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The O. A. C. Review

Published monthly during the College Year by the Students
of the Ontario Agricultural College, Guelph.

THE DIGNITY OF A CALLING IS ITS UTILITY.

Vol. XVI.

ONTARIO AGRICULTURAL COLLEGE, FEBRUARY, 1904.

No. 5

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JAMES MILLS, M. A., LL. D.

Perseverance, dear my lord,
Keeps honor bright: to have done is to hang
Quite out of fashion, like a rusty mail
In monumental mockery.
Shakespeare, "Troilus and Cressida".

THE purpose of this sketch is not to present an apotheosis of its subject: the man whose name appears at the heading is still in the flesh, still engaged in active service, and still in possession of those powers that have made him eminent. The circumstances call for neither flattery nor adulation. No better tribute can be paid to the services he has rendered than a plain statement of the facts, and a plain disclosure of the secrets of his success.

The energies of Dr. Mills have been engaged in the sphere of practical affairs, and in that sphere a principal element of success is achievement. In

this respect his career has been signal. He has done things, many and worthy. The writer of this article is not in the position of an apologist seeking to convince the public of what might have been accomplished in circumstances less adverse. The world disregards mere potential achievement, and is cold to all that might have been; but is not slow to honor what is done. It is the aim of this article to show in the briefest possible manner what has been accomplished at the College and by the College during Dr. Mills' regime; and more particularly to discuss the means used, and the personal qualities displayed by him in the process.

The Ontario Agricultural College has arisen out of small and not altogether auspicious beginnings to a position of commanding influence in

the Province. In the year 1879, when the late President assumed charge, it was the butt of Opposition ridicule in the Legislature, the object of anxious solicitude on the part of the Government, and of contempt on the part of the farmers, whose interests it was intended to serve. To-day it is the fashion on all sides to speak well of it. This change of public attitude is the net result of twenty-five years of devoted service.

The extension of College equipment, particularly within the last few years, has been noteworthy. Ten years ago, when the present writer joined the College staff, the Dairy School building was just being completed. Shortly after, the Poultry buildings were erected. In 1895 the Experimental building was added. In 1896 the old Chemical building was burned, and the present laboratory erected on the same site. In 1901 came the splendid gift from the Massey estate, in the form of \$40,000 for a Hall and Library. In the same year the Government commenced the erection of the present Biology-Physics building, the ground floor of which accommodates the museum. In the main building the old library and museum quarters were converted in 1901 into dormitories. In 1902 a large pavilion was erected for the classes in judging live stock. Last of all, and greatest, is the Macdonald Institute, two magnificent buildings costing in all \$175,000, the gift of Sir William Macdonald, of Montreal. In one of the buildings instruction and demonstration are being given in Nature Study, Manual Training, and Domestic Science. The other is the residence for young women in the Domestic Science courses.

The growth and addition of departments of instruction and investigation have been no less notable. Ten years ago, there were five departments, with seven professors and instructors, namely, Agriculture and Live Stock, Veterinary Science, Dairying, Chemistry, and Biology, with an experimental department in Agriculture as an adjunct to that department. There are now thirteen departments, namely, the five already mentioned, an independent department of Field Investigations, and departments of Horticulture, Poultry, Physics, Bacteriology, Nature Study, Manual Training and Domestic Science, having in all twenty-seven professors, instructors, and investigators.

The extension of courses of instruction is another feature of College development; not only in the addition of new subjects as implied in the preceding paragraph, but also in the length of the general course and in the character of it, and in the addition of new courses under the old departments. Originally, the general course covered two years, with a diploma designating the successful candidate Associate of the Ontario Agricultural College. This Associate course has been continued to the present, and has always been a prominent feature on the College curriculum, in recognition of the fact that the majority of the students who enter the College can give only two years to the study of Scientific Agriculture. In 1888 the College was affiliated with the University of Toronto, and a Third Year course added, entitling those who completed the course to the degree of Bachelor

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the Science of Agriculture. In 1895 the curriculum for the B. S. A. course was modified, allowing certain options, as Live Stock, Dairying, and Horticulture, a student electing a particular option, specializing in that branch of study. In 1901 the graduate course was extended to four years. Other additions are short courses in Dairying, Poultry and Live Stock.

The work of the College in its capacity as an instructing body has not been confined to the students enrolled in its register. Early in his incumbency Dr. Mills perceived that if the College were to attain to the measure of its duty to the Province it must carry its message into the heart of the farming community. Accordingly, in 1885, directly under his control, the Farmers' Institutes were organized, with himself and Professor Panton as the first staff of speakers. The dimensions to which this organization has now grown are a matter of common report, and need not be repeated here. It is sufficient to say that in its inception it was controlled directly by the College, and manned principally by College officers.

The net outcome of these various attempts at Agricultural instruction is, first, the existence of a large and rapidly increasing body of men in the Province who have received their inspiration directly at the College, and who in their turn, by example and sometimes by precept, are imparting to those about them correct principles of agriculture, and moulding to more and more correct forms the great art of husbandry; secondly and in part consequently, the general improvement of methods of farming.

To be just, we must admit that the very marked improvement in farming methods and results is due in part to the efforts of progressive and enterprising farmers who by shrewd observation and dearly-bought experience have found out the right way, and have led others therein. To such, all honor is due. But in this great work the College has, directly and indirectly, been a principal agent. Thirdly, by the aptness, the soundness, and the thoroughness of the instruction imparted, the College has, through its graduates, gained prestige outside of the Province. It is not in itself a gain, but rather a regrettable loss to the Province to have so many College graduates find more profitable occupation across the line. But since such is the ease, it is some satisfaction to know that, owing to their abilities and attainments, they are much sought after. They have won for themselves honor in many places, and some of the honor thus won is reflected upon the Province that reared and instructed them. It is a pertinent question why the graduates of this institution are so much in demand in American and other institutions, when, in the United States particularly, there are larger, better endowed, and more expensively equipped Colleges of Agriculture.

I have spoken of Dr. Mills as a man of affairs, more concerned with the practical than with the ideal. This is true, in the sense that he has not spent his energies in sighing after the unattainable, but rather in perfecting the practicable and the attainable. Yet he had ideals for the College, and his strict fidelity to those ideals, despite quoted examples and popular

clamor, has made the work of the College continuously effective, while that of similar institutions has been stultified by reason of unsound methods. One principle to which he steadily adhered was, in teaching Agricultural science, to lay broad and sure the foundations of a subject, before making the application. First the blade, then the ear, then the full corn in the ear. This principle is in agreement with a sound pedagogical axiom, but it has often found itself in opposition to the demand to make the course 'popular and practical.' Many self-constituted advisers of technical instruction have urged plunging *in medias res*, omitting the scientific foundation and giving only the practical issues. Such would reverse the natural development of knowledge, and would have, first, the full corn in the ear, without the ear and the blade. If we have not always known it, we are beginning now to know how wise and far-sighted was our Principal in this matter. It is interesting to note that the American Colleges, starting out, many of them, with courses of instruction prepared in defiance of this principle of development, are now beginning to see the error in their supine obedience to the short-sighted demand for 'practical' courses. The report of the committee on Methods of Teaching Agriculture of the Association of American Colleges, which was presented to the convention of 1903, has this to say: "Another (other) unfortunate result of the old arrangement of courses in our agricultural colleges was that the study of the general principles and outlines of the various natural sciences was often unwisely abridged, in order to

give more attention to their economic applications. This has perhaps not been the fault so much of the science teachers as of the managers of the colleges. The attempt to create a very practical atmosphere in these institutions has often led to great disregard of established pedagogical principles in the teaching of the complex subjects relating to agriculture and other arts."

It would be unfair to the enterprise and the devotion of others associated with the work of the College to assign to one man alone full credit for the results that have been achieved. That man would be the first to disclaim such credit. Much of the advancement outlined above should in fairness be credited to men that have been the Principal's associates. Yet even in this regard the large measure of success that has attended the efforts of his several colleagues is indirectly due to the Principal's wise policy, first, in choosing for his staff men of energy, ability, and vision; and secondly, in leaving them free to develop their departments and holding them responsible for the results obtained. Further, in the normal growth of the various departments, consequent upon the adoption of this policy, the heads of departments have ever gained from the principal wise counsel and ready support. Many of the changes in the courses of instruction, and most of the new lines of investigation, have been adopted at the suggestion of members of the staff. Dr. Mills' genius lies not so much in creating and originating, as in completing and perfecting, by apt criticism and strict attention to working details, the original ideas offered by

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others. During the years of expansion this faculty has been invaluable. It has been comparatively easy to offer plans and suggestions; it has been quite another matter to give to these airy schemes a solid basis of practical effectiveness.

To the personal qualities of Dr. Mills is largely due the distinction that he has won. The untoward accident that left him, early in life, in physical disablement, was made the turning point of his career. By his courage, persistence, and scholastic ability he transformed what looked like disaster, into opportunity. Manfully he breasted this blow of circumstance, and in grappling with his evil star, signal qualities of mind and heart were evoked. He attained to wide and thorough scholarship, and during his career as President of a College, no accomplishment has stood him in better stead than this. He has been enabled at all times with consistency and force to urge upon the students under his charge the necessity for close application and steady perseverance, and to convince them by his own example of the power that attends broad and exact knowledge. The same culture and breadth of attainments have enabled him to take a sympathetic and impartial view of the work in all departments of the College, and to give these departments spontaneous support.

As a public speaker, Dr. Mills is always strong and effective. He neither professes nor practices any of

the tricks of the orator, and is not eloquent in the usual sense of that word: that is, he never attempts perorations, rounded periods, or lofty flights of sentiment, but is content to deal with practical matters in plain, matter-of-fact language. Nevertheless, a fine presence, a resonant voice, independence and freshness of thought, courage in uttering what is within him, and a ready command of correct, strong, serviceable English, have combined to make him distinctly acceptable to an audience, and to give to his public utterances weight and authority.

The writer of this article has felt his own want of skill in handling the materials at his disposal, and is aware that this attempt is inadequate to the occasion. Whatever it may lack, however, it has at least the saving grace of sincerity. It would have been easier, more in line with prevailing sentiment, to offer a more flattering picture. But the subject of this sketch has always exemplified in his dealings truth and fairness, and a sincere word, if a plain one, is a more fitting recognition of his worth than fulsome flattery. It remains only to say, that to have known him is an honor, and to have been associated with him intimately for many years is a high privilege and a rare opportunity.

