science, has resigned to take advanced work in Columbia University.

Miss Lindholm, another highly valued member of the Household Science staff, has accepted an appointment in Cornell University. Miss Zollman and Miss Lindholm will be greatly missed not only in the work of the Department, but also by the numerous friends they have made while amongst us.

Dr. A. Grant Lochhead, who has been assisting in the Bacteriology Department since June 1st, has been appointed Lecturer in Bacteriology.

Lieut. N. C. McFarlane, who enlisted in the Second Universities Company in the spring of 1915, has returned to resume his work as Assistant in Chemistry. After receiving his commission in 1916, Mr. McFarlane spent the greater part of a year in Canada recruiting, and it was during this visit that his marriage to the late Miss Frederica Campbell took place. Since that time he has been constantly on active service. He returned with the Princess Patricias, the battalion to which he originally belonged.

Mr. Charles Stephen has returned and resumed his duties of College Engineer. Mr. Stephen has served in the

Royal Navy since 1916, and has received promotion to that of Lieutenant-Commander.

Capt. Alfred Savage is expected to return early in the spring to resume the position of College Veterinarian which has been so satisfactorily filled by Dr. McEwen during his absence on active service.

Mr. E. M. Ricker, Assistant in Horticulture has been promoted to the rank of Lecturer.

Miss McDougall, who has acted as temporary Instructor in Physics this year, hopes to undertake graduate work in one of the sciences in the fall, probably in the University of Chicago.

Miss Millinchamp, stenographer in the School of Household Science was married March 8th to Mr. C. B. Brayne, an engineer who has charge of the installation of the water filtration plant in Ste. Annes and is now engaged in similar work in Ste. Hyacinthe.

Miss Kennedy, stenographer in the Bursar's office, has been elevated to the office of the School of Household Science and Miss Queenie B. Sherman, formerly with Darling Bros., Montreal, has been appointed stenographer in the Bursar's office.

Principal Harrison has been in consultation with Lord Milner, Col. Amery and other officials at the Colonial Office regarding what McGill University can do towards the education of men whose studies have been interrupted by the war. The organization of a Tropical College of Agriculture is also under discussion and it has been suggested that the work of the first two years might be done at Macdonald College.

Mr. R. J. M. Reid, B.S.A., has been appointed to assist Mr. Boulden in the work of the Soldiers' Civil Re-establishment classes.

Miss Margaret L. Brackett has been appointed to succeed Miss Hodges as Physical Instructor in the School for Teachers. Miss Brackett is a graduate of the Chelsea School of Physical Education and has had six years of experience in teaching in London.

Miss Nan Garwick is assisting Miss Hodge in the Dining Department.

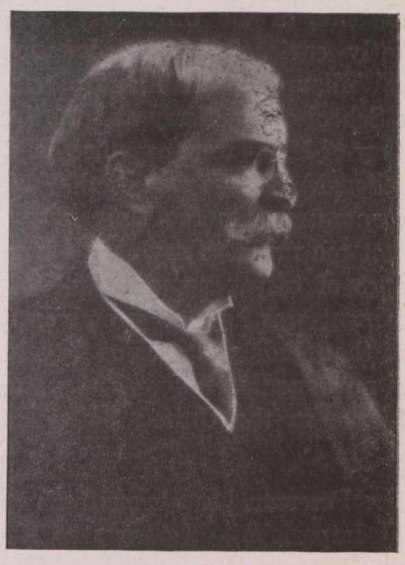
Miss Keating is acting as Assistant Superintendent of Residences until the end of the session, Miss Russell having left in April to take up her new duties in Alberta.

Sir William Peterson

ON SUNDAY, January 12th, after delivering a vigorous address at one meeting and while presiding at another gathering, Sir William Peterson suffered a severe paralytic stroke. We are happy to record that after a prolonged illness Sir William Peterson is recovering, and it is earnestly to be hoped that the world may yet benefit further from his splendid scholarship and broad experience. But he has announced his intention of retiring from the Pricipalship of McGill, and Sir Auckland Geddes, who has been offered the position, has intimated his willingness to accept an appointment. In view of these things a sketch of the careers of these two eminent men will not be out of place in the present issue of the Magazine.

William Peterson, fifth son of John Peterson, a merchant of Leith, was born in Edinburgh, May 29th, 1856. He received his education in the Royal High School and graduated from Edinburgh University at the age of eighteen—the youngest but foremost in his class. Being awarded a Greek Travelling Fellowship, he studied at Gottingen, Germany, under a distinguished classical scholar, Sauppe. On his return to Scotland in 1876 he received the Mackenzie Scholarship at Edinburgh for eminence in classical and English literature, and the Ferguson Scholarship, a classical scholarship open to competition from all the Scottish Universities, and also won an open scholarship in Corpus Christi College, Oxford. After completing a distinguished course at Oxford he commenced the study of law, but was almost immediately invited to become Assistant Professor of Humanity (Latin) in his Alma Mater, Edinburgh. After less than three years' service he was appointed Principal of University College, Dundee. This was in 1882, the twenty-sixth year of his life. In the thirteen years spent in Dundee he not only developed great executive ability, but also became widely known as a scholar—"one of the finest Latin men of our time," as one put it.

When, in 1895, Dr. Peterson came to McGill as successor to Sir William Dawson he was appropriately described as



Sir William Peterson.

"a man of ripe scholarship and high executive ability" and in his new environment his powers continued to expand. Not only did he continue to edit new editions of the classics, but he guided the expansion of the University, made wise selections of men for its Professorships and responded splendidly to the incessant demands for addresses on all manner of topics and occasions. Reviewing the newspaper reports of these addresses—delivered to such diverse

audiences as Canadian Clubs in all parts of Canada and the United States, University gatherings on both sides of the water, the Boston Boot and Shoe Association, the Alliance Francaise (in French, of course), and the published collection of a few of the best—one is struck with the catholicity of his sympathies, his appreciation of and proficiency in the skilful use of language, his delight in poetry, and especially to his devotion to the British Empire. Classical scholar though he was, technical education claimed much of his attention, and it was under his Principaliship that the Engineering and Commercial Departments of the University were so greatly enriched by the donations of Sir William Macdonald and others, that the School of Dentistry and the Conservatory of Music were organized and that Macdonald College was established and incorporated into the University. "It is not too much to say that during his tenure of office, no university on this continent was kept so prominently before the minds and eyes of Englishmen and no Canadian university so much in evidence in the United States as McGill."

Dr. Peterson has always been an ardent Imperialist. As early as 1912 he sounded a warning against the German menace. "Germany is bidding for the leadership," he said, "and England's time, wherein Germany will make demands affecting British interests, will come." It was at this time that he succeeded in establishing an Officers' Training Corps at McGill, a project that had met with much opposition on the part of those associated with him in authority. When the war broke, he devoted himself earnestly to the furtherance of the work of recruiting and training men, sacrificing the lawns of the Campus and loaning some of the University buildings for use as barracks. In consideration of his patriotic services he was created a Companion of St. Michael and St. George in 1901 and a Knight Commander of the same order on the King's birthday in 1915, and was gazetted an Honorary Colonel in July. 1916.

Sir William Peterson has edited a number of Latin texts, has acted as Canadian editor of Nelson's Loose Leaf Encyclopedia and has served on the editorial board of the University Magazine since its establishment and has had the chief responsibility for the Magazine during the absence of Sir Andrew McPhail on active service. He is a member and former chairman of the Board of Trustees of the Carnegie Foundation for the Advancement of Teaching, a Vice-President of the Archaeological Institute of America and Chairman of its Canadian department and a member of several social clubs on both sides of the Atlantic. He was appointed a member of the Council of Public Instruction in January, 1896, and has been chairman of the Protestant Committee of the Council since the death of the Rev. Dr. Shaw in 1911. Among the Universities which has bestowed honorary degrees upon him are: St. Andrews, Princeton, New Brunswick, Yale, John Hopkins, Pennsylvania, Queen's (Kingston), Aberdeen, Toronto, Harvard, Trinity College (Dublin), Oxford, Durham and Groningen (Holland).

Sir Auckland Geddes

Dr. Auckland Campbell Geddes, a son of Auckland Campbell Geddes of Edinburgh, came to McGill as Professor of Anatomy in the fall of 1913 from the Royal College of Surgeons, Dublin. He had been educated in Edinburgh University, London Hospital and Freiburg University, had served in the Royal Army Medical Corps in the South African War and had been Demonstrator and Assistant Professor of Anatomy in Edinburgh before going to Dublin. Both in Edinburgh and in Dublin, he had taken a prominent part in the organization of Officers' Training Corps.

When called upon as the newest member of the Faculty to deliver the opening lecture of the Medical Faculty of McGill for the session 1913-14, he departed from precedent in devoting a large portion of the time to an appeal to the students to join the Training Corps which had been established the previous year. In the early fall of 1914, he threw himself whole-heartedly into the work of this Corps and became notorious as "the man with the whistle." He could not long resist the impulse to get into the actual fighting, and as early as November 24th, Dean Birkett of the Medical Faculty received

Sir Auckland Geddes.

a letter from the quarters of the Northumberland Fusiliers, some sentences from which we reproduce: "I am more than glad I came. Things are not going too well, and it is clear that every man is needed. . . . We have 100 recruits here with three trained officers, of whom I am one, and seventeen absolutely untrained second-lieutenants. The work is hard. In fact we are at it from 5.30 a.m. till 10.30 or 11 at night with a half day off on Saturday and another half day off on Sunday. . . We talk of nothing and think of nothing except training and the great campaign of the spring. Preparations for it are going on on an enormous scale."

