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The O. A. C. Review

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of the Ontario Agricultural College, Guelph.

THE DIGNITY OF A CALLING IS ITS UTILITY.

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Then and Now.

A Decade of Biology at the O. A. C.

"Time rolls his ceaseless course." In 1892 the Biological Department was transferred from the portion of the main building, known to all but the Freshmen of to-day as the Library Annex, to its present quarters in the Horticultural Building. Before Midsummer, 1902, the Biological Department will be transferred to the new Biological and Physical Building which is now nearing completion.

It occurred to the writer that this would be a fitting occasion to review the progress that has been made in the Biological Department during the ten years it has been housed in its present quarters.

That progress has been made in biological instruction is readily conceded by the old students who return frequently to visit their Alma Mater. Among the many changes they note the increased number of students in the classes, and the better practical acquaintance with the rocks, plants, and animals, which the students of to-day undoubtedly possess.

It is unquestionably true that the laboratory method of instruction was the greatest single factor in the progress that has taken place in the last decade. In the eighties and before, the lecture system prevailed to the almost total absence of laboratory

work. Students could often repeat accurately what the text-books and the lecturer's said about insects, fungous diseases, and the growth of plants, but frequently could not identify or recognize the very organisms about which they fancied they knew so much. In fact, a practical, intimate knowledge of plant and animal life was almost impossible under the old system; and the result was the graduation of some unpractical men who added but little to the fame of their Alma Mater.

In fairness, however, it should be stated that this condition of affairs was not peculiar to the O. A. C. The Universities, with their much better equipment, had but few laboratories open for practical work, and had made but little progress in this direction, while the great majority of colleges were still imparting knowledge in the natural sciences from the lecture platform. It became evident at the outset that the introduction of laboratory work meant new work-rooms and more assistance, for a professor under the old system could lecture to eighty as easily as he could to fifteen or twenty, but under the laboratory system he could not do justice to more than twenty or twenty-five at once. It is not strange, then, that the new methods of instruction in the natural sciences were but gradually adopted, especially when we realize that governments are naturally conservative, and hesitate to commit themselves to a policy which would involve increased expenditure, before the public feel the need for such a change.

When the Biological Department was comfortably housed in its new

quarters in 1892 a serious attempt was made by Professor Panton to introduce laboratory methods, but the immense amount of work to which he was compelled to give his attention made the practical work quite fragmentary at first. In the College Report for 1892, Professor Panton gave an outline of the duties devolving on him. His duties were: "1. To deliver a course of lectures on Hygiene, Zoology, Structural Botany, and Geology to the students of the First Year; 2. A course on Theoretical Horticulture, Economic Entomology, and Economic Botany to the Second Year; 3. A course on Physiological Botany, Economic and Systematic Botany, and Biology, to the Third Year; 4. As librarian to superintend the library and reading room; 5. As curator of the museum to oversee it; 6. To take meteorological observations, and to report annually upon them." No wonder Prof. Panton had little time for laboratory work or laboratory investigations, for he was Botanist, Entomologist, Zoologist, Geologist, Horticulturist, Librarian, Curator of Museum, and Meteorologist, at one and the same time!

Again, without assistance it was almost impossible for the Professor, with such a multiplicity of subjects on his programme of duties, to get material ready for individual work; for successful instruction depends to a large degree in getting material at the right time, at the proper stage, and in large quantities, especially when large classes have to be looked after.

In 1893 Prof. Panton secured the services of Mr. F. C. Harrison (now Prof. Harrison) as assistant in Histology and General Microscopic work.

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For five years Prof. Harrison carried on this phase of the work, and gave good laboratory courses. By this arrangement Prof. Panton was able to give more attention to the development of practical courses in plants, insects, and general zoology.

In the fall of 1895 a very important step was taken, when special courses were organized in the Third Year. According to the new scheme the work of the Biological Department was greatly increased, and the courses in Botany and Entomology in particular were made more thorough, progressive, and practical. In spite of the fact, however, that the work in Histology and Plant Pathology was carried on by Prof. Harrison, the work of the Department soon became too heavy for one man to carry, for new demands were being made upon his time and energy. The correspondence, regarding insects, weeds, and fungous diseases gradually became more burdensome, and outside investigations consumed much time. As a result, assistance became necessary, and was finally obtained. Mr. M. W. (now Prof.) Doherty was, the writer believes, Prof. Panton's first assistant. After him came Mr. T. F. Patterson, and Mr. J. C. McDonald (now of the Weekly Mail and Empire).

In February, 1898, Prof. Panton died, regretted by all who knew him. For over twenty years this gifted man had given of his best for the advancement of biological science at the O. A. C., and had worked unremittingly and conscientiously. We can truly say that those who come after him are reaping the fruits of his labors.

In the summer of the same year the writer and Mr. M. W. Doherty took

up and continued the work of Prof. Panton. It has been their constant aim to make all instruction as thoroughly practical as possible, but on account of the great increase in the number of students since 1898, the very limited facilities for individual laboratory work, and the want of proper equipment, it has not always been possible to give ideal courses in Biology; that is, courses with the maximum amount of practical work and the minimum amount of lectures. It is believed, however, that the courses during the past four years have gradually improved in many respects, especially along the lines of Economic Biology. No student can now leave the College for the farm after the two years' course without having a practical acquaintance with the common weeds, weed-seeds, grasses, injurious fungi, and injurious insects.

In 1901 additional help was granted the Department, and Mr. T. D. Jarvis was appointed Helper and subsequently Fellow. It was now possible to improve still further the character of many of the courses, and this present year, for the first time, arrangements were made so that the Freshmen could do practical exercises in Geology and Zoology. Besides, field courses were conducted for the purpose of collecting and studying the habits of insects, fungi, and flowering plants. In these and other ways the students come into more direct contact with the organic world; they are made to observe carefully, to reason carefully, and to read carefully.