J. B. REYNOLDS,
Ontario Agricultural College.
Guelph, Feb. 6th, 1904.

GEORGE COULSON CREELMAN, B. S. A.,**President of the Ontario Agricultural College.**

THE Creelmans first took root in Canada in Nova Scotia. Transplanted from the north of Ireland, the early settlers thrived in Eastern Canada until to-day they have become a host. All along the

that the strong qualities of the maritime folk develop more rapidly in the west than along the Atlantic shores or on the tidal waters of the Gulf. The members of the Creelman family have had the knack of getting on.



G. C. CREELMAN, B. S. A.

eastern shore, as far south as New York, are to be found prosperous and respected men bearing this name that savors of the sea. Some forty years and more ago one member of the family came west and took up his home in Collingwood. Following family traditions, a large family grew up. It has frequently been noticed

The eldest son, Adam Creelman, K.C., is to-day filling one of the most lucrative legal positions in Canada, that of Solicitor to the Canadian Pacific Railway. His steady rise has doubtless had something to do with encouraging the younger brother to push on steadily until now at the age of 34 he is installed in the very re-

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sponsible position of President of the Ontario Agricultural College. It may be said in passing that President Creelman does not owe his selection in any particular to family influence, neither his brother nor his father-in-law were called on to back up his claims. The position was offered to him by the Minister simply because it was thought he could fill it acceptably.

Having spent his early years on a farm in Grey County, Mr. Creelman took a course at the Collingwood Collegiate Institute, and then turned toward the Agricultural College. This was in 1885, and when the writer of this joined the staff in January 1886 he found Mr. Creelman among the first year students, a young man overflowing with the youthful enthusiasm that, rightly directed, has played no small part in his steady advancement. There were only 175 students at the College in 1885, and 72 of these were from outside of Ontario. After nearly twenty years Mr. Creelman comes back to find the attendance more than quadrupled.

The first class graduated with the University degree of B. S. A. in 1888 and Mr. Creelman was one of the five. Mr. C. A. Zavitz, one of his efficient and loyal supporters, was another.

Mr. Creelman went from College to take a Professor's Chair in the United States, being appointed Assistant Professor in the Mississippi State Agricultural College. Three years later he was promoted to full Professorship. He remained in Mississippi until 1898 when he returned to Ontario. It may be mentioned in pass-

ing that for some time negotiations have been going on looking to Mr. Creelman's return to Mississippi to take charge of important agricultural work in that State. This is perhaps as high commendation as can be given him, apart from the fact of his present appointment.

For five years Mr. Creelman has been an earnest and successful worker in Ontario Agriculture. At first he was Superintendent of Farmers Institutes, but as other work came more directly under the supervision of the Department at Toronto, his field was widened, and the fruit-growing and dairying interests were more closely associated with the Farmers' Institutes. The growth of all this work is well known to your readers. Mr. Dryden followed the successful development of the various lines and when the position of President of the College became vacant so unexpectedly a few days ago, there was little delay in the appointment of a successor. Dr. Mills has become so intimately identified with the College during the past twenty-five years that it is hard to realize that he is gone, that his place is filled with another. Such, however, is the case. The Minister feels confident that he has not made a mistake. If the College does not continue to hold its own among the great institutions of Canada, if the officers do not loyally and cheerfully work for the advancement of the interests of our most important industry, and if the students do not receive encouragement and inspiration in their work, the fault will not lie with President Creelman. Mr. Creelman has succeeded in the past; he has good qualities; he will do his best—what more can be asked?

One word more. The President of the Agricultural College does not fill the chair alone. At such an institution as ours, the President's wife must divide with him the responsibilities and the honors. Nearly twelve years ago Mr. Creelman came back from Mississippi to the College to claim his wife. There may be some little mischievous satisfaction to the students to know that the years of 1885-88 were not given over to study

to the exclusion of all other matters. A good wife may be as helpful to a man as a College diploma. It will be no little satisfaction to the students to know that Mrs. Creelman is well able and well inclined by nature and experience to carry on the well known hospitalities of the home of her father and mother, President and Mrs. Mills.

C. C. JAMES.

NATURE STUDY No. IV.

A Key to the Shrubs on the Campus by means of the Buds.

GROUP 1.

BUDS ARRANGED OPPOSITELY.

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| <p>A. Buds without scales,
<i>European Red Dogwood</i>,
(<i>Cornus sanguinea</i>.)</p> <p>B. Bud scales few (1-2)</p> <p>(1) Buds single.</p> <p>(a) Buds scales black.
<i>Black Ash</i>, (<i>Fraxinus sambucifolia</i>.)</p> <p>(b) Bud scales grey.
<i>Cornelian Cherry</i>, (<i>Cornus mas</i>.)</p> <p>(c) Bud scales brown.
Young shoots long and smooth.</p> <p>1. Bark rough, peels off in scales.
<i>Bladder Senna</i>, (<i>Colutia arborescens</i>.)</p> <p>2. Bark smooth, light brown.
<i>Weigela</i>, (<i>Diervilla florida</i>.)
Young shoots short and slender.</p> <p>1. Twigs opposite (2 at each joint.)</p> | <p><i>Snow Berry</i> } <i>Symphoricar-</i>
<i>Coral Berry</i> } (pus.)</p> <p>2. Twigs in whorls (3 at each joint.)
<i>Syringa</i>, (<i>Philadelphicus</i>.)</p> <p>(d) Bud scales pink, twig ridged between the buds.
<i>Snow Ball</i> }
<i>Sheepberry</i> } (<i>Viburnum</i>.)
<i>Cranberry</i> }</p> <p>(2) Buds double, young twigs are square-sided.
<i>Golden Bell</i>, (<i>Forsythia viridissima</i>.)</p> <p>C. Several bud scales visible, compact about the bud.</p> <p>(1) Twigs slender.
Bud scales smooth.</p> <p>(a) Young shoots straight and long.</p> <p>1. Bud scales small, dark red.
<i>Privet</i>, (<i>DuRoiisia gracilis</i>.)</p> <p>3. Bud scales very small, buds round leaf scar prominent.
<i>Trumpet Vine</i>, (<i>Bignonia radican</i>.)</p> |
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- (b) Twigs much branched.
1. Bud scales numerous and close, reddish brown in color. Bark slaty brown.
Carolina Hawthorn, (*Rhamnus Carolinana*.)
 2. Bud scales same. Bark light grey brown.
Burning bush, (*Euonymus atropurpureus*.)
 3. Bud scales same. Bark light grey brown.
Hydrangea, (*H. paniculata grandiflora*.)
Bud scales Hairy.
- (a) Twigs long and smooth, reddish brown, older bark is rough, cracks on the tree trunks.
Maple, (*Acer*.)
- (b) Twigs long and straight, square, color chocolate brown.
Sweet Shrub, (*Calycanthus floridus*.)
2. Twigs large in diameter. Leaf scar prominent, buds large with a larger terminal one, buds covered with sticky secretion.
Horse Chestnut, (*Aesculus hippocastanum*.)
- D. Several bud scales visible, loosely arranged.
- (a) Twigs slender, grey.
Honeysuckle, (*Lonicera*.)
 - (b) Twigs course, grey, longitudinal, raised portions or ridges,
Elder, (*Sambucus*.)
- GROUP II.
- BUDS ARRANGED SPIRALLY.
- A. Buds stalked.
- (a) One visible bud scale.
Alters, (*Alnus*.)
 - (b) Several bud scales visible.
Currants, (*Ribes*.)
- B. Buds sessile, several scales, prominent spines on the branches.
- (a) Spines at base of bud.
Barberry, (*Berberis Vulgaris*.)
 - (b) Spines scattered on branch.
Roses
Sweet Briar } (*Rosa*.)
 - (c) Spines at end of twigs only.
Japan Quince, (*Pyrus japonica*.)
 - (d) Long black spines thickly scattered over old wood.
Hawthorn, (*Crataegus*.)
- C. Buds sessile, several scales, no spines on branches, buds and bud scales with or without hairs.
- Bud scales hairy.
Crab Apple, (*Pyrus*.)
- Bud scales smooth or hairy at their margins.
1. Buds dark brown, leaf scar a narrow crescent.
 - (a) Slender, green, ridged, twigs.
Japan Kerria, (*Kerria Japonica*.)
 - (b) Twigs much branched and stout.
June Berry, (*Amelanchier*.)
 2. Buds very small, hairy, leaf scar prominent.
 - (a) Buds few and far apart, twigs are greenish brown.
Yellow Wood, (*Cladostri tinctoria*.)
 - (b) Buds small, close spiral, leaf scar black, dark reddish brown in color.
Mist Shrub, (*Rhus cotinus*.)
 - (c) Resembles above, bark is dark brown, pungent odor.

Fragrant Sumach, (*Rhus Canadensis*.)

3. Buds dark brown, leaf scar almost a semi-circle.

- (a) Twigs dark brown, smooth medium size.

European Bird Cherry, (*Cerasus padus*.)

- (b) Twigs chocolate brown, ridged, quite crooked, medium size.

Purple Leafed Plum, (*Prunus*)

- (c) Twigs slaty brown, very slender and smooth.

Choke Cherry, (*Prunus Virginiana*.)

- (d) Twigs light brown with a greyish cast. Very small (fine) and much branched, smooth.

Spiraea, (*Spiraea vanhoutteii*.)

- (e) Twigs fine, ridged.

Dwarf Weeping Cherry, (*Prunus Cerasus*.)

4. Buds light brown, round leaf scars, small round buds.

Catalpa, (*Catalpa speciosa*.)

Bud scales black or very dark brown, no hairs.

Mountain Ash, (*Pyrus Americana*.)

- D. Buds sessile, apparently only one bud scale, which is large; twigs are very fine and much branched.

Siberian Pea Tree, (*Caragana*)

- E. Buds sessile, without scales, bud only pointed and very hairy. Branches and twigs smooth, color dark brown.

Cucumber Tree, (*Magnolia acuminata*.)

GROUP III.

Buds arranged alternately.

- A. Buds roundish oval.

Basswood, (*Tilia*.)

Elm, (*Ulmus*.)

Hazel, (*Corylus*.)

- B. Buds pointed.

Birch, (*Betula*.)

Beech, (*Fagus*.)

Hornbeam, (*Carpinus*.)

H. L. FULMER.

E. C. CARPENTER.

R. G. BAKER.

T. C. BARBER.



Agricultural Department.

EDITED BY J. C. READEY.

The latest subject at an agricultural college—small-pox.

Are we, as students, realizing the great things we thought we would if we only had "two solid weeks to read."

