



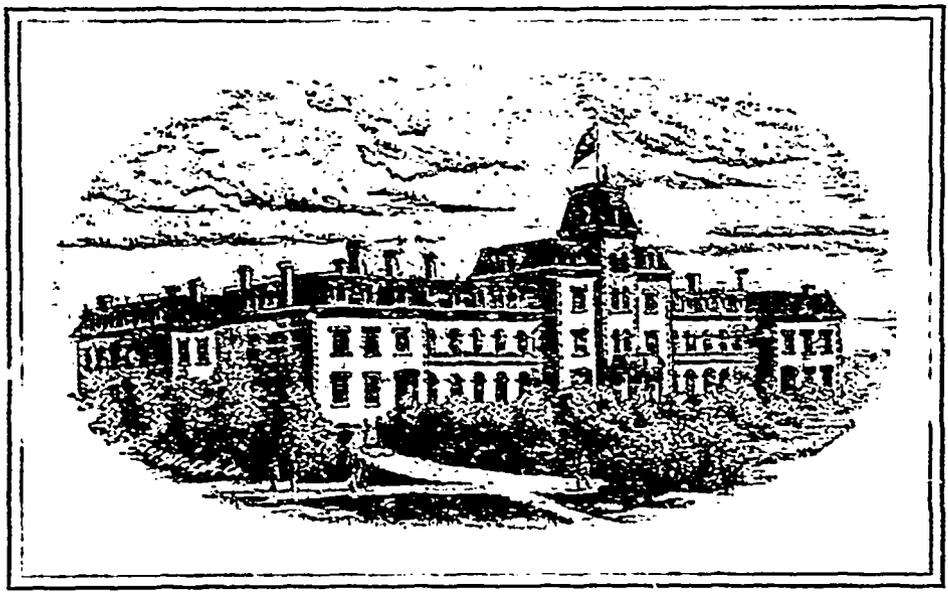
THE
O. A. C.
Review
 MARCH, 1899.

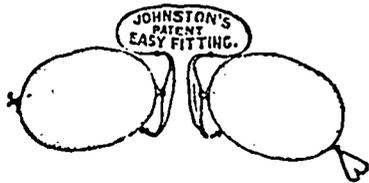


Contents.

Editorial..... Page 3
 Agricultural—
 The Ontario Breeder's Future 4
 Calf Rearing..... 5
 The Window Garden..... 6
 Athletic Notes 7
 By our College Reporter 8
 Personals..... 8
 Local10
 Exchanges11

Published by the Literary Society of the
 Ontario Agricultural College,
 Guelph, Canada.





In the matter of testing the eyesight, **Pringle**, the jeweler, has had the most experience of any jeweler in Canada, being the first who took a course in the New York Optical College, O.A.C. Students who find any trouble with their eyes while studying, might find on being tested that spectacles properly fitted would give the desired relief.

Burgess & Son,

HIGH GRADE
PHOTOS

ONLY.

21 Lower Wyndham St. - Guelph.

All Students

should call at

Waters Bros.'

New Store, next Pringle's.

BOTANICAL SUPPLIES.

BACTERIOLOGICAL SUPPLIES

ART GOODS, Etc., Etc.

Wyndham Street. - Guelph.

GEO. J. THORP, Seedman
and Direct Importer, also dealer in Grain,
Hay, Potatoes, etc., Market Square and
Macdonnell St., Guelph.

WHEN WE SAY

there is no better application made for Sprains, Strains, Bruises, and other External Injuries, than **Stewart's Embrocation** (or White Liniment), we believe it to be a fact. Hockey players will find it an excellent "Rubbing Down" Lotion.

Sold only by

Alex. Stewart, Chemist,

2 Doors South of Post Office.

Dentonia Park Farm,

W. E. H. MASSEY, Proprietor,
East Toronto (Coleman P.O.), Ont.

DENTONIA JERSEY HERD—Winners of the Herd Prize at both the Toronto and London Fairs, Fall of '98, also some 30 other prizes. This herd comprises fourteen head of Imported Cattle, many of them winners of valuable prizes on the Island; also some thirty animals selected from the best Canadian herds. Heifer and Bull Calves, also good Cows always on sale.

DENTONIA POULTRY YARDS—S C. Brown and White Leghorns, B. Plymouth Rocks and Light Brahamas, Pekin Ducks, Toulouse Geese. Birds for breeding and eggs for setting. Market birds and eggs a speciality.

DENTONIA TROUT PONDS—100,000 healthy fry ready for delivery. Prices reasonable. Trout eggs in season. Market trout supplied on short notice.

Good Butter Making

Do you want to make your churning safe, profitable? And easy too? Do you want to find a quick market for your butter?

Then try **WINDSOR SALT**—the salt that is pure and dissolves so easily. It has no bitter taste—successful buttermakers recommend it, and they ought to know.

Progressive Grocers Sell

Windsor Salt

The Windsor Salt Co.
Limited,
Windsor, Ont.

CONFECTIONERY STORE

and Lunch Room.

Maple Cream, Taffy and Nut Candy made fresh daily. Oysters served.

J. H. SMITH, Opp. City Hall.

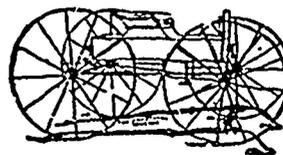
Bell Pianos

AND
ORGANS
BUILT TO
LAST
A LIFETIME.

Factories—
GUELPH, ONT.



Intending Buyers who select an Instrument bearing this Trade Mark may rely on the quality.



ARMSTRONG

Buggies and Carriages

Are standards in Canada for long satisfactory service, easy riding qualities, up-to-date design and light draft for capacity. Our Catalogue will tell you all about it. Free on application.

J. B. ARMSTRONG Mfg. Co. Limited,
Guelph, Canada.

John Davidson, STEAMSHIP AGENCY.

Allan,
Beaver,
White Star,
Anchor,
Lloyd,

Dominion,
Cunard,
American,
French Mail,
and all others.

Office—Market Square, - GUELPH.

