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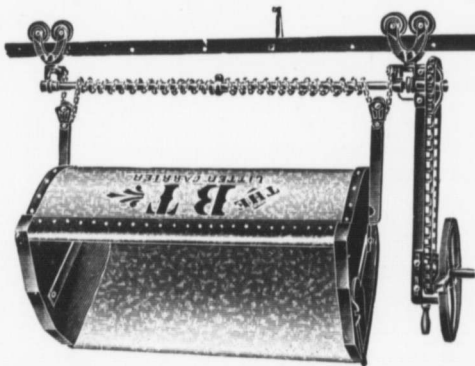
The Traders Bank of Canada

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GUELPH,

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MR. FARMER! Increase Your Profits and Make Life Worth Living



by saving yourself one of the dirtiest and most disagreeable jobs on the farm; by saving at least one half of the labor in cleaning out your stables; by saving three-quarters of the work in placing the manure on the fields and by saving your implements and harness from the effects of ammonia fumes, which arise from manure heaps placed near your barn.

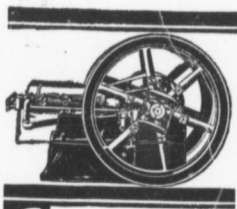
A LITTER CARRIER will do all of the above and more for you. IT WILL PAY YOU to investigate the matter carefully.

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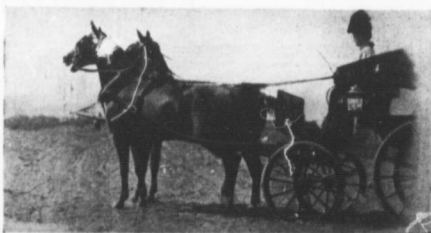
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Have
Your Horses
Look like
This?*



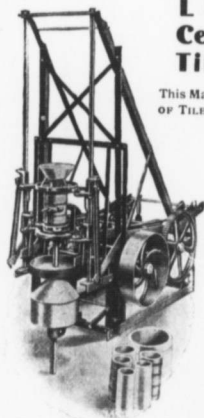
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Cement Drain
Tile Machine**

This Machine MAKES ALL SIZES OF TILE from 3 ins. to 16 ins. in diameter, and from 12 in to 24 ins. long.

All Tile are packed perfectly hard. Our Patent Packer does the work.

There are large profits in the manufacture of concrete tile.

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We also manufacture Concrete Mixers, Concrete Block Machines, Concrete Brick Machines.

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London Concrete Machinery Co., Ltd.
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Largest Manufacturers of Concrete Machinery in Canada

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Grant & Armstrong have what you want, if a furniture store should have it.

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25c and 50c.

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Fur-lined Coats a Specialty.

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OUR WOODWARD WATER BASINS DO THE TRICK.

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Ontario Wind Engine & Pump Co.
LIMITED
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SWEATER COATS AND SWEATERS

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and Colors

JERSEY
HOSE
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ATHLETIC
SUITS

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Colors to order,
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Designs sub-
mitted.

Get our Cata-
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Prices.

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Will find the biggest Book Store in Guelph on Upper Wyndham Street.



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Is headquarters for MEN'S HIGH-CLASS READY-TO-WEAR CLOTHING, also made to measure

CLOTHING

Have also a big assortment of Gent's Furnishings in all the up-to-the-minute styles.

We specially solicit the patronage of the O. A. College Boys and Faculty.

Prices: Moderate.



Benor, Scott & Co.

29 and 31 Lower Wyndham Street, Guelph, Ontario.



R. E. Nelson

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Come in and look at the feast of new fabrics in the latest creation of Fashion's loom, in all the pretty and elegant patterns in blacks and blues cheviots, West of England suitings, worsteds and trouserings that we have received for the present season. Order your suit and overcoat NOW, and you'll be glad. We make our clothing in the latest style of the tailors art, at prices that are the lowest for first class work in the trade. A trial will convince you that what we say is correct. All our goods are marked in plain figures, and only one price. You should see our special blue suit to ORDER at \$25.00.

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Headquarters for
PHOTOGRAPHIC SUPPLIES

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Developed and Printed neatly and
quickly.

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Opposite where the Street Cars cross.

The Place to Buy
TEXT BOOKS, BLANK BOOKS,
STATIONERY, PENS, INKS,
PENCILS, Etc., Etc.

See our Special O. A. C. and Mac-
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C. ANDERSON & CO.

Phone 256.

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NOT FOR A MILLION

Of course not! Yet how careless you
are in your treatment of those million
dollar eyes.

When eyes smart, pain and begin to
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beware of

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The Bell Piano

CANADA'S BEST

Contains all Modern Improvements, and built to last a life-time.

Sole Agents for

VICTOR GRAMOPHONES
AND RECORDS,

EDISON PHONOGRAPHS
AND RECORDS,

Violins, Guitars, Mandolins, Banjos and Band Instruments. Pianos and
Organs rented, tuned and repaired. The Latest Music and Music Books at

KELLY'S MUSIC STORE

133 UPPER WYNDHAM STREET.

G. B. RYAN & CO.

General Dry Goods Store.

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Noted for **STYLE & FINISH**

In General Dry Goods,
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Clothing, House Furnish-
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Character and Exclusiveness are
the Two Great Features of Our
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Buying Offices in London,
Paris and Glasgow, keep
us right in line with the
very newest fashions and
fabrics.

G. B. RYAN & CO.

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GUELPH

A store devoted wholly to
the dress wants of mod-
ern men.

Ready-to-wear Clothing, Special
Order Clothing, Furnishings of
all kinds; always in keeping with
gentlemanly ideas of
good form.



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aim and our accomplish-
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Every Man."

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We want the students of the O. A. C. to know that we make a specialty of High-Class Clothes for "Young Men" at Moderate Prices. We will be pleased to have you call and look over our line for **Fall and Winter 1910-11**; you will be under no obligation to buy—but we feel satisfied that we can please you both as to **Style, Fit and Price.**

We are sole agents for the "20th Century" brand of Ready-to-Wear Clothes for Men. If there was any better brand in Canada we would have it.

READY-TO-WEAR SUITS from \$7 to \$28.00

MADE-TO-ORDER SUITS from \$22.00 to \$45.00

O. A. C. and Macdonald Hall Pennants always in stock.

D. E. Macdonald & Bros., GUELPH'S
BIG STORE

Wishing all our customers

*A Merry Christmas and
A Happy New Year*

The London Advertiser

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PRINTERS AND PUBLISHERS

PRINTING OF THE BETTER KIND.

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Eats pus and all impurities—prevents infection and allows and helps nature to affect a speedy cure.

If any of your stock have sores, VANCOLINE will be valuable to you. Easy to apply, simply wash out the wound with VANCOLINE, and you can see it work immediately.

4-oz. bots

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An efficient and sure cure for all Lice and Vermin

In the form of a dusting powder in a sifting-top can, is easily applied. VANCO DUST is also a strong disinfectant, destroying all foul odors, keeping Henneries, etc., in perfect sanitary condition.

In 1-lb. sifting-top cans, - 20c. lb.
In 5-lb. sifting-top cans, - 15c. lb.

Made in Canada only by

CHEMICAL LABORATORIES, Limited

120 TO 130 VAN HORNE STREET, TORONTO.

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MASSEY-HARRIS IMPLEMENTS

Special efforts have always been made to keep in close touch with the farmers' needs, and, with our exceptional facilities for manufacturing, we have been able to produce a line of implements famous not only in Canada, but all over the world, for

RELIABILITY, EFFICIENCY AND DURABILITY

Grain Binders, Corn Binders, Reapers, Mowers, Rakes, Side-delivery Rakes, Tedders, Hay Loaders, Cultivators, Seeders, Hoe Drills, Shoe Drills, Disc Drills, Fertilizer Drills, Disc Harrows, Drag Harrows, Harrow Carts, Feed Cutters, Pulpers, Ensilage Cutters, Manure Spreaders, Cream Separators, Plows, Scufflers, Land Rollers, Packers, Wagons, Sleighs, etc.

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Montreal
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Winnipeg

MASSEY-HARRIS CO.,
LIMITED

Saskatoon
Calgary
Edmonton
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The Royal Bank of Canada

CAPITAL, \$6,200,000.

RESERVES, \$6,900,000

ASSETS, \$95,000,000.

Head Office, Montreal.

London, England, Princes St. E. C. New York, 68 William Street. 170
Branch Offices throughout Canada, Cuba and West Indies.

A General Banking Business transacted, and our facilities for this are at
the command of Students and Staff.

R. L. TORRANCE,
Manager

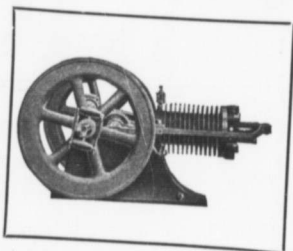
Guelph Branch

Make Up Your Mind NOW

THAT YOU ARE GOING TO BUY A

GILSON
"GOES - LIKE - SIXTY"
ENGINE

For the certainty of having a correct engine; for the
assurance of quality, when cheap engines are the rule;
for serviceability, convenience; FOR REAL
ECONOMY.



If your dealer offers you something else, there's probably more in it for him than for you. No one will offer you a better engine than ours. The Gilson Engine is worth every dollar we ask—and more. That is the reason the Gilson Engine is better value than any other. You will find cheaper engines and dearer engines but none really equal in value.

Send for Catalogue showing all styles and sizes and valuable pamphlet by Prof. Ocock, University of Wisconsin, "How to choose a Gas Engine."

GILSON MFG. CO. Limited
120 YORK STREET
GUELPH, CANADA

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Life Insurance

- Creates a valuable estate immediately;
- Provides a sure income for old age
- Gives an absolutely safe investment;
- Furnishes available cash when most needed.

The Manufacturers Life

Insurance Company

TORONTO,

CANADA.

W. E. BROLEY, Agent, Elora, Ontario

KRESO

**An Ideal Disinfectant, Germicide,
Deodorant, Antiseptic and
Parasiticide.**

For Hospitals, Veterinary and Domestic Use

Write for Descriptive Booklet.

PARKE, DAVIS & CO.

Manufacturing Chemists and Biologists,

WALKERVILLE, ONTARIO

Eastern Depot, 378 St. Paul Street, MONTREAL, QUE.

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The O. A. C. Review is published by "The O. A. College Students' Publishing Association," O. A. College, Guelph, Canada, monthly, during the college year.

Annual subscription—Students, \$1.00; ex-students, in Canada, 50c; others, \$1.00; single copies, 15c. Advertising rates on application.

	<p>Two Great Books TO TAKE HOME AT CHRISTMAS</p>	
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OR BROTHER



FOR MOTHER
OR SISTER

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College students admire the strenuous life whether it be on the football field or on the "Northern Trail."

Keith Steadman, the hero, is a worthy type of the true college man. Meeting with many adventures and adversities, he surmounts them with grit and determination and wins out.

Every student and every student's friend will revel in this volume.



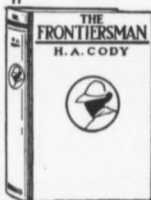
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By **NELLIE L. McCLUNG**

Author of "Sowing Seeds in Danny."

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Are Noted Everywhere for their

PURITY and RELIABILITY

Send us your name for our Splendid

**Illustrated Catalogue
for 1911**

It's full of good things for the farm
and garden. Also many valuable
introductions which are sure to inter-
est Farmers, Gardeners and Amateurs.

**Steele, Briggs Seed Co.
Limited**

TORONTO HAMILTON WINNIPEG

CHRISTMAS NUMBER



THE O.A.C. REVIEW



*R. W. FALCONER, LL.D.
President of Toronto University.*

THE O. A. C. REVIEW

THE DIGNITY OF A CALLING IS ITS UTILITY

VOL. XXIII.

DECEMBER, 1910.

No. 3

Christmas Greetings

To the Editors of the Ontario Agricultural College "Review," Guelph:

Gentlemen,—I am glad to have this opportunity of offering to you, and through you, to the students of the Agricultural College of Guelph, the season's greetings. I hope that the College this year is prospering in all its departments. The Guelph Agricultural College has become one of the well-known institutions of the Dominion, and in its own special work it enjoys a more than continental reputation, so that you have visitors and students coming to you even from across the seas. On this you are to be congratulated, and the authorities of the College must regard its reputation with profound satisfaction. But they know, as few of the students do, the difficulties with which the founders of the College had to cope, the long drawn out discouragements and the patient hope that triumphed. To your founders you owe a deep debt of gratitude.

No College, however, should be satisfied with its past. To-day your leaders need encouragement for further advance. Difficulties never vanish; in fact it is doubtful whether without them there can be any real progress; for progress surely consists in development through effort. Nor are the days of difficulty all in the past. The Agri-

cultural College must advance with the needs of the country, and at every turn of the road, those who have it in their care, have to face some new task which brings its own demands for hard work and wise direction.

In you and in the graduates the country may expect to find strong and discriminating supporters of the work that is done in the Agricultural College at Guelph. You know its worth by experience. None can justify it better than you should be able to do. So slow is the progress of educating people into the truth, that scientific training is necessary for permanent progress in agriculture as well as in engineering and other professions, that your enlightened advocacy will be required to help in impressing upon the country, that the truly practical education is that which is based on as thorough an understanding of the laws of nature as possible.

Most important of all, however, is the man behind the process, and the value of your College will be estimated in the long run, by the type of man who has gone forth from its halls to carry on and develop throughout the length and breadth of this Province and Dominion, the greatest single industry in which our people are engaged.

ROBT. W. FALCONER.

Experimental Plots

S. HART, B.S.A., GALT.

ONE of the features of the District Representative work is that we continually come in direct contact with the practicing farmer; not only for the purpose of supplying information, but for making clear the underlying principles of what is advocated by agricultural leaders. What men need is not less

circumstances will not permit following directions implicitly, the method may still be followed intelligently. Take for instance the matter of spraying. From everywhere comes the information that spraying will kill the Codling moth, and so the orchardist sprays; just sprays. And if by chance it is not done properly the results are



VISITORS AT THE RURAL SCHOOL FALL FAIR NEAR GALT.

work, but a better understanding of the work they do. Work is drudgery, but the same work with an understanding of what is being accomplished becomes something vastly different. It is one matter to tell men that doing a thing thus and so will bring better results than doing it so and thus; and he may follow the directions implicitly and obtain the results. It is another matter to make known the reasons of thus and so, so that if, by any chance,

bound to discredit the practice with that individual till he has learned the reason why.

And so it is our endeavor to seek methods by which to make the knowledge of experts of practical value to the individual. One of the best of methods for accomplishing this is to induce the individual to make comparisons on a small scale on his own farm. The experimental plots form an important factor in getting into touch with the

agricultural community, and are a very concrete and efficient method of presenting facts. They give an opportunity of explaining the reasons for certain practices advocated. I believe all of the District Representatives have conducted experimental tests such as, On the use of Commercial Fertilizers on Muck Soils; On the Varieties of a Crop; On the Spraying of Orchard Trees; On the Spraying of Potatoes, etc. Of course, one experiment

the soil. For instance, my two experiments were conducted on different farms; the first was on old sod, where potash gave the best results, counting cost. The second was on stubble that had been cropped for years; here the phosphate proved best, showing that that food was lacking in the soil."

A feature of the experiment work in Waterloo County that might be of interest to readers, is that of the plots by Rural School pupils. It is one way of



RURAL SCHOOL NEAR AYR, ONT. THESE PUPILS
COMPETED IN GROWING PLOTS OF FARM
CROPS AT HOME.

of this nature does not bring authoritative results. It does lead, however, to a proper study of the question by the experimenter. A quotation from a letter of one of our experimenters will show what is meant: "I may say that for the two years I conducted the experiment with potatoes and fertilizers, I considered it the most interesting of all. I think best results may be had from single fertilizers together with mixed stable manure. Of course a lot depends on the nature and condition of

interesting the farmer through his children. A partial copy of the circular given to each pupil will be the best method of making the plan clear.

Rural School Fall Fair, 1910.

The plan is as follows: The pupils in the schools named will be given seeds which they are to take home and sow according to directions; they shall also care for and harvest the crop, and keep an account of the yield. The plots will be inspected during the summer. The results and part of the

crop will be exhibited at a Fair to be held at one of the schools in the fall of 1910.

Pupils will be competing against all pupils growing their crops. Prizes will be given and there will be a sweep stakes prize to the school making the best exhibit.

The seed of each crop will be from the same lot to all pupils taking that seed, so that all pupils will start fairly as far as the seed is concerned. The

piles. These will be the six **biggest yielding** plants. Then pick out from these a dozen of the **best** (that is good sized, even, smooth, well-shaped) potatoes and save these for a seed plot next year. In this way you can build up a strain of potatoes that will have a reputation, and the knowledge you will get in growing potatoes may mean a lot to you in future.

Rules.

(A few short rules were given, limit



EXPLAINING ORCHARD SPRAYING OPERATIONS.

boy or girl who learns the most about and gives the greatest care to his or her crop will likely have the best yield.

We would like to suggest that pupils might easily make a start in money making as well as a knowledge of farm crops, by growing some good seed for the farm from their plots. To illustrate: If you have chosen potatoes, when digging keep the potatoes from each hill in a little pile by itself; then pick out six of the largest of these

ing the number of crops a pupil may grow, and ensuring exhibits from good and poor results alike.)

The competitions are:

1. Barley, O. A. C. No. 21.
2. Potatoes, Empire State.
3. Sweet Corn, Golden Bantam.
4. Watermelons, Cole's Early.

(In one competition a choice of a larger number of crops was given.)

5. Sweet Peas, Spencer's mixed.
6. Best collection of Weeds.

7. Best collection of Weed Seeds.
8. Best collection of Insects.
9. Best collection of the Work of Insects and Plant Diseases.
10. Best collection of Wild Flowers.
11. Best Junior Essay on "How I Grew My Plot."
12. Best Senior Essay on one of the crops in the list.

Directions.

(Directions were given for sowing each crop, a sample of which is given.)

The above plan was carried out in six of the schools near Ayr last year, and in three of the schools, near Galt, for the last two years. Good strains of suitable varieties were procured. It will be noticed that no directions as to culture were given, the pupils being expected to gather this information for themselves. Two main objects were behind the scheme; one to give the boys and girls an intelligent interest in the work on the farm, and the other to impress the farmer with the value of



ONE OF THE PUPILS IN HER PLOT OF POTATOES
GROWN AT HOME.

For Potatoes:

1. Cut the potatoes so as to have 56 sets.
2. Plant in 4 rows, each 15 feet long and 25 inches apart, and the plants 12 inches apart in the row. That is, 14 hills in the row and 56 hills on the plot.
3. When the tops have withered, dig the potatoes and let them dry a day. Separate the "marketable" from the "unmarketable" potatoes and get the exact weight of each. Save 1 dozen of the best potatoes.

good seed. And the results have more than justified the plan. Although the idea of gaining the interest of the farmer was not made prominent, it followed as a natural result. The boys and girls asked questions which had to be answered; in some cases they put into practice on their plots methods not used in dealing with that crop on the home farm; in some cases also the plots were sown with the larger crop of the farm and always the yields were compared with those of

the main crop, and afforded an excellent object lesson on the importance of variety.