Now that we have had to suffer the loss of Dr. Mills, and the Government have been obliged to appoint a new President, we hope that some power will, at the same time, touch the hearts of those who keep the key to the treasury and cause them to show a little more liberality. To use a familiar agricultural term, our college is down to a "maintenance ration." Give the heads of departments money, give them equipment, give them assistants, and they will make the institution what it ought to be, what the people of the province should shame themselves for its not being, a leading and acknowledged authority along every line of scientific agricultural investigation. We have the men; give us the means.

What about languages at the College? Three forenoon periods a week are now devoted to languages, two to agronomy, two to chemistry, and not more than two to any other subject. At present it is necessary to devote the best part of three evenings per week to the exercises assigned, if

they are to be at all well prepared. And yet this takes place in our senior year. We venture to say that not more than two per cent. of our students, who have had no previous knowledge of languages, will be able to read without a great deal of labor at the end of the term. Further, we do not think that more than that number will have any occasion to do so. A knowledge of the French or German language would certainly be valuable in more ways than one, but as it stands at present we think the incomplete study a waste of time, and we surely cannot think of devoting more time to it. We recognize the ability of our Professor of languages and appreciate her interest in us, but we humbly beg to submit the situation to the consideration of those in authority.

It does not need a Darwin to trace the evolution of agricultural education in Ontario. A quarter of a century ago we had but a one-celled agricultural college. From this has gradually evolved the complex institution, with its numerous, differentiated departments, each performing its own function. Is it not now possible to detect traces of another accessory organ? Or is the prospect of an agricultural High School in each county of the province but the result of the over-straining of faith's optic nerve?



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The History of Challenger.

In April, 1903, Prof. H. R. Smith, of the Animal Husbandry Department at the Nebraska Experiment Station, while traveling over the state visiting farmers and feeders, in view of studying farmer methods of feeding and handling cattle in the feed yard, chanced to stop at Lawrence Murphy's place, near Vesta, in Johnson county, Nebraska. In going into the feed yard, where two loads of steers were being fed, he was attracted by the fine back and thick quarters of a blue-roan steer that was lined up with others at a feed rack. On further inspection Professor Smith thought he saw in this steer a fine subject for class instruction, a near approach to the ideal beef animal that he had been trying to picture in his class work to the students. It is not venturing beyond reason to say that the Professor, even had momentary visions of possibilities in the fat stock showing. A cattle buyer being present in the yards at the time, negotiating for the purchase of the entire bunch of cattle, the blue-roan steer was arranged for by Professor Smith at 5 cents per pound, a premium over the price asked for the two loads. The weight was 1,275 pounds, but so well pleased was the Professor that \$65 was paid for him delivered ready for shipment.

When the steer arrived at the Experiment Station he was wild, and displayed his ability to carry more flesh by jumping out of the scales when penned to be weighed. He was put on a grain ration to start with, of 12 pounds, consisting of 50 per cent. corn, 20 per cent. oats, 15 per cent. bran, and 15 per cent. oil

meal. He was allowed to run on a pasture through the day and yarded at night. Was not fully started on feed for a gain until May 1. During the hot weather of the summer he was kept in a shed provided with a double roof to keep it cool, and doors and windows screened for protection from flies; was not turned out during the last two months of his feeding, but was kept in a box stall and had prairie and alfalfa hay for roughness. The grain ration was increased to 24 pounds, the oil meal to 20 per cent. and the bran cut down to 10 per cent. Alfalfa leaves were mixed with the grain, making the grain ration light on the stomach. The last month he had three pounds of ground wheat, and some sugar beets introduced in way of variety, and the grain ration increased to full capacity about 25 pounds per day. He was never noticed off his feed in the least, nor in the least indisposed. He never tasted stock foods or condimental preparations of any kind. His appetite was such as to be equal to the demands for all plain feeds. Charles Shumate was the herdsman who had charge of the care and feeding of the steer. He came to the University Farm without previous experience as a feeder or care-taker of cattle. He has been at the University Farm three years and carried out his work in feeding this steer by written instructions, all feed weighed and system and exactness in feeding observed. Grooming frequently was practiced, in order to quiet the naturally nervous and excitable animal.

The gain on this steer in six and one-half months was 550 pounds; average gain, 85 pounds per month;

and for the last two months his gain was over 100 pounds per month.

The pedigree of an animal that has passed the pure breeds by the way-side and so universally attracted the attention of the world is always in demand, even though he be a grade steer; consequently the family history has been investigated and "Challenger" has been found to contain possibly no scrub or low breeding in his make-up. His sire was McGinty 40610, a Hereford bull owned by J. S. Carlyle, of Chicago. Earle of Shadeland 12th is the grandsire. The dam of Challenger is a blue-roan cow owned by Lawrence Murphy, and out of a Holstein bull and a roan Short-horn cow. This combination of breeds has made it possible for three classes of breeders to take a great deal of satisfaction in the award, and each set up a claim that his cross put the finishing property on the steer.

Col. Ferguson, the judge who passed on this class, and who is a Scotchman of considerable notoriety as an expert judge in the fat stock ring, said: "He is perfectly fitted and would be a winner in any of the great shows in Europe."

Too much cannot be said of the good judgment in selection, and the skill and attention in the feeding of this animal to bring him up to the position where he has invited the attention of the civilized world.—Nebraska Farmer.

[Taking oil meal to mean linseed cake, and using Warmington's table of digestibility, the grain ration fed to "Challenger" had at the start a nutritive ratio of 1-5.96. Later it was changed to 1-5.75, and the last month stood 1-5.73. One of Challenger's strong points was his handling qualities. In connection with this, note the gradual narrowing of the ration. The legumes in the coarse fodder should not be over-looked. Note further, (1) the variety of grains composing the ration and its consequent palatability, (2) that at the ordinary prices in this province the large daily gain for the last two months did not pay for the food consumed. With wheat at 75cts., corn at 60cts., oats at 34cts. per bushel, linseed cake at \$30 per ton, and bran at \$18 per ton the cost of the daily grain ration was 27cts.—Ed.]

Experimental Department.

Co-operative Experiments in Agriculture.

C. A. ZAVITZ, B. S. A.

CO-OPERATION is a prominent feature in the agricultural experimental work in Canada. It may in general be classified under three headings: 1st, Co-operation among the Experiment Stations, as in the case of the five stations under the control of the Dominion Government; 2nd, Co-operation among the Branch Stations, as in the work of the thirteen fruit stations in connection with the Ontario Agricultural College; and 3rd, Co-operation among the farmers, as is seen in the experiments under the supervision of the Ontario Agricultural and Experimental Union. The work embraced under each of these three headings increases the value of the results of the experiments conducted at the stations, and that embraced under the last heading contains many additional features of great value which are not furnished by either of the others.

It should be clearly understood that the system of co-operative experiments as carried on under the direction of the Experimental Union is very different from a system of seed distribution where no systematized plans are given for conducting definite work nor for reporting exact results. The former has many commendable features not furnished by the latter, and the latter has some objectionable features not included in the former.

The co-operative work which was started in 1886, has had a steady and substantial growth from that date until the present time. At first it was confined to the testing of field crops and fertilizers. Other branches of agriculture, however, were added from time to time until no less than ten different lines of work have been included in the general plan. It is expected that in 1904 the co-operative work of the Experimental Union will be directed principally along the lines of Field Agriculture, Horticulture, Poultry Raising, Forestry, and Economic Botany and Entomology.

The results of experiments and investigations carried on at the Ontario Agricultural College form the basis for the selection of the materials used for the co-operative experiments. From the beginning, the co-operative work of the Union has been directed and controlled by circulars and letters, printed and written, which have been transmitted through the mails. Instructions for conducting the experiments and blank forms on which to report the results are furnished to every person undertaking the work. Every man is made responsible for his own experiment, and is urged to do the very best he can for himself, for his neighbors, and for the Union. Many persons, who at first took but little interest in the work have afterwards proven themselves to be very valuable experimenters and have shown great accuracy in the detail of their work. The names of those who conduct the experiments with the proper amount of care and accuracy

are placed on the list of successful experimenters and are carefully looked after in the future. It will, therefore, be seen that the Experimental Union makes a study of the men themselves as well as the products of their labor. The education of the men in the development of accurate methods, careful observation, and a deeper interest in the occupation of farming, is one of the objects of the co-operative experimental work of the Union. I have no hesitation in saying that the results which have been obtained along these lines are of far greater value than the entire cost of the co-operative work for the past eighteen years.

The writer had strong faith in the value of co-operative experiments even before they were started in Ontario in 1886. His experiences of the past eighteen years as director of the co-operative work in agriculture in Ontario, and as a personal visitor to more than one hundred agricultural colleges and experiment stations in Europe, the United States, and Canada have even increased his faith in the great value of the work. It is a work which has been fruitful in promoting agricultural science, in increasing agricultural investigations and in disseminating agricultural information among the farmers of the Province. It has led the farmers to feel that the Agricultural College is working for their good, and has, therefore, caused a deeper interest in the whole work of the institution.

It is, indeed, a difficult task to attempt to enumerate on paper all of the advantages derived from a carefully arranged system of co-operative experimental work. The system in operation in connection with the Ex-

perimental Union is exerting an influence which is wholesome in its character, extensive in its operation, and far reaching in its results. Besides its financial advantages, regarding which we have heard so much of late, I believe it to be one of the greatest educational agencies which it is possible to introduce throughout the rural districts. It works successfully in nearly every branch of agriculture; it penetrates into those parts of the country where it is most needed; it furnishes hundreds and even thousands of object lessons annually which form centres for interesting study along the lines of progressive agriculture; and it supplies valuable topics for discussion in the field, at the fireside, in the corner grocery, and at meetings of farmers' institutes. It adds dignity to farming and pleasure to farm life. In fact it helps the farmers to help themselves and exerts a very wholesome influence in keeping the farm boys interested in farm work.

Although the co-operative experimenters in agriculture alone in 1903, numbered 3,345, it is intended to increase the work during the present year both in extent and in quality. The co-operative work in agriculture will include experiments with spring and fall grains; root crops; forage, fodder, silage, and hay crops; preparation of seed; methods of cultivation; and applications of commercial fertilizers and farmyard manure. Some fifteen new and promising varieties of farm crops which have given good results in the experiments at the College, will be used in 1904 for the first time in connection with the co-operative experiments throughout Ontario.

Each experiment will require from two to seven plots. Most of the plots will be 2 rods long by 1 rod wide, being exactly 1/80 of an acre in size. The largest plots required will contain 16 square rods, or 1/10 of an acre each. Formerly some of the plots were 1/2 acre in size, but these gave less satisfaction than the smaller ones.