A word regarding the accommodation *Then and Now*. The old Annex contained but a single room, which

was in connection with the old museum. The present accommodation is practically limited to an office, two small laboratories, and a class-room. The new Biological Department contains the following rooms: two offices, laboratory for plant physiology and fungi, large general laboratory, two class-rooms, histological laboratory, entomological laboratory, herbarium, two store-rooms, photographic room, museum on ground floor, and an insectary (to be erected soon).

A new era is opening out. The possibilities for increased usefulness in the future are great. Signs are not wanting that "The time is rapidly approaching when a farmer or a gardener will as little dare to neglect the study of the physiology and pathology of plants as a surgeon dare practice without a knowledge of anatomy, or a sailor hope to become a captain without studying navigation." To this essential requirement of farmers and gardeners should be added a knowledge of insects and insect life. To give this knowledge, and to prepare trained investigators who will be able to work out the life-stories of, and the best remedies for, diseases induced by insects and fungi, is one of the functions of the Biological Department. Within the past four years the services of men trained to investigate were urgently needed in Ontario on

five great biological problems which arose, viz., the control of the San Jose Scale, the Hessian Fly, the Pea-weevil, the Grain Rusts, and Fumigation in the Nurseries. Problems more or less difficult are continually coming forward for solution, and trained men will always be in demand for such service. It is to be hoped that the increased facilities for doing good work, which the new Biological Building will furnish, will lead to the achievement of even better results than have been obtained in the past.

In conclusion, to summarize what has been said regarding the THEN and NOW of the Biological Department:—

THEN, an attendance of 159 in the General Courses; one professor without assistance; one room (soon to have four); instruction given chiefly in the form of lectures; correspondence meagre; few demands made on the professor for outside investigations; no short courses; lectures at Farmers' Institutes.

NOW, an attendance of 303 in the general courses, and 422 in the special courses; two professors and a fellow giving instruction; four rooms (soon to have many); instruction given chiefly in the form of laboratory work; correspondence large; many demands on the staff for outside investigation work and short courses; but no lectures at Farmers' Institutes.

W. LOCHHEAD.

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In this column paragraphs will be inserted from time to time, commenting upon the salient features of the live stock world; our idea being to keep our readers posted in such events.

LIVE STOCK TOPICS.

One of the most extensive experiments on record and one, which, if we may judge from the live stock papers, is attracting a very wide-spread interest, is being carried on under the direction of Professors W. J. Kennedy and F. R. Marshall, both graduates of this College, and now of the Animal Husbandry Department of Iowa State College. The aim of the experiment is: first, to test the relative value of the various stock feeds that are on the market, such as International Stock Food, the Iowa Stock Food, and the Standard Stock Food; and second, to test whether or not it is advisable to feed the by-products such as oil meal, cotton-seed meal, gluten-meal, gluten feed, germ oil, and dried blood in conjunction with corn and other grains,—to cattle.

The commendable features of the experiment are, that it is being conducted upon a very large scale, thus eliminating to a great degree the element of individuality, and that the experiment is being conducted on the farm of one of the leading cattle breeders of Iowa, Mr. Cook, of Odebolt, who is supplying the steers and the rough foddere. The Iowa College has sent a man to feed these steers, and will supply the stock-foods and by-products. The co-operation of such a practical man as Mr. Cook with the College authorities, shows the confidence that the College is enjoying and the extent to which such men appreciate the investigations conducted by the College, and moreover ensures ordinary practical conditions

for the experiment. If we may judge from accounts in Chicago papers, the credit for starting and carrying on this experiment is largely due to the push and energy of Prof. W. J. Kennedy.

Considerable prominence is being given to the Farmer's or Dual-Purpose Cow Competition, which is to be inaugurated at the International Live Stock Exposition in Chicago, next December, and hence a brief mention of the nature of the competition may not be out of place in this column of the REVIEW.

The competition is as follows:—Cow, and her steer or spayed heifer calf under two years old, to be exhibited at Chicago in December, 1902, and prizes awarded on the merits of milk and butter production of the cow, and beef merits of the calf. The Dairy records of the cows entered are to be made during the nine months previous to the Exposition by duly authorized representatives of the agricultural experiment stations. In awarding prizes in this class the rating shall be 25 per cent. on individual excellence of the cow as combined beef and dairy animal; 35 per cent. on the butter record of the cow, and 40 per cent. on the individual merit of the calf.

The judging of dual purpose cows upon conformation and performances as outlined in this experiment, instead of on conformation alone, is, we believe, the best way of settling disputes about, and at the same time advertising, the merits of this class of cattle.

One of the most regrettable and almost irreparable losses that has re-

cently visited live-stock men, was that which fell upon Messrs. T. F. B. Sotham, Geo. Harding & Sons, and others, who exhibited cattle at the Charleston, S. C., Exposition last month. With commendable enterprise these men exhibited the flower of their herds at this Exposition, in order to advertise the merits of pure-bred beef cattle in the South. While there the very best of these cattle contracted the deadly tick-fever which has been such a curse to the Southern cattle trade. As a result, animals which stood without peer, both as show and breeding stock, died on their way home on the train. Mr. Southam fared particularly badly, having lost such world-famed bulls as Improver, Chickmate, and Thickflesh, bulls which it is beyond his power to re-

place; for they have been the culmination of many years breeding, feeding and selection; in fact, money could not have tempted Mr. Sotham to part with them. A piece of destroyed machinery or a building can be replaced, but it is a different matter in the case of breeding animals. In the live stock world, as elsewhere, one cannot tell what a day may bring forth, and one's brightest ideals and the culmination of years of work may be dashed to the ground in a moment. However, these are the exceptions, and as one compares the losses recorded in live stock with those recorded in business and other enterprises, they certainly seem very insignificant.

M. C. ——— G.

Importance of Seed Selection.

With the return of the robin we are reminded that spring is approaching, and to those engaged in agricultural pursuits this means much. It is during this season that the farmer must prepare his land for another season's crops, and sow the seed for those crops that he wishes to obtain.