In the winter of 1915-16, while serving with the Fusiliers he was injured in a fall from his horse and returned to England incapacitated for further active service. Some months later he was promoted to the rank of Brigadier-General, and appointed to the General Staff as Director of Recruiting. In August, 1917, he was created a Companion and a Knight Commander of the Order of the Bath and joined the Government as Minister of National Service. His brother, Sir Eric, now First Lord of the Admiralty, and his sister, Mrs. Chalmers Watson, who is head of the "W.A.A.C." have also rendered outstanding service during the war.

In accepting Sir Auckland's resignation from the Ministry, Premier Lloyd George wrote: "Your work during the war has been of inestimable value to the country, and I feel certain that if you had elected to remain in political life you would have attained to very high eminence and rendered splendid service to the Empire," and at a banquet tendered him in London in celebration of his acceptance of the Principalship, Mr. Bonar Law sand, "Had Sir Auckland Geddes remained here he might have won the very highest prize open to political life."

McGill is fortunate in securing the services of so able and distinguished a man as Principal.

Professor A. W. Kneeland, M.A., B.C.L

AFTER a lifetime of service in the cause of education, Professor Kneeland has resigned his position and will retire on pension. His services have been so lengthy and valuable that a short account of his life will prove of more than ordinary interest to all his present and past students.

Abner Winslow Kneeland, the son of Gardner Kneeland, farmer and contractor of Scotch descent was born at South Stukeley on May 22nd, 1853. He attended school at the old Stone School House in the village of Stukeley Mills, and later spent a term at Waterloo Academy, after which he taught school for one winter term in the Blanchard School in the township of Potton. He then took a course in the McGill Normal School, but being under the necessity of earning his own living, he broke off his training and took a position as head teacher of the old St. George's Model School, then one of the practice schools in connection with McGill Normal School. Salaries were small in those days, and Mr. Kneeland received only $320 per annum.

Professor A. W. Kneeland, M.A., B.C.L.

In September, 1874, he resumed his training at McGill Normal School, received his model diploma, and became second master in Berthier Grammar School. He obtained his Academy Diploma in June, 1877, and was appointed second master in Panet Street School, where he served under Dr. Rexford, whom he later succeeded as principal.

Feeling that to live meant to grow,

he took the extra-mural course in Arts at Victoria University, and graduated as B.A. in 1884, and four years later he received his M.A. from Toronto University.

Professor Kneeland's next step was his appointment as Professor of English in McGill Normal School and his appointment as a member of the Council of Public Instruction, where he has been Chairman of the Text-book Committee for twenty-four years.

During his professorship at McGill Normal School, he studied law and obtained the degree of B.C.L., winning the first prize for his thesis. When the McGill Normal School was transferred to Macdonald College, Professor Kneeland came out with the staff which was retained, and thus carried on the old McGill Normal School tradition.

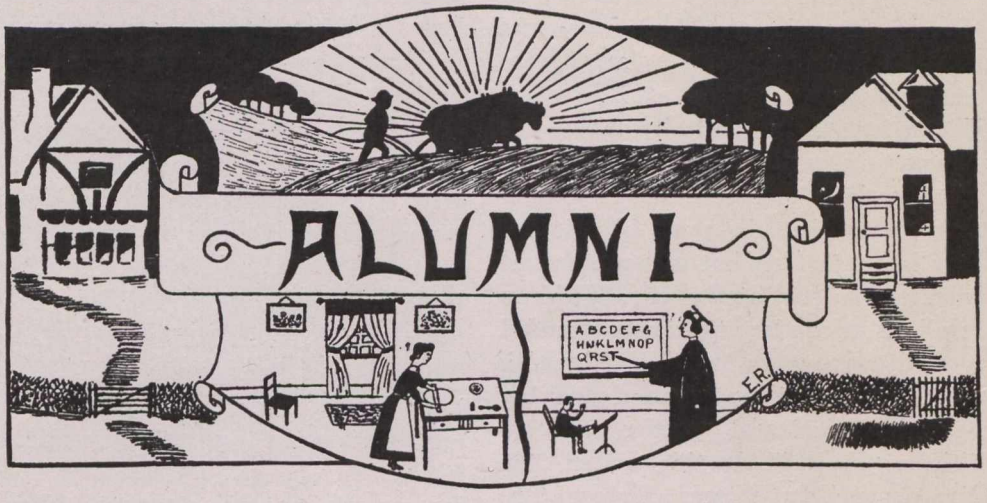
Professor Kneeland can thus look back on a long life of Service in the cause of education, and more particularly in the training of teachers. He has always been a cheerful, loyal and faithful colleague. Of unruffled temper and consistent good health, he has always been relied upon to discharge his duties faithfully, punctually and regularly. On occasions, he has undertaken work which would have been a great burden even to a younger man, but he has never complained, and never been found wanting. I think it is true that Professor Kneeland has made no enemies and that he has been universally liked by every generation of students. This is more than can be said of almost any professor anywhere.

In his lifetime, Professor Kneeland has has had many sorrows and many trials, but he has faced these with courage, resolution and Christian fortitude, so that even in his life, he has shown a worthy example to those who follow after. His retirement from active service will mean a distinct loss to the Institution which will thus lose the benefit of his wise counsel and rich experience, which have always been readily given and much valued.

Now that his service comes to an end through the age limit, we wish him long life and good health and an enjoyable rest with well-earned recognition of his life work.

"Well done, good and faithful servant!"

SINCLAIR LAIRD.



Agricultural Undergraduates

CHARACTERISTIC of himself is the interesting letter we received from Lieut. M. C. Signoret, once a member of Class '17. Here it is:

Nevers, France,
March 5, 1919.

Dear Dr. Harrison,—

During my last leave, which ended yesterday, I had the nice surprise of receiving in Paris at my father's home, the beautiful New Year's parcel sent to me by dear Macdonald College. It was a great pleasure for me, and I am very thankful to M.A.C. for all the presents that were sent to me during the long war, in France on the French front, in Germany when I was a prisoner, and now in France again.

I have been attached for over a year to the American Headquarters in Tours, and, a few months ago I met Lieut. Sandy Hand, '17. We spent a long time together remembering the nice days of Macdonald College.

Elliot phoned to my home in Paris a few weeks ago, but I was not in at the time, and my father, still unhealthy, is in Nice since November, 1918. I am very sorry not to have met Elliot, for he was another good friend of the funny little Frenchman who appeared at Mac. in December, 1914.

I hope to be demobilized next May, and as soon as I will be able to, I will sail for the U.S. on a long trip, and won't forget, of course, to pay a visit to Macdonald College. With my very best regards, I am, sincerely,

M. C. SIGNORET.

We are delighted to hear that Walter N. Jones intends returning to Macdonald next year. In the meantime he is doing some work in Edinburgh, as he explains in his letter:

Dear Mr. Wright,—

It is sometime since I have received news from the College, but I presume everything is going well there. At least, I hope so. Macdonald students have been particularly lucky over here throughout the war, and now that the prospects of returning soon are so good, it is practically certain the School of Agriculture will resume its pre-war size in numbers.

Through the Khaki University of Canada, of which you have no doubt heard, I have been able to arrange to come up here to study at Edinburgh University. I am naturally taking the Agricultural course, and having been here nearly a month, I am in a position to say that the work here is not only interestesting, but will prove most beneficial to our later work. Within a few days we are leaving for an extended tour throughout the length and breadth of Scotland, for the purpose of studying Scottish agricultural practice and conditions. We will do this under the direction of Mr. Watson, the assistant professor of agriculture at the University, who of course will accompany us. We will visit a lot of the most prominent breeders and farmers in Scotland, and see some of the finest stock in the country. When down in Ayr, we are going to endeavor to see Miss Reid, late of the Dairy Department, Macdonald College.

When I arrived in Edinburgh, I was rather surprised to find A. T. Buckland already pretty well settled here. Then, about a week later, I met MacFarlane, another old class-mate, arrived from France to resume his career as a student.

Please remember me kindly to all acquaintances in and about the College.

I am, yours very sincerely,

W. N. JONES.

Franklin Dogherty, of class '19, has not been lucky enough to return to Canada yet. On his arrival in England from Germany, he was given two months' leave, which he spent in visiting Ireland, Scotland and England. As a result of his travels, however, he was sent to a hospital in Hampstead with influenza. From there he went to a convalescent hut, and then to the south of France to recuperate. We hope that in this sunny flower-garden of France he will quickly regain good health and spirits.

Another of our Macdonald boys to return to Canada is Cecil R. Bradford, of class '17. When we heard from him on March second, he was at home in Lachute—we hope, making plans to return to College next year!