GOWDY MFG. CO'S FEED BOILERS

For all kinds of Stock,
and other

FARM IMPLEMENTS

in great variety.

All goods first-class. Write for
Prices and Catalogue to

THE GOWDY MFG. CO.,
GUELPH, Ont.

Boots, Shoes, Slippers Rubbers Etc., at Goetz's Shoe Store

You can always get what you want in Boots and Shoes, and Rubbers to fit your Shoes—no matter what shape they are. He is also a practical Shoemaker and his staff of first-class workmen are at your service. Repairing always done while waiting, if desired. Open evenings from 8 to 10.

W. C. GOETZ,

Coffee Block, opp. G. B. Ryan & Co.,
Upper Wyndham Street.

McMillan & Dunbar,
Barristers and Solicitors.
Office—Douglas Street, Guelph,
nearly opposite Registry office.
Hugh McMillan. C. L. Dunbar.

NEW BOOKSTORE.
See our Stock of
Text Books, Exercise Books,
Notepaper, Etc.
C. ANDERSON & CO.

A New Hat

is in the mind of
each Young Man at this
Season. See our stock—
it comprises all the latest
styles and colorings in
Soft and Stiff Hats for
Spring.

Thornton & Douglas

We know
YOU WANT *Good Seeds*

It pays to grow the very best.
Every Farmer in Canada
should grow
Our Improved Short White Carrot,
Our Selected Purple Top Swede,
Our Prize Mammoth Long
Red Mangel.

Headquarters for Poultry Supplies.
Send for our descriptive Catalogue. It tells
all about the best things to grow.
The Steele-Briggs Seed Co., Limited,
137 King St., E., Toronto, Ont.

EDUCATIONAL.

ONTARIO AGRICULTURAL COLLEGE GUELPH.

Full Course of Lectures on
**AGRICULTURE, DAIRYING, LIVE STOCK,
VETERINARY SCIENCE,
AND OTHER SUBJECTS REQUIRED BY FARMERS.**

For Circulars giving full particulars, as to terms of admission,
course of study, cost, etc., apply to

JAMES MILLS, M. A.,
PRESIDENT.

Foster & Coghlan,
DENTISTS.

Office and Surgery: Corner Wynd-
ham and Macdonnell Sts.,
Over Dominion Bank.

Mr. Foster's residence, "Sunset,"
Paisley Street, GUELPH.

Telephone 14

THE SENATE
Cigar Store,

26 Wyndham St.

If you are a smoker, you can get
the best make's goods in Cigars,
Cigarettes, Tobaccos, Pipes, and
Sundries at the above address.

Imported and Domestic Cigars
a Specialty.

A full line of Wills' English Tobac-
cos on hand.

HUGH McHUGH, Proprietor.

BUY YOUR
Hardware, Lamps and Cutlery
FROM
GEO. B. MORRIS
AND SAVE MONEY.

Students Supplies.

**Text Books,
Fountain Pens,
Stationery,
Blank Books.**

Special Agricultural Books
Procured at Short Notice.

DAY

has the best stock.

Day's prices are the lowest.

Big value
every time at

Day's Bookstore.

DAY SELLS CHEAP

GUELPH'S
Palace Dry Goods and
Clothing Store



**Cordially Invites all its Friends
at the O. A. C.**

**Our
BEST
Services**

are at—
Your command.



The remodelling and enlarging of our Store and the fitting up of one entire floor for the

**Clothing and
Gents' Furnishing**

trade, places us in the very front of the Clothing trade, with no one in a position to serve you better.

Ordered Clothing—

The factors that produce first-class clothing are: 1. First-class material; 2. First-class cutter; 3. First-class workers. Added to these the fact of the moderation of our charges, we possess in a foremost degree all the requisites for your comfort and satisfaction. Come and see.

Ready-to-wear Clothing—

All of our own make, and wear guaranteed.

Waterproof Clothing—

In best and most reliable makes at low prices.

Furnishings—

Elegant styles in Hats, showing always the newest and best.

Shirts, Night Shirts, Collars, Cuffs, Ties, Scarfs, Braces, at regular staple retail prices.

Underclothing, Gloves, and Hosiery are specially cared for and you will find the very best and cheapest goods at our counters.

Fur Goods—

We buy direct from the makers, and supply value and quality of first-class merit.

Umbrellas—

Always good and cheap.

There isn't anything in Gents' wear that you cannot buy from us with advantage to yourself.

As we do not sell on credit, but adhere to a strictly Cash Business you are saved the extra charges usual to a credit business.

E. R. BOLLERT & CO.,
25 and 27 Lower Wyndham St. **GUELPH.**

✻ THE O. A. C. REVIEW. ✻

The dignity of a calling is its utility.

VOL. X.

ONTARIO AGRICULTURAL COLLEGE, GUELPH, MARCH, 1899.

No. 6.

Editorial.

THE bill at present before the Ontario Legislature making provision for the teaching of Agriculture in the Public, Separate and High Schools is one that will probably meet with little opposition. Ontario owes her unrivalled prominence as an agricultural province to the zealous attention and support given by the Government and it is only by a continuation of that body's valuable oversight and direction that she can retain the lead she has secured over her now progressive imitators.

At present the bill reads that school trustees *may* introduce a course in agriculture and this permission should be sufficient to induce its introduction without the substitution of a compulsory clause. Even with the public school course changed to suit the law requirements, it would be impossible to give the pupils anything approaching a thorough knowledge of the subject in more than one or two of its very numerous divisions. However, if the younger classes of our population are taught to give to agriculture the portion of thought which its importance demands, little further could be required of our school system.

In spite of all that has been done there are at present in this province many young people who do not possess a potent knowledge of such elementary studies as is necessary to enable persons of ordinary ability to keep abreast of the times. In the report for 1896 the President of this College said concerning the examinations "the percentage of failures is still very large, resulting in some cases from idleness, but in most instances from a lack of proper training in the elementary branches of an English education." The following years have not decreased that percentage although many of those who fail to pass examinations make considerable progress.