To say that the boys and girls were interested is stating the case mildly. It was an inspiration indeed to visit the plots during the summer and to hear the experiences of these young farmer folk. The little stories, too, of disaster and failure were almost tragic to these young farmers, but even from these came the determination to overcome the mistakes that were made evident.

This slight excursion into the curriculum proved to the writer the feasibility of correlating the home and the school life, an important factor that is undoubtedly lacking in our primary schools. Without enlarging on this point, it may easily be seen how many of the studies at school are necessary to make the best of even a little farm. An evident reason and use for study gives the child the necessary incentive, and so it has proved in this experiment. Fortunately the cooperation of good teachers in those schools assisted materially toward success.

There are other features of the plan that should not be overlooked. The Fair Day at the school was an important event socially. Parents and pupils from all the schools gathered during the morning and worked together arranging the exhibits and preparing lunch. During the afternoon the judging was completed and the prizes distributed. Short talks were given by the judge and other prominent persons. The remainder of the afternoon was given over to sports. In this way the school for the time being became the social centre of the district, a part it should play more prominently than is usually the case in our rural communities.

The question of agricultural education finds a part of its solution in these experimental plots of the farmer and of his boy. It is a convincing method of learning, and the lessons gathered are not easily forgotten. Not only this, but there is awakened a desire to know the reason why, and to gain a deeper knowledge pertaining to his work. "We learn to do by doing."



EXPERIMENT PLOTS, O. A. COLLEGE.



The Beautifying of Station Grounds by the Canadian Pacific Railway in Western Canada

W. J. STRONG, WOLSELEY, SASK.

THE Canadian Pacific Railway Company as a transportation organization needs no introduction to the readers of *The Review*, and neither does its great work of opening up and developing vast tracts of land in Western Canada need much comment, as this line of activity is known far and wide. It is the desire of the

boundary of Manitoba to the "foot hills" of the Rockies, and from the International Boundary Line to the forests of the north. In fact, wherever the arteries of traffic may extend and as far north as trees and shrubs may be persuaded to grow, there, in time, will these garden spots be found.

The first attempts at beautifying the



STATION GARDENS, REGINA, SASK., SUMMER, 1910.

writer, however, to bring before the notice of *Review* readers, the efforts that are being made by this company to beautify its station grounds by the planting of trees, shrubs and flowers, and the making of lawns. In this way numerous spots of beauty will be created throughout this great prairie country, extending from the eastern

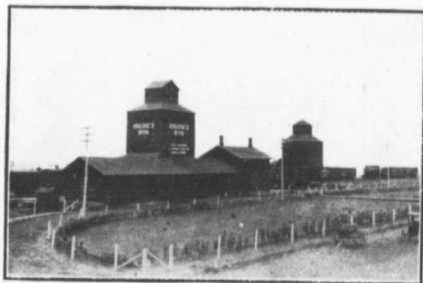
station surroundings were made by a few enthusiastic officials in conjunction with the station agents, and in some cases with the towns people. Although these pioneers did splendid work in establishing gardens at the larger towns, as Winnipeg, Brandon, Regina, Moose Jaw, and Calgary, it was felt that greater progress could

be made if the work was done more systematically and by a separate department; hence in the autumn of 1907 the Forestry Department was formed

mental stage, and to a certain extent it is now, as in a new country like this there is so much to be learned regarding the best methods of soil preparation and the most suitable plants, etc., to be used in different locations.

Up to the present it has been found good practice to break ground in the autumn,—it must be remembered that very little ground around station buildings has ever been plowed. Directly after plowing the disc harrow is used freely to cut up the sod, and leave the upper soil in good tilth. Any levelling

and filling that may be necessary is done now so that the ground will have time to settle by planting time, and the soil is left in this condition over winter. As early as possible in the spring the ground is again plowed, disced and harrowed, or if it is very



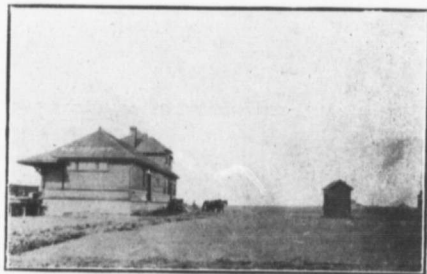
STATION GARDENS, PENSE, SASK.,
SUMMER, 1910.

with a special branch to take charge of the Park and Garden work.

At that time 40 acres of good land, situated about a mile west of the town of Wolseley, was chosen as a nursery for the propagation and growing of trees, shrubs and plants suitable for garden purposes in the Canadian West.

In the spring of 1908, a start was made by laying out and planting several gardens, and in the following year more gardens were formed, and it was found advisable to prepare ground and get it fenced ready for laying out and planting the next year, so that it would be in better condition and much time would be saved in the spring, when everything needs to be done at once before the heat of summer sets in.

During the first three years the work was more or less in the experi-



STATION GARDENS IN COURSE OF
CONSTRUCTION, HERBERT, SASK.

light and inclined to be dry, the second plowing is dispensed with.

In laying out a garden, care is taken to avoid straight lines, and also to

make it as simple as possible, so that it will require the minimum of labor for upkeep. As a rule a border, having a gracefully curving edge, is planted with trees and shrubs to the back, and with flowers towards the front. This border usually follows the general outline of the lot, and forms a splendid background for the lawn and flower beds.

Owing to the severity of the winter climate and the shortness of the summer season, the choice of materials for

also is hardy and is used to some extent. The Tamarac or Native Larch (*Larix laricina*) although not an ever green makes a handsome tree, it is a rapid grower, and is quite hardy.

Among deciduous trees there is a rather wider choice of material. Manitoba Maple (*Acer negundo*), Native Green Ash, Native Elm and several Poplars and Willows being most largely planted.

Native Birch is also used to a limited extent. The Manitoba Maple and



STATION GARDENS, BROADVIEW, SASK., SUMMER, 1910.

garden purposes is rather limited and great use has to be made of hardy native species of trees and shrubs. By reason of the frosts of late spring and early autumn, flowers that grow and bloom quickly and can endure a little freezing have to be used.

Of evergreen trees, White Spruce and Scotch Pine seem to give the most satisfaction, while the Colorado Blue Spruce, and Mountain Pine although slow growing, can be used. Jack Pine

the Poplars and Willows being quick growers are great favorites on the Prairie, although the Native Green Ash, Native Elm and Birch make much nicer trees and are longer lived. Of the Poplars, the Cottonwood (*Populus deltoides*), Balsam Poplar (*Populus balsamifera*) and the Russian Poplar are most commonly used; of the Willows the best are the Russian Golden Willow, Russian Laurel Willow, Red Willow and Acute Leaved Willow.

There is a little wider choice of ornamental shrubs, several of the native species being used. Among the best are the Lilacs (*Syringa*), Honeysuckle (*Lonicera Tartarica*), Caragana, Spinnaea (S. Van Houtter), Rosa Rugosa, a Japanese variety with pretty pink flowers. Berberis of which there are several suitable varieties, namely Common Barberry, Purple Leaved Barberry and Thunberg's Barberry. The Russian Crab (*Pyrus baccata*) is used to some extent, also Dogwood, Artemisia Buffalo Berry and Sand Cherry. Thus it will be seen that with the hardy foreign species and several native species a fair choice of shrubs can be made.

Up to the present annual flowers have been used almost exclusively, but it is the intention of the department to make as great a use of perennials as possible. They not only will save much labor, but no doubt give a finer show of blooms during the whole flowering season. By a judicious use of perennial and annual flowers, together with shrubs, in the borders, it is believed the best results can be obtained. It is difficult to say just what perennials are most suited for planting in the West, but the following will be planted next year, and careful note taken of their growth and resistance to frost, etc.:—*Helianthus* (Hardy Single Sunflower), *Dielytra Spectabilis*, *Cawpanula*, German and Japanese Iris, *Phlox* (hybrid perennials), *Phlox Subulata*, *Achillea ptarmica*, *Hemerocallis* (Yellow Day Lily), Larkspur, *Aquilegia*, *Gaillardia*, *Anthrimum*, *Alyssum* and *Popover orientalis*.

It is early yet to expect much show for the work that has been done during the last few years, but the ac-

companying illustrations give some idea of the evolution of a piece of bare prairie into a beautiful garden. The photographs are taken from different places to show the various stages of development. No. 3 was taken at Herbert—a small town between Moose Jaw and Swift Current—just as the ground was being broken, and shows well the bareness of some parts of the Prairie, not a twig of any sort being in sight. No. 2, taken at Pense—a small town between Regina and Moose Jaw—gives a good idea of the general appearance of a place the first year from planting. Some of the trees are planted very close together, but it is intended to remove alternate trees, or possibly more, and use them elsewhere. No. 4 is a view taken in Broadview—the second divisional point from Winnipeg—the second year from planting. This shows the growth made in two seasons, most of the shrubs here, were not much more than two or three stems and averaged about 2 to 2.5 feet in height when planted last year. No. 1 is taken from an older garden at Regina, which is gradually being remodelled by the Forestry Department. It was established about eight years ago and is a good object lesson of what can be done in making beautiful gardens on the bare Prairie.

If the good work now begun goes on increasing year by year until the Prairie is literally dotted with these beauty spots, how different will be a journey across the great wheat lands of Canada. Instead of the traveller and settler being wearied with the monotony of huge grain fields and open prairie, they will have, at short intervals, beautiful pictures composed of trees and shrubs, and lawns and

flowers, upon which to rest their gaze. Thus their first impressions of this vast prairie country will be so pleasant that they will desire to make their homes here. Hence, even if this work of garden-making does not bring any direct returns to the promoters, it will have the effect of inducing more people to settle here than otherwise would,

and by the example set them they will be encouraged to build up beautiful homes for themselves, and thus the great hunting ground of the Indian will be transformed into a land of beautiful and happy homes, and so the future of this country will be laid on a sure foundation, namely: that of the home.

The Fundamental Change in Modern Education

JAMES L. HUGHES, CHIEF INSPECTOR OF PUBLIC SCHOOLS, TORONTO.

ALL the great tendencies in modern education are based on a higher, truer recognition of the value of the individual child. Men are learning to reverence the child more than knowledge, and to aim at the development of individual power rather than at mere learning. Learning has lost none of its absolute value in the estimation of educators, but they are beginning to understand that knowledge has little real significance, when compared with the revelation to each child of the quality and the supreme value of his own selfhood, and with the development and training of selfhood so that he may be able to achieve for himself, for his country, and for civilization the work he was intended to do. Modern educational ideals make it fundamental that the child is much greater than knowledge, and that power to achieve is of infinitely more value both to the individual and to the race than the storing of knowledge even of the highest kind. We no longer believe that "knowledge is power."

Five men deserve most of the credit for revealing to educators the true relative values of the child and knowledge; Locke, Rousseau, Pestalozzi, Herbart, and Froebel. Locke and Herbart realized the need of developing the child very clearly, but they believed they could develop him as they desired by storing his mind with the required amount of appropriate knowledge. They believed that knowledge has such transforming power that the teacher should be able to mould the desired type of character by teaching properly the prescribed amount of various essential kinds of knowledge—religious, ethical, scientific, literary, historical, sociological and industrial. They used knowledge not merely to make the child learned, but to develop him along definitely planned lines; to construct him according to their preconceived design. Their use of knowledge was a grand advance on the work of most of their predecessors, but they erred in assuming that all individuals may be transformed and moulded into the same type by learning and understanding the

same amount of different kinds of knowledge. They believed that knowledge is the dominant element in the development of character. They understood the vital difference between learning and character building, but they were partially blinded by the old ideal and they gave knowledge a fictitious value in the development of power and character.

Rousseau, Pestalozzi, and Froebel clearly saw the relative importance of the child's selfhood as compared with knowledge, and they gave these two great elements of human power and character their true relative value. They made selfhood and not knowledge the dominant element, and the development of selfhood by its transforming and executive tendencies the supreme aim of education. All of these three great educators, and especially Froebel, taught a profound reverence for the individual soul, and the right of each individual soul to a full, rich, free growth. These are the fundamental principles on which the modern ideals of education both in teaching and training rest.

Froebel did not simply reveal these great basal revolutionary ideals in theory. He wrought out in detail a practical and effective educational system for young children. In his kindergarten the child is regarded as a being of infinite and varied possibilities, and he has provided an elaborate system in which every element of the child's power is called into productive, executive activity along lines of his own original planning; in which he is led naturally to become conscious of his own powers generally, and especially of his own highest power; and in which he has gradually revealed to him not

in words but by his own operative processes all his relations as an individual to his fellowmen in the home, in the state, and as a member of the universal brotherhood of man. The appropriate centres of all the elements of power that he should possess as a man in order that he may perform his whole duty wisely and effectively as an individual and as a citizen, are started in his life during the plastic years by constructive processes in the planning and execution of which he is an independent individual working under directive laws. In this way he not only acquires power to execute his own plans, and thus preserves and develops his achieving and transforming tendencies which were nearly always lost or dwarfed by the former systems of training, but he gains a vital reverence for law not as a restraining but as a directive element in his life.

The result of the recognition of the great fact that the child is greater than knowledge naturally led educators to see that the development of the child's powers is vastly more important than learning can possibly be in aiding him to become a happy and successful individual and a progressive and co-operative citizen.

The old education made, and still makes, book learning the supreme aim of education, and the knowledge of books as proved at examinations the basis for promotion in school, and for granting degrees and honors in universities. The new educational ideal is gradually, but surely, revealing the fallacy of making book learning the real basis of an educational system. Books should be studied. All children should be trained to dig from books the stores of knowledge they contain,

so that they may be able through life to learn, in regard to any subject in which they are interested, what the race has learned in its processes of development. But the educator who understands the vital principles of the new education uses books that he may train children to know how to use them.

Formerly children were divided by educators into two great classes—the clever and the dull. The clever pupils were those who remembered book knowledge easily and answered correctly questions about books at examinations. The dull pupils were those who could not readily take in book knowledge and give it out again at examinations. Human power cannot be truly tested by its relationship and attitude towards books. Many boys were not meant to enjoy the study of books. Men have long been marvelling at the fact that so many of the boys who were ranked among the stupid members of their classes in school became real leaders in after life, and that so few of the so-called brilliant leaders in school ever became leaders of men, with independent initiative and original power.

The answer to these problems is easily found. The test of classification was learning and not power or originality. The so-called "stupid" boys were generally leaders in the sports and exercises on the playground. They would have been leaders in school, too, if the school tests had been more wisely chosen.

The greatest tendency in modern education is the movement towards the substitution of manual, technical, and industrial training in schools instead of mere courses of study. There are

two reasons for this gradual substitution of work in the place of study in schools, the educational reason, and the vocational reason. Educationally the world's leaders recognize two great fundamental facts: first that developing a mind is much more important than merely storing it, second that the productively constructive and achieving mind is infinitely more valuable to the individual and to the race than the mind that is mainly receptive and reflective in its type. Vocationally, men are rapidly recognizing the great truth that all children have a right to receive the specific training that will best qualify them for their chosen department of life work. It is becoming clear, too, that vocational training is in perfect harmony with the best educational training by developing the most productive and executive types of mental power.

European nations are much in advance in technical, industrial, and vocational training in schools. The city of Munich has more than forty schools for vocational training. Every boy who leaves a regular school at fourteen years of age is compelled by law to leave his workshop three afternoons each week and go for three hours on each of these afternoons to the vocational school in which the scientific principles of his special trade are taught and practically applied. If, for instance, the material used in his trade is iron, he studies the most modern processes of treating iron ore, and of transforming it into every form of cast iron, wrought iron, and steel. He learns the processes of treating all kinds of iron and steel so as to produce most cheaply and most effectively the great variety of manufactured articles



that may be made from them. He learns, too, every scientific process of coloring steel, and of giving iron and steel an artistic finish. Whatever trade a boy has chosen, he finds a school ready to teach him its scientific basis. Better than this, he assists in doing the work of all the processes himself.

Munich has carried out the system of vocational training more thoroughly than any other city, but other cities are following her example. The State of Massachusetts has begun to train

her artisans for their life work. Canada should follow in the good work. Doctors, lawyers, clergymen, engineers and teachers have schools in which to receive the special training they need. Surely the workingman has as good a right as any other man to an education that will specially prepare him for his vocation. Such a training would make him more self-respecting, it would give him greater joy in his work, and it would qualify him to earn more money for himself and also to add more to the wealth of his country.



BEAUTIFUL FARM HOMES—"ON A NORTHUMBERLAND FRUIT FARM."



The First Shall Be Last

H. R. MacMILLAN, B.S.A., M.F., DOMINION FOREST SERVICE.

THE first crop known to have existed in the fertile southwestern peninsula of Ontario was the hardwood forest. And a truly magnificent crop it was. The great trees still remaining in secluded spots or carefully guarded in parks, farms and roadways, speak to us eloquently of what must have been the overwhelm-

limbs, this forest were it standing now, would, for its wealth of ash, elm, oak, maple, hickory, walnut and pine, be priceless.

The passage of a century has wrought an almost inconceivable change. One hundred years ago there were in this region forests to burn; tillable land was scarce; the



PLANTED FORESTS CONTAIN A LARGE NUMBER OF TREES PER ACRE AND ON AN AVERAGE ARE MORE PRODUCTIVE THAN NATURAL FORESTS OF THE SAME SPECIES.

ing forest of their still more gigantic predecessors. The early forest of Ontario, particularly of that district lying southwest of the proposed Trent Valley Canal, was one of the triumphs of nature. Composed principally of valuable hardwood, all straight and clear of

forest stood between the land and the plough. Now there is no hardwood forest. All of the land, irrespective of its value for agriculture, has been cleared, and such as will not grow the common farm crops is wasted. The timber, the crop which was first in

nature's culture, has all been removed; it has remained the last crop to be appreciated by man.

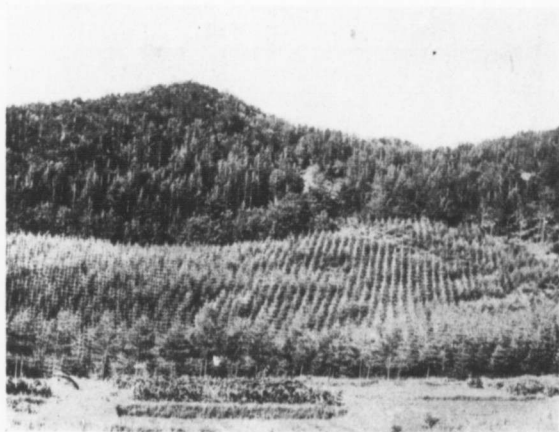
This is not because Canada does not need the hardwood timber. Our coniferous forests, though not so great as popularly supposed, if protected from fire and rapacity, if scientifically managed, even as are the forests of all other civilized nations, will yet be large enough for our needs. But to repeat, there are no hardwood forests in Can

ada. There is a sprinkling of maple and birch throughout the southern Laurentian forest; otherwise the hardwoods of Canada are confined to the culled woodlots of south Ontario farms.

A sign of the disappearance of Canadian hardwoods has been the decline in the shipment of square timber. This trade reached its height in the seventies when an average of 6,679,857 cubic

feet of hardwood were exported annually. It has now, owing to the disappearance of the hardwood forests, fallen to such an extent that during 1909 the total hardwood export trade reached only 806,388 cubic feet, less than one-eighth of its former greatness, and six-sevenths of this was birch, a very inferior wood as compared with the oak which formerly stood first.