To secure a bountiful harvest it is essential that the young plants receive a good start, and one of the best means of accomplishing this is to sow good seed. In the past, too little attention has been given to the quality of the seed sown. It was considered that each grain contained a germ that was capable of producing a plant similar to that from which it had come, and that the size and maturity of the kernel sown was of

secondary importance. Though the laws of breeding are not considered to be of as great importance in the growing of plants as in the rearing of live stock, yet the law that "Like begets like" applies as directly to the vegetable kingdom as it does to the animal. In the breeding of live stock the breeder places much importance on the selection of the breeding types, as he knows that it is only in this way that he can improve his herd and keep abreast with the times. If, then, the breeder of stock recognizes the importance of selection, why should not the same care be exercised by those who are breeding grain? It would be absurd to expect to raise strong healthy stock from weak or unhealthy parents; just as unreasonable would

it be to expect a bountiful harvest from seed that is inferior or immature.

In order to obtain reliable information on the importance of selecting the seed to be sown, a great deal of careful work has been done on the experimental grounds of the College. Selections of large, medium, and small seeds have been made in the different varieties of cereals, and an equal number of grains from each selection have been sown on plots under similar conditions, in order that accurate knowledge of their relative productiveness might be obtained. These experiments have been carried on for several years, and it has been found in every case that the large seeds produced a much better crop than the medium seeds, and the medium ones a much better crop than the small seeds. Experiments have also been conducted where the selections have been made continuously for a number of years; that is, the large grain for one season's crop is selected from the crop grown from the large seed of the previous year, the medium and small seeds being selected in the same way. After several years' experiments, it has been found that the grain grown from the large seed tends to increase in size each year, while that grown from the small seed became more inferior each year.

We often hear a farmer remark that a certain variety of grain, which he has been growing for a number of years, has become what he calls "run out," and that he must secure fresh seed from some other locality, thinking that grain which has been grown on a different soil will do better than that grown on his own farm for some years. While there may be something

in the contention that grain improves if transferred from one kind of soil to another, it is evident that the trouble lies chiefly in the lack of selection of the seed sown from year to year, and could be remedied by securing seed from some one who has exercised more care in selection. We frequently see advertisements telling us of some wonderful new variety, the seed of which some seedsman offers for sale at an exorbitant price. If we secure some of this seed we will often find it to be very similar to some good old variety which we had grown ourselves a number of years previously, but which was dropped because it had "run out." The new variety for which we pay a fancy price, and with which we usually get a fancy name, is in many cases none other than some old variety which has been improved by a few years of careful selection and then sold to us as the most productive variety ever known.

Without any appreciable increase in the cost much better seed grain might be sown each year. The farmer who takes his seed from the crop of the previous year might, by a little additional care in cleaning, add very materially to the returns from his harvest. On the average farm there is sufficient spare time during the winter months in which the work could be done without any interference with the regular work. By putting the grain carefully through a fanning mill, and then sifting it through a sieve with a large mesh, the largest grain would be obtained for seeding, and the remainder would have its feeding value decreased but very little.

For those who secure their supply of seed from the dealers, a word of caution might not be out of place. Dealers, through misrepresentation, or from some other cause, often are supplied with grain that is not as they had thought it to be, and thus supply their customers with seed that is impure or lacking in vitality. By securing the seedsman's catalogue, and then asking for small samples of the varieties wanted, which samples seedsmen are always pleased to forward, much of the loss that accrues from sowing seed lacking in vitality might be avoided. When these samples are received their vitality can be determined by planting a number of the seeds, say one hundred, in a small box, and by placing the box in a place where conditions are favorable for growth, it will soon be known what percentage of the seeds might be expected to germinate when sown in the field.

Serious losses are incurred each year by farmers buying seed grain that

contains impurities in the form of noxious weed seeds. This is true more particularly of clover and grass seeds. These seeds are small and resemble quite closely many of the weed seeds, thus making it difficult to detect their presence. If those who have to depend on the dealers for these seeds would become familiar with the appearance of the seed of the most common weeds, much of the damage done by noxious weeds could be avoided. With the aid of a small hand lens most of the weed seeds can be clearly seen, and with a little practice the farmer can soon learn to identify them.

When we resolve these suggestions into their last analysis we find that the key-note of it all is, more attention to the details of our business. However, we must not be surprised at finding this to be the case, as in every enterprise its success or failure depends almost entirely on the attention that is given to the minor details.

An Initiation Task.

Students nowadays little know what events there were to spice the life of students, especially freshmen, who attended here years ago. Initiation services were then general and of a varied character, and the originating of some new plan which had for its object the novel introduction of some innocent freshman into the ways of college life, was the chief thought of the sophomore for the weeks following College opening. There has just come to hand a copy of a set of examination papers which were worked off

on a couple of freshmen as a sort of initiation service. It will probably not be the first time that students who were here in the time of Creelman and Monteith have read these. Probably also, should Tinney and Campbell chance to see this, they will recall the day when they sat in the old live stock class-room from 12.30 until dark writing incessantly as the various presiding examiners kept watch over them.

The following is a list of the examinations as they were written upon:

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COMPOSITION.

(B. E. P.)

Prof. S. W. J. Colon, Examiner.

1. At what end of a sentence would you place a period? Why? Give reasons.

2. Were comas used in the time of Moses periodically or semicolonically?

3. Write a short account of the life history of the Reeve of your Township, stating—

(a) Sex.

(b) Age.

(c) Side of politics.

4. Punctuate this sentence and explain the meaning of the words *Italicized*:

"Sir Thomas Norton *lived* and *resided* near a cave *in a cavern* by Mounted police *hard* over *which* is against the *Municipality* of Ha.d.scrabble."

5. Change the order of the words in the following (as far as possible) from *Paradise Lost*:

"By all the gods!

The Grits do now press hard,
And Ned himself the deepest of the lot
Doth lead them on

To victory or eclipse.

But stay awhile;

Our leader's at the helm

Piloting the efforts of his friends

To get him votes.

So hold good cheer,

Unseating is the rule

Now Baird is in

We'll play them for the fool."

Time, 30 minutes.

"The Baron."

Examiner, A. B. Brimm.

H 2 S 0 4.