The Farmers' Advocate foresees a difficulty in securing a sufficient number of competent instructors to serve all the schools at the hour suggested in the bill. It speaks of the small number of men who have taken a degree in Agriculture, and seems either to overlook or disregard the clause which allows trustees to engage any one who can secure a certificate of qualification from the Ontario Agricultural College. While it is true that the number of those who receive the degree of B.S.A. is not more than a dozen each year, there are usually over thirty who each year succeed in securing a diploma by passing an examination on the two year course. The training which the Associates receive while at this College, and the systematic way in which agriculture and the allied sciences are taught fit so many to take positions as instructors that there need be no fear of a scarcity as long as the recompense is adequate. The Advocate also questions the competency of our graduates to act in the capacity of instructors and suggests that the regular teachers be made to qualify as teachers of agriculture. But how can they be justly required to do so when the subject is not taught in the schools and they have not received a grounding in its principles? Some years ago a summer course in agriculture for teachers was opened at this College but that apparently was not so satisfactory as to warrant its continuation.

To us it is apparent that this departure is a step in the right direction. No doubt difficulties will arise and changes be required to overcome them, but these can be best made when they have presented themselves for solution.

WE notice Mr. C. C. James' book on Agriculture is to be made the text book of that subject in our Public Schools. The book, we believe, is well adapted to that purpose, and should suit teachers who are not thoroughly conversant with the science.

Agriculture.

The Ontario Breeder's Future.

THIS is an age of keen competition. As civilization advances, industries, which only a few years back were confined to certain countries or certain districts, become more widely distributed, and as a result there is a greater variety of products from which the consumer may choose. So long as a particular industry remains limited the producer can easily find a market and command a high price; but when the industry expands the increased supply creates competition. The consumer, being no longer forced to take what he can get, buys only the best. In this keen race those who can develop the industry so as to produce the best article become the winners. Thus it often happens that an industry which has flourished in a particular locality for a long time becomes unprofitable. The country or locality that is naturally adapted for the development of a certain industry generally beats its less favored competitors. This, however, is not always the case, for skill and good facilities for transportation in another country may counterbalance natural adaptation. But should the latter be combined with either one or both of the former conditions in any locality, then the industry must certainly flourish there, because the best article can be produced at the least cost.

Thus it has happened in Ontario that the feeding of steers has become less profitable than it was eighteen or twenty years ago. At that time competition was not so keen and the Ontario farmer could command a good price in the British market. The foreigner thought our beef good, and it certainly was better than the average of that we produce to-day. But there came a period of hard times during which the farmers, in order to raise money, sold their best breeding stock, and as a consequence our steers have deteriorated. The industry has been springing up in other countries, and especially is this true of the United States. They sent their animals to compete with ours and the consumer, soon finding that they were better, discarded ours, or at least paid us lower prices. Thus it is owing to

the superior quality of American beef that it brings higher prices to-day in the British market than does ours. In addition to this our Southern neighbors possess two advantages over us in that, as has already been mentioned, they have better natural facilities for this industry coupled with cheaper means of transportation. In the great States across the border, where corn can be grown so abundantly and cheaply, large droves of steers can be fed at much less cost than in Ontario. Furthermore, competition among the numerous steamship lines, enables our neighbors to place their product on the British market more cheaply than we who have not this advantage. Although skill has enabled us to outstrip our Southern competitors in other agricultural industries, as in dairying and bacon-raising, it has failed to restore our fat cattle to the position they once held in the British market. True we hear of an occasional lot of Canadian steers bringing a good price, but it is exceptional, and even this is not much encouragement, for the odds in favor of our neighbors are too much against us.

Must we, however, give up raising fat stock for this reason? Not at all. We need only direct the industry into another channel. Already in Manitoba and the Northwest there is a growing demand for pure-bred cattle. Why should not Ontario become the Great Britain of these provinces, not only to furnish them with foundation stock, but also to keep on hand a supply of first-class animals which they will need from time to time to renew their herds? Situated as she is, so near to where the supply is needed, Ontario has a splendid opportunity to develop this industry. The United States you will say is also near. True, but she will have enough to do to supply the demands of her own ranchers with breeding stock, therefore we need have little fear of competition from that quarter. Then, too, this industry will open a market for the consumption of our grains. The yearly decrease in yield of our crops, due to the robbing of the soil of its fertility, has proved the fallacy of the long held belief, that the largest profits were to be had by selling the grain off the farm. It requires great skill and judgment to breed

cattle successfully and to build up and maintain this industry will require our best efforts; but with the light which science has thrown upon the principles of breeding and feeding we feel sure this province has men who can and will make it a success.

M. R.

Calf Rearing.

It is essential for the formation of either a good beef or dairy herd of cattle that the calf shall be properly reared. From the time of birth until the age of ten or twelve weeks is the most critical stage in the life of the young animal. This is the age when the foundation is laid upon which future growth will depend and which will affect the utility of the animal, to a certain extent, when full grown. This again is the most trying time for the feeder, a time when the responsibility of providing nourishment for the young animal and getting growth properly started rests upon him. The successful feeder is the one who sets himself to the task and who, with unerring eye and careful judgement, rears the young animal in a manner that is essential for success.

All calves are reared for one of three purposes, (1) for beef, (2) for dairy purposes, (3) for veal. The food fed to the calf must be modified to suit one of these purposes. If a beef animal is being grown, food that will favor the laying on of flesh must be fed. The same law holds good in feeding for dairy or veal purposes.

The aim of every feeder is to keep the calf growing steadily from the time of birth until mature. To accomplish this he makes the composition of the food as nearly like that of whole milk as possible, if unable to allow it to have its natural sustenance.

Where the production of beef is the object the calf is often allowed to draw its food direct from the cow. In this case the only precaution necessary is to be careful that the calf does not get too much milk, which may cause indigestion. Experiments have shown that from 10 to 12 lbs. of whole milk per day is enough to keep the young animal in the best growing condition. This quantity may be increased to 15 or 18 lbs. as growth continues. If the dam gives more than

the required amount the calf must be removed and the remaining milk stripped out to prevent soreness or inflammation of the udder. Sometimes it is practicable to allow two calves to feed from one cow where the cow yields a good flow of milk. In this case the other cow's milk may be used in the production of butter or cheese. Oftentimes it is thought advisable to wean the calf a few days after it is born that the milk of its dam may be employed for dairy purposes. To successfully change the young animal from whole milk to a ration which is unlike its natural food in composition, without impairing its growth or injuring its digestive organs, is a process involving much care and attention. Experiments and practice have demonstrated that this change can safely be made, but it must be done in a careful manner, or the very best results will not be obtained.