Canada is no longer an independent timber country. She now imports her



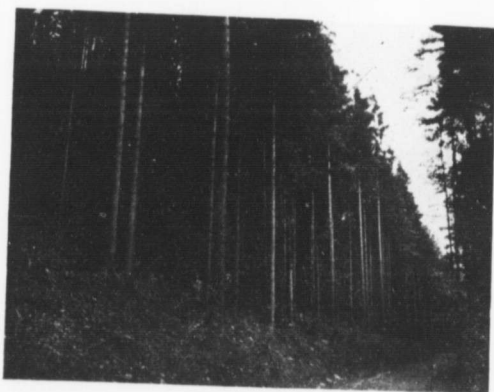
A STEEP HILLSIDE IN ITALY, MADE VALUABLE AND RENDERED BEAUTIFUL BY FOREST PLANTING.

valuable woods. The quantity of hardwood imported in 1909 was one-half as great as the total quantity cut in the woodlots and forests of Canada. Its proportionate value was still greater. There were 103,000,000 feet B. M. imported, 220,000,000 feet domestically manufactured. Canada plainly needs hardwoods. Accepting that a large quantity of the finer, more valuable hardwood is yearly imported in the

manufactured condition, and this partially because, lacking supply of timber at home, Canadian manufacturers cannot hold the timber and implement market, it may be admitted that Canada needs hardwoods badly.

If the present source of supply, the Valley of the Mississippi, the West slope of the Alleghany Mountains, were in exhaustible the situation would not be so serious, nor yet so promising for the profitable handling of hardwood lands

continent we have used the ready-to-hand, stored-up supplies provided by nature, and as a race adjusted ourselves wholly to artificial conditions, we shall look to the providing of our necessities in timber just as we already do to the planting of our annual crop of salmon in the Pacific, just as we already, in dozens of ways, provide for the known communal and individual needs of years to come. We shall do this because it pays, just as it has paid in



A GERMAN FOREST ON GRAVEL SOIL. POOR SOIL WILL PRODUCE LARGE CROPS OF TIMBER OF FINE QUALITY.

in Ontario. The United States Department of Agriculture states that the larger hardwoods of that country will be exhausted within two decades. Then we shall see the prices soar. Even were this not the case it would still be a humiliating acknowledgement of bad management to be importing something that we could far better produce ourselves.

The first, the natural crop of timber—not the only one we shall see in Ontario. As soon as in this new con

Germany where two hundred years ago they found themselves much in the same position in which we find ourselves now, faced with a depletion of necessary timber supplies. There was this advantage for the Germans, they could send to a new continent, to America for their timber. The continents are all exploited now, we cannot well depend on foreign sources for our timber supplies.

The artificial forests of Europe, growing on waste land, returns, in ad

dition to large sums spent for roads, administration and labor, net annual profits ranging from two to six dollars per acre. These forests bring to the communities in which they are situated benefits which it is impossible to value, such as the production of timber at home, where needed by industries and individuals, the covering of waste land, the rendering homelike of the country side, the tempering of the winds, the encouraging of insectivor

the rough, neglected corners, cuts and banks, probably ten per cent. of agricultural Ontario is after one hundred years of fairly intensive settlement producing absolutely no profitable crop. This land might be growing at a profit a necessity now imported.

No land that is not absolutely water proof is too poor to grow some kind of timber.

The present prices in Ontario of several species of hardwoods are such



WHEN MATURE, THE CROP IS HARVESTED, THE TOPS, BRANCHES AND ROOTS ARE USED FOR FUEL. THE GROUND IS THEN IMMEDIATELY PLANTED WITH ANOTHER CROP OF TREES.

ous birds, the modifying of extreme conditions of streamflow.

This European success in the utilization of all land by adding as a last crop the timber which first was so plentiful in Ontario, is an ideal towards which Ontario shall and must work. Southern Ontario is already so densely settled that it could nearly approach European success in the profitable growing of timber. There is the waste land lying idle; taken altogether the sand plains, the stony, rocky areas,

that they justify the planting of timber for profit. The average price per thousand feet B. M., was for the following species, in Ontario, 1909:

Maple, \$16.93; Ash, \$18.40; Bass wood, \$19.68; Hickory, \$26.47; Oak, \$29.97; Walnut, \$47.84. These prices will go higher yet, for while the supply is yearly diminishing the demand is yearly increasing. In many situations there are no satisfactory substitutes for these woods.

Forests need not be large to be pro

fitable. There are in Europe profitable forests ranging in area from ten acres or less to many thousand acres.

The forest of Heppenheim, in Hesse, Darmstade, Germany, is an example of what can be done to secure a profit on a small area of poor soil, from woods known and grown in Canada. The area of this forest is 4,500 acres. The soil is a sandy loam, with outcrops of rock and boulders overlying granite and diosite. In Canada such an area would be left looking like the district between Peterboro and Perth. The crop grown is chiefly beech, oak and ash. They reach maturity in 120 to 140 years, when they are usually about 18 inches in diameter and 80 to 100 feet high. *In this forest, first-class beech sells for \$40.00 per M. B. M. and ash for from \$80.00 to \$100.00 per M. The expenses for administration and

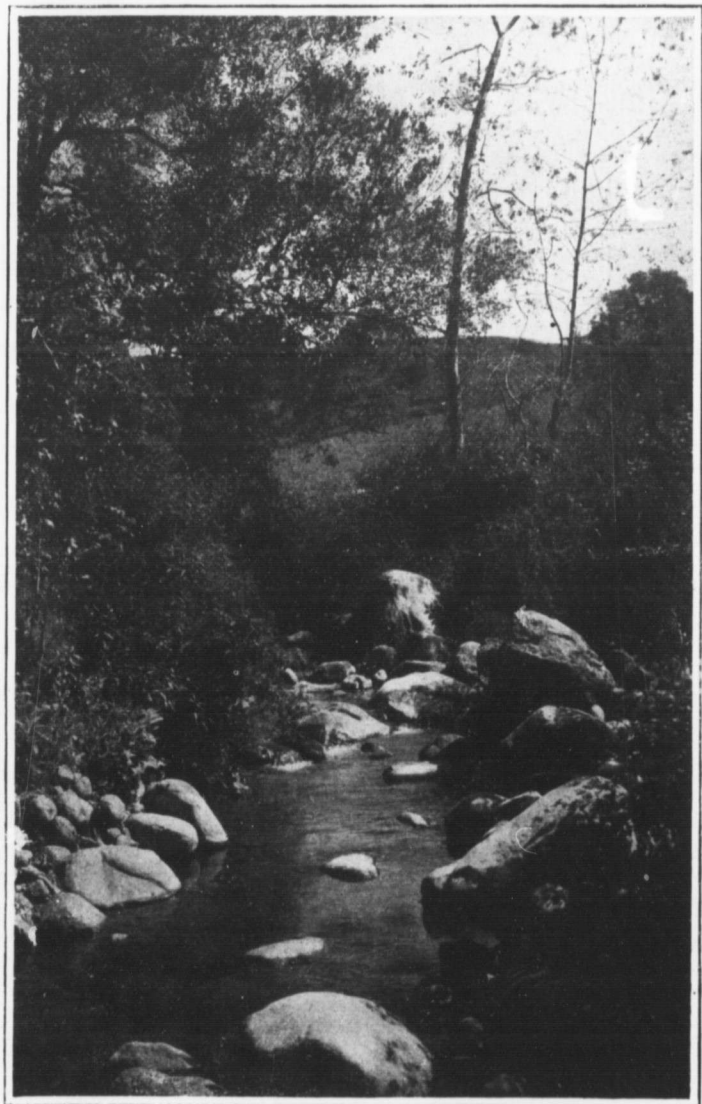
the maintenance of superior roads are heavy in this district, nevertheless there is an annual net profit per acre of \$4.50.

The fact that timber is a slow crop requiring 60 to 120 years will delay its general acceptance. The fact that the forefathers of the present generation in Ontario have within the memory of men still living hewn their way into the forest still operates against forest planting. The change in habits of thought may be slow in coming, but necessity leaves no room for doubting. Ontarians met the forest as an enemy; they must at last come to recognize it as a crop to be encouraged in diviluality, municipality and provinci ally.

(*These prices are for timber much superior in quality to the average now produced in Ontario.)



BEAUTIFUL FARM HOMES—"AT DUNEDIN STOCK FARM."



"THE SPRING."

—Photo by H. A. McLennan.



Agriculture



Horses in Canada

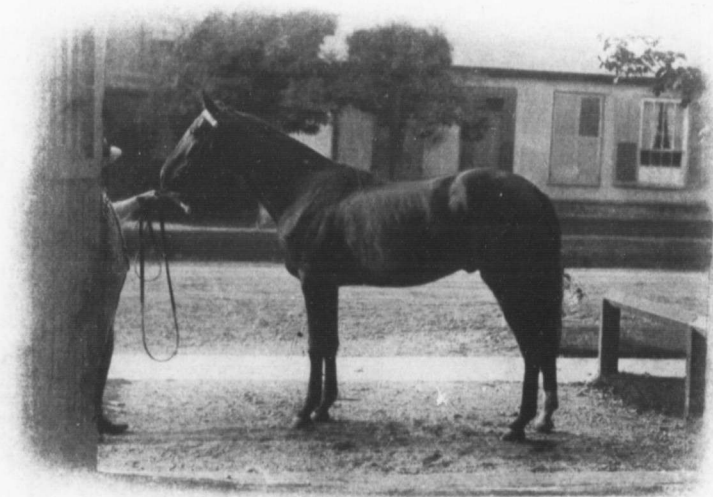
THE different breeds or classes of horses for which Canada is noted are the heavy draught, carriage, saddle, hunter and road horse. Let us briefly consider how these classes have been, are, and can be improved. We speak of classes rather than breeds, as few Canadian farmers own pure bred mares, hence cannot produce foals eligible for registration in their respective stud books. In the various Provinces of the Dominion the production of pure bred horses is largely confined to large breeding farms, and not attempted to any considerable extent by the ordinary farmer.

Our Draught Horses were produced by the importation of draught sires from various countries, as the Clydesdale from Scotland, the Shire and Suffolk from England, the Percheron from France, and to some extent in late years the Belgian draught from Belgium. In most parts of Canada the produce of the Clydesdale or Shire out of Canadian mares has given the best results; of these two breeds the Clydesdale has been much more extensively used than the Shire. Good results have also been obtained by the use of Percheron and Suffolk sires. So far we can say little about the Belgian cross, as we have not had sufficient opportunity of judging. When the cross is not too violent, or in other words, when the mare is not too small, the

produce of a good sire of any of these classes gives reasonable results, and in some cases four crosses renders the animals eligible to registration. Clydesdales and Shires have been imported into Canada for many years, the number of the former far exceeding that of the latter. Even comparatively young men will notice a great difference between the type of the animals of these breeds that are imported to-day and those of a few years ago. At one time size and weight alone were considered valuable. The stallions were very massive, many with heavy, upright shoulders, beefy legs with abundance of coarse wavy feathering, short upright pasterns and in other respects showing coarseness. It became evident to both Scotchmen and Englishmen that size alone did not make the highest class of draught horse, that something more was needed; that horses of this type were clumsy movers and their feet would not stand work on hard streets or roads; hence they began to breed with the idea of producing quality, even though it might be to some extent at the expense of quantity. The typical and fashionable Clydesdale or Shire of to-day is a horse of considerable quality with oblique shoulders, clean, hard flinty bone with straight fine feather, a pastern of medium length and well marked obliquity, and with free, easy and comparatively light

action when either walking or trotting. He must have well sprung ribs of reasonable length, deep girth and moderately broad and well muscled breast. His back must be short and loins broad and strong; croup long, of medium obliquity and well muscled, haunch and gaskin strong and well muscled; neck of medium length and

type, we still notice many individuals of both sexes in each breed that are deplorably lacking in quality, but observation and experience has taught breeders that by careful selection of parents it is possible to produce the quality mentioned without great sacrifice of size and substance. In some selections where long hair on the legs



"A THOROUGHBRED."

neatly attached to the head, crest well developed and masculine in appearance; head of medium size, well carried and of well marked masculinity. He should be of the blocky type and stylish. The greater the weight the better, so long as he retains the quality. Notwithstanding the care that has been taken to produce horses of this

of draught horses is objectionable the Percheron or Suffolk sire is used and, at present, to a limited extent, the Belgian draught.

Carriage Horses. The Carriage horse, or heavy harness horse, is another class largely produced in Canada. As with the draught horse, the fashion has materially changed in the



last two or three decades. Formerly a horse of fair size, say 15 $\frac{3}{4}$ to 16 hands, of good conformation, stylish and of good quality, one that looked well whether standing or in motion, and could trot at an 8 or 9 mile an hour gait, would win in good company. At present horses of this class must have all the characteristics mentioned, but may be smaller (according to conditions of the class) and must in addition have excessive and flash action both front and rear in order to win, and the faster he can go the better, so long as he retains the quality of action. The Hackney and French Coach are the most typical of this class and of these breeds the former is the most popular and doubtless exceeds the latter, especially in action. The demand for this excessive action was caused by the introduction of the Hackney (purely an English product) into this country. The great majority of carriage-bred horses in Canada are not pure-bred. They are the product out of mares of some hot blood and fair quality and action, by sires of the different breeds, as the Hackney, Cleveland Bay, French or German Coach, Standard bred and Thoroughbred. When the mare has considerable hot blood and fair quality the Hackney sire usually gives the best results, but with few, if any exceptions, the produce of the Hackney or in fact any of the breeds mentioned except the thoroughbred out of a cold-blooded mare is a disappointment. When the breeder is looking for size at the expense, to a certain extent, of action, he selects one of the larger sires, usually called coach horses, as the German or French Coach or Cleveland Bay. While action is in most cases the most

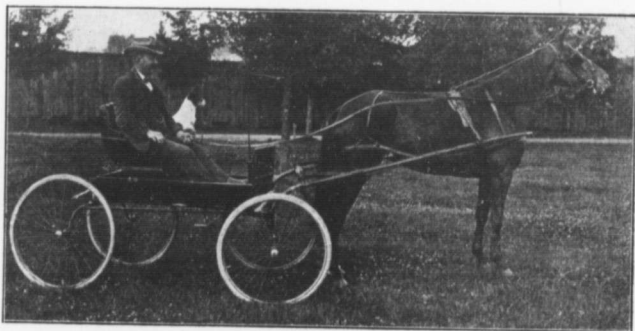
important characteristic, we must not sacrifice quality and reasonable size. When we can produce fair size with extreme quality and action, we will have reached our ideal in heavy harness horse-breeding. High-class heavy harness horses are often produced by the thoroughbred sire when crossed with a Hackney mare or vice versa, and even out of a reasonably cold blooded mare with good action the thoroughbred usually produces a good animal, the mare transcends action to the progeny while the prepotency of the sire overcomes the coarseness of the dam, at the same time in this cross the cross must not be too violent. Standard bred stallions too often produce heavy harness horses when mated with mares of good quality, size and action, and also in some cases when mated with Standard bred mares.

Saddlers and Hunters. Another class of which Canadians have just reason to be proud is the saddler and hunter. The importation into this country of the English Thoroughbred is responsible for the production of this attractive, useful and valuable animal. There are few animals of this class that have distinguished themselves in the show ring, on the flat or in the hunting field, who have not thoroughbred blood close up; either sire or dam, in most cases, being registered or eligible to registration in the thoroughbred stud book. While half-breds or three-quarter bred are essentially saddlers or hunters, they are also very useful and valuable for other purposes. They make good harness horses and when of sufficient size good work horses. They are probably the best all round horses produced.

While they seldom have the speed necessary to win in the road class or the action to win in heavy harness, they give good service in ordinary work in either harness, and where neither excessive speed nor excessive action is required they cannot be excelled, and when wanted to both ride and drive they have no equal. Ontario especially has produced and is producing saddlers and hunters of high class, good enough to win in any country, even in England, the home of their progeni

harness bred fellow does in the saddle.

Standard-breds or Light Harness Horses. This class is essentially an American production, and has been bred for many generations with the idea of producing extreme speed at the trotting or pacing gait. Mostly, if not quite, all the horses that have won distinction in harness racing trace on both sire and dam's sides to the thoroughbred. Only a small percent age of those produced have sufficient



"A GOOD ROAD MARE."

tors. A large percentage of the winners in the best exhibitions on the continent are Canadian-bred, as are also many of the best performers in the hunting field; and not a few have won in competition with the best horses in the world in the show ring in London, England. Many horses of this class are used with satisfaction for both harness and saddle work where owners cannot afford to or do not wish to keep both classes. A saddle-bred horse generally gives greater satisfaction in harness than a

speed for racing purposes, but most of them have sufficient size, style and speed for ordinary road purposes. When this breed was established the ability to go fast at either gait rendered the animal eligible for registration; hence in many individuals there was an admixture of blood, and this condition still exists to some extent, but the rules under which an animal can be registered have year by year been made more stringent, hence the breed is gradually becoming more pure. Since there have been two stud books used,



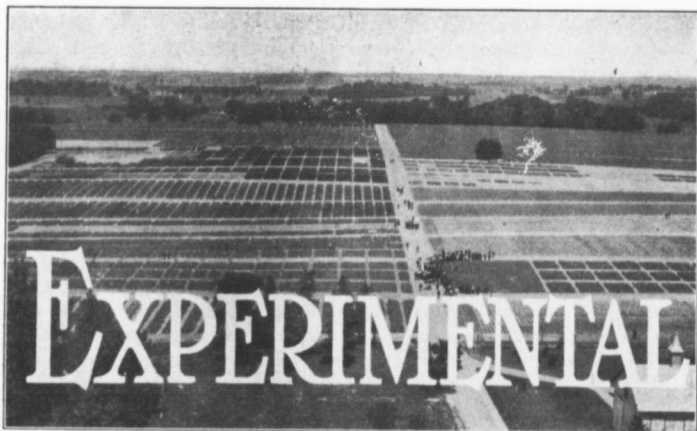
one for trotters and one for pacers, and as parents of either gaits may and frequently do produce animals of the other gait, complications arise which occasionally render an animal ineligible for registration although his breeding may be first-class. Hence the fact that a horse of either class may not be eligible does not in all cases indicate that he is not as well bred as others that are registered. The breeding of standard-breds with the idea of producing and developing race horses is the province of the rich man. The man of ordinary means who undertakes it, will, in all probability, meet with financial disaster. Those who observed the prize winners in the best exhibitions will notice that it is not uncommon for horses of this breeding to win in the heavy harness classes or as high actors, and this fact lends support to the claims of those who state that the Standard bred is the best carriage horse and actor that can be produced. When we consider the vast number of Standard-breds produced and note the few which excel in heavy harness we are forced to the conclusion that while an occasional individual makes a heavy harness horse of very high quality, the percentage of such is so small that it would doubtless be disastrous to attempt as a business, to produce this class by breeding Standard-breds. There are misfits in breeding all classes of animals and we think that the Standard-bred heavy harness horse, while a very valuable animal, may properly be called "a misfit." He has been bred for many generations with the prime idea of producing speed, and when an individual lacks the speed but exhibits well marked characteristics of another class, we certainly

are justified in claiming it as an accident, and we might go so far as to claim that it indicates want of prepotency in his parents. Largely on account of the admission to registration in all stud books (but the Thoroughbred) of animals with a percentage of foreign blood, can the appearance of occasional misfits be accounted for. So long as such admissions are allowed this will continue. For instance, from top crosses of registered Clydesdales will admit a female to registration and two top crosses of registered Hackney will admit the produce to registration. We are not questioning the advisability of these rules, but simply state that so long as such conditions exist, an animal so bred cannot justly be called "pure bred," and the prepotency of an animal of breeds where such conditions exist cannot be depended upon without ascertaining whether he has a long or short pedigree.