HONOR ENGLISH.

O. A. C.

1. Write a rhyme of not less than four lines, and as many more as possible, with yourself as the subject.

2. State fully the reasons that led you to decide to seek an education in this institution.

3. Compare the peculiarities of the following domesticated animals: cat, dog, pig, and guinea hen.

4. Explain your father's financial circumstances and state your own prospects for the journey of life.

5. What are your prospects for the world to come? Give reasons with answer.

6. Write a composition on either of the following subjects: Earth, Heaven, or Hell.

Time, $\frac{3}{4}$ hour.

Ontario Agricultural College,
Regulation Examinations (Craig).

HISTORY.

Examiner, J. G. Green, C. O. D.

1. When and how did the Romans conquer Britain?

2. Give in your own words a full account of the tale connected with the banishment of frogs from Ireland.

3. What was the Magna Charta?

(a) Explain its influence on Free Trade.

(b) On the growth of the Anglo-Saxon.

4. When and where were the following battles fought: Agincourt, Boyne?

5. Write fully the effect of the English Reformation had on Mormonism.

6. If Sir John Macdonald was made King of Bulgaria, state fully your opinion of the effect this measure would have on Commercial Union?

7. Trace the history of your ancestors as far back as possible; from the time of William the Conqueror to the present day, if time permits.

Time, 30 minutes.

P. S.—An answer to six questions required to pass.—J. G. G.

(T. B. Williams)

J. J. James.

ENGLISH GRAMMAR.

Examiner—John Squirrel, H. C. L.

1. Analyze—"There is a certain college where you go to get your knowledge."

(a) State the different parts of speech in the above and say which one you like best.

2. Why is English grammar taught in Canada?

Give full explanation.

3. Write a composition on your first impressions of the Ontario Agricultural College, paying special atten-

tion to punctuation and describing some of the students whom you first met.

Ontario Agricultural College,
Regulation Examinations.

Examiner—J. McIntyre.

(J. A. Craig).

GEOGRAPHY.

1. Define, estuary, river, meridian.

2. Where and what are Erin, Timbuctoo, Yang-tse-kiang, Sebastopol?

3. (a) Name the Great Lakes of Canada.

(b) Explain fully why they are chosen as the boundary between Canada and United States.

4. Draw a sketch map of your country, its relative position, marking plainly the situation of your home-stead and outbuildings.

5. Explain the influence of the moon on the weather.

6. Write what you know of the changing of horse hairs into eels when placed in water. Full explanation required.

Time, 30 minutes.



The O. A. C. Review.

BUSINESS MANAGERS;

G. B. ROTHWELL, Secretary.

W. H. GUNN, Treasurer.

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MARCH, 1902.

Editorial.

Closing Exercises.

Before the next issue of the REVIEW appears the dreaded examinations will, for all but the Seniors, be an event of the past, and the majority of the students will have returned to their homes. The anxious, care-worn expression on the faces seen in our College Halls will have given way to one of pleasure and satisfaction. The year's work, though hard, will have brought to each of us its lessons; lessons, which, if learned and applied, will constitute no small part of our college education. Many will be graduating; still more will be going out as Associate graduates. The memories which will refresh our minds in after years will be, we hope, pleasant ones, but too frequently last impressions remain the most vivid. Each year there are those who run a great risk of losing their final examination in order to catch the first train for home. It is with a feeling of great relief that they say good-bye to college life. This is not as it should be. It shows a lack of respect for our

Alma Mater and a lack of appreciation of the education she gives. Why not make the closing day a day to be remembered, a day to which we can look back in future years with pleasure? All institutions of learning in the republic to the south of us have closing exercises and the same is generally true in Canada. There is no reason why we should not have some form of Commencement Exercises to mark the close of our college year. It would add greatly to our prestige, and place us on a more equal footing with other institutions. What has proven an unqualified success in the case of a year should prove a still greater success in the case of the entire college. Here is a field for the display of student enterprise. Cannot steps be taken at once for the formation and carrying out of some plan which shall bring about this desired result?

* * *

The proposed course in Nature Study has been withdrawn for the

present year. This action has been received with great satisfaction by the members of the Junior Year, whom it particularly concerned. A number of considerations induced the Staff to make the desired change, and as the new Biological Building will not be completed for some time, and as the present building and equipment are entirely inadequate, it was thought wise to introduce the study next year. According to original plans it was intended to give the Junior Year a course extending through May and June, in which lectures, bearing on the study of nature, would be given. While we all appreciate the value of the proposed course, and are in hearty sympathy with the movement, still the Juniors considered they had good grounds for not wishing to have the course compulsory this year. Dr. Mills, in a recent interview with the students, stated that the work would be optional this year, and that the new regulations would come into effect with the graduating year of '04.

* * *

The Secretary of the Literary Society has just received a communication from the Secretary of the Literary Society, of Woodstock College,

with a view to arranging for a debate between the two Societies. Arrangements have been completed and two representatives, one from each of the senior societies, have been chosen. From the increasing interest manifested in literary circles this year, and the greatly increased opportunities given for the cultivation of public speaking, we may expect to hear a good debate. As the Societies are conducted at present the spirit of rivalry adds much to the interest, and the debate with Woodstock College will give us a fair idea of our abilities as debaters. These inter-college debates will not only serve as a stimulus to more thorough work in our Societies, but will also be the means of cultivating and strengthening the true college spirit.

* * *

In the supplementary estimates which have just passed the House, the following grants have been made to the College:—\$7,500 for the purchase of a site for the Macdonald building; \$2,500 for the erection of a new Live Stock Pavillion; \$1,400 for Laboratory supplies; \$1,000 towards the Library, and \$9,000 for a new electric light plant.



The Providing of Good Stallions.

By A. S. Hopkins, B. Agri. Associate
Editor *Farmer's Advocate*,
Winnipeg.