When this change is wished the calf is usually fed whole milk for three or four days. Then a gradual change from whole milk to skim is made which takes from a week to ten days, at the end of which time the whole milk is dropped entirely out of the ration. As this change is taking place it is necessary that some substitute be added to the skim milk to replace the fat that was taken from the whole milk by the process of separation. Oil meal is often used for this purpose because of its high feeding value. But, in supplying oil meal we are adding a nitrogenous substance to a food already rich in nitrogen, therefore care must be exercised in its use or digestion may be impaired. In the process of separation the fat only is removed from the milk. Should we not then add a grain rich in fat to the skim milk in order to get the best results? For this purpose oat meal, corn meal and wheat shorts have all proved very satisfactory, and may be fed with less danger of injury than oil meal. When the full ration of skim milk is being fed it should not be less than 18 or more than 24 lbs per day to which 1 lb. of a mixture of the above grains should be added. Good hay, corn fodder, and pulped roots in small quantities will also be relished by the young animal.

In rearing the dairy calf, the feed and management are much the same as for the beef calf,

The O. A. C. Review

Published Monthly during the College Year by the Literary Society
of the Ontario Agricultural College, Guelph.

EDITORS.

W. PRICE, Managing.
F. R. M. SHALL, Asst. Managing.
M. RAYNOR, P. R. MALLORY, A. M. HIGH, Agricultural
C. MORTUREUX, G. A. PUTNAM, E. J. McMILLAN,
Local. Personal. Exchange.
J. B. ANDERSON, J. BUCHANAN,
Athletic. College Reporter.

Business Managers.

J. A. ROBERTSON, Secretary. G. H. HUTTON, Treasurer

Subscription Rates.

Annual subscription, 50 cents.

Single copies, 10 cent.

Advertising rates on application.

Ex-students are requested to contribute to our columns.

MARCH, 1899.

Calf Rearing—continued.

with the exception that it is not fed with the object of laying on flesh, but for the purpose of encouraging steady growth in frame and general constitution.

For the production of veal it is necessary that the calf shall draw its food from the cow from the time of birth until ready for market. Better veal is obtained if it receives no grain or coarse fodder, but is left to depend entirely upon the mother for sustenance. This being the case, the only precaution necessary is to be careful that it does not receive too much milk from its mother, causing indigestion.

In feeding for any purpose the milk should be warm and sweet. The use of vessels free from filth or sourness is also essential. The farmer must be careful, for upon him depends the growth and future utility of the animal. It is the careful and consistent feeder who first reaches the height of success.

F. R. M.

The Window Garden.

The long and dreary months of winter are apt to become monotonous and produce in us a morose and gloomy temperament, which we are not at all times able to overcome. Nature is apparently dead, the grass and flowers are buried under drifts of snow, the trees are dark and naked, and nothing is left in animate nature to give variety and cheerfulness to the every-

day duties of life. Under such conditions it is the office of the window garden to supply these deficiencies. The elaborate conservatory, presenting all the variety of the tropics, is the friend of the wealthy only, but the window garden may be found in any home, "be it ever so humble." A few general observances, however, are necessary to make it an entire success. The propagation of young plants for winter blooming is probably the first work that claims attention. This operation should be commenced early the previous spring in order that plants may be produced of sufficient size and vigor for the winter season. The cuttings are taken from young, well matured parts of plants, and set in some shallow box containing clean, well-packed sand, and kept thoroughly watered until rooted. If the cuttings are immediately placed in the soil in which they are to be grown rotting of the part underground is apt to result. After the plants are well rooted, which will take from 10 to 35 days according to the nature of the species, they should be removed from the sand and placed in small, two inch pots. The soil in these small pots should be of only medium richness, and mixed from one-third to one-half clear sand. In a few weeks the roots will have entirely filled these small pots, thus making it necessary to remove them to pots of larger size. (five to six inches in diameter). After being grown in these larger pots until a strong, vigorous growth is attained the action is reversed, the plants instead of being placed in still larger pots are placed in those with diameters one to two inches narrower, the object being to induce flowering, and it has been found by experience that this treatment will produce the desired result. Of course this applies only to plants grown for their flowers; those grown for their foliage should be continued in larger pots.

Another very important feature is the soil in which the plants are placed for their final growth. A good garden soil, containing an abundance of vegetable matter, mixed with well rotted manure in the proportion of five parts of the former to one of the latter, has been found to give excellent results. The mistake is very often made in using too rich a mixture thereby producing foliage at the expense of bloom.

After the plants have been brought thus far it is the object to maintain them in a healthy and vigorous condition. Probably the most important point in this connection is the watering. During the fall and early winter while the sunlight is yet quite strong the plants will require much more water than they will later in the winter when the days are dark and gloomy. A safe guide, however, is never to water until the soil on the surface of the pots has become dry, and then to give a thorough soaking. In regard to the best temperature suited for a miscellaneous collection of plants it has been found that the proper temperature for an ordinary dwelling room is also the proper temperature for house plants—65° to 70° Fah. during the day, and from 10° to 15° lower during the night.

The plants best suited for window culture are geranium, coleus, fuchsias, swainsonia, chrysanthemums, roses, primulas and abutilon among flowering plants; coleus, farfugium or leopard plant, palms, iresine, and ferns, among foliage plants; amaryllus, narcissi, and hyacinths among the bulbs. Other kinds might be added to this list, but under ordinary conditions it is not advisable to grow as many as above mentioned. A few of the staple varieties grown *well* are much more satisfactory than a large number of inferior sorts of poor quality.