Horse breeding in Canada, and in fact, in all countries, has proved that in order to be successful, sires of pure breeding must be used. Where pure bred mares can also be procured no question as to the breed of sires can arise, but when the mare, though probably typical of her class, is of mixed breeding, the selection of a sire to produce a colt of a certain class must to a marked degree depend upon her individuality and general characteristics.

Improvement in horse breeding has been marked in all Provinces of the Dominion in late years. To some extent in the Northwest Territories and British Columbia the native broncho is still bred, but efforts have been made to improve this class by the use of pure bred sires.

J. H. R.



The Demonstration Train an Agent of College Extension

PROFESSOR H. G. BELL.

BY Act of Congress, dated July 2nd, 1862, there was voted to each state in the Union sufficient financial aid to establish a State College of Agriculture and Mechanic Arts within the bounds of each commonwealth. The purpose of the Act, according to its text, was "To promote the liberal and practical education of the industrial classes in the several pursuits and professions in life." This move was radical—full of possibilities in a country that was just in the fancy of a manhood that has caused the world to marvel at its industry and thrift, and to feel its heart of sympathy. The beloved Lincoln never raised his hand to sign a document full of greater good to mankind unless it be the document of emancipation of the southern slaves. Within a short time after the

passage of this bill, land grant colleges began to be established in many of the states. First rose Michigan—now rich in records of noble service spent for mankind. She was soon followed by Connecticut, Ohio, and others, till to day no less than forty-eight institutions, by virtue of such federal aid, are doing great and glorious work toward the training and uplifting of American citizens.

So strongly has this idea of general education been impressed upon the minds of the American people that the day is not far distant when education, even technical training, will be within the grasp of every man who claims citizenship on this continent. The movement is wider than national. Its benefits reach from pole to equator and from Pacific to Atlantic. However



in the evolution of Colleges of Agriculture and Mechanic Arts, it has lately been discovered that the benefits of courses in such colleges are available to a limited class still. The cost of maintenance during the four years of a college course is sufficiently great to preclude from its benefits many men who are entirely dependent on limited means; besides, the great mass of rural population with but a common school education, is not fitted to pursue studies

days' corn and grain schools to various centers of the state, Indiana does likewise. Wisconsin conducts demonstration schools in various centers of the commonwealth. Massachusetts holds lengthy summer courses and conferences on rural betterment. Ontario by its well organized system of Farmers' Institutes fulfills similar services. Some fourteen years ago, on account of a failure in the corn crop, agricultural leaders in Iowa induced the rail



"The Modern Farming Special," run by the Maine Central Railway, under the auspices of the University of Maine. The flat cars contained an exhibit of plows, grain cleaning and grading machinery, seed drill, potato planter, potato digger, ensilage cutter and blower, potato and orchard spraying apparatus and a gasoline engine.

that are taken up at such schools. To meet the wants of the man that must needs "mind his flocks," agricultural colleges have determined to carry aid to his hands.

The movement of Agricultural Extension has taken various forms in different states. Iowa carries her ten

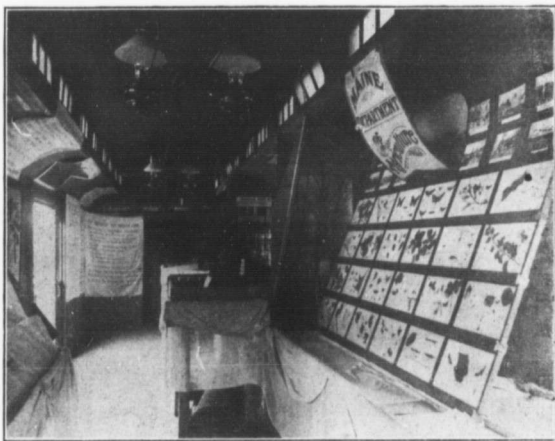
roads to co-operate with them and carry a corp of instructors and lecturers to the various parts of the state to teach the farmers how to handle their seed corn, and till their land, so as to prevent a repetition of such disaster. So far as we are able to learn this was the first demonstration train manned



by college teachers, to be sent out on such a mission. Many such trains have been sent out in many states since. During this past summer a train known as the "Modern Farming Special," covered some fifteen hundred miles on the lines of the Maine Central railway in the state of Maine.

The Modern Farming Special was composed of two baggage cars filled with exhibits of interest to general and

the baggage cars, and to hear careful explanations given by the attendants in charge of the cars and the machinery. Three short, pointed addresses, suited to the interests of the several localities, concluded the program, with the exception of the programs in the towns at which night stops were made. At such places the work of the State Agricultural College was illustrated by a stereopticon, and practical talks were



The baggage cars contained exhibits prepared by the several departments of the College of Agriculture, assisted by the State Department of Agriculture. Attendants explained each exhibit, answered questions and directed attention to new methods in agriculture.

special farmers, and two flat cars carrying a limited equipment of modern tillage, planting, and harvesting machinery, also a passenger coach carrying a corp of College and State Department lecturers. In all, fifty-eight stops were made, at each of which the assembled crowds were given an opportunity to see the illustrations on exhibition in

given to large audiences of farmers by members of the party.

The tour of the Modern Farming Special has been followed by a summer and autumn of great growth. Preliminary reports point to an increase of 25 to 40 per cent. in the returns from the important crops of Maine. Obviously, little of this increase can be cre

dited to the work of the Farming Special, since its tour was made during the latter part of June. However, it is significant that the New England States are interested in such a movement as this form of extension work.

and new subjects for thought. The boys, especially, were interested in the work. These boys—the youths of to day, and the men of to-morrow—will ponder over what they saw and heard. The middle aged busy farmers will



Lectures were given by members of the party upon important agricultural subjects of special interest to each locality. Stops of one to three hours were made at each of 59 stations.

Forty thousand farmers listened to carefully prepared talks on practical phases of agriculture. Having seen charts and illustrations of modern business methods of farm management, these farmers cannot fail to have carried away some valuable suggestions,

scarcely change their established ways, but the boys, stirred by the possibilities of the spot they call "home" will remodel the works of their fathers and create a new agriculture in the birth place of the nation.

THE RACE.

This mighty dream of the race!
 When, O when, will it die?
 When the magic of being burns from the blood,
 When the violet fades from the sky,
 When the mother turns from her child,
 When the son his father spurns:
 And the blood of the mightiest race on earth
 To bloodless water turns.



A Summer in the Niagara Peninsula

VERNON KING, '11.

WHEN Nature is resting from a busy season of activity and Winter has set in, covering the fields and the orchards with a mantle of white, forbidding many a tiny creature hidden away under leaf and bark and stone, to move so much as a muscle, then we love to hug close to the fire and talk over the doings of the good old summer time. And so this Christmas tide it seems quite fitting to write a few notes on a few months' sojourn in a land of fruit and flowers.

It was my good fortune this past summer to spend the months from May to September amongst the orchards and vineyards of the Niagara Peninsula. There is a fascination in the life in the fruit district. Before the end of April acres and acres of peach orchards are clothed with blossoms of delicate pink, which lend color and cheerfulness to the landscape. Later on the plum and pear and apple and cherry trees show up in all their glory of pink and white. The birds are there too in full chorus to rejoice that spring is here. The robins tell us plainly that it is good indeed to be alive. Before the

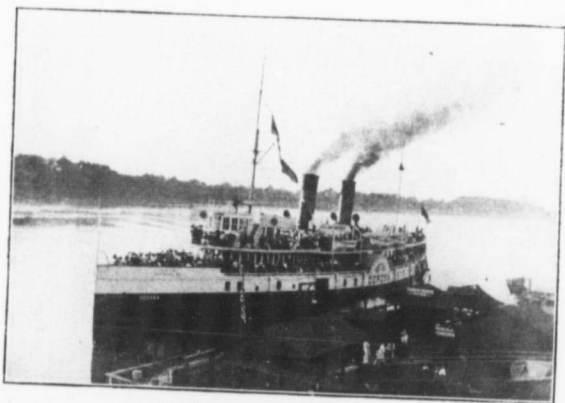
apple blossoms have fallen many a nestful of half-fledged youngsters concealed by the limbs of the trees, are growing fat on the caterpillars provided by their parents. The orioles in lovely colors, perched high in the trees, whistle away as they search for insects among the snowy blossoms. Happy, too, are the ruby-throated humming birds, hovering around the flowers of the horse chestnut, poking their long beaks deep down among the petals to reach the sweet nectar, their green backs shining in the sunlight. Along the roadsides by hedge and fence the song sparrows, although not decked in brilliant colors, sing to their heart's content in tones that vie with the canary's for sweetness and variety. By the middle of May the bobolinks have returned, draped in black and white, repeating their jumble of flute-like notes, while surveying the surrounding country from the tops of the wayside trees. The warm days entice the butterflies away from their winter haunts and many, newly emerged, flit here and there among the flowers by bank and stream.



But even after the latest blossoms have unfolded and dropped from sight, and the songs of the birds have become so familiar as to be hardly noticeable, and when the fresh smell of spring has been superseded by hot days and warm nights, there is still beauty on every hand to awaken our admiration. The strawberries, unnoticed under leafy vines, attract our attention as hundreds of crates containing little boxes of the berries, piled up on plat

Meanwhile the little bunches of grapes are swelling as they hang from the vines so densely covered with big broad leaves. In a little while a few peaches are ready to eat, and from this time till October both grapes and peaches are very much in evidence.

It must not be supposed from the foregoing that life in the fruit district is all sentiment. The quality and quantity alone of the fruit bear witness that the farmer has been



ON THE NIAGARA RIVER.

Photo by V. King.

form and wharf, fill the air with a delicious odor so familiar to us all. When their brief season of a few weeks' duration is over the early raspberries gratify our longing for some thing new, and a privilege it is indeed to wander among the trim bushes and eat the fattest that hang to the canes. The days skip by and the raspberries are forgotten, but abundance of fruit is still in season; the early apples can be gathered, and then the pears and plums weigh down the branches and soon find a way to their proper destination.

hard at work long before the frost is out of the ground. Adam, in the garden of Eden, had little to wish for, but even he could not reap the harvest without laboring. During the occasional warm days in winter when trees and vines are bare, the pruning tools are kept at work in preparation for the coming season, and this itself is a hard and tedious occupation. When March has crept around spraying operations commence, and the war against fungus diseases and insect foes is begun. The fact that the success of the fruit crop,

to a large degree, depends on climatic conditions, the time of spraying, material used, and the thoroughness with which it is applied, makes this one of the most important operations on the fruit farm. Cultivation of course is carried on more or less the season through, and naturally in intensive farming we find the highest state of cultivation practised. From the time that the first strawberries are ripe till winter sets in is probably the busiest in the routine of the fruit grower. Such

the fruit farmer must put his brains and energies to good account in order to reap a good reward for time and labor expended.

It is interesting in the shipping season to walk into a large packing house where the fruit grower is sorting and preparing his produce for the market, and then to follow the huge loads as they are being hauled to train or boat to be distributed over the country; even Winnipeg, 1,800 miles away, is on the delivery list. The citizens of



STRAWBERRIES, THEN APPLES.

perishable products must be harvested as soon as ready, and taken to train or boat for distribution throughout the country, or hauled to market, cannery or winery, to be disposed of each in its particular way. When we remember that in places there are single blocks of peaches of over one hundred acres in extent, vineyards that cover as much as seventy acres and large acreages of strawberries, raspberries, currants, gooseberries, cherries, pears and plums and tomatoes, we can understand that

that western metropolis can thank Providence that science has made it possible through refrigeration for them to enjoy fruits which they themselves are unable to produce.

The culture of grapes is extensive, and each year the acreage planted in creases. Large quantities are sold in Toronto and Winnipeg. The wine factories consume hundreds of tons, and recently a new industry has sprung up which promises to prove a great success. By a mechanical process the

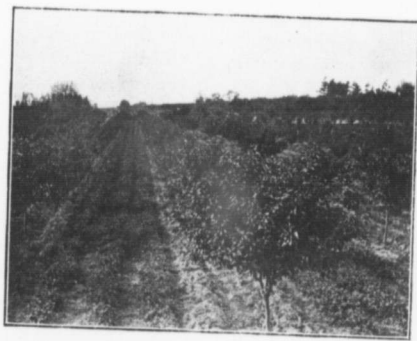
juice is extracted from the grapes and sold commercially as an unfermented beverage. The canning factories scattered throughout the country utilize almost every variety of fruit, and many vegetables, but so far canned grapes have not met with favor on the market, consequently none are preserved in this way.

The co-operative movement has taken a foot-hold throughout the district, and certainly this is a sign of progress, but as yet true co-operation is in its infancy. The wide awake men with business training have organized

life in this section of Lincoln County, there is the historical interest that deserves mentioning. In 1812, when Hamilton was a tiny village of a few inhabitants, the whole peninsula was in a critical stage of its existence. When the Americans decided to invade Canada on account of previous trouble with Great Britain, they chose the frontier along the Niagara River for their attack. At Stony Creek, near Hamilton, may be seen the spot that marks the battlefield where the Canadians won a victory over the Americans; and in the township of Niagara particularly, especially along the river are historical sports well worthy of investigation.

The old town of Niagara-on-the-Lake was the first Canadian capital. Visitors know the old fort reared from the ruins of the town after it was burnt in the war of 1812. It is a favorite resort for summer holiday makers, and no doubt the atmosphere of antiquity that surrounds it makes it a suitable retreat for people who wish to get away for a while from the noise and bustle of city life. Farther up the river

at a point where the rapids begin to trouble navigation is Queenston, a quiet little village but well known to travellers from far and wide. Here on the Heights towers the statue of General Brock, erected in memory of his gallant stand against the Americans in the war of 1812. The panorama that spreads before us as we peep through the slits in the walls of the monument is truly a grand one. Looking across to the north we get a bird's eye view of the fruit land between the



INTENSIVE CULTURE.

and have begun to market their products in a scientific way; by buying in large quantities and shipping carloads of fruit at a time, they can increase their profits immensely. No doubt in a season or so we shall see a pre-cooling plant installed that will facilitate better transportation of perishable fruit, so that consumers across the continent may receive it ripe, just as it was picked from the tree or vine.

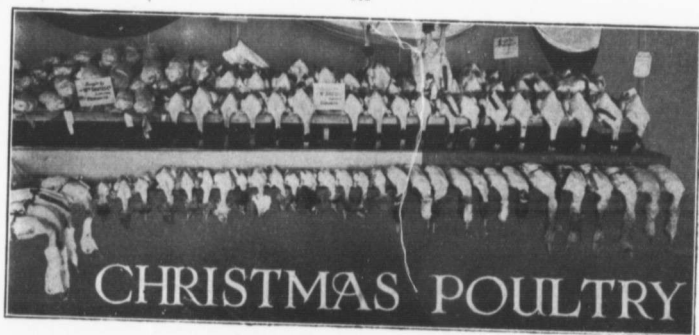
Apart from the commercial side of

limestone ledge and the lake, and forty miles across the miniature ocean may be seen against the sky an inkling of Toronto. And at our feet the winding river can be traced as it hurries along its course to lose itself in the great mass of water at its mouth. Behind us, seven miles up the river we can view the American and Canadian Falls famous for their beauty and because they are the source of the energy which supplies the people of a chain of cities throughout Ontario with electricity for lighting streets and homes. A few miles west of Queenston is the little village of St. Davids lying in the old bed of the Niagara River. It, too, was prominent in the war of 1812. At the side of the main road, a little removed from the present village, may be seen a stone marking the site of the village before it was burned by the Americans. Most of the old settlers in this section are United Empire Loyalists, people who came from the United States to Canada and remained loyal to the British in the war of 1775.

It has not been attempted here to write a full account of the Niagara

Peninsula with its people and industries. A mere glimpse only has been depicted. The towns and villages, the Government Experimental Farm, the model rural schools, the steam and electric railroads, and the miles of fine stone roads which appeal so much to the motorists, and finally the people themselves have scarcely been mentioned. In regard to these last, is it any wonder that blessed with so beautiful a climate and natural resources the finest classes make their homes here. Everywhere we find the old settlers or their descendants living in prosperity on their homesteads, and intermingling are doctors, lawyers, bankers, and commercial men. Canadian born as well as natives of the Old Land, engaging in the business of fruit growing in preference to their own particular professions. When once among these people one cannot remain a stranger for long. Wherever one goes the glad hand is extended, not the palm of the real estate agent who grips with self interest, but the honest hand that makes one welcome, and bids one stay to share the good things that they are so fortunate to possess.





The Dressed Poultry Trade

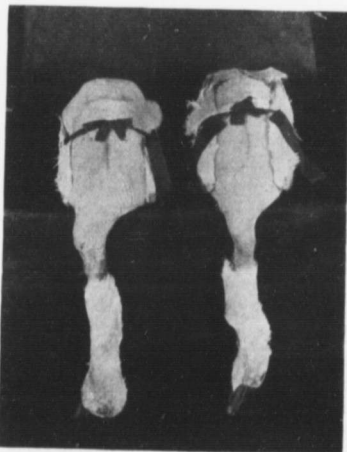
PROFESSOR W. R. GRAHAM.

THE demand for first-class dressed poultry is beyond the supply; in fact the demand is so great that the dealers are now taking the thin chickens as shipped in by the farmers, and fattening them in their own establishments. The dealer would prefer buying well finished poultry, but they cannot be secured in large enough numbers.

The writer was told only a few days ago, by one of the large produce merchants, that his firm proposed building next year a building that would hold at least forty thousand chickens at one time. This firm has been feeding for a few years, three or four thousand birds each month during the fall. They have found the business profitable from a feeder's standpoint, and of course, equally as profitable from the buyer's standpoint.

The above statements simply mean that the dealer buys the thin chickens, the farmer's grain and his milk, pays heavy transportation charges on the same to the city, and then uses expen-

sive buildings at a high rental, and employs high-priced labor to feed, kill and dress the fattened poultry. It pays the dealer under these conditions. The farmer lets this opportunity to make money go by for no good reason.



CHRISTMAS DUCKS.