The high prices realized within the last 12 months have again drawn the attention of farmers to horse breeding. Many of them possess mares of a suitable breeding age. We say nothing of as to their fitness for the duty, and the question now agitating the intending breeders is where and how are suitable males to be got, to mate with the mares they possess? A district may procure stallions by two methods:

1. *Private Ownership*, in which one man puts in all the money, takes all the risks with his horse, runs great chances of losing the service fees, in addition to which if he possesses a good horse he has to compete with the \$5 or \$8 horse generally without breeding. His sire may have been a good registered horse, and may be, as its owner will say, "Just like the old horse!" with this difference though, that he is of mixed breeding, and in consequence is not likely to breed as good colts as himself. Private ownership, therefore, in the majority of cases, has not an inviting prospect to one who would invest.

THE OTHER ALTERNATIVE.

2. *The Company or Syndicate Method*, if properly managed, works well, but if not founded on business principles is most productive of ill feeling among neighbors. The wrong way to start a company is to let a dealer bring in one stallion, and then get one of the farmers to help him syndicate the stallion. In nine cases

out of ten the neighbor gets a pull of \$500 or thereabouts out of the deal, and the company pays \$500 to \$1000 more for the stallion than he is worth, besides having had no selection. As a result the deal is a disappointment, and the horse is sold off in a year or two for one-tenth of the original price, and every member of the company is disgusted with the whole affair. The right way to form a company is somewhat as follows:—Fifteen good farmers, who can agree, and who are of sound business principles and on good financial basis, get together and form themselves into a company and select a secretary. They then agree on the style of a horse likely to suit their mares, and those of the district. Having done that, two or three of their number are sent to select a horse from an establishment having a good number to choose from. The reason fifteen men are called for is that each may put in \$100, or more if considered necessary, it not being possible to procure a first-class draught stallion much short of \$1500; with the price in cash a horse good enough for any district should be got for from \$1,500 to \$2,000. Having selected the horse, a capable man (possibly a member of the company) should be selected to care for the horse the year round and to collect the stud fees, for which services a stated remuneration—\$200 or \$300, should be paid. At the end of each year the expenses should be totalled by the Secretary, who also deserves some remuneration, and each member assessed his share, payments being made promptly. All members of the company should pay the regulation service fees, the same as an outsider. When the service fees are collected, some two months later, it is an easy matter to distribute to each his share, without any friction. Such a company, if they possess a sure horse of the right type, will make money out of their investment. Unless the above principles are observed, failure is bound to result in every case.

Athletics.

The Story of the Marshall-Harris Cup Series.

FRESHMEN—SOPHOMORES.

The Freshies and the Sophomores opened the inter-year hockey season on Feb. 22nd, by a game of scientific "shinny." Much speculation was indulged in on the result of this game, months before, the general belief being that the Freshies would out-do the Sophs. But the Sophomores whispered among themselves in a mysterious way, and made others believe that they would not be easily beaten. The scene of conflict was on our own open rink, and, as old Sol was out in full glory, the ice was in very bad shape. It was a game of running and slugging. The board fence that encloses the rink was crowded by the supporters of each year, the Freshies, confident and demonstrative, the Sophs, silently nursing their pent-up hopes.

The two teams lined up as follows:

FRESHMEN.		SOPHOMORES.	
Robinson.....	Goal.....	MacRae	
Murray.....	Point.....	McNaughton	
Linklater.....	Cover.....	Baker	
Suckling.....	Forward.....	Smith	
Yeo.....	".....	Barton	
Prittie.....	".....	Gunn	
McReady.....	".....	Williams	

The first half was slow and formal, each side trying to out-do the other in playing as gently as possible, with the result,—no score at half-time. Each side was silent, the agony of suspense was awful! Again they are off and now the Freshies seem to have awakened, and within four minutes Suckling has scored a goal. How those boys do yell; methinks the bovine tubercle has had no effect on them. In one stroke all past injuries from the second year have been avenged, and the Freshies are happy.

But stop Freshies, perhaps you are a little too fast. The second year are working like giants; again and again their forwards rush the puck up, but their shots are weak on account of the condition of the ice, and their hard work counts for nothing. Within one minute of time Suckling scores another goal and the Freshies have the game clinched. I will refrain from a further description of the feelings of first year men, except to say that each one sauntered away with his hands in his pockets, thinking that his youthful days had indeed returned.

FRESHMEN—SENIORS.

Now it was up to these frisky youngsters to meet the seniors, veterans of many battles. Some one had said that the seniors would win, and "Jake" had a nice dream, in which he saw himself scoring goals from point, and completely bewildering the Freshies. The Sophs, smarting under recent defeat, turned out in good force to see the first year "get their medicine," but once again they were disappointed. Jake's dream did not materialize, and the seniors were defeated by a score of 7-4.

The two teams were:

FRESHMEN.		SENIORS.	
Robinson.....	Goal.....	Murray	
Murray.....	Point.....	Jacobs	
Linklater.....	Cover.....	Christie	
Prittie.....	Forward.....	Hallman	
Suckling.....	".....	La Pierre	
Yeo.....	".....	Williams	
McReady.....	".....	Waters	

The first-half was a good exhibition of hockey. Fast work and close checking was the rule, although the ice soon became covered with half an inch of snow and put a stop to any

brilliant rushes. McReady notched the first goal for the Freshmen, and Hallman soon did the same trick for the Seniors. Then Yeo spurted up the ice, and shoved the rubber between the posts, counting another for the First year. All this time La Pierre had been working hard, and he now considered it time for another goal, and so, quite unconcerned-like, he added another one for the Seniors. Soon after Hallman tallied again and things began to look serious for the Freshies. They changed tactics and began playing the men, and soon Hallman collided with Linklater, with the result that the former was put out of the game for about half an hour, and when he did come back for the second half he could not play in his best form. This told greatly against the Fourth year team's work, and when Percy Suckling got in a few of his long shots it soon gave the the Freshmen a snug margin. The Fourth year made a garrison finish and got one goal in, but could not materially pull down the lead. Since this game no other has been played, and it seems that the weather-man has decided that no more shall be played. The game between the First and

Third years will, on this account, either have to be played on roller skates or else be postponed until next winter. So, until something definite is decided upon, this story remains,

TO BE CONTINUED.