Insects are often very troublesome on house plants. Among the more common are the aphid or green fly, the mealy bug, and the red spider. The aphid is easily overcome by syringing with a solution of tobacco. To get rid of the mealy bugs, however, is more difficult. Kerosene emulsion, at the strength of 1 to 15 or 16, applied with a small, rather stiff paint brush has been found most effective. The red spider is also very troublesome especially where the air is very dry and warm. Syringing with cold water will generally keep them in check.

An Inkling For a Bashful Lover.

"I dearly love birds," he gently sighed. And then she hastened to the piano and softly began singing, "I wish I were a bird." They are looking for a nest now.—Ex.

Athletic Notes.

In a return match on Petrie's Rink, between the First Year and the Collegiate Institute, the First Year showed up better than ever, defeating the G. C. I. by a score of 9—2. The team has a splendid working forward line from which we hope, next year, to draw some good material for our Intermediate matches.

The matches of the season were played between the First Year, and the Second and Third Years. The first match was in the Victoria rink on Wednesday, March 8th, the First Year tying the Second and Third Years with a score of 5—5. The teams were:—

1st Year.		2nd and 3rd Years.
Drummond	Goal	Allison
Parker	Point	Marshall
Keys	Cover	Willmott
Carlyle, McElroy, } Forwards		{ Mallory, Bancroft,
Rowat, Suckling, }		{ Semple and Raynor
		{ Hutchinson.

The second match was played on the same ice on March 16th, the Second and Third Years proclaiming themselves champions of the College by a score of 4—3.

Both games were typical year against year contests. The First Year had the fastest forward line and used their sticks splendidly. The Second and Third Years' main strength was in their defence. Among the individual playing we find Keys and Bancroft playing to the gallery and Chumpy Willmott doing some excellent "body checking;" Fat Allison in goal proving himself a veritable find and Suckling working like a young Trojan with the puck near the Senior goal. Keys as cover-point is a very promising player, being a specially good hand at lifting the puck. Mr. M. W. Doherty refereed both games with entire satisfaction to all concerned and credit to himself.

The winter season now being almost over there will not likely be any more hockey of any consequence. The season has been very encouraging to us as beginners, and we hope next year to take a high and honorable standing in the league that we enter a team in.

On Friday, March 24th, we hold our first indoor sporting contest. Among the events are:—Boxing, horizontal bar exercises, clubs and

bar-bell exercises, rifle and sword drills, etc., etc. We hope that this contest in its first year will be a success so as to give encouragement to such contests in following years.

By Our College Reporter.

At a meeting of the Literary Society, held some weeks ago, it was decided to expend the surplus funds of the Society for the year in procuring prizes to be offered in an oratorical contest among the students. This decision resulted in some eleven students entering the competition which was held on Saturday evening, March 11th. Each competitor was allowed to choose his own subject and was given fifteen minutes in which to deliver his address. Messrs J. B. Reynolds, B. A., G. E. Day, B. S. A., and R. Harcourt, B. S. A., were appointed judges and at the close awarded the prizes as follows:—1st Mr. Drury, 2nd Mr. Hutt, 3rd Mr. Hutton, 4th Mr. Reid, and 5th Mr. Pickett. Before the adjournment of the meeting Dr. Mills arose and paid a well deserved compliment to all who had taken part in the contest, commending them highly on the success of their efforts. He said that he hoped many such competitions might be held in the future, and predicted much good as a result. The subjects chosen by the prize-winners were as follows:—Mr. Drury, "Social Progress of the Century"; Mr. Hutt, "The Audience and the Speaker"; Mr. Hutton, "Pioneers of Ontario"; Mr. Reid, "The Ideal Farmer"; Mr. Pickett, "The Labrador Peninsula."

During the year Prof. Day and the Agricultural specialists of the 3rd year class have visited several of the prominent stock breeders in the vicinity of Guelph for the purpose of comparing the animals of different herds and thus gaining experience in the judging of live stock. On Saturday, March 11th, the good example was followed by Prof. Hutt and the horticulture specialists, who paid a visit to the flower growing establishment of Mr. Dale, of Brampton. It is needless to say that an exceedingly pleasant and profitable day was spent. This is probably the largest establishment of the kind on the con-

continent, the greenhouses covering an area of about four acres. Although the growing of roses claims the major part of Mr. Dale's attention, yet quite a profusion of carnations, violets, hyacinths, daffodils, lilies of the valley, Easter lilies, etc., were to be seen, and presented a most pleasing sight. A visit to these premises would well repay anyone who might have a few leisure hours to spend in the town of Brampton.

The following are among the more important books that have been added to the library during the month:—Thompson, Food and Feeding; King, A Critical Study of In Memoriam; Frank & Paterson, Agricultural Botany; Cole, Aids in Practical Geology; Johnson & Church, The Chemistry of Common Life; Sykes, The Principles & Practice of Brewing; Live Stock Journal Almanac; The Works of Charles Dickens in 30 volumes.

Personals.

J. C. Harris, '89, now of the Bosun Ranche, New Denver, B. C., was lately married to the daughter of Wm. Ræper, of Fyvie, Aberdeenshire, Scotland. We have been informed that Mr. Harris is one of the prominent ranchers in his district.

H. L. Beckett, B. S. A., '90, is farming near Hamilton and devotes most of his attention to the milk supply business. He is a prominent member of the Dairy Association of said city.

W. H. Smith, '86, who owns Crystal Spring Stock Farm near Winnipeg, Manitoba, paid a visit to his *alma mater* a few weeks ago. Mr. Smith left the College some ten years ago and went to the North-West, where he has been very successful, as is shown by the fact that he is now fattening 682 head of steers and has 28,000 bushels of wheat on hand; he also has 87 head of purebred Shorthorns. This stock does not, however, seem to be large enough for Mr. Smith, and he is taking back with him five carloads of cattle—135 head—all purebred.

J. E. Crealy, B. S. A., '90, has been employed in the Western Dairy School during the present session.

T. F. Paterson, B. S. A., '93, agricultural editor of the "Vancouver World" during the greater part of 1898, has given up his position on that paper and has gone into the lumber business at Port Moody, B. C.