Circulars giving full information in connection with the co-operative experimental work in agriculture will be issued about the 1st of March. All

those who wish to receive seeds for testing purposes in the coming season should apply for the circular in the early part of March. All experimental material is sent free of charge to each applicant, and the produce of the plots becomes the property of the person who conducts the experiment. In return, each experimenter is asked to conduct the test according to instructions which are furnished, and report the results at the end of the season. Great accuracy is necessary throughout. For fuller information apply to the Director.

Horticultural Department.

EDITED BY T. C. BARBER.

The Surplus and By-Products of the Peach Industry.

EVAPORATORS.

THE treatment of the fruit for drying was noted under the heading of Evaporation. The machine, the evaporator itself, may now be remarked upon. There are many styles of evaporators on the market, from the small family affair, to be set on the back of a cook stove and capable of drying about three bushels of fruit per diem, to the giant factory driers, capable of turning out several hundred-bushels daily. Among the latter are horizontal evaporators, towers or stacks, steam tray-evaporators, air-blast evaporators and various others. Before purchasing, a careful investigation should be made, with a view to finding the one of the desired capacity that will produce the best results at the least cost.

Two methods are involved in the process of evaporation: one by the rapid circulation of heated air, and the other by steam pipes laid in horizontal tiers and passing back and forth through the chamber of the evaporator. This latter method is probably the most efficient and economical for very large establishments. The heat is more uniform, more evenly distributed, and more completely within the control of the operator than when hot air is used, and there is less danger of scorching the fruit. The use of hot air, however, is most generally adopted. The apparatus required is less expensive, and, with a little experience and care to keep up an even temperature of sufficient heat with perfect circulation, just as good an article may be turned out.

In all hot air evaporators, the heat is supplied by a furnace, below the trays. This furnace is filled with

draughts so that the temperature may be controlled. Fresh air is drawn in through specially-arranged inlets, heated, and passed either over or through the fruit on the trays.

In the best forms of commercial evaporators, the fresh fruit is put in at the bottom (i. e., nearest to the heat), and the dried fruit comes out at the top. By means of a mechanical contrivance worked by a crank, the whole stack of trays is raised one notch or space to admit each fresh tray at the bottom. The fruit is dry when it reaches the top of the stack. The trays are then removed, emptied, re-filled with fresh fruit and used again. Thus the system is continuous, and during the busy season it is worked day and night.

A very good commercial evaporator is made by the W. A. Trescott Manufacturing Co., of Fairport, N. Y. A machine of less capacity and well suited for farm use is the Zimmerman, made by the Blymer Iron Works Co., Cincinnati, O. Additional apparatus, bleachers, slicers, parers, etc., are necessary to the complete equipment of an up-to-date establishment. These also are supplied by the firms mentioned.

PEACH JAM.

Jams are most commonly made from plums and small fruits. A good jam may also be made of peaches when other means for disposing of the surplus are not available. Small and bruised peaches, if used when fresh, may be utilized in this manner—though first-class jam should be made from first-class fruit. The process of jam-making noted by the writer is a simple one. The fruit is placed in a

steam-jacket kettle and one-half or three-quarters of a pound of sugar is added for every one pound of fruit. It is then boiled till of the required consistency, poured into cans or jars and sealed down air-tight at once. The English market demands glass jars. When for home use, the jam may be made in any iron or copper kettle, lined with enamel, over a slow fire. If such are used, it is necessary to stir constantly to prevent scorching and to remove the impurities that rise to the surface.

PEACH JELLY.

This is one of the most attractive forms in which peaches are placed upon the market. It is sold at a large profit to the producer, as pure jellies are scarce and high-priced. It is made from pure peach juice and sugar in various proportions, personal and market preferences determining the ratio. Some manufacturers use sugar enough to produce a twenty-degree reading on the saccharometer, others use as high as equal proportions of sugar and juice. Peaches for jelly should be sound and fully ripe. The pits should be removed and the fruit crushed in a press. The juice is then filtered, the sugar is added and it is boiled incessantly for about eight minutes, when it should reach the right consistency; i. e., will keep its shape if up-ended when cold. The jelly is then put up for market in much the same way as recommended for jam.

CRYSTALLIZED PEACHES.

The production of candied or crystallized fruits is carried on most extensively in California and France. Even in those countries the product is not large, as the process is not a

definite one, being more or less in an experimental stage. Wickson's "California Fruits" states that "The theory is to extract the juice from the fruit, and replace it with sugar syrup, which, upon hardening, preserves the fruit from decay, and at the same time retains the natural shape of the fruit. Though the method is very simple there is a certain skill required that is acquired only by practice."

BRANDIED PEACHES.

In the preparation of brandied peaches, only sound, fully-grown, and not quite ripe, fruit should be used. Each specimen is wiped clean, and pricked to the centre with a silver or wooden instrument. The fruit is then placed in water heated almost to boiling point, and allowed to stand ten minutes. After heating again, it is thrown into ice-cold water. When cold and drained it is put into a tub of brandy (55 per cent. alcohol) and allowed to stand for six days. Next the fruit is placed in jars. To each gallon of brandy, in which the fruit has been soaked, add four ounces of sugar and heat to 200 degrees F. Fill the jars containing the peaches with the hot sweetened brandy, and seal air-tight. Store in a dark, cool place. Spice, essence of cinnamon or cloves, may be added to the brandy, before the fruit is put in. This process is recommended by the North Carolina State Board of Agriculture.

A. B. C.

(TO BE CONTINUED).

Horticultural Achievements.

Many wonderful, useful, and beautiful results have been achieved by horticulturists and orchardists, in chang-

ing wild flowers and fruits from simple and acrid things into the productions of the modern florist and fruit-grower, and also by the production of new varieties entirely different from anything produced by Nature, by means of natural selection or by the agency of insects, crossing and re-crossing the blossoms. Seedless apples, seedless grapes, seedless water-melons, tomatoes on potato plants, thornless black-berries, strawberries and black-berries combined, oranges and grapefruit combined, have all made their appearance, though at present only in an elementary form.

The thornless black-berry is an accomplished fact, having been produced recently at Benton Harbor, Me.: and the pit has been eliminated from a new variety of plum. The kernel still remains, but the stone has gone. This kernel may eventually be disposed of by cross-breeding.

A notable recent achievement is the seedless grape, which has been successfully produced in California. Many people object to grapes on account of the stones, apart from the fear of swallowing them, which has been caused by the appendicitis fad; therefore this new variety has great commercial possibilities. The seedless grape was obtained from the Muscat of Alexandria, by selecting year after year cuttings from those vines that produced less than a normal number of seeds. This was continued until absolute seedlessness was obtained. This new grape has a flavor equal to that of the currant grape, compared to which it is a giant in size.

The seedless apple will probably arrive in the near future, as many plant breeders are working patiently

on this problem. The banana is already seedless, being propagated by slips and suckers. The pineapple is practically seedless, being propagated in the same manner.

Thorns are a nuisance on fruit-plants, and plant-wizards are doing their best to get rid of them, by means of simply selecting specimens that happen to be thornless or comparatively so. The thorns have nearly been eliminated from the raspberry in this manner, and some varieties of oranges and lemons have been greatly improved. For example, the King orange is one of the best mandarins seen on our markets, but a large percentage of them are injured to a great extent on the tree by being punctured by the thorns when the branches are blown about by the wind. This method of injury has been greatly lessened in Florida by selecting buds from branches with the fewest thorns.

In these and in many other ways scientific horticulture is working miracles in improving both the quality and the quantity of the fruit produced.

T. C. B.

NOTE:—The following letter explains itself. Ed.

ERRATUM.

To the Horticultural Editor:

For the sake of any "Review" readers who are sufficiently interested in the peach industry to read the rambling articles that appear over my alphabetical sign-board, I think it not only fair but really necessary to state that my article in the January number was intended to have a heading, and that the subject or topic omitted by you and discussed by me was "Picking Peaches in Georgia." How

did you expect any person to know what I was writing about when you omitted the title of that article? No person but myself could glean from the subject matter that I was trying to discuss the picking of peaches, and now even I am somewhat at a loss to know if such was actually my intention. With a well-put and concise heading, I find it sufficiently difficult to make myself understood; without such, for aught my readers may know, I might be expounding upon the distinguishing characteristics between a Christian and a Grit, or determining the nutritive ratio of a domestic science doughnut, or some such insoluble topic, rather than be taking in hand the consideration of a subject that has to do with the crowning triumph of Nature, the ruddy-streaked golden peach, wrapped in blushing velvet, whose flesh drips with lusciousness, and by whose production America has done her duty toward the world's pleasure. Mr. Editor, kindly satisfy the curiosity of a few anxious readers, and restore the questionable good works of your obedient and humble contributor by correcting the error attendant unto the aforesaid headless sketch.

A. B. C.

Suitable Soil for Strawberries.

Any garden soil that will give good crops of vegetables is suitable for strawberries, yet change of soil sometimes makes a great difference in the yields of varieties. For instance, plants may yield heavily in one locality, but may give very poor crops when taken to another, owing to their not being acclimatized. Different soils

in the same locality may also materially affect the bearing of varieties, even though these soils may be apparently in good condition for growth.