INDOOR SPORTS.

It has been decided that there will be no public exhibition of the indoor sports this year. The Gymnasium is partially filled with material for the new buildings, and thus the room is cramped and unsightly. On this account it has been considered impossible to give a good entertainment. And, besides this, very little training has been done by the students, because they have not had the privileges of former years in the Gymnasium, it being used in the earlier part of the term as a class-room, and in the latter part as a store-room. However, private contests will be held and suitable prizes given to the winners of each event. It is hoped that in this way interest will still be maintained in the Gymnasium, and that those who have trained may be rewarded for their efforts.



Locals.

Off with your boots, Pope, old man.

Question in Economics.

"What is price?"

What took Silcox down town so early that Monday morning?

Was it an earthquake or merely the cook's snoring?

Yeo's jump, when he discovered what was in his bed, broke all past records.

S—At Organic Chemistry lecture.

"To introduce the amide group, treat with pneumonia."

"Who started the prunes, the Almighty or who?"

Probably the who.

Afternoon class, tracing out pedigrees.

Prof.—Mr. Met-calfe, I guess you will have to go with the Shorthorns.

Good Fountain Pens at a low price are hard to get. Clark, the Jeweler, has them at \$1.00 and \$1.50, and they are guaranteed to give satisfaction.

Gilbert's definition—

The difference between the doing of work and of play.

"Play is done with the will; work, against the will."

In spite of the fact that the change is due to their teaching, the officers do not yet believe in the good resulting from the pasteurization of milk. The cream does not rise as it was wont to, and the coffee's thin without it.

Say, Boys, you will want some photographs taken before you go home. Do not forget to go to Young's, Macdonnell Street.

To be issued shortly.

(1) "The peregrinations of a sheep tick.

By Cooper,

(2) "The Indians of St. Catharines and Teeswater."

By W. T. MACDONALD.

Prof. to Second year—

"I often marvel at the power of McEwen in putting men to sleep, but it sinks into insignificance beside my experience when lecturing on grasses."

Scene I—A passenger train bound for Guelph.

A lady, Mr. L—n and sundry others.

Mr. L—n (Addressing lady).

"Yes, I am going to Guelph, to the O. A. C."

Lady—"Are you acquainted in the city."

Mr. L—n—"I am acquainted with only two people in the city. One of these is Mr. A—, I know him well, went to school with him, heard he was preaching, but don't know what kind of a thing he is making out of it."

Lady—Oh, indeed.

Scene II—Railway platform at Guelph.

Mr. L—n,— "Allow me to carry your valise."

Lady—"Thank you, I do not need to trouble you, there is my husband waiting for me."

Mr. L—n, following the lady's gaze, espied his old friend Mr. A.

Exit Mr. L—n.

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La Pierre will have no more to do with street cars.

It has come about in this way: A short time since he was seated in one of the aforesaid conveyances when a charming member of the feminine persuasion entered. The car, commencing to move, seriously disturbed the equilibrium of the fair one and she was about to fall. Our gallant friend perceiving this, at once sprang to his feet, gracefully extended his arms and implored the damsel, if she fell anywhere, to fall on his manly breast.

Balance once more regained, he was in the act of conducting her to a seat when that, well—er, unreliable car again sprang forward.

His hat flew towards one door. the

twain—; but we cannot proceed, we feel for our friend in this trying situation. We agree with him when he has regained his feet. D— those cars anyway.

Into how many parts may a pie be divided and still allow each partaker thereof to have what he considers enough?

Ans.—Sixty-four.

On that memorable night, of that memorable pie, sixty-four divisions were made and those who partook thereof were filled, not to mention the fragments that remained.

It is said that several foreigners rather relished the cayenne.

College Reporter.

Term exams. are again engaging our serious attention. Silence reigns supreme along the halls; and the thoughtful faces of the boys indicate that their minds are filled with the desire to obtain a creditable standing in the finals.

On account of recent occurrences, Prof. Day has decided to make changes in the class of stock kept on the Farm. Instead of keeping a herd of dairy cows, as heretofore, he has decided to dispense with it, and, to keep instead, a first-class herd of the different breeds of beef cattle. Hence, in a short time we may expect to find here a herd of beef cattle consisting of some of the very best animals to be found in the Province.

As delegates from the O. A. C., Messrs. Klinck, Hamilton, and Houser attended the Student Volunteer Convention, held in Toronto, from Feb. 26th until March 2nd. This was the fourth international quadrennial Convention of this great College Student movement, and was by far the greatest convention of its kind ever held. Delegates were present from 22 countries; the number of colleges represented was 357, and registered student delegates numbered 1,668. The grand total of registered delegates, so far as is known, was almost 3,000. The movement has grown to enormous proportions, its missionaries and teachers being stationed in almost every country in the world.

On the 21st. inst., two representatives of the O. A. C. Literary Society meet in debate two representatives of Woodstock College. This "new departure" of the Literary Society has certainly many things to commend it. By engaging in debate with outside societies, a stimulus is given to literary work among the students. More than this, it brings us in touch with other colleges. For years there have been inter-collegiate debates between students of our best Canadian Colleges, and, considering the debating abilities of many of our students, why can we not enter these inter-collegiate contests, and carry off the palm? On the field of sport, our representatives have secured highest honors in inter-collegiate contests, and, with a fair chance, they should have equal success on the debating platform.

THE ORATORICAL CONTEST.

The Oratorical Contest, now an annual event, was held on Friday evening, March 14th, in the Gymnasium. Following is the report of the *Guelph Herald* of 15th inst.:

A large and delighted audience attended the Fourth Annual Public Speaking Competition, under the auspices of the O. A. C. Literary Society, on Friday evening. The Hon.-President of the Society, Mr. W. J. Rutherford, occupied the chair, and in a few gracious words introduced the programme. Interspersed with the orations were some choice musical numbers. Miss Hattie and Mr. Charles Kelly contributed a duet on the mandolin and guitar, which was rapturously encored. Miss Nellie Moore, always charming, delighted the audience with her song, "Gaily Chants

the Summer Bird," and was recalled. The vocal duet by Miss Kelly and Mr. Cutting was beautifully rendered. Mr. Chas. Kelly sang "Alone in the Desert," with impressive effect. The Darkies' Cradle Song, given by Messrs. Cutting, Stevens, Knowles, and Chas. Kelly, was heartily received.