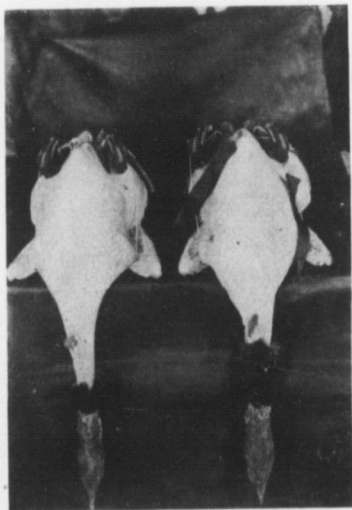
Just for a moment think of a cattle dealer renting a stable in the city, buying stocker steers, and then going to the city markets to purchase hay, grain, and roots, and expecting to make profit from the same. No sane person would try it. The farmer can finish the cattle with foods at first cost cheaper and better than can the dealer; he could equally finish his poultry but he does not.

Some of the dealers in poultry complain very much about the scarcity of dressed or live poultry of **good quality**, and of the **surplus poor quality** there is at this season of the year, which is always hard to sell. In some localities the dealers are to blame, for the reason that they have not discriminated in the price between the good and the bad. Where this has happened it will take some time and many actual demonstrations on the part of the dealers to convince the producer that he will be paid an advance price for good stock.

Much has been said and written about the deplorable condition of the egg trade, but I doubt very much if the dressed and live poultry trade is handled much, if any better. It is extremely doubtful if any other farm product has been handled as shamefully as the poultry products. The hope of the situation lies in co-operation. Many people have first-class goods, but do not know how to reach the buyer, and moreover, some stock is ruined in the dressing and packing. The Co-operative Association can readily find a buyer, and teach proper methods of feeding, killing and packing. Most large dealers prefer to send their buyers where they can procure a ton or more goods. The expenses in connection with hunting small lots are

so great that many times the large dealer lets good chances go by, or in other words you add another middle man. One middleman or at the most two are sufficient between the producer and the consumer. As the business is now conducted there are anywhere from two to six middlemen, each must have at least a small profit, hence the cause of the high price.

The common practice of rushing poultry on the Christmas market is not always commendable; sometimes the supply is so great that it is a physical impossibility for the dealer to handle the supply in so short a time, which means low prices and heavy shrinkages. Sell your poultry when they are well fattened almost regardless of the season of the year, and in the end you are likely to average good prices.



CHRISTMAS TURKEYS.

Preparation of Birds for Exhibition

A. C. McCULLOCH, '12.

WHEN the frost is on the pumpkin and the fodder's in the shock, we witness the advent of a season in many respects the most important of all to the breeders of fancy poultry. About this time, commences a long series of poultry exhibitions whose greatest motive is to aid the breeder in his profession, by having assembled together the best

ing quality may be the show cannot meet with the greatest success unless it is given due consideration.

Preparation must begin with the birth of the chick. It is then during the first few weeks of its life that its destiny is largely moulded. If it is raised under the most adverse conditions it cannot attain to the best development and become an individual of the greatest value. Plenty of pure fresh water at all times, plenty of food of such a nature as will produce a large proportionately developed frame, and plenty of fresh air and exercise are of the utmost importance. As regards food, wheat and oats are of greatest value, being especially adapted to the formation of bone and muscle whereas such food as corn will tend to produce a bird inferior in size and sadly deficient in vitality.

As the summer advances the sun's rays become more powerful, and if allowed to beat down upon the unprotected birds will cause the destruction of the pigment of the feathers to a considerable extent. The result will be a bleaching, or a distinct brassiness most conspicuous in white or light colored birds. But the remedy is simple. Access to plenty of shade by the planting of shrubs, trees, or even such crops as sunflowers, will usually avoid the trouble almost entirely.

Care must be taken to get the birds into their winter quarters before the weather gets too cold, so as to retard their growth as little as possible. At this time, too, the daily ration should



BARRED ROCK MALE.

representatives of each breed which its admirers can produce. But in order that the exhibitions may meet with the greatest success, and be of the greatest value to the fancier, other things must be considered besides the number of birds composing them. Chief among these is the condition of the birds, and so important is it that no matter what their number or breed

be reduced a little, and especially so if under the new conditions exercise is somewhat limited. But in a short time a liberal allowance may be given and the birds made to exercise by scattering the whole grain in deep litter. The ration should correspond to some extent with that given the birds while on exhibition, thus preventing their suffering the evil effects of a sudden change of diet.

If, because of unsanitary surroundings, the shanks and toes should become scaly, they must be given daily applications of coal oil and lard mixed in equal proportions. This treatment should commence as long before the date of the exhibition as will be required to produce a perfect cure, which may be several weeks in many cases.

That the birds may become accustomed to being handled previous to making their appearance before the judge, it is necessary to confine them in medium sized coops for a short time at frequent intervals, and train them to walk about or to assume any particular attitude which may be desired. Teaching them to eat from the attendant's hand or any similar act is also good practice, and the time so spent need never be regretted by the up-to-date poultry-man.

Commencing about a week or so before the opening of the exhibition, it is good policy to rub the toes, shank, wattles, and comb, once a day with vaseline, opaline, or some good lubricant of that nature. This aids very materially in destroying the usual rough, coarse feeling of such parts, and gives them a much smoother and softer touch. Such treatment also produces a marked change in their ap-

pearance by imparting to them a good glossy tinge.

The average condition of the exhibits as seen at our poultry shows at the present time is to say the least very admirable indeed.

Perhaps among the white breeds the difference between those on exhibition and those in the ordinary breeder's yard is most marked. This is largely



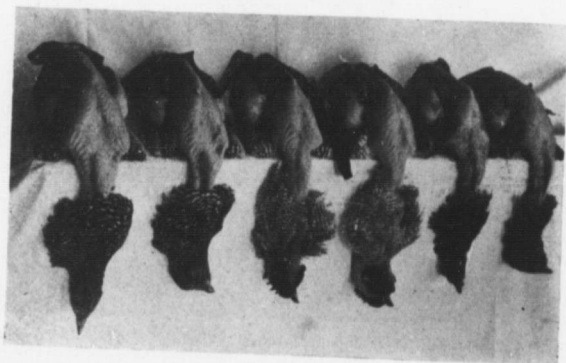
AN EXHIBITION WHITE ROCK.

the result of the washing which they almost invariably experience before they can win in most of large and up-to-date shows. Such an operation is not likely to prove very successful with the amateur, and hence birds of inferior quality should be washed first until he becomes sufficiently expert to be able to do the work fairly well. A day or two before the show, the breeder should get two tubs of luke-warm water and one of water just slightly

cooler. In the warm water of the first tub the plumage of the bird is thoroughly soaked and given a good liberal lathering with ivory soap which is worked well in among the feathers. As much of the soap as possible is squeezed from the feathers into the first tub, after which the bird is introduced to the second tub for the completion of this operation. To the water of the third tub is added just enough bluing to give it a slightly bluish tinge, which will be imparted to the plumage of the bird when it receives its final washing in this water. Great care must be exercised to prevent the breakage of the feathers. All rubbing should be done in the direction in which they point unless it be some of the smaller and finer ones after they have been thoroughly saturated. When the feathers have been pressed as free of water as possible by the palm of the hand, the bird is subjected to a moderate heat being usually placed behind the stove. Too great heat is liable to warp the feathers so thorough drying should not be attempted in less than about three hours.

The bird is allowed to place and trim up its own plumage which it will do with the greatest of pleasure to itself, and the greatest of satisfaction to its owner. Black or dark colored birds are not given the above treatment as frequently as white ones, but it will usually be found advisable, especially if they have become dirty, or dull in color—the same precautions being taken as with the white birds. If it is not done, all dirt must be removed from under the scales of the shanks and toes by a tooth-pick or any sharp pointed instrument, and these parts together with the comb, face, and wattles, given a thorough washing.

This necessitates close attention being paid to all details, the need for which is not always obvious. But when the finished article appears before the judge who considers condition as well as quality, and the bird possibly wins the coveted prize, then the results of our labor become manifest, and we conclude that it has been time and labor well spent.



READY FOR MARKET.



FIRST EXECUTIVE OF THE O. A. COLLEGE STUDENTS' PUBLISHING ASS'N.
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Editorial

The Review, with this Christmas issue, extends to the students, ex-students and all its readers, a very merry Christmas. With

The Season's Greeting

Boys, we wish also to convey our thanks for their support. To the students we can also extend our sincere wishes for success at the term's examinations. Without the support of both the students and ex-students of our College, The Review could not possibly have attained its present financial and journalistic success. Its future depends largely upon their co-operation. May the pleasant relations of the past between the Review and its supporters remain unbroken indefinitely.

Each year the Athletic Association

has printed a supply of Christmas cards or calendars which make pretty souvenirs for college students to send to their friends with the season's greetings. This year the Association has taken pains to produce a calendar of especial merit. It is very pretty, indeed, and should please even the most fastidious. Place your order early.

A Christmas Calendar

During the past few years the annual meetings of the Experimental Union have been held during Winter Fair week. The object in holding these meetings at that time was to give the Union members and others an opportunity while in Guelph to visit the fair and to attend the meetings at the same

The Experimental Union

time. This arrangement, however, has not met with the success looked for by the directors of the Experimental Union, and this year they have decided to hold their annual meetings in January, during the short course.

Much could be said in favor of the change, for at that time no such strong counter attraction as the Winter Fair will exist.

Again, from the students' stand point, examinations will be over, and they will feel more free to attend the meetings, which will undoubtedly result in an increased interest on the part of the regular students. This change will also give the Field Husbandry Department more time to properly arrange and present the results of the cooperative experiments conducted through out Ontario by the 5,000 members of the Union.

The dates for the meetings of the Union this year have been fixed for January 10th, 11th, and 12th.

A study of Canadian immigration figures indicate most clearly that Sir

The Twentieth Century is Canada's

Wilfrid Laurier was right when he said that the Twentieth Century was Canada's. Much will be said by Canadian historians a hundred years hence, in tracing the rise of our Dominion from a feeble colony to the leading nation of the British Empire, concerning the influx of immigrants to our shores during these years of development.

From April to July of the present fiscal year, 155,549 immigrants entered Canada. Of these 100,850 came by

ocean ports, while the balance of 54,669 entered from the States. The movement from the south is rapidly increasing. At the Detroit River alone during the month of October, three hundred undesirables were turned back, chiefly persons without the required money qualifications. These facts prove that "The Last West" is drawing the landless and the homeless from every quarter of the globe. They indicate that Canadians and Canadian agencies having anything to do with the Canadianizing of the immigrants, must be alive to their responsibilities, whether those responsibilities be the moral, religious or political education of the people, or the making of provision for the absorption of these newcomers among the present population.

It is estimated that something like 300,000 immigrants entered Canada this year, and conservative figures for 1911-12 are placed at 400,000. Compare this for a moment with the immigration to the States when it is at its height. Seldom does the inflow to the States exceed one million, which is one immigrant to every eighty of the population. Canada will have at lowest estimate, one to every twenty-five of population this year, and probably one to every twenty next year.

Only unnumbered acres of agricultural possibility and mammoth mining, lumbering, manufacturing and transportation enterprises can absorb such an inflow and enable these people to make a permanent home among us. Canadians must not fail to see that "the Twentieth Century is Canada's."



COLLEGE LIFE

From a Woman's View Point

MRS. CUNNINGHAM.

HOW many people, I wonder, have any true conception of what College Life means at our O. A. College, filled to its utmost capacity with young vigor and youth fresh from school even up to the matured man of the world. The student body, it makes a wonderful organization; in the morning pouring out to roll-call, then lectures until 4 o'clock, when you can see our beautiful campus covered with students, mostly dressed in shorts and jersey, doing battle at football or other manly sports, making a bright pic-

turesque scene and lending life and color to our really beautiful landscape. You would be wrong, however, to infer from the above that nobody does

any hard work at the O. A. College. Ask the freshman who arises (when it is yet dark) and hies him away to stable and barn, then off to field and garden and other departments. He could tell a different story.

Also visit the rooms after study bell rings and see earnest faces bent over text book and notes. Here it is for two solid hours the students devote themselves to the studies that are to



MRS. CUNNINGHAM
Our Mezzon.

make of them leaders in the various branches of agriculture in our fair Canada and many other lands; for the countries that are not represented at our College are indeed few, and all will agree that there is a wonderful equality and fine College spirit in our student body, composed as it is of so many nationalities.

It is only when we understand all this that we can appreciate at all the education as given by our College. The chief aim of this education is to create useful men.

Can any fair-minded person look upon the past and say that the O. A. College has not done a splendid work and justified her high ideals? That the type of men produced by such an education is to be the very backbone of Canada can hardly be questioned. That the O. A. College man is destined to play the same important part in the future must certainly remain unchallenged.

The Cosmopolitan Movement.

There are three great movements stirring the world to-day. The first is "Internationalism" or the increase of understanding and trust between nations.

The second is "Socialism," which aims at improving interclass relations.

The third is "Cosmopolitanism" or the spread of goodwill between individuals. The last is the greatest of the three, because it is wider, more comprehensive, and more powerful; it leads up to and includes the other two. What Internationalism is to nations, Cosmopolitanism is to individuals. True Socialism tries to establish perfect relations between the classes. Cosmopolitanism does the same between

all the members of all the classes of all nations.

A true cosmopolitan is a citizen of the world. No one city, no one district claims him for a son. The world is his metropolis, and every man he meets his fellow citizen. He is pleased to greet his fellow men, to give them the glad hand of brotherhood, to "trade" ideas, to teach and to be taught. His watchword is "tolerance." He never condemns before he fully understands. He makes allowances for anything he does not understand, and always admits the possibility of the presence of good until the contrary shows itself.

As science yearly discovers fresh implements of destruction, and more and more annihilates time and space, the prospects of warfare between nations become more possible and more terrible. A greater intercourse between the peoples provides greater opportunities for differences, as well as for knowledge and appreciation of each other.

Cosmopolitanism does away with the differences and teaches mutual appreciation. It is thus a great factor in making for universal peace. It does away with the tenors of Socialism, because it recognizes differences due to environment, and teaches the necessity of difference, while emphasizing the universality of brotherhood.

The "child is father of the man." The student of to-day is the guiding mind of to-morrow. The student Cosmopolitan clubs have a meaning and a mission of their own. They afford opportunities of forming lasting friendships between men of different nationalities, friendships between individuals that will go a long way toward estab-

lishing friendships between nations. The horizon of everyone who has any thing to do with the clubs must in evitably be widened for knowledge.

A knowledge of customs and conditions prevalent in the furthest corners of the earth may be obtained without any spending of time or money in travel. In almost all the colleges of the United States there exists among the college organizations a student Cosmopolitan Club. The object of these clubs briefly is to promote a better feeling between men of different nationalities, and to exemplify the ideal of the universal brotherhood of men without regard to creed, race, wealth or color. These clubs are united together in an Association of Cosmopolitan Clubs, which in its turn is affiliated with the International Federation of Students of Europe, better known as Corda Fratres. The association as a body has already taken a great interest in the international arbitration movement. It will be seen then that the cosmopolitan movement is really world wide and far reaching, and it will appeal to all broad-minded and deep-thinking men as being worthy of their support.

The Cosmopolitan Club of the O. A. College is now in existence, and so far as is known, is the first club of its kind, student or otherwise, in the Dominion of Canada. We believe that there is a place for it, and a work for it to do, that it will be a benefit to Canadian and non-Canadian alike. Time will show this, but if it is carried on with the enthusiasm with which it has started, it is assured a long and vigorous life. Its members have their responsibilities as well as their privileges, and it will not always be easy

for them to remember the club's motto: "That above all nations is humanity."

Theatre Night.

O. A. C., November, '10.

Dear Pa.—Your donation of thirty five cents arrived in good time, thus enabling me to accompany the student body to the opera on the first of November.

I suppose you have read of the awful depredations committed, of the lives endangered, of the rise in the price of wheat, because of the quantity of flour wasted by the occupants of the "gods." ALSO that the night was a success from the students' point of view and a sad experience to all others present?

As a newspaper man, you will of course understand that it pays to season your literary digests to suit the taste of your subscribers; therefore you will forgive the newspapers for their theatrical display of "printers' pi."

Old Gordon Graham hit the bull in the optic when he gave to his son the following advice: "Let your canned pork sell on its own merits—if it will, but failing that, put a little more gold paint on the label." There are just about as many ways of writing up a newspaper article as there were wives to Solomon. There is only one right way, and that way is typical of the husband of Solomon's wives—full of wisdom. The first methods give birth to extra editions, the latter to general education of the public and appreciation of a good newspaper.

Of course, pa, you are not paying me so much per line for this letter, and so I may as well tell the plain unjournalized truth of the matter.



The production was entitled "The Alaskan." In passing I may say that great credit is due to the poster artist. He sold many tickets. To proceed, we left the College at seven o'clock and to the strains of "Yankee Doodle Dandy" liberally mixed with the smell from the torchlights, we followed our band to the "Impregnable City."

According to one spectator who happened to be at home reading the newspaper at the time, "we rushed the gods!" We did not! Because we came early to avoid the rush. Having seated ourselves, we proceeded to remove our hats, as all gentlemen should in the presence of the gods. One "gentleman" refused, and we held a missionary service with good results, he emerging therefrom "white as the riven snow." Flour was the spiritual medium."

The play came next and I shall pass quickly over a painful memory which in resurrection is like pulling a molar with a hooked root—it hurts. The costumes were splendid, and for that matter so were the attempts to act, but there was no merit in the production whatever. Too much melodrama, too little sense of the sincere and altogether too much light comedy.

I repeat that there was no element of interest in the offering in the least, and the greatest discovery of the future will be a method to keep silent, three

hundred active rich blooded college students, whilst an inexplicable color effect is being produced in the shelter of the stage.

The flour episode is to be slightly regretted because it was misdirected, not more than one-third of it reaching beyond the footlights. "It pays to aim high, but first get your elevation." Other than this, we are satisfied with our behavior.

I think that is all I have to write at this time. Oh, by the way, I went to see "The Merry Widow," last week and enjoyed myself immensely. A great many of the boys were there and appreciated the show so much that they presented the principal characters with bon bons and champagne. Thus you see we can appreciate a "good thing."

Our College has a reputation extending beyond the city limits of Guelph and when we remember that "a college hath honor save in its own city, and among that city's people," we have abundance of excuses for the melodramatic extra special writeups that we received.

Sincerely expecting a pleasant letter in reply, I remain,

Your needy son,

Dimlux.

P. S.—The gold label helps, but it takes an expert to can imagination and sell it as the cold unpickled truth!



Presidents of the College Societies

H. A. McAleer.

H. A. McAleer, president of the Athletic Association, is the man "who wears the smile that won't come off." The welfare of the association has been his keenest interest since coming to the college. His service has been continuous. First, his enthusiasm for athletics as a freshman brought him to

H. W. F. Newhall.

The presidential chair of the Union Literary Society has been very capably filled for the past year by Newhall. His executive ability and endless amount of originality, he has used to such good effect that the society has flourished under his guiding hand. Always a pleasing speaker and



H. A. McALEER,
President of Athletic Association.



H. W. F. NEWHALL,
President of the Literary Society.

the secretaryship in his sophomore year. From this he has stepped to the vice-presidency and presidency, where his power to do things for athletics has steadily increased. We always find him on the side of progress. Mac's ambition is the development of every phase of athletics and toward this end he is always working and enlisting the efforts of others.

a lover of matters literary, his composed manner while filling his duty as chairman at union meetings is sufficient to convince an audience that a good programme is assured. By an original idea well worked out he has succeeded in giving us an interesting debate in which the Macdonald girls were allowed to take a prominent part. This good work is in the beginning as

the other movements he has started. Given as capable a successor next term, the "Union Lit." will truly enjoy a very prosperous New Year.