Gunner W. C. F. Millichamp, of class '20, wrote us from Dudley Rd. Hospital, Birmingham, England, stating his appreciation of the parcel received from Macdonald College. He said he was doing remarkably well, although still unable to get around without some kind of conveyance. He expected to be sent to a Canadian hospital at any time, probably to Buxton, and then to be returned to Canada.

Other letters of appreciation for the parcels sent have come to the office. Pte. Wm. W. Woodwark of class '18 says:

"Just lately I received a fine parcel from Macdonald Students' Council. Though it seems to have been rather long on the road, I appreciated it very much all the same. Please convey my thanks to those responsible for sending it, and for the many useful things it contained.

Thank you also for the two College magazines so kindly sent me. I was very glad to receive them, as they are always interesting, especially to one who has attended Mac.

William J. Paterson, '18, also enjoyed a long furlough on his return to England from the enemy country. He travelled over Ireland, Scotland and Wales, and then went to London to make preparation for the big trip "across the stream." We are expecting to see him back at Mac. any day now.

Some of the soldier members of class '18, being debarred from attending Macdonald, have entered other paths of learning. These paths are beset with new and strange experiences as are related by Pat Ashby, who has just been matriculated at Oxford.

"I had a rather, what shall I say, funny experience this morning. I was matriculated. It only took about three minutes. I thought it would take half an hour at least. I was told to get a cap and gown and be ready to go before the Vice-Chancellor at five minutes to one, to be matriculated. I combed and brushed my hair, put my gown on, smiled to myself, and took it off, got all fixed up for the occasion. I called on the Dean who put on a much nicer gown than mine. It was a long black one with red and white trimmings. Off we went to a great hall called the "Ashmolean Hall." Here we entered a great room in which were all kinds of beautiful paintings on the walls, heavy carpets on the floor and, "Your name here, sir," said a tall, grey-haired old man dressed up like a monk. He indicated a large book on the end of a long heavy oak table with figures carved out all along the edge. I sat down in the chair and wrote my name in the book opposite the figures 21. This cost me £3 10s.

Then I was told to stand up before several gowned and very solemn looking old men. I only remember seeing one old man, who seemed to be trying to hypnotize me by fixing his eyes on mine. I looked as hard at him, so we are "quits" on that point. He then started to jabber away in Latin at an awful rate. I suppose it was Latin. It may have been some other language or he may have made it up as he went along. Anyhow, he ceased suddenly and thrust a book and some papers at me. I took them, but what was I to do with them? Did he want me to take an oath and swear never to steal a beer mug out of the dining hall, or what? I looked at the book, it didn't look like a Bible. I looked at him, he said nothing, but looked piercingly at me. He must have told me in Latin what to do, I thought. Someone said "That's all," or something which told me I had to make for the door. I didn't even look back to see if the big, little sharp-eyed man was still looking at me. I made for my own College and my rooms, and then looked at the books and papers. I can make little of them. One piece of paper has my name on it and is surrounded with a lot of Latin words. I suppose it means that I've paid £3 10s, so am matriculated. It is signed by the "Vice-Chancellarius." He had to sign it with a feather. He might have used either end of the feather as far as understanding his signature is concerned. As for the book, I do not think it is a novel, nor are there any pictures in it. It is called, "Statuta et Decreta Universitatis Oxoniensis." Quite a long title, so it should be a good story. Now what do you think of all that? All for £3 10s!

In Memoriam

About three weeks after the signing of the Armistice a most unwelcome rumor spread about college that Flight-Cadet H. C. Bailey had been reported as "killed." Everyone hoped that this report would prove false, but enquiries from the Air Ministry in London brought back the official news: Flight-Cadet H. C. Bailey, of the Royal Air Force, was killed on October 30th, while flying, but not in operations against the enemy. This was one of the most regrettable reports received in connection with the overseas Macdonald men, for after the cessation of hostilities, "Bill" (as he was known amongst his college friends) was one whom everyone was hoping to see back at College next year.

H. C. Bailey enlisted in the 1st McGill University Co. in April, 1915. From this he transferred to the Canadian Divisional Engineers and later to the 7th Canadian Machine Gun Co., Transport, to which he was attached until the time of his being invalided to England in the fall of 1917. On recovering from his illness he applied for a commission in the Royal Air Force and was accepted. He had passed all his exams with credit and had gone to Vendome in France to complete his course

in flying. He died on Oct. 30th, owing to some accident to his machine, and was buried with military honours at Vendome.

Hugh Courtenay Bailey was educated at Harrison College, Barbados, where he studied until 1911, taking a keen interest in science and obtaining a diploma in agriculture. The year following he worked in a laboratory in connection with the Agricultural Department of St. Croix Island, after which he commenced his course at Macdonald. During all his period of education he took a prominent part in athletics, winning numerous cups, medals, and prizes for swimming, running, jumping, etc., etc. On the field-day in his Freshman year at Macdonald he won the "Individual Trophy" without any difficulty and from that day forth all who knew him, knew him as one of the best athletes that ever attended Macdonald.

To his parents and relatives we, his fellow-students and friends extend our unreserved sympathy. To us he will always be an inspiration toward all that is highest and best.

Alumnae of Household Science

Household Science.

Miss Dorothy Currie, Sr., Sc. '17, has charge of a hospital in Calgary, Alberta.

Miss Manse McCall, Sr., Sc. '17, paid a short visit to the College a short time ago. Manse is at present at Ste. Agathe.

Macdonald is well represented at the Military Hospital, Ste. Anne de Bellevue. Miss Jean Fraser, Sr., Sc. '17, is head dietitian. She has as assistant Miss Dorothy Buzzell, Sr., Sc. '18. Among others are Miss Jean Rutherford, Homemaker '17, and Miss Evelyn Patterson, Homemaker, '18, who are doing V.A.D. work.

Miss Nan O. Garwick, Sr., Sc. '17, is now on the staff of Macdonald College as assistant dietitian. She was formerly connected with Chalmers Settlement House, Montreal.

Miss Euphemia Ryfe and Miss Hilda Baker are also reported as engaged in V.A.D. work at the hospital.

Teachers.

Miss Cicely M. Goff, Teachers '18, is teaching at Inverness Model School.

Miss Alice W. Graham and Vera I. Hatch, Models '18, are teaching at Windsor Academy.

Miss Ruthetta Gwilliam, Marjorie Hall, and Agnes Hay, are teaching in Montreal.

Miss Margaret E. Little, Elementary Class '18, is teaching at Lemesurier, Que., District No. 7. Margaret is very fond of her profession.

Miss Asenath E. O'Brien, Elementary '18, is teaching at Lachute, Quebec, District No. 2. Miss O'Brien is the fifth of the Elementary Class '18 who is teaching at Lachute.

Miss Jewell McCallum, the popular president of the Models '18, is teaching "somewhere in Calgary."

Miss Annie Louis, the prize-winner for teaching, of Class '18, is carrying on her good work in Montreal.

Macdonald College Agricultural Alumni Association

Class '11.

Dr. A. Savage has recently returned from active service. He has resumed his duties as College Veterinarian which have been conducted during his absence by Dr. McEwen.

Class '12.

The very sad and untimely death of J. R. N. MacFarlane was recorded in the last issue of the College Magazine. This marks the first break in the ranks of the Class '12 men. Through the Alumni column the other members of the class wish to take this opportunity of expressing their deepest sympathy to his family.

We are sorry to have to record the fact that Bob Newton has not made as rapid progress towards recovery as he could hope for. Ever since he had the flu, early in the winter, he has been feeling very poorly, and has had to spend a good deal of his time in hospital at Cambridge. He had gone to Cambridge with the intention of taking some post graduate work before returning home. We all sincerely hope that from now on he will make a speedy recovery.

J. G. Robertson has made another change, and is to be congratulated on having been recently appointed as Live Stock Commissioner of Saskatchewan. "Doc." has a wide practical experience with live stock, so is well fitted for the position. The very best wishes of his classmates go with his new appointment.

Davis, Dreher, Lods and Robinson, all Class '12 men, still on the other side, are all more or less involved with the work in the Khaki University and the date of their return to this country is somewhat indefinite. They should all be home again by the middle of the summer.

"Trix" and Mrs. Parent are the proud parents of a baby boy. The young chap arrived during the latter part of May and no doubt will prove of valuable assistance to his father in his work as district demonstrator at Richmond.

Class '13.

W. H. Gibson, for several years Superintendent of the Experimental Farm at Indian Head, has resigned this position to take charge of the Arm River Stock Farm. This is a 3,000 acre farm of which 2,000 acres are under cultivation and the remainder in pasture. It is devoted entirely to the raising of Hereford cattle.

B. Richardson is now Managing Director of the Meadowview Orchard Company of Mount Vernon, N.H. He resigned his position with the M. J. O'Brien, Limited, on April 1st.

Lieut. A. E. Raymond, who has been overseas for the past three years, returned home in the latter part of March. We do not know his plans for future work, but we are led to believe that we shall have interesting news of him for the next issue of the Magazine.

Class '14.

At the time of the signing of the armistice, Gr. H. J. M. Fiske was training with B Battery of the Canadian Reserve Artillery, but was subsequently transferred to the Y.M.C.A., and when last heard of was at the Beaver Hut, London, England.