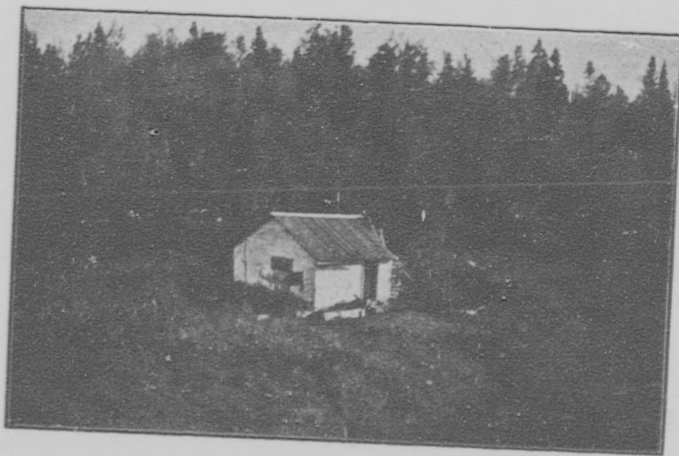
A rather interesting conclusion in this connection is arrived at in inspecting the fruit books of the O. A. College for a few years back. The kitchen garden connected with the institution consists of about seven acres, and has a southern slope, the south end in consequence being considerably lower in level than the north end, and having a blacker, moister soil. The garden is worked on a seven-year rotation system, and the strawberries annually occupying about one acre, they travel from the top to the bottom in seven years, giving good opportunities for comparing the yields of the different varieties on the different kinds of soil. The same system of cultivation has been followed every year, and each time the same crop has preceded the strawberries, so that the conditions were practically similar in all respects with

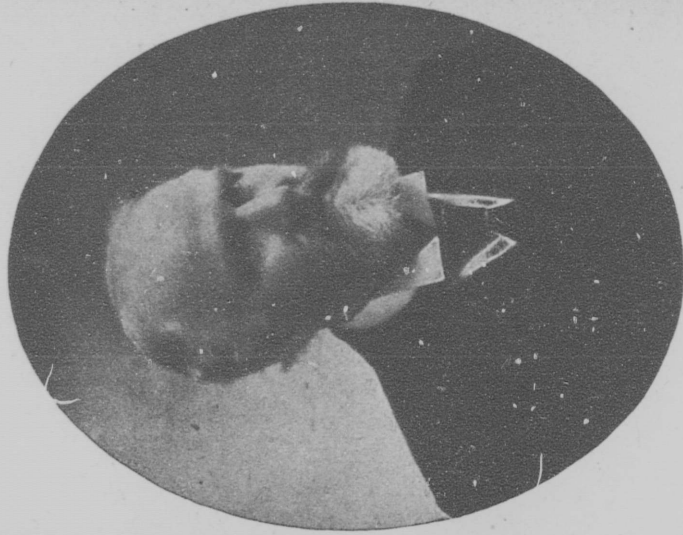
the exception of the weather and its effects.

No doubt the weather modifies the crop to a certain extent, but it would scarcely cause the regular and almost systematic variations in yield observed in the reports. Starting at the top of the garden, the crop was fairly light, increasing year after year, as the strawberries followed the slope down the hill, and terminating at the bottom of the garden in 1902 with the heaviest yield on record. In 1903 the patch was again at the top of the garden, with the result that the yield decreased nearly 50 per cent. as compared to the previous year.

As before stated, weather conditions may be partly responsible for this change; yet we think that it is obvious that change of soil was the chief factor. This would indicate that the strawberry will thrive best, and give the most profitable results in a deep, rich, mellow soil, with plenty of moisture in the subsoil.

T. C. B.





DR. JAMES MILLS.



HON. A. G. BLAIR.

THE CANADIAN RAILWAY COMMISSION.



HON. MR. BERNIER.

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The O. A. C. Review.

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FEBRUARY, 1904.

Editorial.

The Change. Never before in the history of our paper has the staff been called upon to report a change in the Presidency. For twenty-five years the name of Dr. Mills had been so intimately associated with our College, that to many of us he seemed to form an integral part of the institution, in fact, the genius of the place his labor had done so much to create. A man of untiring patience and ceaseless energy, he fought and worked for the institution in the days when stolid indifference and even captious criticism rendered the task doubly unpleasant. To-day he leaves it supported by every class; one of the strongest of our educational institutions. The life of Dr. Mills is an object lesson. Left in early manhood with a misfortune, which deprived him of making a success by physical labor alone, he turned his energies to the field of educational affairs, and stands to-day as a proof of that statement, "That the barriers are not yet erected which shall say to aspiring talent, 'thus far and no farther.'"

With the students Dr. Mills was a great favorite. True, at times we disagreed with him, no student on earth ever yielded a glad allegiance to every rule of a residence college, or to all the varied details of a college curriculum, but yet we cannot fail to remember the soundness of his arguments and the clearness of his logic. Censure at times we deserved and at times received, but we shall never forget the genial smile which followed even his sternest moments, and his hearty hand shake is a recollection not easily forgotten. Dr. Mills leaves us to take a position of great importance to the agricultural community, and in his new field of labor we shall watch his efforts with unfading interest, confident that those sterling qualities of manhood and integrity, which he has exhibited throughout his whole life, will tend to his still greater success in the future.

Of his successor we need say little. He comes to us with the prestige of previous success. For a number of years he has had charge of the field educational work of the Province,

and with such fortunate results that to-day our system of instruction in this line is the pride of Ontario, an example to the other provinces. Mr. Creelman has lived in close touch with the college ever since his graduation, and is thoroughly familiar with its needs. He has the strength of youth and the fire of enthusiasm on his side, and with a well known ability for organization and management, which he has shown in other fields, we may look forward to a continuation of our past progress, confident that our College will ever remain the best of its kind in America, the mother of them all.

* * *

Drawing Competition. The drawing of Dr. Mills, the frontispiece in this issue, is the prize winner in our drawing competition. Mr. D. H. Jones, the successful competitor, has now joined the staff of the Review, and we warn all those whose photos have not yet appeared in our columns to get their Sunday face on, they're next.

* * *

The Bee and the Bear. The God of battles has flung the dice. The destiny is in His hands at last and with the stern echo of that terrible cast the peace of the world is at an end. When and how it will be restored no man living dare say--but he may have his sympathies. It is natural to a Britisher to swear allegiance with the smaller of the combatants without pausing to reflect if they be the weaker, or what should carry more weight, in the right. A brief review of the situation may serve to show that Japan as well as

Russia may be criticized for forcing the war. Russia made claims upon Corea which Japan contended, whereupon the Russians abated all save one point, but even then the Japs refused to make the slightest concession. Whilst relations were thus strained, and the outside world anxiously awaiting developments, Japan impudently threw down the gauntlet by withdrawing her Ministers from St. Petersburg. It appears that the wily Japs had carefully looked over the situation before taking any rash steps. Necessarily the war in its first phases must involve a struggle for the supremacy of the ocean. The Japanese fleet excels the Russian in every particular, it is larger, more modern, better equipped and consists of heavier vessels. Another item of vital importance is that the Russian fleet is 5000 miles from the base of supplies, the Japanese are quite at home. Russia has not a dock in that part of the world. On the other hand, Japan has, easy of access, no fewer than seven harbors of refuge and repair, where her wounded ships may be healed to fight again, while with the Russian vessels it is a case of win or die. Again, if the contest is renewed on land, Russia's size is rather a disadvantage than an advantage. Her troops, raw, stolid and ignorant of warfare suffer by decentralization. Scattered throughout hundreds of miles of territory, they are garrisoned in a dozen widely separated strongholds, fighting for a political rather than a national cause, and isolated from hearth and home by thousands of miles of frozen waste. On the contrary the Japanese forces, alert, mobile and disciplined, with their

native land as the base of operations, their fleet supreme, their island home impregnable, have everything to win and nothing to lose. Viewed in this light the war resolves itself into the case of one opponent, active and plucky, because of its very activity confident of victory, forcing to enter the lists its rival, massive, ponderous, slow to think and act, or, the Bee and the Bear.

* * *

Co-operation. Month by month our quota of exchanges, each fraught with its message from some educational institution, reaches our editorial table. Steadily we note their onward progress, until to-day many of our colleges are publishing journals that compare favorably with our leading Magazines. College journals are not, in anyway competing with each other, but each in its own field is working out its own desires, namely, to portray, accurately, college life, to form a medium for the expression of student opinion, and last but by no means least, to publish the best paper possible, at a minimum of expense.

In this work they are beset by difficulties, innumerable: constant changes of staff, lack of sufficient financial support, indifference of ex-students, and equal to any of these, a lack of co-operation among the papers themselves. To this last difficulty we ven-

ture to suggest a remedy. Let us unite and in a spirit of true co-operation form a Canadian College Journalists' Association. Each paper has learned some secret of success not possessed by the other, and by the formation of such a society, and the mutual exchange of ideas, much good would undoubtedly result. Let us go one step farther, and suggest a convention of the editors and business managers of our college papers to be held in Toronto next September. In fact, why not "Morganize" all the college journals into one substantial trust, having for its object the beneficial purpose of the improvement of that important factor in Canadian journalism, the college paper.

* * *

An Error. We regret that owing to a typographical error in our previous issue the name of Tennyson, D. Jarvis appeared as Tennyson D. James. Mr. Jarvis has been with our Biological Department for a number of years and few men are more familiar with the fauna and flora of the Province. His appointment last year as Biologist to the Government Exploration Party was a well merited recognition of his services, and his article on "Exploring in the Abitibi Region," shows his thorough familiarity with the region traversed.

Our Old Boys Page.



Mr. B. E. Patterson, B.S.A.

We take pleasure in presenting this sketch of Mr. B. E. Paterson, B.S.A., ('88), one of the five who comprise the first class to graduate with the degree of B. S. A. after the affiliation of the O. A. C. with the University of Toronto, in 1888. For ten years Mr. Paterson followed journalism with success, and later went into gold-mining in Nova Scotia. For several years he was manager of the Woodstock Mine, a valuable property controlled by a New Brunswick Syndicate, headed by Lieut.-Gov. Snowball, Hon. A.G. Blair, Sen. Thompson, and other well known eastern capitalists. Two years ago he retired from this position to take the inspectorship of agencies of a large British financial house which has immense interests in the financial life of Canada. At present Mr. Paterson makes Winnipeg his headquarters.

Few of the old students have kept in closer touch with the College than has "Pat." Though his training while within her walls seems to bear but little relation to his work in after life, he has ever taken a lively and continued interest in his Alma Mater. From time to time he has forwarded valuable specimens to the museum and he it was who originated the idea of the "First Class," offering the annual prize in Oratory to the Literary Society; which has met with such genuine appreciation by the students.

Mr. George A. Putnam, B.S.A., ('00), has been appointed to succeed Mr. G. C. Creelman as Superintendent of Farmers' Institutes and director of the dairy schools at Kingston and Strathroy. Mr. Putnam was born in 1869 in the County of Elgin, and spent his early life on his father's dairy farm near Alymer. His early training was received at the Aylmer High School, and the Forest City Business College at London. In 1890 he took the position of Secretary at the Ontario Agricultural College, which position he held for over ten years. During this time he took the course in agriculture, graduating in 1900, and dividing honors for first place with Mr. Linklater. In the fall of 1901 he became Secretary of the City Dairy Co., Toronto, and shortly afterwards was married to Miss Shuttleworth, sister of Dr. A. Shuttleworth, former Professor of Chemistry at the College.

Although he will be no small man who will fill the shoes of President

Creelman, as Superintendent of Institutes, yet we feel quite confident in the ability of Mr. Putnam to fill the position. He is a born manager, and, judging from his past popularity with the students, he will soon become a general favorite with the farmers of Ontario. Mr. Putnam's duties as Secretary required him to keep well in touch with Institute work, and, as he was also identified with the work of the travelling dairy, he is particularly well adapted to his new office.