The orations in the Speaking Competition numbered eight. The order of merit, according to the Judges' Report, was as follows:

- Oration—"Man and his Place in the Universe,"
A. B. CUTTING.
- Oration—"The Progress of Liberty,".....
L. S. KLINCK.
- Oration—"The Genius of Napoleon I,".....
E. G. DE CORIOLIS.
- Oration—"A Canadian's Birthright,".....
H. W. HOUSER.
- Address—"Canadian National Development,"
W. D. ALBRIGHT.
- Address—"The Secret of National Greatness,"
J. C. READEY.
- Address—"Imperialism,"
R. E. GUNN.
- Address—"A Canadian's Heritage."
J. M. MCCALLUM.

Each speaker was allowed 15 minutes. The judges' were:—Rev. T. J. Parr, M.A., H. McMillan, and J. P. Downey. Mr. A. B. Cutting, who won the prize, a handsome dictionary presented by Mr. Creelman, on behalf of the members of his class, gave a great oration on "Man and His Place in the Universe." Thoughtful, scholarly, philosophic, it was delivered with clear enunciation and an impressive nervous energy.

Mr. Klinck delighted his audience in his oration on the "Progress of Liberty." He has a fine presence, used beautiful language, and modulated his voice with good effect. Mr. E. G.

De Coriolis possesses the gift of magnetic eloquence in a marked degree. His tribute to the genius of Napoleon was masterly in conception and inspiring in delivery.

One of the most satisfying efforts of the evening was that of the fourth prize winner, Mr. H. W. Houser, who, in impressive language and with admirable self-possession extolled the greatness of "A Canadian's Birthright." Mr. W. D. Albright, the only first year man in the competition, was placed fifth by the judges. He offered in his fifteen minutes, many practical suggestions on "Canada's Natural Development," and adorned his discourse with some fine periods. Admirable, too, was the presentation of "The Secret of National Greatness," by Mr. J. C. Readey, whose analysis of the subject showed that he had given it careful thought. He was sixth on the list. The other two speakers, Mr. R. E. Gunn and Mr. J. M. McCallum, did excellently. It was a keen and brilliant competition, and it was no discredit to any young man not to be among the prize winners. The judges, as announced by Rev. Mr. Parr at the close, had much difficulty in making their awards. The addresses were judged by the following scale of points:

Topic, ideas and logic.....	25
Voice and enunciation	20
Language	20
Eloquence	20
Manner.....	15

The O. A. C. Literary Society is to be congratulated on possessing such a fine array of orators. Most of the young men revealed possession to a marked degree of the natural gift of eloquence. Some of the speakers thoroughly dominated the scene and held the undivided attention of every person in the room.

The officers of the O. A. C. Literary Society, who had charge of the entertainment, are as follows:

Hon.-President—W. J. Rutherford.

President—F. S. Jacobs.

Secretary—W. C. McKillican.

Treasurer—J. C. Readey.

Executive Committee—B. J. Waters, T. S. Clarkson, W. V. Harcourt, H. W. Houser, J. O. Laird, R. R. Cameron.

The success of the contest over those of previous years is due to the extra interest that has been manifested throughout the term, and largely to the training which the competitors have received at the hands of Mr. Cumming. Only since last September has there been any training in this important branch of college education, and the success with which it has met augers well for a future extension of the work.

Personals.

W. A. Dryden, '99, and A. W. Partidge, '99, were among the visitors to the Winter Sale.

G. Taylor, '97, is at present in the Dairy School. He will be in St. Mary's Creamery next season.

John A. Craig, '88, has had to give up his work in Iowa, and is now endeavoring to regain his health in the sunny South.

Professor and Mrs. Harcourt entertained the Fourth year students on the 4th inst., and the Third year on the 6th inst. Music and games enlivened both evenings, and every one will remember the pleasant time spent with Mr. and Mrs. Harcourt at their cosy home on Waterloo Avenue.

"Doc." Hopkins, '97, was recently offered a lucrative position by the U. S. War Department. The Doctor is expected to enter upon his duties at once. His office will be in Washington, D. C.

P. G. Mills, '98, is living at his old home near Sussex, N. B., and is Associate Editor of the *Maritime Farmer*. Mills is making his mark as an agriculturist and a journalist. He will

Woodstock-O. A. C. Debate.

It is pleasing to note the increased college spirit, as it was manifested by the student body on the evening of March 21.

At 4.40 p. m. more than a hundred strong, together with a number of the staff, they assembled at the C. P. R. station, where a special train was in waiting to carry them to Woodstock, where they were to uphold in speech and song and decorum the honor of the college to which they are proud to belong; and it is grati-

return to finish his course for his degree next fall.

We note with pleasure, that in the recent debate between Queen's and McGill Universities, Mr. I. N. Beckstedt, B. A., successfully supported the affirmative of the following resolution:—"That Latin and Greek should be made entirely optional in the Arts curricula of Canadian Universities." Many of the arguments used by the affirmative apply with equal force in connection with the optional study of French and German for the B. S. A. degree.

H. R. Ross, B. S. A., '98, is editor-in-chief of the *Maritime Farmer*, published at Sussex, N. B., and is also connected with Maritime Institute work. He recently toured Prince Edward Island in their initial meetings, with Prof. A. G. Gilbert, of the Ottawa Experimental Farm.

W. T. Lucas is now managing a large farm at Bailieboro. He intends to visit the old country at the time of the Coronation ceremonies. He will leave Montreal about May 24th, and would be pleased to meet any of the old boys.

fyng to know that in none of these were they found wanting.

On their arrival at Woodstock at 6.10, they were met by an enthusiastic body of Woodstock College boys, who, after an exchange of yells, headed the procession, and marched to the college, a distance of about two miles.