Lt. F. L. Drayton, Mrs. Drayton, and their young son left Ottawa early

in February to visit the former's parents at Bridgetown, Barbados, B.W.I. They expect to be away for some three months, and it is to be hoped that the change to the air and scenes of his former home will have a beneficial effect upon Lt. Drayton's health.

W. L. MacFarlane was heard from recently and reported a very busy life. He is actively interested in local politics; was chairman of their last Victory Loan Committee; was prominent in many other organizations, to say nothing of keeping the farm going in approved style.

Lieut. R. R. Heustis, who went overseas in the early stages of the war, returned home in the latter part of March. He spent a few days in Ottawa and then proceeded to Vancouver, where his address is c|o University Club, Vancouver, B.C.

Pte. C. F. Coffin, who went overseas with the American Engineers, has recently been heard from. He is doing Agricultural Instruction work with the A. E. F., but expects to be home shortly.

Class '16.

The latest news about the fellows is that George Boving has returned from overseas and is now on his way to Vancouver, B.C., to take up work in the University there; that Carl Fraser is on leave in Scotland and expects to be back in Canada in the very near future; that Howard Biggar is still overseas and that he dislikes writing as much as ever; and that Chic Hyndman and John Moynan are lecturing in the Khaki University, each having a class of fifty or upwards. All the boys report themselves as feeling in good shape.

Walter Sutton is on the look out for an A1 farm. We pity the hayforks, and wish we could be Walter's storekeeper when it comes haying time. Don't break too many, Walter.

Charlie Gooderham is making money? Nowadays repairing houses and fixing up lawns and gardens for other people's benefit. He has the place where he is living now in excellent shape and was counting on having a most enjoyable summer—when, lo! along comes the landlord saying that he intended to live there this year! That would almost make one swear, wouldn't it?

Crothers must be striking the right kind of oil in Toronto, for he reports that he hopes to buy a house this spring. Congratulations, old man!

If all goes well, before this time next year, Class '16 will have one of its old time meetings when the Reunion is held next fall. We want every fellow out. Be sure to hit the trail early, and be here for the first Felchi!!!

Class '17.

We are pleased to hear that L. R. Jones (Bumpus) has returned from overseas and is enjoying a well-earned rest at his home in Swanton, Vt.

L. C. Roy (Pop) is still engaged in Agricultural Representative work in his native province. We hear glowing accounts of his good work and congratulate him on his success.

G. H. Dickson (Dick) is one of the busy men at Vineland, Ont. He doesn't give us much information about himself, but we take it he is enjoying his work.

T. F. Hetherington (Old Tom) is the "big gun" in live stock circles in New Brunswick. From all reports he is getting results.

J. D. Newton is busily engaged in cereal work at Point Grey, B.C. He reports that he is enjoying his work thoroughly.

Bill Reid has returned from overseas,

and as far as is known is at home. We are all glad to see Bill return looking so hale and hearty.

H. S. Cunningham (Sym.) is busily engaged in teaching at the Agricultural College, Truro, N.S. He reports that he enjoys the work very much.

Addresses of Graduates

Class '11.

W. H. Brittain, Provincial Entomologist and Professor of Zoology, N.S. Agric. College, Truro, N.S.
F. E. Buck, Assistant Horticulturist, C.E. Farm, Ottawa.
R. P. Gorham, Normal School, Fredericton, N.B.
F. S. Grisdale, Principal of Agricultural School, Vermilion, Alta.
F. H. Grindley, Fruit Branch Department of Agriculture, Ottawa.
R. Innes, Director of Agricultural Instruction, Soldiers' Settlement Board, Ottawa.
W. J. Reid, Supt. of Agricultural Instruction, Dept. of Agriculture, Charlottetown, P.E.I.
A. Savage, Macdonald College, Que.
C. M. Spencer, Sergt., c|o "The Chalet," Sling Camp, Darrington, Wilts, England.
E. M. Straight, Supt. of Experiment Station, Morden, Man.
R. Summerby, Professor of Cereal Husbandry, Macdonald College, Que.
C. Sweet, Representative of Dominion Seed Branch, Winnipeg, Man.
C. M. Williams, Assistant at Experimental Farm, Fredericton, N.B.
G. W. Wood, Professor of Animal Husbandry, Man. Agricultural College, Winnipeg, Man.

Class '12.

W. W. Baird, Supt. of Dominion Experimental Farm, Nappan, N.S.
F. S. Browne, Manager, Canada Flax and Seed Co., 11 Fairbanks St., Oshawa, Ont.
A. A. Campbell, Dept. of Natural Resources, C.P.R. System, Calgary, Alta.
M. B. Davis, Assistant Horticulturist, C. E. Farm, Ottawa.
C. F. W. Dreher, Lieut., Can. Field Artillery, A.P.O., London, England.
H. B. Durost, Agricultural School, Woodstock, N.B.
K. M. Fiske, Florenceville, N.B.
S. M. Fiske, Lancaster, Ont.
D. B. Flewelling, Box 834, Fredericton, N.B.
R. S. Kennedy, Military Hospitals Commission, Ottawa, Ont.
E. A. Lods, Lieut. 1st Canadian Tank Bn., A.P.O., London, England.
R. Newton, Capt., M.C., "E" Battery, Can. Anti-Aircraft, B.E.F., France.
A. R. Ness, Macdonald College, Que.
L. V. Parent, District Demonstrator, Richmond, Que.
L. C. Raymond, Macdonald College, Que.
E. Rhoades, Dominion Live Stock Branch, Dept. of Agriculture, Ottawa.
J. G. Robertson, Live Stock Commissioner, Regina, Sask.
J. M. Robertson, 15 Hollis St., Halifax, N.S.
J. A. Simard, Rep. Dominion Seed Branch, Quebec City, Que.

Class '13.

J. Sydney Dash, Director Station Agronomique, Pointe-a-Pitre, Gaudeloupe, W.I.
E. Melville DuPorte, Assistant in Biology, Macdonald College, Que.
A. F. Emberley, Yarker, Ont.
Wm. H. Gibson, Manager, Arm River Stock Farm, Girvin, Sask.
A. C. Gorham, Assistant in Horticulture, Macdonald College. Temporary address, 804 E. Seneca St., Ithaca, N.Y.
George C. Holliday, Sawyerville, Que.
Murray H. Jenkins, Assistant Supt. Experimental Farm, Nappon, N.S.
J. Kenneth King, Maritime Representative for the Sheep Division of the Live Stock Branch, Room 4, Wyse Building, Moncton, N.B.
D. E. Lothian, Lieut. 5th Seaforth Highlanders, c|o A.P.O., London.
G. E. LaLacheur, Dominion Seed Branch, Ottawa.
Victor Mathews, Pte. No. 228493, 7the Can. Siege Battery, c|o A.P.O., London, England.
Kenneth MacBean, Sergt., M.M., 907440, 102nd Canadian Infantry Battalion, A.P.O., London, England.
L. D. McClintock, Lieut., M.C., Reserve Brigade, C.F.A., A.P.O., London.
W. A. Middleton, Cadet, 153896 R.F.C.
G. E. O'Brien, Treasurer and Assist. Manager, Canadian Co-operative Wool Growers, 128 Simcoe St., Toronto.
A. E. Raymond, Lieut., Woodstock, N.B.
B. Richardson, Managing Director, Meadow View Orchard Co., Mount Vernon, N.H.
F. N. Savoie, Secretary of Agriculture, Parliament Buildings, Quebec, Que.

Class '14.

E. N. Blondin, Agricultural Demonstrator, Huntingdon, Que.
C. F. Coffin, 49th Coy., 20th Engineers, A. E. F., Via. N.Y.
O. A. Cooke, Manager of Richmond Farms, Maclin, Sask.
P. R. Cowan, Cereal Assistant in Baking, Exp. Farm, Ottawa.

R. Dougall, Amherst, Mass., U.S.A.
F. L. Drayton, Assistant Botanist, Experimental Farm, Ottawa.
H. J. M. Fisk, Canadian Y.M.C.A., Beaver Hut, London, England.
D. W. Hamilton, Lecturer in Nature Study, Macdonald College, Que.
R. I. Hamilton, Assistant Agrostologist, Experimental Farm, Ottawa.
C. H. Hodge, Agricultural Demonstrator, Shawville, Que.
R. R. Huestis, C.E. Farm, Ottawa.
R. E. Husk, Farming, Glenelm, Que.
J. M. Leclair, Agricultural Demonstrator, Makamik, Abitibi, Que.
W. L. MacFarlane, Farming, Fox Harbour Pt., N.S.
G. G. Moe, Assistant Cerealist, Experimental Farm, Ottawa.
G. W. Muir, Assistant Animal Husbandman, Exp. Farm, Ottawa.
Wm. Newton, 1260343, Bomb., 58th Battery, 14th Brigade, C.F.A., Army Post Office, London, England.
T. F. Ritchie, Assistant Superintendent, Lennoxville, Que.
A. O. Schafheitlin, Canning, N.S.

Class '15.