Before this issue of the "Review" reaches its subscribers, G. R. B. Maconachie, B. S. A., will have joined the ranks of the benedicts. The young lady interested is Miss G. Evans, one of Guelph's brightest and best-known young ladies. Mac. and Miss Evans were always very much interested in the "Review," and they have its very best wishes for a bright and prosperous journey through life.

E. Beam, B. S. A., '95, has been travelling a good deal throughout the Western States during the winter, but has now taken charge of a stock farm at Crittenden, Grant Co., Ky. Mr. Beam lately visited the farm of Mr. Warfield, Lexington, Ky., as well as a number of other stock farms in that locality.

S. Roper-Curzon, '90, who has spent the past winter in Toronto, called at the College on the 13th inst. He intends to pay a hurried visit to Mexico, leaving here about the 20th inst.

A. J. Robertson, '97, spent the winter in Glasgow, Scotland. He states that the winter there has been very mild indeed—only two weeks of frost and no snow at all.

Ex-students will be pleased to know that an effort is being made to induce the Government to provide for a new building at the College. A committee, composed of C. A. Zavitz, Prof. Reynolds, R. F. Holterman, N. Monteith, M. P. P., and E. Lick, and representing both the College and the Experimental Union, waited upon the Government a short time ago to present their claim. The reasons given for requesting that a new building be erected are given below:

The increasing number of students in the regular College course; the changing of the length of the course from three to four years; the fitting up of the Experimental Museum, etc., make the erection of a new building very important, and in fact very necessary for the welfare of the Institution.

The proposed building (of which the general plan is now in the hands of the Minister of Agriculture, and the detail plan will be forwarded by Dr. Mills very

shortly) could contain a Botanical, Geological, and Zoological Museum; Laboratories, Offices, and a class room for the Biological Department; the College Library, and an Assembly Hall to seat about 350 people.

The needs for the new building are as follows:—

I. To Increase Residence Accommodation. The increasing attendance of pupils makes the present residence accommodation inadequate. At the present time there are one hundred and forty-five students enrolled, while the residence can accommodate only one hundred and twenty, and that, when there are three or four students assigned to some of the larger rooms. The enlarging of the residence can best be done by removing to a separate building the library and museum, which now occupy quarters in the main building.

II. To Provide Teaching Accommodation. The growth of the teaching department, and the introduction of more modern methods of teaching science, make more room necessary in three of the departments, which have not yet been adequately provided for. These departments are as follows:—

1. The Department of Agricultural Physics. This department occupies one room in the main building. At the Agricultural College of Wisconsin one half of a \$45,000 building is used for Agricultural Physics alone. If the library and museum were removed, both the residence and the Physical Laboratory could be sufficiently extended.

2. The Departments of Biology and Horticulture, which now occupy the same building. Both of these departments are now greatly crowded, as each department has to use the same class room and same laboratory. If provision were made in a new building for Biology, both could be relieved.

III. To Provide Suitable Library Accommodation. There is great inadequacy in the present library accommodation. In the present quarters the light is bad, the space is too limited, and no part of the room is fire-proof.

IV. To Provide Better Museum Accommodation. The Museum should be convenient to the Biological Department, and preferably in the same building. The Professor of Biology is naturally the curator of the main part of the Museum.

V. To Provide an Assembly Hall for Seating about 350 People. The meetings of the Experimental Union for the past three years have been held in the large room in the Experimental Building. This room is now being fitted up into an Experimental Museum and there is, consequently, no suitable place for the meetings of the Experimental Union, and of the College Literary Society. Regarding the present lack of accommodation for future meetings of the Experimental Union, one ex-student writes as follows:—"I see in the present condition of things a serious hindrance to the maintenance of these high-class meetings, as we have had during the last three years."

Local.

Spring is coming back, and under the reviving influence of the sun, things for a long while apparently dead, have already shown signs of life. Even the old gray mare is kicking around and nothing but wire fences can stop her. Woodchucks have been seen out of their holes . . . and it is even said that our College Reporter has come out of his den. He has struck boldly out of the world of books into the world of observation. He has been seen at an evening party within the College (for account of which, watch his report) and has even carried his steps as far as the gymnasium, where his ears, long opened only to the dining hall noises, have been delighted by the concerts of the Literary Society. What next?

It was in the Y.M.C.A. hall. The worthy president was reading the lesson slowly and impressively; all the faithful were plunged in deep meditation . . . when suddenly the sound of a sweet voice and a merry laugh came through the open window. Many were disturbed, and a smile, soon repressed, lighted the face of the president. But coolly he went on—"and the Lord said unto . . . Maggie . . . !!! The meeting closed.

I, F—l, *alias* Taffy, peacefully enjoying College life at the O.A.C., do hereby charge Keys with abduction, corruption and calumny, and challenge him to a mortal combat, to be fought with pitchers in any stairway of the College, me at the top, him at the bottom. To all readers, salute!

Mary's little lamb being sick,
That girl in blue feeds him with sticks,
The way it works is out of sight,
So says P. O. with great delight;
You ought to see Blair suck that quill,
You'd think he was reared in a still!
His rivals, Jack and Link, with fear
Vow vengeance on some one's career.

"Boys," said Mac., as he beheld a pile of bread, slices ranging in thickness from 3 inches to 1 foot, "we are done for! That new girl has been brought up in a saw mill!"

"I did not know," said Pickett, as he beheld the list of "succors" on the bulletin board, "that the 2nd year were taking lessons on Fish Culture."

Snow ball fight=

1st year x 25c. plus 2nd year x 0=0.

We are pleased to hear that our worthy friend J. A. R. will favor the next meeting of the Literary Society with a speech. His subject is:—"Confidential talk on Greenland, its charms and resources."

Chemistry class—Billy, "Please, Professor, how much does one gramme of hydrogen weigh?"

Biological class—Prof.: "The opinion that toadstools are dangerous is a fallacy. A girl I knew intimately, once cooked some and ate them. Not very long after she got married. Oh! I do wish I had eaten them myself!"

Poultry class—Prof.: "What kind of ducks are the best layers, Mr. Jacobs?" Jacobs: "The females, sir."