At the College, Principal McCrimmon, on behalf of the Faculty, and Mr. Dodson, on behalf of the Literary Society, extended a hearty greeting and welcome, to which Prof. Doherty, in a neatly worded speech, replied on behalf of the O. A. C. The freedom of

the College was ours, and for an hour, staff and students alike vied with each other in their courteous treatment of the visitors, who could not help being impressed with the air of culture, dignity and refinement, which characterised, not only, the Faculty but also, the student body of the W. B. C.

Long before the hour when the programme was advertised to commence, the spacious audience room was packed to its utmost capacity with the best of Woodstock's citizens.

After being entertained by music, both vocal and instrumental, and a well rendered reading in *Habitant* dialect, the interest centred on the principal feature of the evening's entertainment, which, was a debate between the Literary Societies of the two colleges, on the question, "Resolved, that the Government of Ontario should not enact a law prohibiting the importation, manufacture, and sale of intoxicating beverages." The affirmative of the question was defended by Messrs. McDonald and Burke, representing Woodstock College, while Messrs. Ketchen and Black, on behalf of the O. A. C., argued the negative.

Mr. McDonald, the leader of the affirmative, was careful to explain in his opening remarks, that he was strictly temperate in his habits, though not a prohibitionist. He considered that the Government would not be justified in enacting such a law without due deliberation. We require a certain amount of pure liquor which can not be had outside of Ontario. We supply Manitoba and Quebec, and to prohibit manufacture would be to cut off a valuable export, besides being an injustice to the people of these Provinces. Again, we would throw a large number of men out of employment. He opposed prohibition because it would be necessary to compensate those whose business would be destroyed. He claimed that no Provincial Government had a right to enact such a law, and even if enacted, it could not be enforced, because at

the time of the plebiscite the cities had declared against prohibition. He also cited the Scott Act as a failure.

Mr. Ketchen introduced the negative side of the argument by first explaining away the failure of the Scott and Dunkin Acts. He then went on to show that prohibitive legislation had been successfully enforced in Maine, Kansas, Iowa, and other States, and argued that what the people of these States had done so well, the people of Ontario could do just a little better. He went on to say that the question is not as to whether or not we *can* prohibit—that goes without saying—the question is as to whether or not we *ought* to prohibit. Is prohibition in the public interest? If it is, we will find a way to prohibit.

He proceeded to argue the question from an economic point of view, contending that the Ontario Legislature should prohibit the importation, manufacture, and sale of intoxicating beverages:

Because we would thereby prevent an enormous waste of national wealth in the form of raw material which is annually consumed in the manufacture of liquor. We would effect a saving of the time and energy of the men employed in the traffic, and would divert that energy into other more productive channels.

Because the capital invested in the manufacture and sale of liquor would, if invested in other industries, employ more men, and pay more wages;

Because these men, instead of spending their money over the bar, would expend it in the building and maintenance of homes, and homes are the bulwarks of the nation;

Because total abstainers are more efficient producers, and we would thereby increase the wealth-producing capacity of our people;

Because prohibition would diminish crime and poverty;

Because we would effect a saving in the cost of administration of justice, and the maintenance of the poor,

And, finally, because the people have demanded it, and to refuse to enact prohibitive legislation would, therefore, be an outrage to the principles of Democratic Government.

Before introducing the supporters in debate, the programme was varied with a solo rendered by Mr. Cutting, of the O. A. C. Mr. Cutting was obliged to respond to a very hearty encore, which he did in his usual good form.

Mr. Burke, the supporter of the affirmative, now took the platform, and in his opening remarks, was at considerable pains to explain, especially to the ladies, that, like his leader, he, too, had recently reformed, and was now a temperance man. In arguing for the affirmative, he claimed that, according to investigation, 2 ozs. of alcohol had been found to contain as much food as 1½ ozs. of cod liver oil, and, if this were true, he would prefer the alcohol. The primary object of prohibition, he argued, should be to promote the social standing of the community. Just here he made startling comparisons of the state of public morality in some of the States of the Union, with that of Ontario, especially with regard to Sabbath observance. "Prohibition," he said, "would be an infringement of personal liberties, making a crime of that which many men believe to be right." He, too, like his colleague, argued that a prohibitory law could not be enforced, unless it were supported by a large majority. If passed, it would be detrimental to the best interests of the state, as it would lead to contempt for law, and other crimes would flourish. "Ontario," he said, "is not ripe for it." He advised education and restriction, instead of prohibition.

Mr. Black, in continuing the argument for the negative, showed that all laws interfere to a certain extent with personal liberty, and that it is folly to say that prohibition would

make a crime of that which many people believe to be right. "Many men," said Mr. Plack, "beat their wives, conscientiously believing them to be the better for it, but the law interferes refusing to recognize individual beliefs in such a matter as a standard of right and wrong."

He contended that a prohibitory law should be enacted, because it would do away with the treating system. "Drunkenness," he proved, was alarmingly on the increase on account of this system. Secondly, because those addicted to the use of strong drink desire prohibition. Again, he argued for prohibition because of the injustice inflicted on those who do not touch it—wives, children, mothers, and dependants. Anything else than prohibition would be a compromise. Now we have partial prohibition. Let us have it in its entirety. Even if the law were not enforced to the letter, it would still be a means to an end, in that it would help men to become sober, industrious, law-abiding citizens. Since the principle is right, the end cannot fail to be all that is noble, righteous and just.

The leaders were then given three minutes for reply in which each criticised the arguments of his opponent.

While the judges were conferring, Mr. Klinck delivered an address on "The Progress of Liberty," in which he did ample justice to himself, and admirably sustained the honor of the O. A. C.

The judges decided in favor of Woodstock, basing their decision on their recent reading of the referendum, which had led them to conclude that such an act as that proposed in the resolution would be unconstitutional, and that, therefore, the speakers representing the O. A. C. had attempted to prove the impossible.

Refreshments were then served, after which the boys lined up in orderly procession and "hied awa hame."