H. S. RYRIE,
President of the Philharmonic Society.

H. S. Ryrie.

In Philharmonic circles "Harry" reigns supreme. Since assuming the responsibility as president of this society he has spared neither time nor energy to make this, the youngest of the four college organizations, one of the strongest. At present he is endeavoring to reorganize the society so that in future the musical talent of the students may be developed under professional leadership, while the society itself will be supported financially by the entire student body. The Philharmonic concert which is to be held on November 25th, under Ryrie's management, promises to be

the best in the history of the college. Ryrie is connected intimately not only with the Philharmonic society but with other college affairs as well. In his freshman year he was elected President of his class, and under his capable leadership the class spirit of "1912" never waned. In his second year he was elected to the responsible position from which he is now about to retire, and to his memory in this connection he leaves many monuments, but I will mention only the one of "brass"—the college brass band, which at first promised to be "a howling success," but is now rapidly growing out of its childhood days. The society deeply regrets the loss of Ryrie as President, but sincerely hopes that he will not altogether sever his connection with it.



R. B. COGLON,
President Y. M. C. A.

**R. B. Coglon.**

Coglon was born in Ontario, but his home is now in Sunny Southern Alberta, his parents having moved there a few years ago. Coglon entered the O. A. College in the autumn of 1907, and now in his graduating year can look back upon a very bright college career. "Cog." always was "some athlete." His broad jumps and weight throwing were always relied upon to "boost" the score of "1911." He captured the weight throwing championship in 1909, and was always a member of the athletic team which went to Toronto to uphold the honor of

our Alma Mater on 'Varsity field day.

In his second year, Coglon was elected Vice-President of the College Young Men's Christian Association, and it has been in connection with this society that he has done his best work. In December, 1909, he was elected President of the association, and for a year has guided its affairs as only a natural born leader of men can do. He has left us some tangible evidence of his labors in the form of a revised Y. M. C. A. hand book. We all join in wishing him the greatest success for the future.



THE RURAL PUBLIC SCHOOL.



Alumni

THE many friends and associates of (Pa.) Kerr, of Bronson, Ont., will receive inspiration at the mention of his name, more particularly because he has returned to the home of his boyhood and already has made good. This year "Dad" can boast of 2,500 bushels of oats, one large field producing over 40 bushels to the acre. He has an excellent crop of 2,500 bushels of turnips, 100 tons of hay, 20 acres of an excellent crop of corn and a fine herd of pure bred Holstein cattle to eat it up this winter, headed by a sire out of the famous College cow, Boutsje. Fifty fine specimens of the sheep tribe are helping "Dad" to keep down the weeds and over 100 excellent specimens of Barred Rock fowl testify to the deep interest "Will" took in the poultry work at the O. A. College. The changes which are taking place about the house and barns—well boys, enough is said.

At a recent meeting of the L'Amable Farmers' Club our worthy friend was most heartily and unanimously re-elected President for the ensuing year.

Now, boys, we'll give "Dad" a rest

for this time, he has worked hard this summer, but look out for Will Kerr, of Bronson, he's coming!

Mr. E. S. Archibald, B.A., B.S.A., has been appointed Agriculturist and Farm Superintendent at the Agricultural College, Truro, N.S. Mr. Archibald is a Nova Scotian and a graduate of Acadia University, the Nova Scotia Agricultural College, and the Ontario Agricultural College, Guelph. During the past two years he has been on the staff of the Agricultural College at Truro in the capacity of lecturer in live stock and field husbandry, and experimentalist. Mr. E. S. Archibald's home is in Wolfville, N.S., his father being Mr. E. E. Archibald, President of the Nova Scotia



T. H. TWELTRIDGE, '05.

Fruit Growers' Association. He has a wide experience in farming, both in Nova Scotia and other parts of Canada. As a student at Guelph, he was one of a team of five, who, in a live stock judging competition at Chicago, open to all the Agricultural Colleges in America, won first prize. Since coming to Nova Scotia he has judged at a number of exhibitions and has spoken



at a number of farmers' meetings. As a lecturer at the College during these years, he has been highly successful. His appointment is a strong addition to the staff of the Nova Scotia Agricultural College.—Canadian Farm.

T. H. Tweltridge entered the O. A. College with class '05. After taking two years at the College, "Thomas" could not control his ambition and so made tracks for the luring West.

An excellent business man and a good farmer, Tweltridge has found

principally connected with the Government Experimental farm, situated across the river in Virginia. He is Assistant Superintendent of this farm, and finds there a field of labor worthy of an O. A. College graduate. The farm is the field laboratory of the Bureau of Plant Industry in particular, although six or seven bureaus co-operate in the work.

The fall has seen another of our old O. A. College graduates join the ranks of the benedicts. This time the lucky



IN THE EVENING AT EZ RANCH, NEAR NANTON, ALBERTA.
 Clark Galbraith, '08; Chas. Galbraith, Meds., '13;
 Harcourt Galbraith, '03; Stewart Galbraith, '04.

his vocation as Superintendent of the C. P. R. Horticultural farm at Springfield, Man. Half a section of land, the greater part of it in garden stuff, and also a large amount of glass for the growing of green stuff for winter use, is under his supervision. Tweltridge has already made good and we expect great things from him in the future.

J. Walter Jones, a graduate of the year '10, is now at Washington, D.C., where he is filling the position of Assistant Horticulturist. His work is

one was E. A. McRae, a graduate of the year '10. After four years spent in the vicinity of Guelph, "Mac" found that a certain Guelph young lady was necessary for his future happiness. As a result, a very pretty wedding took place in Guelph on Thanksgiving Day, Oct 31st, when Mr. E. A. McRae was united in the bonds of matrimony to Miss Playter, of Guelph, Ont. The young couple have gone to Port Hope, where they will reside for the present. They have the best wishes of the O. A. C. Review.

Merrit W. Baker, '06, has lately resigned his position as Assistant to A. McNeil, Chief of the Fruit Division, to take up a position as manager of a large fruit farm near Collingwood, Ont. "Baker" was well liked in his former position, but thought that work of a more practical nature would be more congenial. The farm in question is owned by a company of men, Baker himself being a shareholder as well as manager.



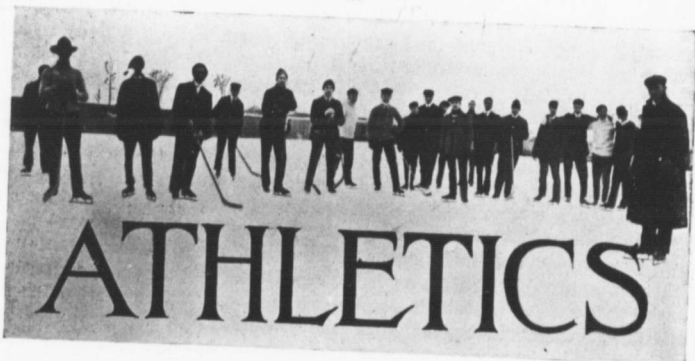
W. M. WADDELL, '09.

W. M. Waddell graduated from the O. A. College in the year '09, taking the Dairy option. He was one of the best dairy graduates that the O. A. College has produced for some time. His previous training in an up-to-date creamery along with the knowledge that he received while at the O. A. College gave him an excellent insight into all problems relating to dairying

After graduating he secured a position as Superintendent of the Blue Valley Creamery Company's plant, situated at Indianapolis, Ind. The Blue Valley Creamery Co. is known throughout the United States for its integrity and straightforward business principles. This company is the largest exclusive manufacturer of pure pasteurized cream butter in the world. At present they are remodeling their Indianapolis plant, and when finished, it will be one of the most up-to-date plants on the continent. Waddell is in charge of both the procurement and manufacturing departments, and thoroughly enjoys his work. While he is to be congratulated on securing such a good position, we think that the Blue Valley Creamery Co. is also to be congratulated upon securing a man of the calibre of W. M. Waddell as their superintendent.

Mr. H. M. Weeks, of the Century class '00, has joined the great silent majority. He was troubled for about three years with a serious attack of heart trouble which terminated in his marriage on September 15th. Mr. and Mrs. Weeks spent their honeymoon at Niagara Falls, Detroit and other points of interest. They will reside in future on his farm near Glencoe, Ont. The Review wishes them a prosperous future.

A pretty wedding took place in Guelph, on Wednesday, Nov. 2nd, when Mr. D. M. Johnston was united in bonds of matrimony to Miss Annie Grey, of that city. We wish him and his life partner continued prosperity.



Varsity Field Day

'Varsity Athletic Meet.

At the annual 'Varsity Athletic meet held in Toronto, on Oct. 14, the representatives from O. A. College worthily upheld our reputation as good athletes by winning in all thirteen points and by getting second place in the relay race.

Eleven men in all were sent to compete and four of these gained places. The other men though not gaining a place were always in the limelight. They were pitted against some of the best men in Canada and the work they did in Toronto ranks them as high class men in the particular events.

In the half-mile, E. W. White crossed the tape in third place, and in the mile Miller held second place until the last lap when he took the lead, but when within two hundred yards of the finish was overtaken and lost by a few feet. In this event 'Varsity's record was broken and Miller came in under record time. In the high jump Hester captured the blue ribbon and

McRostie also got second in throwing the discus.

The men who represented O. A. College were Lawson, McRostie, Coglan, Miller, White, Culham, Pope, Hester, Mollison, Clement and King.

The relay team was composed of Pope, White, King, Clement.

Nearly all these men are just beginning their career as athletes, and with the improvement that practice and experience will give, we feel safe in predicting for them a bright future in the athletic world.

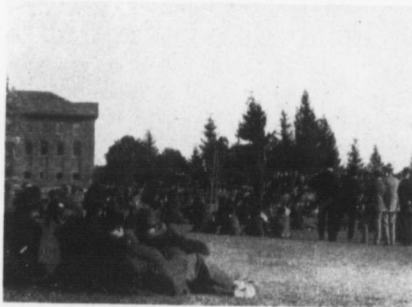
O. A. C. II. At Galt.

Saturday, Oct. 15, was a joy day for the O. A. College students, the event being the annual Sophomore excursion. This year it was run to Niagara Falls, and when the train stopped at Galt a bunch of robust looking youths carrying suit-cases were seen to alight from the train and wend their way up street.

In the afternoon this same aggregation representing the College II. foot

ball team lined up against the Galt Collegiate for a practice game and succeeded in trimming the Collegians to the tune of 9 to 1.

It was a very fast clean game and was characterized by the open play and good punting of both back divisions. In the scrimmages College had a slight advantage having the heavier line, and although the score indicates an easy victory, it was anything but such, for the Galt Collegiate has a good bunch, and the result was doubtful until the final stages of the game, when the Collegians began to weaken, owing



COLLEGE FIELD DAY—"PART OF THE CROWD."

to the hard bucking of their heavier opponents

Line-up—Full, Main; halves, Weld, McDonald, Pawley; quarter, Creelman; scrimmage, Smith, Neale, Hare; outside wings, Peart, Rebsch; inside wings, Moorehouse, Irvine; middle wings, Moore, Henderson.

'Varsity III. vs. O. A. C. II.

Saturday, Oct. 22, was a big day at the College it being the occasion of the annual visit of 'Varsity II. and III. football teams. Two games were played, one in the morning between 'Varsity

III. and O. A. College II. and one in the afternoon between 'Varsity II. and O. A. C. I.

The morning game resulted in a decisive victory for 'Varsity, by a score of 35 to 4. For a short time in the early stages of the game it looked as though the wearers of the Blue and Red might have a chance to win, but any such hopes which may have existed in the minds of the spectators were soon dispelled for as the game proceeded it was seen that 'Varsity were much faster and better ground gainers than the locals, consequently gaining an easy victory. Mr. Fairbairn refereed to the satisfaction of both teams.

Line-up—Full, Main; halves, Bosman, McDonald, Pawley; quarter, Creelman; outside wings, Peart, Hart; middle wings, Moore, Henderson; inside wings, Rutherford, Hare; scrimmage, Munroe, Brown, Carroll.

Afternoon Game.

The afternoon game was between 'Varsity II. and O. A. College I., and once again we have to chronicle a decisive victory for 'Varsity.

A large number of spectators from the city were present to witness this game, and incidentally cheer the locals on to victory, but it was a very orderly crowd that stood out in the rain and cold, for apart from trying to keep warm and dry, there was nothing to excite one's curiosity to do deeds of violence.

It is the old story over again of being simply outclassed at every stage of the game. 'Varsity showed great class, for from start to finish they were

complete masters of the College team, and wherever a weak spot could be found on the College line there 'Varsity were sure to be and invariably went through for good gains.

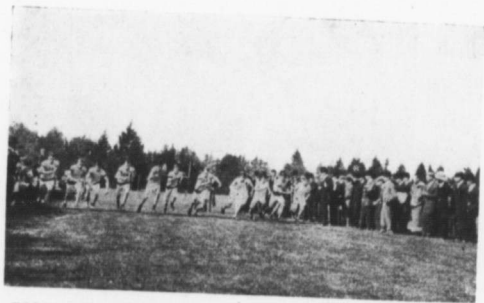
The game was a clean one in every particular, not a player of either team being injured. The 'Varsity backs were very fast and great ground gainers. They were sure catchers and good punters. The wing men and scrimmage worked together like clock work, and on punts the wings were down on the College backs almost with the ball.

wings, Carpenter, Moorehouse; middle wings, Murray, Steckley; scrimmage, Smith, Johnston, Toole; spares, Baldwin, Thomson, McAleer.

Medley Relay.

At half time of the afternoon game a Medley Relay was run as an added attraction. Three teams were picked composed of five men each. The first man ran 100 yards, the second 220 yards, the third 440 yards, the fourth half a mile and the fifth a full mile.

A great deal of interest was taken in this race, especially by the students. It helped wonderfully to keep the spec



COLLEGE FIELD DAY—"START OF THE HALF-MILE."

Promptly at 2:30 o'clock 'Varsity made their appearance on the field and were followed a few moments later by the local aggregation headed by the Brass Band which made its debut on this occasion and succeeded in making a very favorable impression in spite of the fact that they had but two practices.

Coryell, of the Toronto Argonauts, acted as referee and was entirely satisfactory to both teams.

Line-up—Full, Palmer; halves, Fisher, Madden, Weld; quarter, Gandier; outside wings, Light, Jackson; inside

tators interested and shortened the half time period.

The winning team consisted of the following men with the respective distance each ran: 100 yards, Thompson; 220 yards, Freeborn; 440 yards, Clement; half-mile, White; mile, Petch. Time, 9:05.

The return game of the Intermediate Inter-Collegiate between 'Varsity II. and O. A. C. I. which was to have been played in Toronto on Oct. 29, was deflated by O. A. College. The scheduled game between 'Varsity III. and O. A. C. II., however, was played on

'Varsity oval and resulted in a win for 'Varsity by a score of 39 to 2.

This put the College teams out of the running in the league, and ends the football season with the exception of the Inter-Year games which will take place in the near future.

J. R. Miller feeling somewhat inclined to take his dinner away from home on Thanksgiving Day decided to betake himself to Woodstock where such men as Jack Tait, John Knox and others prominent in the athletic world were spending the day.

There was to be a big athletic meet in the town, and as some of the prizes which were on exhibition in one of the store windows looked good to Miller, he decided to take a hand in some of the events. He succeeded in winning first in quarter-mile and third in the half-mile, lost the mile in the last lap of the race when he was forced to retire because of a cramp.

Miller deserves a great deal of credit for the fine showing he made in Woodstock, for when one considers that some of America's best amateur

athletes were competing, Miller's success proves conclusively that he is an athlete of no mean repute.

Woodstock vs. O. A. C. II.

What was perhaps the fastest game of football played on the campus so far this season was that between Woodstock Collegiate and O. A. C. II. on Saturday, Nov. 5. Both teams worked for every ounce that was in them and it was anybody's game until the whistle sounded for full time.

It was a good open game. The half backs of each team were continually kept punting, for when one back division punted it was invariably returned by the opposing faction. With this and a good number of spectacular runs and snappy plays, it was a very interesting

game to watch. The only weak spot on the College team was on the line.

In the first quarter Woodstock succeeded in forcing McDonald to rouse three times in quick succession, and in the second quarter they were able to boot the ball over the dead line for a



COLLEGE FIELD DAY—"McROSTIE IN THE HIGH JUMP."



point. A spectacular run by Madden saved another and by hard playing College were able to rouge in this quarter.

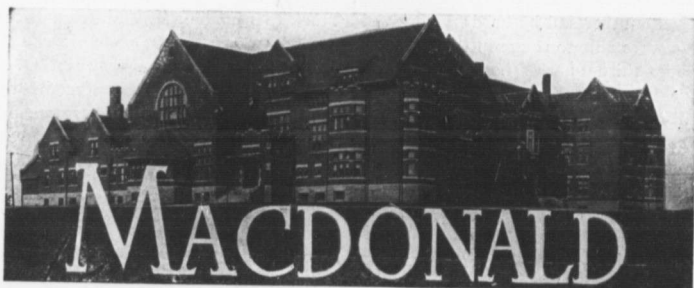
The third quarter began by Woodstock securing the ball and forcing the ball up to College twenty-five yard line where a rouge was tried for, but McDonald was able to run the ball back and in the scramble a little mixup took

place, but was quickly stopped. Woodstock then made a touchdown and converted.

The last quarter was very fast, O. A. College endeavoring to overcome the lead. Weld worked like a trojan, but the best they could do was to score a touchdown and the game ended. Woodstock 10, O. A. C. 9.



HUNDRED-YARD DASH—LAWSON FIRST.



How We Kept Christmas at Pynchon

AN air of expectancy, and some thing of impatience, too, hung over the First Grade Primary of Pynchon School on this crisp December morning. Miss Hooker was late this morning of all others; and the eyes and ears of all nations, for Pynchon was located in the most congested district of a large city, were on the alert for her expected step, and the opening door that would herald her coming.

Miss Zeisler, the cooking teacher, whose room was next door, but who had no class till 10 o'clock, had opened school, telling them that Miss Holman would be a few minutes late; and she was now holding the class until her arrival by reading to them. Ordinarily the thrilling adventures of "Peter Rabbit" and "Farmer Brown" would have held them with an absorbing, undivided interest, even if they did know it almost word for word; but not to-day, when any moment might bring Miss Holman, their own real teacher, whom they loved with a singleness of devotion, typical of the children of the

foreign poor; and who, furthermore was to-day to lead them out into the "Promised Land of the Kindergarten" and the Kindergarten Christmas Tree (to which they had been invited). That is, they were to go if they were good and surely Miss Holman would think they were good this morning, for not a single black mark need go down in the book that recorded the sins of belated comers. Even poor Cefia, slow of body and slow of mind, who was never known to be on time, unless dragged in on the last stroke of the bell, by Mr. Lewis, the kindly janitor, had actually arrived, of her own initiative, five minutes before opening time. And such straight little rows of clear and shining faces faced the door—clean in the comparative sense of the term, for a ring like a halo, though not of the same hue, marked the limits of the morning toilet performed in "Little Italy," and its environs. But the most critical must have approved, and perhaps envied the happiness shining in the little faces, intensified, just when it was likely to



give way to anxiety, by the eagerly expected opening door and arrival of Miss Holman.