G. C. Boyce, Home Farm, Atholstan, Que.
V. B. Durling, Lawrencetown, N.S.
H. I. Evans, Lieut. (expected home May 1st), Moncton, N.B.
E. L. Hodgins, Elmhurst Farm, Portage due Fort, Que.
J. H. King, Agricultural Representative, Moncton, N.B.
W. G. MacDougall, Provincial Demonstrator, Lennoxville, Que.
R. E. McKechnie, Home Farm, Wyman, Que.
J. E. McOuat, Head of Rural School Department, Macdonald College, Que.
L. C. McOuat, Lecturer in Animal Husbandry, Macdonald College, Que.
H. D. Mitchell, Lieut., 17 Cockspur St., c|o
G. T. Ry., London, S.W.1 England.
F. Y. Presley, 356 Ferry St., Malden, Mass.
E. M. Ricker, Lecturer in Horticulture, Macdonald College, Que.
H. B. Roy, Flight-Lieut., c|o Headquarters R.A.F., London, England.
Chas. Russell, 500 West 121st St., New York City, U.S.A.
Wilfred Sadler, Prof. of Dairying, University of British Columbia, Vancouver, B.C.
A. G. Taylor, in charge of Extension Work, Poultry Dept., Macdonald College, Que.
L. J. Westbrooke, Home Farm, South Bryon, N.Y., U.S.A.
Lieut. H. F. Williamson (home address) Doylestown, Pa., U.S.A.

Class '16.

T. Howard Biggar, Sergt. 2765026, B. Company, 1st Tank Bn., c|o Army P.O., London, England.
Geo. B. Boving, Dept. of Agronomy, University of B.C., Vancouver, B.C.
E. Stanley Cochrane, Clarenceville, Que.
Loring W. F. Crothers, c|o Canadian Farm, 181 Simcoe St., Toronto, Ont.
J. G. Carl Fraser, Lieut., c|o Can. Y.M.C.A., 24 Maddox St., London, Eng.
Charles B. Gooderham, Assist. Apiarist, Central Exp. Farm, Ottawa.
George C. Hay, Agricultural Representative, Kamloops, B.C.
Ora C. Hicks, Dept. of Agriculture, Fredericton, N.B.
Clarence B. Hutchings, Entomological Branch, Dept. of Agric., Ottawa.
A. E. Hyndman, Sergt., 2341314, c|o Bank of Montreal, 9 Waterloo Place, London, England.
Chester Lyster, c|o Wm. Davies Co., Ltd., Montreal, Que.
J. Harold McOuat, Macdonald College, Que.
John C. Moynan, Sergt. 2522777, Khaki University of Canada, South Camp, Ripon, York, England.
Rudolph Schafheitlin, Canning, N.S.
Walter E. Sutton, Lennoxville, Que.
J. Antonio Ste. Marie, Central Exp. Farm, Ottawa.

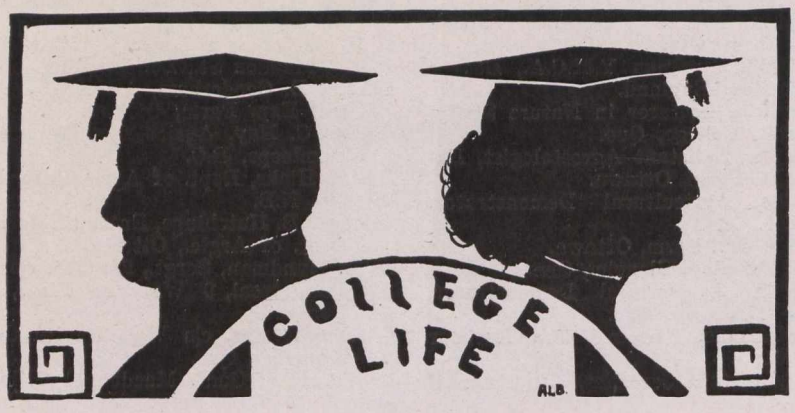
Class '17.

A. F. Bothwell, Farm Manager, Laurentide Pulp & Paper Co., Grande Mere, Que.
H. S. Cunningham, N.S. Department of Agriculture, Truro, N.S.
G. H. Dickson, Ont. Fruit Experimental Station, Vineland, Ont.
R. M. Elliott, 2341326, Gr. 6th Can. Seige Battery, A.P.O., London, Eng.
R. C. M. Fiske, Florenceville, N.B.
T. G. Hetherington, Animal Husbandman, Dept. of Agriculture, Fredericton, N.B.
L. R. Jones, Ont. Fruit Experimental Station, Vineland, Ont.
C. Morris, 2341311 Bombr. 10th Can. Siege Battery, A.P.O., London, Eng.
J. D. Newton, Dept. of Agronomy, University of B.C., Vancouver, B.C.
L. C. Roy, Agricultural Demonstrator, Cookshire, Que.
E. C. Spicer, Lieut., 32nd Squadron, c|o Cox and Co., 108 St. Martin's Lane, W.C., London, Eng.
E. G. Wood, 2381921, Sgr., 76 Battery C.F.A., A.P.O., London, Eng.

Class '18.

C. E. Boulden, I.C.O. Agricultural Instruction, Dept. of Soldiers' Civil Re-Establishment, Macdonald College, Que.
F. B. Kinsman, Kentville, N.S.
A: Kelsall, Dom. Entom. Branch, Annapolis Royal, N.S.
H. S. Mace, Rutland, Vermont.
A. E. McMahon, Dom. Entom. Branch, Annapolis Royal, N.S.
Miss M. Newton, Macdonald College, Que.
R. J. M. Reid, Dept. of Soldiers' Civil Re-Establishment, Macdonald College, Que.
E. M. Taylor, Agricultural Demonstrator, Moncton, N.B.

On account of the fact that the men who have been overseas are now returning home rapidly, the addresses of thees men will no doubt change in the course of a short time.



AN APPRECITION OF MISS RUSSELL.

Strange as it may seem, it is nevertheless true, that we never appreciate what we have till we lose it. This is even more the case when what we have is what we like. So much of our time is taken up in worrying over things that do not please us that very little is left for appreciation of what does.

Now that Miss Russell has left, we realize how we liked her. We are going to miss her kind smile and helpful advice. Our memories of her are pleasant and will continue with us. We hope that her memories of us are not all tiresome and noisy. We would like to say, with our whole hearts, that we are truly sorry that Miss Russell has had to leave us and extend our hearty wishes for her health and happiness wherever she goes.

DR. AND MRS. SNELL'S "AT HOME."

THROUGH the kindness of Dr. and Mrs. Snell, a most enjoyable evening was spent at their home on Saturday, May 3rd.

Of those who were fortunate in being present there were the Senior Science, Junior Agriculture, Messrs. Boulden, MacFarlane, Bob Reid, Watson and Dr. Lochhead.

At seven thirty o'clock, thirteen Senior Sciencers were seen to be slowly wending their way across the campus—thirteen sometimes is a lucky number, and it was considered that evening the first omen of the good time that was to come—this was a hint to the Juniors to roll out, which they did in full force.

We were received by our host and hostess, who gave us a hearty welcome and made us all feel thoroughly at home. The best of programmes had been arranged—namely, dancing, with cards for those who might prefer them. As the party was perfectly balanced, the music furnished by Mrs. Snell splendid, and everybody danced, the cards were only used between dances along with other articles to perform tricks.

Supper came all too soon; though we all showed our hearty appreciation by doing full justice to the good things provided.

And then the one sad part of a perfect evening was 10.30 o'clock, when we had to tear ourselves away from our kind host and hostess and make our way back to residence.

Thus we have much pleasure in recording Saturday evening, May 3rd, as one of the most pleasant evenings spent this year.

SENIOR SCIENCE SUGARING-OFF.

IN the spring 'tis said our fancies turn to thoughts of''—by the time one had read thus far in the invitation to the Senior Science sugaring-off party, one was truly excited.

The day after these invitations were issued, many faces wore that far-off, dreamy expression as though these noble souls were trying to put their worthy cogitations into, shall we say, blank verse; but enough about these scraps of paper.

On Saturday, April 5th, we all met in the corridor at eleven o'clock, and answered, ''Here, Sir,'' to the roll call.

When the chaperones had arrived, we went outside where, just think, we had our pictures taken. However, I believe the picture never turned out as the snow-balling at this time was very brisk. There was just enough snow on the ground to make our walk, in the direction of Morgan's woods, pleasant, and with the blue sky above and the sun beaming upon us, what more could we wish for?

At various places, we sat down or fell, whichever was most convenient, in order that we might not impede the acceleration of the snow-balls, and faced the camera.

In spite of these disadvantages, some of the pictures turned out quite well.

Near Morgan's woods some of the party very unwisely climbed to the roof of a small sugar house. I say unwisely, for no sooner were they perched there (that sounds as though they were birds, doesn't it?) than the rest, using them as targets, lost no opportunity for showing their skill in direct shots and curves that would delight the eye of Ty Cobb.

At 12.30 we arrived at the desired spot, and a fragrant odour of baked beans and coffee pervaded the region. As one was helped to a third cup of coffee, one tried to explain that it was the open air and the walk that made one have such a keen appetite. And now comes the real sugaring episode of the party.

While we had been having dinner, the syrup had been doing its part nobly, and a delicious odour of maple was wafted away on the breeze. We spread the syrup on snow and O, that wonderful taffy—it makes one's mouth water to think of it. Afterwards we made maple sugar; but how hard it is to write of these good things to eat, when one feels the pangs of hunger at 10.30, in a room devoid of even dry soda biscuits!