Quiet Home Wedding.



Mr. and Mrs. Gilpin.

A very pleasant and enjoyable event took place at the home of Mr. and Mrs. Robert Mutch "Maple Villa" on Wednesday evening of this week, January 13th, when their esteemed daughter, Mary A., was united in the holy bonds of matrimony to Mr. B. Courtney Gilpin, of Vegreville, Alta. At 7 o'clock, as the strains of the wedding march were being played by Miss Mima Gilpin, sister of the groom, the bridal party entered the parlor.

Rev. J. W. Holmes, pastor of the Methodist church, performed the ceremony in the presence of the near relatives of the contracting parties. After congratulations were over, the guests sat down to a very sumptuous repast, after which the evening was spent in a very sociable style with music and other amusements. The bride was the recipient of many beautiful and useful presents. She will be much

missed by her many friends in and around town, as well as in the Methodist Church, where she was a diligent and faithful worker. Mr. and Mrs. Gilpin intend taking up their residence in Vegreville, Alta., where the groom is the owner of a large farm.

(Gorrie Vidette).

Courtney Gilpin is a well remembered ex-student of the Associate Class of '01, and the Review extends to them its heartiest congratulations, and wishes them a long and prosperous life.

A day or two ago we learned of the marriage, on January 12th, of George Cowle, also an Associate of '01, to Miss Minnie Coakwell, daughter of Thos. Coakwell, of Brooklin, Ont. Mr. Cowle holds a good position in the City Dairy Toronto, and the happy couple will doubtless reside in that city. We extend to them our heartiest congratulations, and hope that their journey down the stream of life may be long, safe, and prosperous.

Willard Spence, ('01-'03), writes us from Elgin, Man. He has taken up a farm of 470 acres near that town, but says that he may soon return to Vancouver, B.C., where he was connected with the City Dairy. During the summer he has been cream inspector for the Winnipeg Creamery and Produce Co.

A. S. Ferguson, ('01-'03), is at Belleville, but will go west in April. He has taken a homestead near Long Lake, Assa. "Fergie" says "tell the boys that I am still above sod and well

able to enjoy life." We take this opportunity to do so.

Dugald Strachan, ('01-'02), is managing a ranch near Jamestown. He shows an active interest in the work of the O. A. C., and of the O. A. C. Review.

Geo. W. Elliot, ('00-'02), of Cathcart, Ont., is still on his father's farm. He says that he finds farm work more interesting and more remunerative since he took the Associate Course at the O. A. C.

What do you think about it?

During the fall of 1903, printed forms were sent out from the Experimental Department to all ex-students whose whereabouts are known, asking, among other things, for information regarding certain ex-students of whom we have no trace. On this paper, two questions were asked which ran more or less as follows: "What, in your opinion, can the College do which would most benefit the ex-students?" and "What could the ex-students do which would most benefit the College." We have before us a letter, received by Prof. Zavitz in answer to one of these circulars, from Chas. Major, () of Cromwell House, Croyden, England, who answers these questions in a concise and comprehensive manner, giving his opinion as to what would be of greatest benefit to all ex-students. Mr. Major says that he does not know whether his ideas will be accepted by the great majority of ex-students who are within closer reach of the O. A. C., or

whether they will ever materialize, but they are as follows:

"The ideal would be, a journal, issued at stated periods, giving all the O.A.C. experimental research work, leading educational work, etc., together with such articles as might emanate from the brains of the many ex-students now scattered abroad and filling, I suppose, various positions in many walks of life." Farther on, speaking of the great world-influence which the O.A.C. may become in the near future, as one of the educational centres of the Empire, "noted for its solidity, practical utility, and the authority of its work and influence at home and abroad," he remarks. "To this end, a journal, even yearly, bringing us together in present work and past reminiscence of a common Alma Mater, might contribute much."

While we cannot say definitely what the opinions of the ex-students as a whole may be on this subject, we feel that Mr. Major has expressed the feelings of a very great number of them. The need of something of this sort to act, together with the Experimental Union, in drawing together the ex-students, but especially those who are somewhat outside the pale of the Union, has long been felt. The O.A.C. Review has recently been made the official organ of the Union, and the addition of an experimental department to our paper has certainly been a step towards the accomplishment of what is required. Whether the Review can fulfill all that has been outlined and suggested by Mr. Major and others, as the ex-student organ of the "old boys" and still uphold its present status as a college paper will remain to be seen.

The students of certain other agricultural colleges have, besides their local college paper, a paper or magazine devoted entirely to agriculture and agricultural subjects, forming in some cases a very creditable agricultural journal. Why may not the students of the Ontario Agricultural College follow their example? If not possible at present, in the near future, the O. A. C. students and ex-students will certainly be able to accept the double load.

We have at the present time, men upon the editorial staff of the Review who have already proven their ability to write articles on subjects of general interest or on agricultural topics, in a manner which would be creditable to any agricultural paper. If we add to this list the numbers of ex-students who have in days past been connected with the Review, and distinguished themselves in its pages, we have an imposing array. Yet the Review by no means afforded opportunity for all our students of journalistic ability to demonstrate their powers, or for even the best of them, who would have been able to "spread themselves" creditably in the line of agricultural literature. We have many ex-students who would be both able and willing to assist such an enterprise. These remarks merely show what our opportunities are and what possibilities are ahead of us.

Our optimistic Business Manager sees in the distant future an O. A. C. Review which will totally eclipse our college contemporaries and prove a dangerous rival to the Canadian Magazine. May we not also predict an O. A. C. "Scientific Farmer," which would equal the Farm-

ers' Advocate in circulation and importance. Besides the benefits to be derived from such a paper as pointed out by Mr. Major, there would also be great advantages to be gained by the students and ex-students contributing to such a journal. Out of the last two graduating classes in agriculture, three men have taken prominent positions on leading agricultural papers on the American Continent. Another, an Associate, has lately been made assistant editor of a Maritime Farm Paper, and still another has been manager of an important branch office of a well known agricultural paper in the far North-West. May not our students be still better prepared for such work, and be in still greater demand for such positions.

The production of an up-to-date agricultural semi-monthly by the students and Old Boys of the O. A. C. is not at all impossible. The chief editors and managers of such a publication would of necessity be permanent. Long before that stage would be reached, however, a more modest undertaking might be started. Mr. Major thinks that even a yearly publication would assist materially in drawing the "old boys" together. This is rather too apologetic an attitude to take on the matter. When the Farming World began as "Farming" some years ago, it took the form of a monthly. Surely the students and ex-students of the O. A. C. could issue a paper at least bi-monthly if not monthly, which would be a credit to its object, to its backers and to Canadian agriculture. As the old saw runs, we have the men, and we have the might, and if we have not the

money too, we at least have men who are adepts at corraling that 'necessary', if our business managers may be taken as samples. With such a combination to begin on, failure would be out of the question.

Such a paper would differ in some respects from the average agricultural journal. In the first place, it would be able to publish articles on agricultural matters in a more scientific or technical, though not less practical manner than would be popular with the average farmer, and would thus keep its readers more in touch with the newest developments in agricultural scientific research, thus supplying to the educated ex-student what the farm paper generally lacks, and would also devote much more space to the educational and experimental work of the O.A.C. It would thus supplement and aid our farm journals, rather than imitate or compete against them. In the second place it would also contain good

general articles from those ex-students who are not connected with farm work, to quote again it would "benefit from the fact that all the O. A. C. boys have not stuck to agriculture." Certainly the exchange of ideas and experiences of our ex-students all over the globe, who are following many occupations besides those connected with agronomy and stock raising, would be valuable in the extreme.

From these few remarks, some idea may be obtained as to what Mr. Major's suggestion could and might mean if materialized. That it would be a help to the ex-student, no one will deny. It would, if carried out in whole or in part by the students, be of great value to them. As time goes on, it might easily be made of value to the educated farmers and stock men throughout the continent and might become an exceedingly popular paper. If it is worth the trial it should be tried. What do *you* think about it?

Book Review and Exchange Column.

Annual Report of the Canadian Forestry Association.

We have received a report of the fourth annual meeting of the Canadian Forestry Association. This Association, numbering about 400 of the leading thinkers of the Dominion, is led by such men as Dr. Wm. Saunders, Prof. John Macoun, and Sir Henri Joly de Lotbiniere, K.C.M.G. Conscious of the growing importance of Canada's forest resources, these gentlemen have banded themselves

together for the preservation of the forests, the exploration of the public domain, the increase of forest reservation on lands unsuitable for agriculture, and the collection and dissemination of information bearing on the forestry problem. Their latest meeting was held at Ottawa, March 5th and 6th, 1903. At this meeting practical men expounded practical ideas on practical subjects.

The forestry problems of the different provinces are treated by men in a

position to understand and explain the subject, both from the scientific, as well as from the layman's, standpoint. An article of great interest to farmers is the results of the experiments in the growth of forest trees at the Experimental Farm as given by W. T. Macoun, Curator of the Arboretum. This should prove of exceptional value to those undertaking the planting of forest trees. It is not a scientific rigmarole, but a simple, applicable treatise, giving the characteristics, requirements and adaptability of the various Canadian trees. Another phase of the subject, "Forestry Education" is treated in a paper full of bright ideas, by Prof. W. L. Goodwin, of Queen's University.

There has been no room in the Canadian Forestry Association for the exploitation of fads and theories, but the effort has been made throughout to approach a great problem of business relating to the public well-being in a serious and business-like way, and the information gathered together in its reports will be very useful in determining the development of forest administration in Canada. This report, which is rendered attractive by numerous full page cuts of forest scenes, may be obtained by writing E. Stewart, Ottawa, the Secretary of the Association.

Mr. H. B. Cowan, formerly editor of the Ottawa Valley Journal, and for the past year editor of the New England Homestead, is to succeed President Creelman as Superintendent of Fall Fairs. As he will be assistant editor of the Canadian Horticulturist, the products of his pen will still reach our Exchange Department.

THE DENTISTS EPITAPH.

Strangers, approach this hole with
gravity
John Brown is filling his last cavity.
Hya Yaka.

—
The longer we live, the older we grow
The more we study, the less we know.
If you have any doubts along this
score
Just think you are younger and study
more.

Jayhawker.

—
The highest mental development
can only be obtained by severe intel-
lectual effort.

Miles.

—
No! said Patrick, I do not like spin-
nage, and what's more, I'm glad I do
not like spinnage; for if I liked spin-
nage, I'd be atin' it all the time and
I'd hate to ate anything I disliked so
much as I disliked spinnage.