She brought with her a whiff of keen, fresh winter air, and a feeling of Christmas, as she stopped to deposit an armful of bundles on the table, and turned to meet their "Merry Christmas" with a face as bright as their own. Her things laid aside, a few words to the now unregarded but faithful reader of "Peter Rabbit," and Miss Holman turned to face her flock, to see if all were there. Indeed they were! And in real holiday attire! There was little Josie Zimmerman in the front row, an inhabitant of the Land of Israel, across the railroad tracks, with such a clean face that the bright curls seemed brighter, and the dark eyes darker, than ever before. And both stockings were tied up with string, one ordinarily had suffered disruption on the way to school; and his tiny suspender, there had never been but one in Miss Holman's acquaintance with him, mended, and secured against accident by a bit of tape. Nearby sat Willie Hoge, whose face was as black as Charlie's eyes; his costume completed by a diminutive vest and long-tailed coat, obtained from goodness-knows where, which made him look like a little, old man, but quite puffed him up with pride. And "Polka Dot!" Well "Polka Dot" was gorgeous as might have been expected; for "Polka Dot's" mother, a hard-working woman in one of the factories, with this one ewe lamb with her bright, black eyes, bobbing curls, and small, piquant face, spent her all, not wisely but too well, in keeping this wee bit of humanity clothed and cared for like a lady's child.

But a hurried survey could not take in all the details of a special toilet so carefully prepared, and almost immediately came the signal to go—a pounding, twice repeated, of something heavy on the floor above. A quick word of command and the children were out of their seats, formed in lines, and soon following Miss Holman through the halls and up the stairs to the floor above. Mr. Lewis paused in his occupation of sweeping out the snow tracked into the halls, to watch the jolly little procession pass; and at the head of the stairs they found others interested—a passing teacher, the char woman, and Miss James, the Kindergarten helper with all the little Kindergarteners about her waiting impatiently for their class-room door to open.

At last it came—and with it the sweet, aromatic odor of pine and hemlock boughs, tacked up around the room by Miss Edith's boys in No. 4, who had tramped a long distance to add this contribution to the occasion. And who can say what were the emotions and impressions of the children as they filed into the transformed and softly lighted room, and saw the Tree, standing in the centre, a glistening, shining joy! Little Aurora Le Roy, shy and gentle, with the softest of large brown eyes clasped the rag "Jimmy" she had been allowed to bring with her from the play-room, closer in both slender arms, and stood at gaze, in a dazed wonder that left her quite unconscious of the other children, who danced around and tumbled over her in their more exuberant joy.

Then when the hubbub had subsided a little, Miss Low, (in charge of the

Kindergarten) formed them in a double ring, and hand in hand they circled the Tree, singing the "Song of the Bells" and other Christmas carols learned during the last few weeks; while other classes came in to see the Tree then filed back and out again to the enjoyment of their own special programmes.

Then, because the children all agreed that it would be nicer to let the Tree stand untouched a little longer, and because they loved the stories Miss Low sometimes told them, they all gathered round her in a group; at her feet, in the little wooden chairs; wherever they could see and hear, to listen to the Christmas story. On the blackboard over the sand-table, she had a beautiful illustration of her text, in the blackboard drawing of the "Mother and Child" put on for them the week before, by Miss Pierson, the Drawing Supervisor. It was really a work of art. And so, with it before them, softened and illumined by the artificial lights, the story was begun.

The Three Wise Men had just come into the tale, when an eager little voice from the ranks interrupted it—"Say, Miss Low, I c'n tell you de story 'r dem wise mens." Miss Low stopped, recognizing the voice of Willie Hoge, her one-time pupil, now in the First Grade.

Now, as it happened, Willie had recently been working under a cloud, for on Monday he had been kept in and punished for slapping Cynthia, his sister—also in the First Grade. That he had suffered sufficient provocation in Cynthia making a face at him and calling him a "brack nigger," Miss Holman did not seem to see, and he feared

his misdeeds and disgrace might have reached Miss Low's ears. Now he saw a chance of perhaps redeeming himself in their eyes, but it was a quivering little voice that responded to Miss Low's kind—"Well, Willie, you shall tell us, come and stand here by me, so everyone can hear you." And it was not until Miss Holman smiled encouragingly at him—she had not done so in two days—that his courage really came to him, and repeating the "Once upon a time," with out which no good story is ever begun, he went on bravely.

"Once upon a time, de was tree wise mens; an' one of 'm lived in one coun try, and—one of 'm lived in a'nodder country, and—one of 'm lived in a' nodder country,—like dat. An Our Farder, he say to de tree wise mens, 'get'r gait on yer, de Baby Jesus he born in Beflem—is dat de place"—a nod from Miss Low—"So den de tree wise mens go out an' buy 'emselves hump-backed camels, like de circus—to ride on. An Our Farder, he puts a star in der sky to show 'm de way. An' dey ride—an' dey ride—an' dey ride, an' b'ime by dey come to a house, a trr'ble long way off, an' dey knock at de do' an' a lill' girl she comes to de do' an' she cry right out 'Oh, mama, mama, here's de tree wise mens come to fine de Baby Jesus an' tote him back wid 'em' an'—an'—just here Willie's eyes fell on Cynthia the source of all his woes, and it was too much even for his brave attempt, and without any more to do he fled to Miss Holman to hide his face in her lap. So he could not see her face but he felt her hand stroke his kinky little head, and he heard Miss Low say, "Well done, Willie, you told that very nicely," and



peace settled down on his troubled soul.

Then Miss Low took up the narrative and told them, very simply and sweetly the story of the birth of Him who gave to mankind the greatest gift they have ever known, and who laid his blessing for all time upon all who give sincerely. Then, for the time was passing, they sang their Manger Song:

"Sleep, little Baby Jesus,

In Thy bed of hay,

While the shepherds homeward

Journey on their way."

and gathered close about the Tree for the gifts it held for them. A rich harvest it yielded. For the First Grade Primary there were mittens, made in assorted sizes, from two pieces of bright red canton flannel, overhanded together by the patient fingers of the Kindergarteners. For every one there was a little stocking made of coarse web by the First Grades, and filled with candies and nuts, the candy con-

tributed by one of the cooking classes, the nuts from an unknown source. There were queer knobby-looking bundles, tied with bright crewels or colored cord; these were the children's gifts to father and mother, tied up and ready to be taken home; raffia frames with a penny picture of the Sistine Madonna inside, mat, blotters, holders overcasted with gay yarn, and the many things labored over long and patiently in the past few weeks in anticipation of the day. Then followed strings of pop corn, shiny apples and big juicy oranges, and a spray of holly for everyone—and with hands full the children crowded around the door, for a last good by and "Merry Christmas." Then there was a sound of many little feet on the stairs, a whoop and shout as the open door was reached, and the narrow street was filled with children, scattering in all directions, the red mittens making a beacon light as far as you could see them, and Christmas at Pyncheon was over.



A MACDONALD PICNIC.



Among Ourselves

The Chrysanthemums.

Macdonald Hall girls are accorded many privileges during their sojourn on College Heights. Among those enjoyed during the late autumn months, the display of chrysanthemums—the star-eyed daughters of the fall—ranks high. They tell us there are almost one hundred varieties in the green houses. On all sides something new and beautiful may be seen. The blossoms vary in size, in shape and in color. To the horticulturist many other differences are apparent but to us the main difference lies in the varying degrees of beauty.

The large pompom blossoms attract our attention first. Some flowers are gaily colored, some pure white and some shaded most delicately; some are double, loose or single; some stiff, flopping or erect. Others remind us of the Ox-Eye daisy, the "One I Love, Two I Love" of childhood. They are white with yellow centres and simply cover the parent bush with bloom. The Golden King, a solid golden ball, is another favorite.

The chrysanthemum, the Royal flower of Japan, has been cultivated in the Celestial Empire and in the Mikado's kingdom from almost prehistoric

times. The Imperial Order of the Chrysanthemum is the most distinguished decoration of the Japanese Empire and the name most frequently given to girls in Japan is O. Kiku-san which means Honorable Miss Chrysanthemum.

The Japanese names aptly describe this flower—"Look at the Princesses



of the Blood," in a long, stately row, tall and graceful, their proud flowers resplendent and white as the driven snow; or see Ake-no-sora, the "Sky at Dawn" with a pale pink flower the color of cherry blossoms; or Asa-hi-nami, "waves in the Morning Sun," because it has a pale, reddish blossom; also Yu-hi-kage, "Shadows of the Evening Sun," with dull, red blooms, and finally the pure white "Companions of the Moon."

A pretty story is told of two brothers who had always lived together in the north of Japan. The time came for them to separate. They wept bitterly at parting and said that each would keep the half of a Chrysanthemum plant in memory of the other. The brothers planted the halves in two gardens, one in the north, the other in the south, but the blossoms kept the shape of the half of a Chrysanthemum for ever. —I. S.

Athletics.

Owing to a specially capable and enthusiastic president, an untiring executive and an unusually sporty crowd of girls, the Mac Athletic Association has gained a popularity unknown in other years. The membership numbers over eighty, about four-fifths of the students.

The first event of the season was a paper chase, the members of the executive acting as hares. More than thirty hounds turned out, and the chase was fast and furious through the dairy woods, over ploughed fields and into a very gooey swamp. Here the hounds became confused, but in an open stretch just beyond, came suddenly on the exhausted hares stretched panting on the ground.

Our fall tennis tournament was written up in a previous Review, so only a brief word here in that connection. At no time in the history of Mac. has excitement reached such a pitch as at this tournament. Hundreds of spectators thronged the campus and struggled madly for the best positions. At the finals, the shouts of the onlookers, cheering on the players, could be heard for many a mile. At times the silence was intense, and then at a decisive

stroke, a burst of applause would break from the frantic crowds. Miss Shaw now holds the championship for the school. Miss Lightbourn and Miss Martin, after a marvellous exhibition of combination are winners of the doubles.

Several good tramps have been held, the most enjoyable being a visit to the new prison and its inmates. Here the girls spent a pleasant hour renewing old friendships, and making some charming new acquaintances.

The most important event of all was our Field Day, October 21st. It made the efforts of our brothers across the campus sink into insignificance. With fear and trembling the venture was begun as it was the first thing of the kind for Mac. The cautious executive reserved their own entries so as to be able to fill up those which proved unpopular. Imagine their confusion and surprise when each member of the Association with one accord entered every event. Fancy having to run the hundred yard dash off in ten heats! Thus it was found necessary to limit each girl to five entries.

From every standpoint the day was successful. The first event was run off promptly at 2, and the whole programme covered less than three hours, with none of the confusions and delays which might naturally have been expected. Only two unpleasant things happened. The weather was raw and cold and the O. A. College men, though cordially invited to stay away, appeared in full force. However they looked on at the animated scene open mouthed, in dumb amazement at the marvellous agility, speed and endurance exhibited.

A pleasing feature of the afternoon

was the handsome brass band, composed of the special gym class. Their uniforms were stylish, unique, chic, the music inspiring to the last degree. In addition to providing such entertainment they kindly and effectively blocked the view of the uninvited on lookers, and we take this opportunity of thanking them for helping the success of the day.

Quite a sensation was caused when in the baseball throwing contest an O. A. College man was accidentally

long remember the expressions of the competitors; confident, doubtful, determined, despairing, triumphant, agonized.

At five all assembled in the gym, being grouped according to classes, and making the rafters ring with their respective and combined yells and songs. There was a slight delay owing to Dr. Creelman, contrary to habit, being a trifle late. The prizes were presented by him and when there was a tie for the championship a dainty little gold



MACDONALD MEDLEY BAND.

given his just desserts in the shape of a hard blow. We regret to report that this was so severe as to cause a complete collapse. However the hospital corps rushed to the spot and gave a clever demonstration of "First aid to the injured."

It is safe to say that all records were broken and the ones made this year will surely be hard to beat. Excitement was intense in the relay race, especially when one of the runners fell over the finish line in a dead faint. The most spectacular event was the walking race. Those who viewed it will

pin with Macdonald coat of arms in enamel, he most generously offered a duplicate. For this, and for his sympathy and interest in our athletics, we wish to thank President Creelman heartily.

Now that the first snow has fallen, we turn a speculative eye upward to the snow shoe dangling on the wall and think lovingly of those battered hockey skates and the joyous winter days to come.

The Hallowe'en Prom.

"All work and no play makes Jill a dull girl." If the old adage be true

there will be but few heart-rending scenes at Christmas over the prolonged Christmas vacation of the Homemakers. Thanksgiving holidays, theatre night, and the belated Hallowe'en prom., all crowded into the shortest seven days of the term, should certainly render Jill proof against all forms of dullness.

Hopeful as the freshies felt after the novel excess of masculinity at the opening prom., their little hearts sank when they learned from the experienced seniors that they would be the mural decoration on this occasion.

Precisely at 7:29 arrived Baby Scott in charge of Nurse Mollison with Buster Brown and his cart to amuse him, until the ladies should deign to present themselves. The next half hour presented a dazzling scene as the ever-arriving gallants mixed with the ever-descending maidens, exchanging programmes and identities. Juliets and Martha Washingtons looked for their Romeos and Uncle Sams, but found schoolboys, hobbleskirts and cooks.

It must be confessed that some of the freshies forgot their coaching to the extent of promising five extras. When all had assembled there were about two hundred couples, knights and ladies of the past, present and future, Indians, witches, sportsmen and Orientals interspersed with various old fashioned flowers, among which the old fashioned wall-flower bloomed gaily.

In the course of the grand march they made their way up the south

stairway to the gym. where seats had been placed on the platform for the guests of honor. The sight here presented was one of kaleidoscopic brilliance. The Prom. Committee, dressed as witches, led the procession, which proceeded twice around the gym. and then formed a square in the centre of the room, where six couples went gracefully through all the movements of the quaint old minuet. The driving contest was another feature which excited much interest, Mr. Dougal with his tandem carried off the red ribbon, and Mr. Madden with his graceful Grecian pony, the blue.

The dining-room, where ladies of the early sixties dispensed coffee, ices and other dainties, was decorated in real Hallowe'en style. Piles of ruddy apples, interspersed with watermelons holding numerous candles, filled the tables. When the lights, from long habit, went at half past ten, the semi-darkness only added mystery to the usual witchery of the hour.

Many were the anxious glances in the direction of the clock during the last hour. Some wondered how many more "extras" it would be possible to crowd in, while those in the cozy corners thought they might as well stay where they were for another half hour, oblivious to the entrancing strains from above. Long after the usual hour when the O. A. College swain were homeward plodding their weary way the fair sex at the hall were living in anticipation the delights of the "Merry Widow."

Much Ado About Nothing

Jokes (Labeled)

Miss M.—What kind of a boy is he?

Miss S.—O, he once had religious inclinations, but he's all right now.

Miss S. (in dem.)—Put the knife in the pudding and if it comes out clean it is done.

Query—The knife or the pudding? which reminds us of the following:

Bridget—Please, mum, how can I tell if the pudding is done?

Mistress—Stick a knife in it and if it comes out clean it is done.

Master—And by the way, Bridget, if it comes out clean you might stick the other knives in it.

The Senior Normals are being instructed as to what to expect in the way of answers in teaching the young to shoot.

Q.—Who was Columbus.

A.—The gem of the ocean.

Q.—What are the constituents of milk?

A. — Fat, proteid and hayseed (casein).

Primary Class in Sunday School, singing sweetly "The greatest sinner may return."

The child with the enquiring mind—"Please, who is Mary Turn?"

Also of the appalling ignorance encountered in slum districts.

Distracted Mother—The doctor says he won't let me keep my baby if I feed it cabbage. Do you think he would mind if I gave it a little sausage?



ON PUSLINCH LAKE.



Schools' and Teachers' Department

Devoted to those interests of the Ontario Agricultural College which pertain particularly to the training of teachers for giving instruction in the schools of the Province along vocational lines—in Home Economics, Industrial Arts, Elementary Agriculture and Horticulture.

A report on the work being done in the Toronto schools is given in this issue.

TORONTO
TEACHER
TECHNICAL

PUBLIC
PARENT
PHYSICAL

SCHOOLS.
SCHOLAR.
SPIRITUAL.

The Teacher's Creed

I believe in boys and girls, the men and women of a great to-morrow; that whatsoever the boy soweth the man shall reap. **I** believe in the curse of ignorance, in the efficacy of schools, in the dignity of teaching, and in the joy of serving others. **I** believe in wisdom as revealed in human lives as well as in the pages of a printed book, in lessons taught, not so much by precept as by example, in ability to work with the hands as well as to think with the head, in everything that makes life large and lovely. **I** believe in beauty in the schoolroom, in the home, in daily life and in out-of-doors. **I** believe in laughter, in love, in faith, in all ideals and distant hopes that lure us on. **I** believe that every hour of every day we receive a just reward for all we are and all we do. **I** believe in the present and its opportunities, in the future and its promises and in the divine joy of living. Amen.

Edwin Osgood Grover.





GIRLS IN DOMESTIC SCIENCE CLASS—TORONTO PUBLIC SCHOOLS.

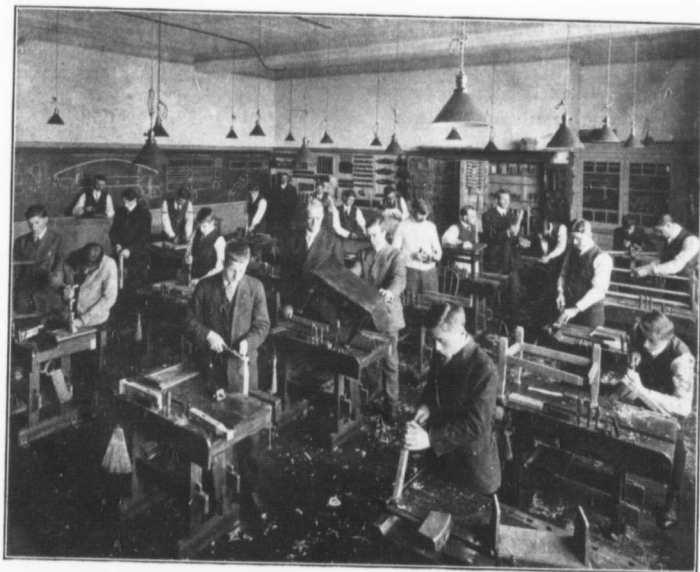
HOUSEHOLD SCIENCE.

Household Science has been steadily growing in favor in the City of Toronto. At the present time there are ten centres at each of which fifteen classes of twenty-four girls each receive instruction every week. The girls are taking the keenest interest in the work, the chief aims of which are:—

1. To assist the pupil in acquiring a knowledge of the fundamental principles of good living.
2. To co-ordinate the regular school studies so as to make a practical use of knowledge already acquired.
3. To inculcate by means of practical work, habits of neatness, promptness and cleanliness.
4. To give a broader and nobler conception of all household work.
5. To develop the reasoning and the creative powers.
6. To make good citizens.
7. To give a definite knowledge of the principles involved in Household Science and Sewing—that a pupil may have confidence in her ability to do work—that she may learn to accept responsibility.