They sat around the fire and sang songs, while Messrs. Welsh and Baker gave a demonstration as to how a tree, one inch in diameter, should be cut down. Meanwhile jolly round red Mr. Sun had disappeared, and the raindrops began to patter to earth.

So about 2.30 we gathered up our things and started for home, and as we passed under some cedar trees, we gathered twigs for our precious memory books, that we might never forget one of the most enjoyable days spent at Macdonald College.

THE MACDONALD COLLEGE CHOIR.

THE social life in any college would be a dismal failure without music. In such institutions it is one of the essential factors which make possible success in socail affairs of all kinds. Macdonald College is in no way an exception in this respect, for in its own social life there is the same need for music as experienced in other colleges.

It was shortly after the beginning of the New Year that the Macdonald College choir was organized, and before long this body was recognized by the students as a permanent organization. The choir made its first appearance at a Sunday evening sing-song, and for the remainder of the session took a prominent part in these services. From the first, the choir proved to be a success, and received the appreciation of the students at all times. It was also instrumental in discovering much talent in individuals which certainly would have remained unknown.

Mr. Leslie Saunders, who first conceived the idea of a choir, deserves much credit and praise for the efforts he put forth in keeping the organization together. Through his continued interest, the choir progressed rapidly, and was brought to a successful issue. In this work, Mr. Saunders was very ably assisted by Messrs. A. E. McLaurin and Stanton, both of whom rendered their valuable services in a competent manner, for which they deserve all appreciation and thanks.

In consideration of the time and work sacrified by the members of the choir, a sleigh drive was given, and this was followed by a supper.

The Macdonald College Choir is to be congratulated, and we have no hesitation in saying that the success it has achieved so far, is a fair indication that this organization should not be dropped completely, but rather re-organized again this coming fall.

THE DANCE.

The last dance was given this "Spring" at old "Mac."
The girls were so happy—but programmes did lack.
With the frills came the thrills, and the fun was immense,
When decked, we arrived in the men's resi-dence.
The worst dissipation that happened this year,
The hour stupendous—eleven, I fear!
The drinks were the softest—mark you this event
Will not be forgotten by all those who went.

The faculty came that night each one and all,
With Andy and L. C. and those fat and small,
MacLaurin, Jull, Raymond, with Peter and Ness,
And smiling Rick also, dolled up in his best.
With smiles, too, the girls came all frilly and fair,
Miss Lindholm and "Red"—Mrs. Goldie was there,
The music was great, as wee Mary Lee danced,
Science, Teachers and Aggies all were entranced.

With moonbeams to dance in—quixotic delight!
Around her your arm is, you could dance all night.
With moon made of paper, take care what you do;
If the lights go on suddenly where will be you?
Ah! what a relief they are turned low again,
You hardly distinguish the girls from the men!
The moon shines so brightly you wish an eclipse
Would cover your blunders—allow for some slips.
"Three cheers for Miss Russel," we cry one and all:
Without her the moonlight would not be at all.

The fussers would fuss up and all be so fussed,
Without it the dance would be dry as the dust.
Admit that variety is *the* spice of life,
With music so dreamy Doc. Harrison's wife
Tickled the ivories. We thrilled to the core
For ne'er had there been such a great moon before.

STUDENT'S COUNCIL FETE.

SINCE everybody was doing it, the poor old Council had to do it, too, so in March they held a formal dinner down in the Hudson Bay House. Each girl asked a boy, and each boy a girl, just for variety.

Fortunately, when we first arrived, dinner was not ready, so that we enjoyed a good walk to the locks and back and gained a fine appetite.

Since the dinner was the chief event, here is the menu:

Cream of Tomato Soup
Turkey *Mashed Potatoes*
Corn Fritters.
Tomato Salad
Ice-Cream *Chocolate Cake*
Tea or Coffee

The guests all did full justice to this and their enjoyment was shown by the steady flow of conversation which was kept up during the whole meal.

After dinner it was not possible to stay and have a good time because of the hour, but each and all thought that it was quite unnecessary to grumble after having already had such fun.

AN AFTERNOON AT THE MOVIES.

A most enjoyable afternoon and evening was spent on the eighth of April when the Junior Household Science Class invited the presidents of their sister classes and the students from the School of Agriculture to the movies.

It was a glorious spring day, and the boys enjoyed the long walk with their partners, the darkness at the movies, the long walk back, the good things they had to eat and the many games they played afterwards. However, we must not forget to mention that the aforementioned partners also enjoyed the proceedings to their hearts' content.

Some of the classes got out half an hour early, the others skipped out when no one was looking and at four o'clock everyone was assembled at the girls' residence. Finally we started for the Rose Theatre, which is a recent addition to the large town of Ste. Anne de Bellevue. We all managed to get there, and when everyone was nicely settled, the place was suddenly turned to darkness and our faces were directed to the large screen in front of us. A splendid moving picture (which turned out to be a war scene) was shown on the screen. The usual bravery was displayed by several of the prominent members, and like all other pictures a love-affair was included which seemed to interest several couples in the audience. We were all sorry to see the end of the picture, but as it was almost six o'clock we had to think of the eats that were waiting for us. It did not take us long to get back to the college, and into the dining hall, for everyone was anxious to get to the delicious meal that was prepared for us. Here again the girls demonstrated their good taste. Perhaps the most enjoyment we had in the dining hall was toasting marshmellows over candles. It was not only the fun in toasting them, but it was fun to blow out the candles and leave the hall in darkness.

After we had done justice to the eats, we all went out to the large hall to indulge in a few games before parting. The games were well chosen for the occasion and were not only enjoyable, but very exciting. As our time was limited, someone suggested that we should sing a few songs, so after a few popular songs had been sung, we ended up with "Aul Lang Syne" and "Goodnight Ladies." This glorious day was brought to a close by giving three cheers for the Junior Science for the able manner in which they had conducted one of the most successful events of the year.

ST. PATRICK'S PARTY.

On St. Patrick's Night, Section A. of Teachers gave the presidents of the different sections and schools a party. The company was good, the eats were good and the decorations were appropriate —which means that there was lots of *green.*

After tea everyone gathered in the "foyer" and played various and exciting games. One of the most interesting was a word contest in which the different kinds of "Pats" were to be guessed. Miss Eakin and Mr. Griffin won in this and received a box of chocolates. The celebrated game of "Wink," in which, at one of our celebrations, Mr. Pewtriss gave such needful instruction, was also indulged in. If this game is played much oftener it may become a habit.

During this, the boys who had not been invited marched through and up to the reception room, just to show us that they could have a good time by themselves. We all expected to see them come back without their good cheer, but Miss Russell is a good sport, isn't she?—So are the boys.

By 7.45 the party was nearing an end. We had all had a good laugh, we all liked each other better, we all thought the world was a pretty happy place after all, and so the evening proved a success. As usual "Auld Lang Syne" brought to a finis ("close" is worn out) this care-free evening.

ATHLETIC ASSOCIATION PICNIC

On Saturday, March 22nd, the officers of the Athletic Association had a whole-day picnic. It was a great success and everyone had lots of fun.

It was quite exciting, too, at first, as we were all supposed to drive out to Morgan's sugar-house and no sleigh or team seemed to be forthcoming for some time. At last, however, a team was secured and a happy lot of boys and girls with Miss Lindholm and Mr. Jull as chaperons (excellent ones, too) started out.

The day was glorious, with a touch of spring in the air, and snowballs and photographs were the order of the drive.

On arriving at the sugar-house, the boys broke and carried in the food which the girls proceeded to unpack while the boys made a fire outside. The meal consisted of pork and beans, hard-boiled eggs, ham sandwiches (made in study hours), and "Kisses," given and taken freely, despite the presence of the chaperons.

At the end of the afternoon everyone walked home to "Mac," feeling happy though weary, and all were decidedly glad, by the end of that strenuous day, that they were an "Athletic" Association.

The scarcity of men students at the college this year, especially at the outset, was a severe handicap to the athletic association. Fortunately a few very good athletes were added to our number as the course advanced, and towards the end of the season Macdonald had both a hockey team and a basketball team which did her credit in any of the games played. Very few weeks passed without the playing of one or two games and occasionally three, which meant considerable towards maintaining the usual amount of college spirit. The inter-class games were also a success.

HOCKEY.

Macdonald vs. Ste. Annes.

The last and most exciting hockey game of the season was played on Feb. 22nd between Ste. Annes and Macdonald. The game was scheduled to start at 2.30 p.m., but was delayed until 3.10 p.m., owing to the absence of a few of our men. During this time there was considerable practising, which greatly injured the ice, as the weather was very warm.

Our boys started off with the determination of winning the final game of the season. This was easily manifested, because, hardly had the game been playing two minutes, when Jack Pewtress beat past Ste. Anne's defence and succeeded in netting the first goal of the game. The game proceeded very evenly, neither side being able to score until within a few minutes of the end of the first period, when A. Buchanan netted the Second score with a pass from S. Buchanan, thus ending the first period 2—0 in our favor.