Exponent.

ACKNOWLEDGEMENTS.

Acta Victoriana, Argosy, Vox Wesleyana, The College Paper, Industrial Collegian, The Rocky Mountain Collegian, Trinity University Review, M. A. C. Record, Ottawa Review, The Weekly Sun, New Glasgow Times, Cornwall Freeholder, Ottawa Valley Journal, Saskatoon Phoenix, Prairie Witness, Acadia Athenaeum, McMaster Monthly, Hya Yaka, Cornell Countryman, The Merchistonian, Brandon College Monthly, The Jayhawker, The Canadian Horticulturist, The Intercollegian, Ups & Downs, Vox Collegii.

In the January and February issues of the Cornell Countryman, there has appeared an interesting and instructive article entitled, "The Outlook for Agricultural Teaching," by Andrew M. Soule, B.S.A., Director of the Experimental Station, and Professor of Agriculture at the University of Tennessee. Though dealing, in this issue,

with conditions in the South, it is worth careful persusal as a general article on agriculture, and agricultural education. His belief is that, under the influence of agricultural education, the time-honored maxim of Horace Greeley will need to be changed to, "Go South, young man, and grow up with the country."

College Reporter.



*Yours truly,
Kerry O'Byrne.*

We are glad to be able to present to our readers a photo and brief sketch of our poet laureate, Kerry O'Byrne. Like the most of us, Kerry was born in his native county, and received his early education in its rural schools. He afterwards spent some time in the halls of learning of the "Ambitious City," and of late years has travelled considerably, devoting his spare time to literary work. Thoroughly familiar with life in residence schools, and always willing to fight in a good cause, Kerry, when he accepted a

position with us, unhesitatingly erected his battery upon the rock of students rights and opened fire with satire and sarcasm upon the citadels of conservatism and indifference which for some time had menaced our peace of mind.

Possessing a keen sense of the humorous, in fact, a cartoonist in words, Kerry has won for himself more than local celebrity, and is no doubt destined to become one of Canada's leading poets. For his services to the Review we extend to him our heartiest thanks, and therefore ask you to rise and drink—in straight *Aqua Pura*, of course—to the long life, health and prosperity of this rising young poet, a coming notable in our gallery of fame.

The Importance of Physical Development.

In the hurry of preparation for active work in life, we are too apt to overlook one or more phases of development which are essential to the highest success. We fail to recognize the necessity of developing every faculty, and of attaining a fully-rounded

character. One man's object is the development of mental, to the disparagement of physical, power; another man's ideal is that of great physical strength, while the other type of man has no particular opinion, but allows circumstance to shape his course, with the usual sorry result. Man can be master of his own destiny, and he shows weakness by not assuming control of his development, and shows folly by trying to develop only one of his God-given powers.

While some attention is paid, by students, to physical excellence, it is self-evident that this phase of development receives too little consideration. Some college men attain high places in physical achievement, but their number is small. It is these men, as a rule, who accomplish the most in life, because of their superior energy and staying power. It should not be the boast of a college that it turns out a few physically well-developed men, but that every man is the happy possessor of a strong physique. It is the average of physical development that should be raised, that must be raised if the race is to hold its own and advance.

In relation to the health and strength of an individual is his power to achieve. The flabby muscle, the dull eye, the nerveless hand never accomplished a worthy result, but the strong arm, the bright eye, and the steady hand can do anything, for with physical goes mental strength.

Physical training of itself gives health and develops character, while increased mental power comes as a result. It is not merely the exercise which is beneficial; it is the regulating

of habits, the self-control, and the firmness of purpose necessary to physical excellence, which bless strong manhood. No man can be irregular in habit, dissipated, or impure in life; can lack self-control, and strength of purpose, and become a strong man either physically or mentally. Examples of physical, mental, and moral wrecks of manhood are only too common. The steady, persistent, conscientious effort to develop a strong physique, prevents a disastrous end. A man must be temperate, he must be pure, and he will be chivalrous and true; he will be a true man who aims at right development. Every habit, however pleasant, every desire, however strong, that saps strength and destroys morality must be discarded. The man must be master of himself.

It is this effort for self-mastery that develops character. Firmness, determination, and self-control, as well as manual skill and mental keenness, result from physical culture. It takes these qualities to succeed in athletics; therefore, it follows that physical excellence is accompanied by superior force of character. We have only to look about us in daily life to see that this is true. The man who has not perfect control of both his physical and his mental being, who has never cultivated his physical nature, can not command as can one who is perfectly developed. Knowing as we do the qualities which athletics call forth, we cannot doubt that physical training does much to develop strong character.

The mental faculties are really dependent upon the physical, so, that when we have increased our physical powers, we are in a position to in-

crease our mental powers also. It is sometimes contended that great physical and great mental power cannot accompany one another, but examples disproving this contention are steadily on the increase. It does not follow because some great athletes are mentally weak, that it would be impossible or even extremely difficult for them to become intellectually powerful. It does follow, however, that a strong mind is most likely to accompany a strong body, and to illustrate this we have only to note the example of such eminent men as Lincoln and Gladstone.

Having physical, mental, and moral strength, a successful future is practically assured. It is obvious that physical training plays an exceedingly important part in the developing of these qualities, and that it has a direct bearing upon the measure of success achieved. We should see the practical importance of physical strength now, while in college where it can be best developed. If we use the right and only means to attain it we shall live temperate, clean, honest lives, and shall develop characters and resources that will make success assured.

It is gratifying to note the excellent discipline of the students during the

last two weeks, when left almost entirely to themselves. It shows that the average man has a high sense of honor together with plenty of good common sense. The men submitted to the necessary and wise regulations without trouble, and thus helped to check the disease. This, together with other things, shows that, while students go in for fun occasionally, they have too much good sense to make their fun of a character that requires the constant watching of a resident master.

To relieve the monotony of the quarantine, the Y. M. C. A. placed a number of games in their Hall. The appreciation shown by the students was encouraging, and the games will probably be a permanent feature of our college life.

It is rumored that it is the intention of the authorities, to install at an early date, an electric gong on each flat. This is a move in the right direction, and is highly commendable. The bell, which now calls us to our daily meals, fails entirely to send its mellow tones over more than one or two flats, and the remainder of the college residents are left to their own devices regarding the proper time to repair to the dining-hall.



Macdonald



Notes



“My Hope is constant in Thee.”

During the quarantine a few of the Argentines took specials in “scrubbing,” “dishwashing,” etc.

“The Shades of night were”—
“Oh !!??”

We hold our worthy Dean responsible for the rumor that “Excelsior” is the Macdonald motto.

“Are you a short course girl?”

Tall Girl—“No, indeed! I am a long short course girl.”

“Did it take?” “Oh, I’ll never be vaccinated again.”

It is rumored that, instead of the usual term exams. in D. S. 2, the girls will be judged according to their increase or decrease in weight during the term. Each girl is expected by this to eat only that which she herself cooks.

Why is it that some of the Guelph girls are so anxious to make angel cakes? Some of the “Specials” might explain.

The fitting up of the various departments of the Institute is making rapid progress. Messrs. D. A. Jones & Bros., of Toronto. have just put in

the cases, cupboards, lockers, etc., for the dressmaking and sewing departments, the Nature Study Museum, and the chemical and physical laboratory. These finishings are in solid oak and glass, and add much to the appearance, as well as the convenience, of the rooms. The scientific apparatus has been received in part, and is being arranged and prepared for use by Mrs. Lyman. The various offices and lecture rooms are being furnished with suitable desks and fittings by the Office Specialty Co., and a splendid safe, by Goldie & McCullough, has just been installed in the Dean’s quarters.

The long-delayed fixtures for the laundry-rooms are at last in position, and Miss Butchart’s classes now add a very interesting feature to our programme. The Manual Training rooms, too, are now complete, and elementary wood-carving is engaging the spare hours of a number of our young ladies. This subject is deservedly popular and provides an agreeable change of activity for the weary brain. Soon the awakening of Spring will prepare the way for interesting out-door studies, and mother Nature may then receive a part of our attention. Thus we seek to realize Prof.

Robertson's ideal education of the Head, the Hand and the Heart.

Arrangements are almost completed whereby senior classes from the Guelph Public Schools will receive afternoon lessons in Domestic Science in the Institute. Their instructors will be senior Normal teachers-in-training, assisted by the regular staff, and the work will consist mainly of cooking. Although this agreement is temporary, it will no doubt lead to a permanent department of Domestic Science in our city schools.

The Institute was pleased to receive its initial visit from President Creelman early on the first day after the removal of quarantine. We hope that the new Principal will soon be able to pay us a longer visit to enjoy the feasts of reason and the other good things provided by our Domestic Science Classes.

Parcels addressed to "Main Building," O. A. C., are finding their way to this Institute. The messenger boys are on the right track, though perhaps a few years ahead of the times.

Domestic Science in Massachusetts,

Prof. H. D. Perky, of the Oread School of Domestic Science at Worcester, Mass., recently delivered an address before Toronto teachers on the above subject. The lecture was introduced by Mr. James L. Hughes, and the address was reported at length by the daily papers. A few quotations may be of interest to our students, but the general public is warned that this is *not* Domestic Science as taught in the Macdonald Institute. For example:

"The people of New England are a lot of degenerates."

(Poor old New England!)

"The time is coming when the child will be taught the how of all things."

(Poor little child!)

"Senator Mark Hanna has named a committee of twenty, of whom I am one, to formulate a scheme of education."

(Hasten the Light: the darkest hour, etc., etc.!)

"If the child or the man gets proper food their intellectual development follows easily and naturally."

(Thus education is reduced to the simplicity and the certainty of a Natural Science!)

"With improper food the child or the man has no power to resist temptation."

(Morality and Religion yield to the same simple treatment.)

"There never was a drunkard who was not made such by having a system which was impoverished through lack of proper food."

(When will our Prohibitionists and moral reformers learn these elementary truths of ethics?)

"His own education has been gained from experience, he said, and not from college professors."

(Score one for the Professors!)

"The manufacturer takes out of the wheat the best of its food value, and the balance left in the white flour is not food."

(And so for these many years we have really lived without food!)

"I do not know whether whisky or white flour is the worst product."

"As for that arch-enemy of man, white flour, out with it and with it will go the medicine."

"Whole meals and whole wheat flour will build up a healthy frame."

This is the conclusion of the whole

matter. There seems to be an impression in some quarters that Prof. Perky would like to see the "whole wheat" business develop into a world-wide craze. Perhaps the learned inspector of Toronto's schools was not fully alive to the situation.