Echoes of the Oratorical Contest.



Nigger Show Manager.—Did not give anything for fear that he might get something.

Jimmy.—Shakespeare was all right but for one thing—he was not born in Bermuda.

His Royal Highness B.—Any person who comes in Dundas County should not miss the opportunity of paying a short visit to the United States and Canada—two interesting little countries around Dundas.

The Ideal Man.—Oh, for a sweet litt'e wife!
Joc.—What need we worry about the future? Cannot Quebec furnish us all the tobacco we require?

Just out.—"The effect of tar and water on moustache growth," a bulletin by W. B. Forbisi, also "Home Comfort," by Barnum & Marsh.

Being true Erin girls they were fast picking the last shamrock flowers of the green house. Jack was beginning to feel uneasy when suddenly the gardener entered . . . "Who picked these flowers?" Oh, the anguish of the moment! Would he give them up, or spare their blushes by taking the blame? That he would, begorrah! like a true Irishman. "I did, Sor!" "Well, t'will be one dollar fine!" "That's all right," said Jack, with a careless tone, but lower he muttered: "I'm in for two square meals down town anyway!"

Some suspicious characters have lately created disturbances in some parts of the college formerly considered as sacred, and our friend Josh P.—who gets up so early in the morning to stir up his geese and worry his hogs, found on his way some remains of a night revelry—bottles, tin cans, etc. By a rare piece of luck one of our amateur photographers has been able to secure a flash light picture of the noise makers. This picture has revealed strange facts. . . . The fifth edition of it is now for sale.

The fight between Mill street and Hunt residents was so swift and terrific that our reporters present could give us but a short account of it: Eager to revenge the insults made to venerable old Jacobs, all Hunt Juffers, guided by General Parker, poured upon Mill street. The latter made a desperate stand, but it was in vain for something *Black* striking right and left with a *Picket* soon laid down their best men. Sangster was thrown five times over the balister, but by chance he fell into Misner's mouth, who, well used to swallowing knives during meals, felt none the worse for it. Red Top soon was lying, a helpless mass, with Ikey on the top of him. During the midst of the fight a gentle voice could be heard: Gentlemen . . . Gentlemen . . . peace. These pleadings were unheeded and the struggle went on fiercely until a well known voice shouted "Get home with ye, ye hounds." . . . One second later the place was a wilderness but for a few drops of water, the result of the melting of Ice under the crushing weight of Ikey, who contracted a severe cold.

Our friends, Birdie "Shaks" and Molecule, used to take turns about every Sunday morning during church time—one stayed on the top of the bed, the other underneath. Unfortunately, old John has caught on to the trick, and now Birdie goes to church.

Echoes of Mrs. Craig's evening party.—Goye, and tell the boys I don't want to see them to-night.

Are you another one of those fools?

A farmer wrote to his lawyer as follows:—"Will you please tell me where you learned to write? I have a boy I wish to send to school, and I am afraid I may hit upon the same school that you went to." "There are others" than lawyers.

Our Exchanges.

Developing a Canadian National Spirit.

Will a Canadian national spirit weaken our loyalty to the Mother Land? No, if we make Canada great and prosperous we will, in that way, make her a more valuable part of our great British Empire.

The first thing to be done to foster a national spirit is for us to do all we can, as Canadians, to make a country to be proud of. To this end we should first aim to develop a high personal character in our citizens. Secondly, our young men should loyally devote themselves to the service of their country, and thirdly, we should know our country—its history, resources, beauty, constitution and literature.

—St. John's College Magazine.

KIPLINGESQUE.—The keen-eyed urchin espied the great writer as he landed from the boat.

Stepping forward briskly, he touched his hat, and pointing to the heavy valise in Rudyard Kipling's hand, smilingly remarked:

"Let me assume the white man's burden."

The great Kipling looked down into the blue eyes of the eager urchin.

"My boy," he said in even tones, "a burden the hand is worth two in the bush!"

And the boy passed on.—Ex.

Not a Convert.

A short time ago a herd of bullocks dashed into a military camp in South Africa. A nigger who was in charge of them was using most terrible language, when he was asked by a minister, who was standing near, did he know where he would go when he died. "No," said the nigger, "I do not."

The minister—"You will not go to heaven."

The nigger—"Heben no good. sah."

"What?" replied the minister. "Heaven no good! Why how is that?"

Nigger—"Well, sah, if heben was much good the English would hab had it long ago."—Ex.

An Irishman in Illinois by the name of O'Clock is the father of thirteen children. After finding names for eight of the offspring, as they

made their appearance with a regularity that was all but phenomenal, the parents began to designate them according to their consecutive number, Nine, Ten, Eleven, etc. One of the sons has recently been appointed postmaster for his own town, and he now signs his official papers "Ten O'Clock, P. M."—Ex.

Ambition.

Has it ever occurred to you what an important factor ambition is to the progress of man? From the hopeful season of his youth, on until his form is bent beneath the burdens of rosy age, it is an ever-repeated endeavor to gain a station he can never attain. He walks in the wide field of human life. With the glad dawn of each succeeding day he is inspired with the undaunted, untiring zeal to gain a greater and more distant prize.

But hope is a perquisite to ambition. How dark and dreary is that man's life which is not illumined by the star of hope. To him how uncheerful seems every happy landscape; how discordant is the sound of every song. In the rosy garb of babyhood we see its inceptive achievements, and in the white-haired old man we view its culminating work.

In the morning of our existence we begin the erection of a structure on which is exerted all of life's activities. And to the fact that we are ever at work upon it, yet it is never completed, is attributed the cause of human progress.

Who makes the world move? You and I. Each one lends his little force to the mighty power that moves the world along. The clarion

words of great leaders ring out and stir the people. But they only point out the way and each person must make his individual advancement. Each is but one musical note in the great symphony of being, yet its presence is essential to the beauty of the great refrain.

Who can picture the agonizing retrogressions, the unhappy backward movements, if each person saw no hope in the dawning morning and his ambitions were dead? How long before man would be above the beast only in so far as he could reason and speak?