The second period was even more exciting than the first, Ste. Annes playing better combination than Macdonald, and before our players were aware of it, two goals were scored against them, which made the score even. A little later Ste. Annes scored two more, which made a score of 4—2 in their favor.

The third period started as fast as the others. Our players did their best, but were unable to overcome the lead Ste. Annes had established. However, about the middle of the period A. Harrison made a splendid rush up the ice and succeeded in putting the puck behind Lamarche, Ste. Anne's goal-tender. This was soon followed by two scores for Ste. Annes, making a final score of 6—3 in their favor.

This game was the cleanest one played on our rink this year. Only two penalties of one minute each were imposed on the players. Lepine was the star

of the visiting team, while the Buchanan brothers with their scientific combination helped wonderfully to uphold the honor of the home team. Keith Richardson, our goal-keeper, played an exceptionally good game and many a time prevented the score from being much larger than it was.

The teams lined up as follows:

Macdonald.		*Ste. Annes.*
K. Richardson	Goaler	Lamarche
J. Welsh	Defence	Bessneir
A. Harrison	"	Kent
S. Buchanan	Centre	Lepine
A. Buchanan	R. wing	Cousineau
J. Pewtress	L. wing	Brunnette
J. Winter	Sub.	Williamson
J. Ferry	Sub.	Kent

M.D., '21.

INDOOR BASEBALL.

M.A.A.A. vs. Junior Staff.

On April 26th, the best baseball game of the season was played in the boys' gym. between the team of the Junior staff and that of the M.A.A.A.

The M.A.A.A. team could surely play indoor baseball. In fact, they had it all planned to win, and for eight innings worked strictly to schedule. Their pitcher had a combination of speed and control that kept the bachelors fanning the air or popping up short ones most of the game. Their infield and the back garden showed all sorts of snap and signs of hard practice.

Fortunately the home team were "Peptomists." In the last of the ninth innings, with the score 8-10 against the instructors, the staff short-stop laid down a clean single and began a strong batting rally. When the dust cleared away they had got a clear quartet around the circuit, and so won by a narrow margin of two runs. The teams:

Macdonald.		*M.A.A.A.*
A. R. Ness	Catcher	Taylor
Summerby	Pitcher	Park
Ricker	1st base	Starbind
Raymond	2nd base	Davidson
Jull	3rd base	Barlow
McLaurin	Short-stop	Sanders
Du Porte	Left field	Thompson
Derick	Right field	Potter

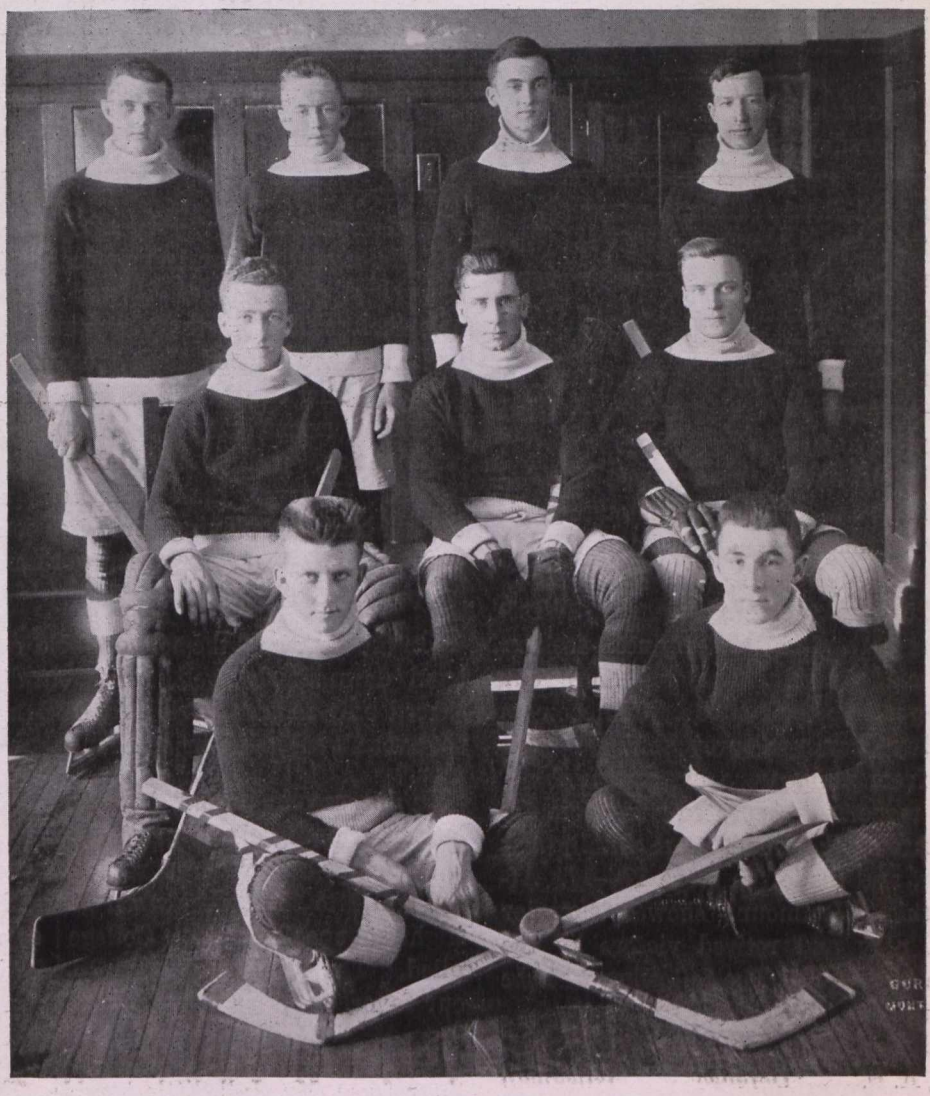
BASKETBALL.

Macdonald vs. Ottawa Collegiate First Team.

A fast, exciting game was played in the gymnasium of the Ottawa Collegiate on the evening of March 7th, between the first basket ball teams of Macdonald and Ottawa Collegiate. Due credit must be given to the boys of the Ottawa team for their fast, clean, and clever playing.

In the first half, Ottawa took the lead and carried it through the game. Macdonald players were handicapped to a certain degree by not being acquainted with the presence of the three large pillars that happen to be present in the Collegiate gymnasium. Playing around these pillars is quite a trick, and the Ottawa boys surely demonstrated their skill in passing the ball around the pillars in a great many instances. Macdonald got their bearing in a short time and placed a few scores on their side of the board. The first half finished with a score of 22—12 in Ottawa's favor.

For the second half, Macdonald started fresh and made the first basket. The playing was exceedingly fast. Macdonald scored the second basket and got the first free throw. Ottawa then got warmed up and there was no holding the men. They ran from the centre of



MACDONALD COLLEGE HOCKEY TEAM

the floor to the basket and made one basket after another right through the second half. Macdonald scored but three points more, giving her a score of twenty to her credit, while Ottawa presented a score of forty-seven. All through the two halves the playing was very clean and creditable to both eams.

Macdonald vs. Westmount.

On thursday evening, March 17th, an interesting game was played on the Macdonald floor against Westmount.

During the opening stages of the game both teams tried hard to open the score. The first basket fell to Westmount after six minutes' playing. This was followed by brilliant work between Pesner and Pewtriss, which enabled the latter to make a good basket and put Macdonald ahead. Then, by a fine exhibition of team play, Westmount gradually assumed the upper hand and at half-time lead by the score of 11—10.

After the breathing interval, Westmount started in determined fashion and made several baskets before our boys got into their stride. The coolness of Hay, however, prevented the visitors from piling up a big score.

In response to repeated yells from the spectators, the home team finally got going, and made the score 17—17. After this, Westmount showed superior team play and retired victors by the score of 25—19. The following was the line up:

Macdonald.		*Westmount.*
Hay, A. L.	Defence	Glickman
Ashton	"	Wren
Buchanan	Centre	Campbell
Pesner	Forward	Parker
Pewtress	"	Tyler

Military Hospital vs. College.

On Thursday March 30th, our basketball team won a splendid victory over a team from the military hospital. Although not seeming so from the score, it was a bitterly contested game, and each basket was obtained only after hard play.

From the first our superior teamwork was evident; a teamwork which has been greatly improved by a season's hard playing under the coaching of Mr. Jull. On individual playing, however, it would be difficult to judge which team was the better. Having never played together before, the soldiers relied almost entirely on being superior in individual playing, and it was noticeable that most of their shots found the basket. They showed their true mettle when, finding themselves, as it were, on several occasions, they played splendid combination, ending inevitably in a basket. However, their spasmodic, although brilliant, playing could not compete with our own steady teamwork and we proved the victors.