Athletics.

It pleases us to be able this issue to insert the group photograph of the Athletic Committee who have so efficiently managed our athletic affairs for this college year. Through the executive ability and consummate tact of the President and the good work of the Vice-President and Sec.-Treas., everything has run smoothly; and judging from the hearty support of the officers of the institution we believe that athletics are coming to take the place that they deserve in our college curriculum. The names of those in the group are;—

Sitting (reading from left)—W. G. Milligan, (Foot-ball Manager); S. Springer, (Hon. Vice-President); W. P. Gamble, (Hon. President); A. B. Cutting '04, (President); J. L. Fairbairn, '07, (Com.)

Sitting (in front)—M. Greenshields, '07, (Com.); D. Weir, '06, (Com.)

Standing (reading from left)—J. Granel, '05, (Com.); W.C. McKillican, '05, (Vice-President and Hockey Manager); G. H. Carpenter, '04, (Com.); H. R. McMillan, '06, (Secretary-Treasurer); B. W. Fansher, '04, (Com.); J. Bracken, '06, (Com.)

The Small-pox Bacillus, mighty though small, nearly put a stop to our inter-year hockey games. The quar-

antine of the college prevented many of the players from getting up from town, and as a result not one year team was able to get together its full quota of players, and one or two years were badly handicapped. However, through these two weeks of quarantine the rink was worked overtime, and to the credit of Jack Frost and the Rink Manager the ice was always in good shape. Everybody wanted to skate, whether he could or not, and the year games went on with increased vigor. The hockey management decided that the schedule should be followed as first arranged and that each team should play with what men they could muster. Accordingly 'Daddy' and 'Tubby' viciously screwed on their bob-sleighs to their Sunday shoes and coasted uphill, a pair of over-shoes took their stand in front of goal, and even our worthy editor consented to handle an elm, although it is recorded that he was merciful and never hit the puck once. Great was the skating and slashing! Great was the gang of rooters! Bacillus and bacterium, micrococcus, and strepto-coccus, vaccine and anti-vaccine lined the boards and yelled at every good play their side made. Every once



THE EXECUTIVE OF THE O. A. C. ATHLETIC ASSOCIATION.

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in a while a player would be seen to throw his stick in the air, kick up both feet, and come down with an awful bump. He had seen a small-pox germ. Then another would be seen to go down the ice faster than a G. T. R. Express in a snow-storm and slide into the boards faster than that same express into a snow-bank. Alas! the eluding germ was faster than he and his magnificent rush was for nothing. Our Local Editor couldn't skate, but was sporty and bet on every rush and 'tis said that he raked in a 'jolly good sum.

The teams that played for each year are as follows;—

First Year Bacilli—Goal, Young; point, Broderick; cover-point, Clark; rover, Montgomery; centre, Peck; left wing, Greenshields; right wing, McBeath.

Second Year Bacteria—Goal, McMillan; point, Monroe; cover point, Bracken; rover, Halliday; centre, Duncan; left wing, Scott; right wing, Elderkin.

Anti-vaccinites (Third Year)—Goal, Leitch; point, Cooper; cover point, McKillican; rover, Lennox; centre, Brereton; left wing, Hoodless; right wing, Mayberry.

Vaccinites (Fourth Year)—This may mean that these players represented the senior year or that this is the fourth time they have been vaccinated since entering college.—Goal, MacRae; point, Barber; cover point, Carpenter; rover, Baker; centre, Pickett. left wing, Fansher; right wing, Johnston.

The following is the standing of the teams so far:—

	Won	Lost	To Play
First Year.....	1	3	2
Second Year.....	3	0	3
Third Year.....	0	2	4
Fourth Year.....	2	1	3

Whilst this has been in press the quarantine has been raised and the remaining games will be played by representative septettes. No team has a cinch on the championship, as yet and 'it's betting' who will pull out the cup for the hockey season of '04. Here's just one *little wee sma' pox to the winners.*

GUELPH CITY LEAGUE.

Our games in the Guelph City League had also to be postponed. Only two games had been played before the quarantine was established, which means that games will have to be crowded on now to 'make up for lost time. In the two games played, the College won handily from the Page-Hersey team by a score of 9 to 1, but lost to the Moulders by a score of 6 to 9. The College team in both these games faced off as follows;— Goal, Young; point, Baker; cover point, Prettie; rover, Hutchison, (Capt.); centre, Parkins; left wing, Fairbairn; right wing, Scott.

Our toughest proposition in this league is the Moulder's team, who have beaten us once, but we hope to turn the score on them in the next game, and, if possible at all, to bring the city championship to the College once more. The team is to be changed considerably, and probably strengthened, for following games. MacRae will probably go into goal, Cleal on the defence, and Prittie on the forward line, with Bartmann and Scott working hard for a position.

PUCKERINGS.

Small-pox only scored three goals.

The measles won out by scoring four.

The Small-pox Septette defaulted to the Vaccine puck-chasers.

The rink was to be fumigated, but it was found too difficult to stop up all clinks in the walls and roof.

Even Jack Frost seemed to be quarantined with us.

All these are germ(ane) to the subject on hand.

Locals.

He who hesitates is bossed.

The connecting link between agriculture and physics—the hydraulic ram.

A New Title
P. F. Farmer, K. C.—Kurious Cuss.

The students are wondering what advantage Mr. DeCoriolis finds in snowshoes,—he wears No. 12 moccasins.

Lives of great men all remind us
We needn't sink below,
And practising leave behind us,
Foot prints in the snow.

Balm was applied to a "Brocken" Hart by allowing the boys to wander as far as College Heights during the period of quarantine.

While the students were listening with up-pricked ears to hear how many of the boys would be cheered by a few lines from home or sweetheart, Greenshields was heard to remark "who is this fellow "Review?" what year is he in?"

Philosopher Dewar as he looked at his cup of tea, "Well, I hate to take advantage of your weakness, but I've got to down you."

NEW BOOKS.

"The Comedian at the Breakfast Table." C. I. Halliday.

"Sliding Down the Bannister, or the Story of a Microbe."

"Long Calling," by Knight and Ransom.

"The Mustache Bacillus," by Klinck, Howitt and Chisholm.

"Whiskers," by Eddy and President McKinley.

"The Front Bob of a Sleigh," by Elderkin & Co.

"How to Fall on the Ice," by Esmond.

"Behind the Bars," by the Denizens of Hunt St.

The unsophisticated ingenuity of the freshmen as betrayed by exams:

A chicken was a bird who had feathers but couldn't swim.

A poult is a gentleman turkey.

A boiler is a bird you can boil but cannot roast.

A green duck is one which has been fed on green pees.

For Sale:—JAM—Room—Beware, a freshman lives here.

Yesterday, to-day was to-morrow, but to-morrow, to-day will be yesterday.

Life from the standpoint of a Ladies' College:

Q. What would the nation be without women?

A. Stag nation.

As Prof. Reynolds was explaining some pictures of clouds.

F. Prettie—"How do they obtain those photographs?"

Prof.—"Oh, just with a Camera."

After giving an effective rendering of a few typical lines of his Satanic Majesty's imprecations. Professor R—ds remarked "Anyone with a deep tone can imitate the sound of Satan's voice.

1st College Girl. "Well, girls, I can at last look the world in the face,—all my debts are paid."

2nd College Girl. "How did you do it.?"

1st College Girl. "Oh, I succeeded in borrowing the money."

Lost! an incandescent light bulb from Lower Pantan; we hope the one who demolished it will not suffer from so light a repast.

In the hockey game between the 1st and 4th years there was a noticeable absence of tripping. We hope they will not permit this feature of inter-year games to be again neglected.

We are informed that on February 27th, the Macdonald Institute students intend to hold an open debate,

the subject being, "Resolved, that cookery has a greater influence on man than flattery."

Prof. Reynolds—"Reconstruct this sentence to give it added force:"—"The tattered individual was so enraged that he vociferated like an infuriated animal."

McKillican—"The tramp was so mad that he swore like a Bull!!"

Emily, while taking a bath after the lights are out, hears Miss B—r's gentle voice saying, "Who is there?"

Emily. "It is I."

Miss B—r. "What are you doing?"

Emily. "I am taking a bath."

Miss B—r. Don't let it occur again."

Emily. Suppressed giggle.

(Vox Collegii.)

Heard on the ice during a game between tables No. 2 and 4.

Bower—"By gosh! That ice is hard."

Warner—"If you had sat on it as long as I did you would think it cold, too."

Stewart—"I find the fence hard enough."

Referee McK. as he tumbled—"Blame that hole."

The following is a rare epistle.—

"My Darlin Peggy,—

I met you last night and you never came. I'll meet you again to-night, whether you come or whether you stay away. If I'm there first, sure I'll write my name on the gate to tell you of it, and if it's you that's first, why rub it out darlin, and no one will be the wiser. I'll never fail to be at the trystin'-tree Peggy; fur, faith, I can't keep away from the spot where you are whether you're there or whether you're not.

Your own Mike."

Microphobia.

Microbes in the water,
 Microbes in the air,
 Microbes on our very lips,
 Microbes in our hair.

Microbes on our punç,
 Microbes in our meat,
 Microbes strewn through everything
 That we drink and eat.

Microbes on our money
 And the clothes we wear,
 Microbes in the cabs and cars,
 Microbes everywhere.

Then comes a thought that's frightful,
 What if when we're through
 With the microbes here below
 Heaven shall have 'em too?

—
 'Different men see the same thing in
 different lights.'

No. 1. "I suppose we shall have to
 do without lectures during quaran-
 tine."

No. 2. "I suppose so.—I wonder if
 Doctor Stewart will recommend smok-
 ing."

No. 3. "I don't know,—but imagine
 not being allowed to go "down town"

for two weeks. I hope we are given
 two extra nights for the two we shall
 miss while shut up here."

No. 4. "It will make but little dif-
 ference to me," but, I say, do you think
 they will have Y. M. C. A. meetings all
 day Sunday?

Chorus. If you are going there we
 all hope not.

—
 Notwithstanding the actions of
 Mount Pelee, the heat evolved on the
 platform by our Ontario politicians,
 and the Russo-Jap war on our west-
 ern coast, where our weather is sup-
 posed to come from, the cold snap
 still snaps. This has been fully ex-
 plained to us during lectures, as being
 the result of the heavy covering of
 snow on the ground all winter, which
 has kept the temperature low; and to
 the low temperature which has kept
 the snow on the ground. This reflex
 double-back action would make a
 man a rubber-neck trying to see it
 both ways.

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