All the way from the cradle to the grave life is hurry and excitement. From the swaddling clothes to the somber crape, man pursues the ever-fleeting object of his hopes, as the last lingering shades of darkness are chased by the glory of the coming day. From early morning to the gathering of twilight he ever works upon this structure of his lofty ambitions, yet it is never completed, and it is because of this that we grow.—*The Industrial Collegian.*

Lives of great men all remind us,
We may gain an honored place,
And like Hollis leave behind us,
Lip prints on a sweet girl's face.

When a young man proposes the girl should always lose her self-possession.

FRANK NUNAN, BOOKBINDER,

Upper Wyndham Street,
GUELPH. + ONTARIO.

A Reputation

For honorable dealing is fast making our store a favorite with Students at the O.A.C. They know our medicines are thoroughly reliable in every respect and our prices are less than generally prevail. We will be very glad to have you investigate that one point regarding our prices. It will prove the truth of what we say.

W. J. GREENSHIELDS, Phm. B.,

20 Lower Wyndham Street.

DRUGGIST AND STATIONER.

TOLTON'S

Agricultural Implement Works.

Manufacturers and Dealers in all kinds
of up-to-date

Agricultural Implements

Root Pulpers, Plows, Steel Harrows
and Pea Harvesters a specialty.
Special rates to Students.

TOLTON BROS.,

GUELPH.

Gemmell & Co's Steam Dyeing and Cleaning Works,

Established 1887, is the most Reliable place to have your Suits Cleaned, Dyed, Pressed or Repaired.

72 and 74 Upper Wyndham Street, GUELPH.

Guthrie, Watt & Guthrie,
BARRISTERS, SOLICITORS, Etc.

D. Guthrie, Q.C., Jas. Watt,
- Hugh Guthrie.

Offices—Douglas Street, Guelph.

Students deal at McLaren's.

The Leading Shoe Store,

W. McLaren & Co., Guelph.

Headquarters for Fine Footwear.
Evening Shoes, Willow Calf Walking
Boots, Hockey Boots, Etc., Etc.
Rubbers, Overshoes, Trunks, Valises.

GUELPH and ONTARIO
Investment and Savings Society.

Savings Bank Department.
Deposits from \$1 up taken.
Highest current rates allowed.
J. E. McELDERRY,
Sec.-Treas.

The Noted Tea Store

And China Palace.

You like Foreign Fruits and Good
Candies; we have what you want.
Oysters in season.

J. A. McCREA.

Geo. Williams,

for the very Purest

Confectionery,
Fancy Fruits,
Fancy Groceries,
Clam Boullion, Bovril,
Fancy Pastry and Cakes.
Catering a Specialty.

GEO. WILLIAMS,
Alma Block.

Hepburn & Co.,

Dealers in all kinds of

**BOOTS
SHOES**

and **RUBBERS,**

33 Wyndham St., - Guelph



To
Students

and Members of
the Staff of the O.A.C.

Gentlemen,—

WHEN you require any article
of wearing apparel, I most
respectfully invite you to inspect my
large and select stock of

Hats, Caps, Ties, Collars,
Cuffs, Braces, Gloves,
Shirts, Nightshirts,

in fact every article of wearing appar-
el (excepting shoes) a man requires.
Every line is the best value that can
be secured, and up-to-date in every
respect. If you want a

Stylish
Suit of Clothes,
Overcoat or
Pair of Trousers,

my stock of Clothes is one
of the largest and most select in the
city. We make them to please you
in every way, both your form and
pocket are suited. My prices are as
low as any house in the trade.

Cash and One price to all.

R. E. NELSON,

99 Wyndham
Street.

Street cars pass the door.

Does Your Watch Run Well?

If not take it to

CLARK, THE JEWELER,

Upper Wyndham Street.

Giving personal and prompt attention to
watch repairing, satisfaction guaranteed or
money refunded.

CITY BARBER SHOP.

Three first-class Barbers in attend-
ance. Running hot water for sham-
pooling.

Jas. A. Worthington,

Masonic Block, Upper Wyndham St.

GUELPH

CITY LIVERY,

Hack and Boarding Stables.

Next to Royal Hotel.

Ed. Palmer, - Proprietor

The Frank Dowler Co.,
Departmental Stores.

Offer special values in

Men's Clothing, Boots
and Shoes, Hats
and Caps, Col-
lars and Ties, Overalls
and Smocks, Sox, Shirts,
Suspenders.

The Largest Stock;

The Largest Business in the city.

THE FRANK DOWLER CO.

**Fine
Tailoring.**

We cater especially to those who seek
Perfection in Design, Fit and Finish
at a moderate cost.

Students liberally dealt with.

One thousand suits, all different
patterns, to choose from.

Gents' Furnishing Goods, the best
range in Guelph.

Fur Coats, Fur Caps, Fur Mitts,
Fur Gloves.

KELEHER & HENDLEY,

Model Merchant Tailors.

Collections
DEVELOPMENT BRANCH

SEP 28 1982

Direction du
développement des
COLLECTIONS

NATIONAL LIBRARY
'82 09 28

GRAND TRUNK RAILWAY SYSTEM

THE POPULAR ROUTE - TOURIST LINE OF AMERICA

To
NIAGARA
FALLS AND
BUFFALO
QUEBEC



MONTREAL
TORONTO
LONDON
DETROIT
CHICAGO

AND BY ITS CONNECTIONS TO ALL PARTS OF THE WESTERN STATES - CANADA &

THE KOOTENAY, KLONDYKE & YUKON DISTRICTS

The only line reaching the beautiful



MUSKOKA LAKE DISTRICT
IN NORTHERN ONTARIO
THROUGH TRAINS TO WHITE MOUNTAINS
AND ATLANTIC SEASIDE RESORTS

FOR DESCRIPTIVE GUIDES,
TIME TABLES, ETC.

ADD TO
TICKET AGENTS
OF THE



CHAS. W. HAYS - GLO. B. HEVEY - W. E. DAVIS - GEO. T. BELL - E. H. JURGIES
MONTREAL - MONTREAL - MONTREAL - MONTREAL - CHICAGO