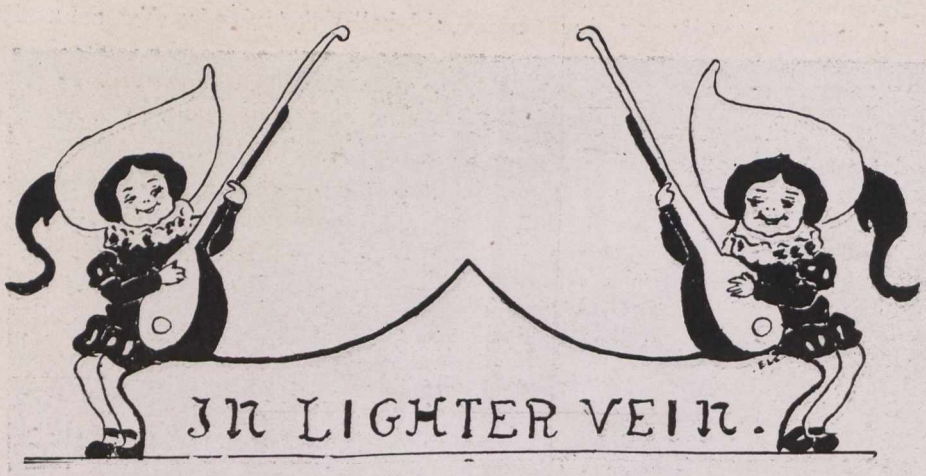
On the first half the soldiers held our team down fairly well, being out-distanced only in teamwork. At half-time the score was 14—5 in our favor.

In the second period, however, their lack of training also began to tell, and, with Pesner and Pewtriss ready to drop the ball into the basket when given the slightest opening, the College score piled. The final score was 35—14 in our favor.

The game itself was clean, and gave the referee, Mr. Jull, little trouble. The line-up:

College.	*Hospital.*
Ashton	Hayden
Ness	Parker
Buchanan	Williamson
Pewtress	McCallum
Pesner	Buchanan

GIRLS' BASKETBALL TEAM.



HELP HINTS FOR BOYS.

1.—Never talk about one girl to another unless you have something good to say—they despise it.

2.—Stick up for the other boys.

3.—Talk sense as well as nonsense.

4.—Have perspicacity, and don't ignore girls who aren't good-lookers. They aren't always the nicest. Neither is she who talketh all the time.

5.—Don't wear button boots, or, worse stil, spats.

6.—Cultivate a liking for sport rather than for dancing and girls.

7.—Do things for the girls in general sometimes.

8.—Always speak to a girl whether you like her or not and look her in the eye.

9.—Forget that there are girls sometimes—quite often in fact—once a week at least.

10.—Talk a little in the dining-room, even if you aren't with your own bunch.

11.—Smile. Smiles are cheap and they have never been known to hurt the giver either.

Worth Paying For!

"You bachelors ought to be taxed," said a lady bitterly to a man who had resolutely evaded matrimony.

"I quite agree with you," said he suavely; "Bachelordom is certainly a luxury."

* * * *

The True Answer.

Said a dancer: "You cannot stand so long upon one leg as I can."

"True," was the reply, "but any goose can."

* * * *

Write Me Down An ——.

Gazing curiously at the skeleton of a donkey a man was heard to murmur: "Ah, we are fearfully and wonderfully made."

* * * *

"Look here!" chided honest Farmer Hornbeak, "I'm not paying you wages to have you recline on your spine on the grass and fan yourself with your hat. What kind of a caper do you call that)"

"It is my favorite back-to-the-land movement," nonchalantly replied the hired man.—"Country Gentleman."

* * * *

There is a rumor that Mildred is giving up Science to turn White.

* * * *

Junior: How long can a person live without brains?

Sophomore: I don't know; How old are you?

* * * *

Sophomore: How many subjects are you carrying?

Freshie: Carrying one and dragging three.

* * * *

We hear that Daly has a job with the C.P.R. assisting in landscape gardening. There is no doubt but he may aid the back-to-the-land movement considerably.

* * * *

Junior: "Well, I guess I have the right to change my mind."

Clerk: "Certainly! You can change any unused goods!

WE ARE SEVEN.

One always can tell who's who and why,
If they the college mag. will buy;
But "The Seven," have never appeared
in print,
So it is almost time they did, I think.

I would have to write a book, I fear,
To tell you the sad, sad story,
But, I'll tell you that it has caused a
tear;
And made Robina worry.

At first it was only my wife and I,
Now others are included;
And all our bunch have often heard,
"But, why, why did you do it?"

We're late for meals three times a day,
We linger at the table;
We even laugh out loud sometimes,
And eat more than we're able.

We never think before we speak,
And some talk to the boys
We tell each other all we know,
And share our trials and joys.

Notes decorate the bulletin,
For visits to the office;
And often you will see for fines
Our names in long and even lines.

On Sunday night, Bugs does not sleep,
Our hymns disturb her slumber;
Blue silk and lace come quickly forth
To take down each one's number.

They know our names, they know our
faces,
But never speak on meeting;
Still, when they call round at our
rooms,
O, what a loving greeting.

With soft low tones, and pleading eyes,
While we around her stand,
She makes you promise to be good,
While she tightly clasps your hand.

So now, there are some,
Who can't go out all during study
hour,
The rest of us must visit them
To help them in their sorrow.

I never could tell you all we've done,
Or all the rules we've broken,
But I think you'll agree we deserve
some fun,
For we are Seven Model Teachers.

WHEN IT BEGAN.

When Adam first a helpmate deigned
to take
To cook his meals and mend his socks
and tease him,

He found a wife who just fulfilled his dream
For she was made to order, just to please him.

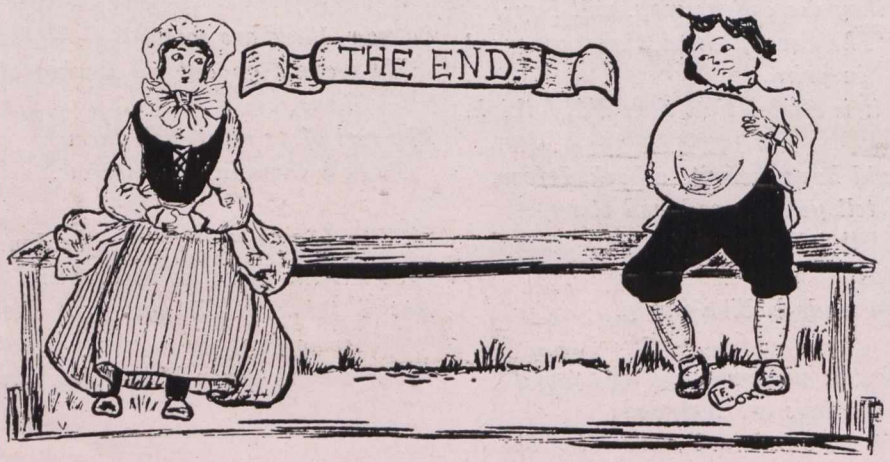
And, when he had assured his trusting bride
That he had never loved a girl before,
That earth was simply Eden by her side,
And that through all his days he'd her adore;

And Eve in accents shy and sweet confessed
That Adam was the only man on earth,
And that no other could with him compare
In beauty or in wisdom or in worth;

And how through all her inmost heart she felt
That she was simply born to be his bride—
And that she really did not want to vote
Nor asked for any happiness beside;

Just then—when all the future seemed so fair
And heaven smiled and all the earth was sweet—
Woman's troubles began with that very first man
Over something she gave him to eat.

EMILY MACNAB.



MACDONALD COLLEGE

(McGILL UNIVERSITY)

School of Agriculture

TWO-YEAR COURSE.

Gives free instruction to farmers' sons of the Province of Quebec in: Live Stock, Horticulture, Farm Crops, Farm Management, Farm Machinery, Poultry, Dairying, etc., etc.

All practical subjects for practical men. Candidates are required: 1. To have passed their 17th birthday. 2. To produce certificates of physical health, including successful vaccination. 3. To have worked for a season (seed-time to harvest) on a farm. 4. To read and write the English language acceptably, to be proficient in the use of elementary mathematics, and to be acquainted with history and geography, especially of Canada.

FOUR-YEAR COURSE.

A continuation of the foregoing for the training of specialists in the various branches of agriculture, leading to the McGill University degree of Bachelor of Science in Agriculture. The production of a University Entrance Certificate or the passing of a special entrance examination for this course is required.

All Quebec students in Agriculture receive a grant from the Provincial Government of $7.00 per month of attendance, to apply on account of board and lodging.

Applications for admission to be made to the Principal, Macdonald College, P.Q.

School of Household Science

Free course for farmers' daughters of the Province of Quebec.

1. Commencing in September each year.
   - 1-year Homemaker Course—open to young women 17 years of age and upwards.
   - 2-Year Professional Housekeeper Course—open to young women 22 years of age and upwards.

2. Short courses of from 10 to 12 weeks' duration, commencing in September, January, and March each year—open to young women 17 years of age and upwards.

The Provincial Government grants to students belonging to the farming community of the Province of Quebec in the junior and senior years a bursary ranging from $20.00, but not exceeding $50.00 each.

Applications for admission to be made to the Principal, Macdonald College, P.Q.

School for Teachers

The School for Teachers gives a thorough training to those intending to teach in the English Speaking Schools of the Province.

Tuition free, and bursaries of $50.00 to $100.00 each given those of the model school class and $50.00 each to those of the elementary class who promise to teach three years in an Elementary Rural School.

Application for admission should be made to Dr. G. W. Parmalee, Department of Public Instruction, Quebec, Que.

Cost of Board and Lodging for all Courses, $6.00 per week.