The following is the work covered in the Household Science Course:—

1. Discussions of the home and its functions.
2. A detailed study of the methods of cooking, the effects of heat upon common food materials, and simple food combinations. This includes a study of broiling, simmering, boiling, frying, baking, etc., and the simple cooking of fruit, vegetables, cereals, milk, eggs, meat and fish, also the making of flour mixtures, soups and puddings.
3. Preparation of simple meals, including marketing, table-setting, serving and table-etiquette.
4. Lessons in general housework. In sewing the following stitches are taught: even and uneven basting, running stitch, back stitch, hem-stitching, etc. These are used in making mats, needle-books, hankerchiefs, bags, doilies, etc. The girls are also taught to make a hemmed patch, stocking darning and dress darning.



AN EVENING CLASS IN ALEXANDRA SCHOOL.

MANUAL TRAINING IN TORONTO.

With schemes for industrial, technical, trade, and vocational training occupying the forefront in present-day educational discussions, the opposition to Manual Training has entirely disappeared. The artisan, the manufacturer and the parent are now agreed with the school-man that Manual Training is important both as a utility and as a developing factor in education. Discussion and difference of opinion are indications of life and a desire to improve. The argument has, however, now shifted to the camp of the experts where topics relating to materials to be used, the age to commence, suitable training for girls as well as boys who must begin to support themselves at fourteen years of age, supplementary training at night, the half-day at school plan, qualifications of teachers, and other kindred themes are evidences of much that has still to be done.

Toronto boys and girls commence Manual Training in the First Class, where objects interesting to the child are made of paper and light card-board. This is continued in the regular class-room under the direction of the grade teacher with the gradual introduction of heavier and more varied materials to the end of the Third Book classes. The girls then study and practice Home Science under the direction of specialists, and the boys go to Manual Training shops. These are equipped with small work-benches and tools and will accommodate twenty boys at a time. The objects made are in great variety, from a handkerchief box of basswood to a library table, or a writing desk of oak. Some metal work has been done, this being in a state of further develop

ment just now. Each Manual Training teacher has three classes each day. These come to him from the surrounding schools. There are at present in Toronto, six such centres which afford training for 1,800 boys. Four additional centres are being equipped which will accommodate 1,200 boys in out-lying schools not now provided for.

A recent gratifying development of Manual Training, has been the demand for night classes for young men. From a beginning three years ago of one class for two nights each week, the movement has grown until this year, there are five centres each open for three nights each week. Some of the students are business men and attend these evening classes through a desire to master elementary tools and processes and produce a few good pieces of furniture. Others, however, are mechanics, who have reason to believe that with the extra knowledge and training which they can secure in mechanical drawing and tool work, they will be more valuable to employers, and will themselves be in a position to obtain better wages.

Thoughtful educators are to-day grappling with a great problem—the problem of education for work. With its many aspects and with its far-reaching importance this problem deals not only with the details of industrial efficiency, but also with the principles underlying the social happiness of a great industrial democracy.

SCHOOL GARDENING.

Bolton Avenue School's Home Gardening.—During the past season, the teachers of Bolton Avenue School carried out a scheme of Home Gardening with pupils from all the grades. In all 263 pupils purchased seed and entered into the work, this number representing about one-third of the children of the school. On the whole the experiment has been considered auspicious and leads the teachers to see valuable uses for garden work in the education of the children in the school, and also for a co-operation with parents in improving the back yards of city homes. It is the intention of the teachers to continue the work next season with modifications which last season's experience suggests as advisable.

A Fall Fair was held in the school on September 15th, and proved very successful. About one-quarter of the children who took up the garden work exhibited samples of their products. Large numbers of visitors attended and showed by their interest that the work had the approval of the parents. Mr. McPherson Ross, a director of the Horticultural Society, acted as judge and awarded prizes for the best flowers or vegetables shown in each class. There were awards made for the best kept garden plots and the best kept journals also, the first and second winners of the competition for journals were Merle Coppe and Elsie Stevenson. The pupils of the school evinced an interest in their first "Fair" that augurs well for better gardening in the years to come.

In carrying out the work of inspecting the children's gardens, the teachers received the hearty encouragement and practical support of the Toronto Horticultural Society. The report of the committee which was appointed to act with Misses Winn and Moffat included many good suggestions for this line of work in connection with town or city schools. This work is reported at greater length in the December **Schools' and Teachers' Bulletin**. A copy of this may be had by applying to the Nature Study Department, Macdonald Institute, Guelph.



O. A. C. Departmental Ditties—No. 2.
(Physics Department)

'Twas Mr. D-y with chain and staff
Who hopped across the way;
The field beyond the campus he intend
ed to survey,
Behind him came some sophomores,
one had a dumpy level,
The things this lad was saying had
been prompted by the devil.

They planted rows of stakes about,
each was a perfect line;
But quite forgot the presence of some
College dairy kine;
These docile beasts, 'tis sad to say,
found evident delight
In rubbing up against these stakes,
and sent them left and right.

When Mr. D-y with chain and staff
led forth his class again,
And gazed upon the mournful sight, he
seemed to be in pain;

The thing which made me wonder
most was why he didn't swear,
But being a professor, I suppose he
didn't dare.

When Mr. D-y had thought a while, a
smile his face o'er spread;
I knew his brain was working as he
stood and scratched his head.
He turned around and beamed on us,
and this is what he said:
"I'll just get R-d-y G-h-m out to take
the class instead."



What is the difference between a
foreign born and a native Canadian?

According to the latest economic
views on the subject, the main differ
ences are that the former is a Canadian
from choice, while the latter is one of
necessity, the former did bring some
thing into the country with him, viz:
his trousers, while the latter came into
the country with absolutely nothing.



Gems from Union Debate.

Howes—Co-education is a decidedly dangerous experiment. It might even lead to the Macdonald girls practicing sophomore yells, with disastrous results.

Dougall—These institutions cannot impart the knowledge necessary to women, because they are still in their infancy.

Clark (after rendering speech)—Don't you think I proved my case, Miss B?

Conscientious Maiden—Really, I don't quite know, Mr. Clark, but at any rate you made it highly probable.

Bramhill—Women will be despoiled of those characteristics which are exclusively hers: that dignified air, that modest, reserved demeanor, that graceful bearing, that grand, elevating, ennobling character, which shows us how divine a being a woman can be.

This may be all true, but we fancy

Bram. is a trifle prejudiced in his opinions. You will probably have noticed that absent expression in his eyes lately.

Fraser (moralizing)—True friendship is very beautiful, it is the spice of life. Observe Johnston and Barrett, you never see them apart. They hang together like a pair of twins.

Bill Moore (unsympathetically)—Yes, they hang together alright, and it's my belief that someday they will hang separately, and serve 'em right.

Visitor—So your boy is in College, is he?

Farmer—I can't say exactly. He's in the football team and in the gymnasium, and in the literary society, and poultry club, but whether he's ever in the College, is more than I can find out by his letters.—Harper's Bazaar.

Professor Dean (in dairy lecture)—What is the article manufactured by the addition of lye to grease.

Bower (promptly)—Cheese.



Cooke—I'm growing a moustache now, Miss W—

Miss W. (absent mindedly)—Yes, so I've been told.



The state of Wade Toole's health is causing serious anxiety. He is evidently in a decline, eats hardly anything at all lately, and is no sooner in the dining hall than he is out again. Mr. Jackson remarked to him the other day at the dining room door, "If you don't take care, Toole, when you're coming in one of these times you'll be meeting yourself coming out."

Either he is taking his meals according to Spiritualistic ideas or he is in love.

In either case we would like to recommend as an infallible cure a patent medicine much used and admired by Vernon King. King waxes very enthusiastic over its merits and administers the drug to all and sundry on every opportunity. You know he is writing his thesis on the "extermination of cockroaches." Well, the other day he came rushing into a drug store down town in a state of great excitement and said, "Quick, I want another bottle of that Heterogeneous Compound, same size as I got yesterday. I gave that to a cockroach and he is very sick indeed. I think this bottle will finish him. Thanks," and off he bolted.



Dr. Reed (explaining to Freshman class the circulation of the blood)—Now, if we got Hales to stand on his head, the blood would immediately rush downwards and make his face red, but when he stands on his feet the same thing does not occur.

Jowsey—No, his feet aint empty.

After the Masquerade.

Ellis—What in thunder did you put this indigo ink on my face for, Darling?

Darling—I understood you wanted a lasting effect.



Professor Reynolds (taking class in Shakespeare)—How would you describe Orlando's state of mind in this scene, Mr. Ackers?

Ackers—He was hungry.



Music hath its charms.

Women's Rights.

Hextall (to Pope, who boards out)—Are you going out to-night, Pom pom?

Pope (embarrassed)—Well, you see, the girls call for me now-a-days, so I can't say for sure.



Landlady—Do you chew tobacco?

Student (applying for rooms)—No madam, but I can speedily procure you some at the store around the corner, if you will wait a moment.

Pickett—A chemical substance that absorbs water from the air is said to be convalescent.



Scott—Why does your dog turn round so many times before he lies down, doctor?

Dr. Reed—Why, because one good turn always deserves another.

President Creelman (addressing Freshmen)—Some of you are only sons, and have not had the knocking about that the other boys of the family have had.



Solomon—Mr. Jenkins, I want to take a girl over to the Union Debate to-night. I hope I have your permission, as president of the second year.

WINDSOR DAIRY SALT

“Expect to get the prize for the best butter, this year?”

“Of course I do.

I have the best cows in the country—and here’s my Windsor Butter Salt.

You can’t beat that combination.

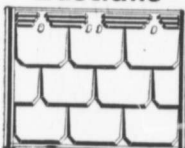
You know, I have won first prize for the best butter ever since I began to use Windsor Butter Salt”

“Hope you win”

“Thank you, so do I”

41



"Eastlake"**Steel Shingles**

House roofed with "Eastlake" Shingles 23 years ago!

and the roof is in perfect condition to-day. That is the one SURE proof of quality—the test of time.

The superiority of "EASTLAKE" STEEL SHINGLES is emphasized again and again.

This is the roofing for you—the roofing you KNOW will last a lifetime.

Read the following letter:

Rosebank Farm,

Manilla, Ont., Dec. 25th, 1909.

R. Taylor, Esq., Seabright, Ont:

Dear Sir,—In reply to your enquiry of the 21st inst., I beg to state that I roofed my dwelling house twenty-two years ago last fall with "Eastlake" Shingles made by the Metallic Roofing Co., of Toronto. They have given excellent satisfaction. They have never leaked, nor have the cleats turned down.

Three years ago the Township of Brock built a new town hall and the Council appointed a committee of some of the largest ratepayers and the men of most experience to investigate the claims of the different makers of metal shingles. After giving it very full and careful consideration, they unanimously recommended the "Eastlake" Shingle, which was used with very satisfactory results.

Yours very truly,

(Signed) HY. GLENDINNING.

Mr. Glendinning is President of the Eastern Ontario Dairy-men's Association, and is well-known throughout Ontario as a lecturer to Farmers' Institutes under the auspices of the Ontario Government.

Mr. Taylor, of Seabright, has since ordered "Eastlake" Shingles.

Write for our interesting booklet "Eastlake Metallic Shingles." It gives reasons for "Eastlake" superiority.

Manufacturers of Metallic Building Materials.



A55

WIRE FENCE at Factory Price

Why don't you buy your fencing same way as United States farmers—direct from factory at one small profit. I can sell you any kind of fencing (gates too) you want and save you jobber and agent's profits. Get my prices—I pay the freight—give you bank reference and guarantee satisfaction or money back. Only Canadian firm selling fencing this way. Over 15 years at it in Canada." Send a post card for my free booklet today.

E. L. DYER, Manager Crown Fence & Supply Co., TORONTO, Canada

WE MANUFACTURE

PEEP SIGHTS

For use on home-made draining levels, as designed by Professor W. H. Day.

H. Occomore & Co.

GUELPH, ONT.

COLLEGE STORE
CANDIES, CIGARETTES,
TOBACCO, Etc., Etc., Etc.
CORNER OF CAMPUS.

31,795 ASPINWALL

Potato Planters made and sold up to August 1st, 1910, by

ASPINWALL MANUFACTURING CO.,
112 Sabin Street, Jackson, Michigan.
Canadian Factory, Guelph, Ontario.

WORLD'S OLDEST AND LARGEST MAKERS OF POTATO MACHINERY.

Write us for our new 1911 catalog.

ERNST M. SHILDRICK,
Teacher of Singing.

Pupil of Van der Linde of New York.
Studio, Opera House Block.
Phone, Studio 625.

Phone, Residence 697.

Waterloo Engines and Threshing Machinery

Have an established reputation from coast to coast.



WATERLOO CHAMPION

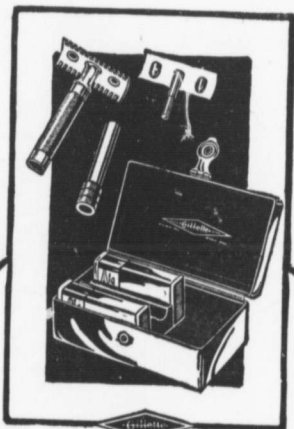
Waterloo Separators Have Best Grain-saving Devices Known.
Waterloo Engines Are Up-to-date and Strongest Pullers on Earth.

Write for Catalogue "o." Mention this paper.

The Waterloo Manufacturing Co., Limited, WATERLOO, ONT

Branches: Portage la Prairie, Man., and Regina, Sask.

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No
HoningNo
Stropping

A Product of Brains For Men of Brains

THE keen, quick, business-like directness of the GILLETTE appeals to the man who knows and appreciates a time-saving tool or a clever piece of machinery when he sees it.

With the GILLETTE there's no time wasted in honing, stropping or fussing with a complicated shaving device. You simply pick up the GILLETTE—and shave.

And such a shave!

The GILLETTE blade, thin enough to take a perfect temper, yet held absolutely rigid in the handy GILLETTE frame, and adjustable to any beard, shaves as no other razor can shave.

The GILLETTE changes shaving from a time-consuming ordeal, to be endured as seldom as decency will permit, to a pleasant three-minute incident in the toilet. It enables a man to always look and feel his best—and yet preserve his face and temper.

Standard Sets \$5. Pocket Editions \$5. to \$6.
Combination Sets \$6.50 to \$25.

At Hardware, Drug and Jewelry Stores. Look for the big GILLETTE Signs—they show you where to buy.

Gillette Safety Razor Co. of Canada, Limited
Office and Factory, 63 St. Alexander St., Montreal.

TRADE

Gillette

MARK

203

KNOWN THE

WORLD OVER

Please mention the O. A. C. REVIEW when answering advertisements.

The Weekly Cross-Country Run took place after chapel last Sunday. It resulted in a win for Bosman, paced by young lady from Macdonald Hall. The winner finished quite fresh. His time was:

Dairy Corner, 5 minutes.

Professor Zavitz's house 30 minutes.

Carpenter Shop, 55 minutes.

Macdonald Hall, 76 minutes.

Also Ran—Britton, Revell, Wright, Jarvis, Jeffries, Auld, King, similarly paced.

Jarvis made a false start and Jeffries was hampered by his umbrella.



The question was asked in second year botany exam., 1909, "What is a drupe?"

One answer read, "A drupe is a fruit like an apple which hangs on the end of a branch and makes it drupe."

THE FONTHILL NURSERIES

Established 1837

Grows Quality Stock
Special Lines for Spring
Delivery 1911

PEERLESS APPLE
BALDWIN CHERRY
DWARF PEARS
MAYNARD PLUM
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IDEAL ASPARAGUS

Send for circulars with full description. Agents Wanted.

STONE & WELLINGTON
TORONTO - ONTARIO

"Lots of People" like to insure in mutual life companies because in such companies they get the best results, and because the largest, strongest and best life companies in the world are, like the

MUTUAL LIFE OF CANADA

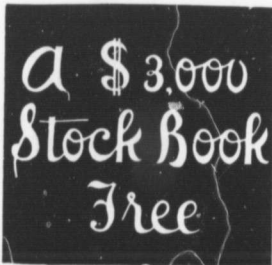
purely mutual. The sound financial standing of this Company is beyond question, as is also its ability to write policies on every safe and desirable plan on terms favorable and just to applicants.

GEORGE CHAPMAN, District Manager,

Office 8 Douglas Street,

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Contains 183 Large Engravings.

This book cost us over \$3,000 to produce. The cover is a beautiful live stock picture, lithographed in colors. The book contains 160 pages, size 6½x9½, gives history, description and illustration of the various breeds of horses, cattle, sheep, hogs and poultry. Many stockmen say they would not take five dollars for their copy if they could not get another. The finely illustrated veterinary department will save you hundreds of dollars, as it treats of all the ordinary diseases to which stock are subject and tells you how to cure them.

MAILED FREE. POSTAGE PREPAID.

Write for it at once and answer the following questions:

- 1st—Name the paper you saw this offer in.
2nd—How many head of stock do you own?

ADDRESS AT ONCE.

International Stock Food Co.

TORONTO, CANADA,
Sole Manufacturers of

INTERNATIONAL STOCK FOOD

THREE FEEDS FOR 1 CENT

INTERNATIONAL STOCK FOOD, 3 FEEDS FOR ONE CENT, is a purely vegetable MEDICINAL preparation composed of roots, herbs, seeds, harks, etc. It is equally good and very profitable to use with horses, colts, cattle, cows, calves, hogs, pigs, sheep or lambs; because it purifies the blood, tones up and permanently strengthens the entire system, keeps them healthy and generally aids digestion and assimilation, so that each animal obtains more nutrition from the grain eaten. In this way it will save you grain and MAKE YOU LARGE CASH PROFITS. You don't spend money when you feed International Stock Food. You save money because the GRAIN SAVED will pay much more than the cost of the International Stock Food. Refuse all substitutes and get paying results by using only the genuine International Stock Food.

THREE FEEDS FOR 1 CENT

Dan Patch Mailed Free

When you write for Stock Book mentioned above ask for a picture of Dan Patch 1:55, and it will be included free of charge.

International Stock Food Co.

TORONTO, CANADA.

The Canadian Route to the West

When you travel to Winnipeg, Western Canada or the Pacific Coast, be sure your ticket reads via the route that will insure you the most comfortable trip. The following reasons prove the superiority of the

Canadian Pacific Railway

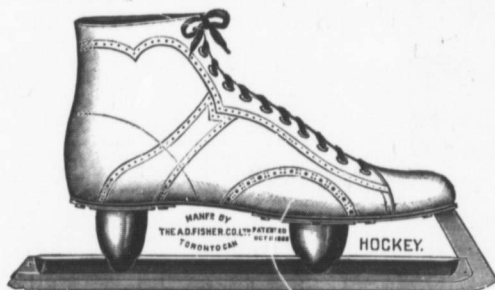
1. The only through line; coaches, tourist and standard sleepers daily to Winnipeg and Vancouver.
2. The shortest and fastest route; unexcelled equipment.
3. The avoidance of customs and transfer troubles.

ASK ANY AGENT
FOR PARTICULARS



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College Athletic Outfitters



HOCKEY BOOTS

\$2.00 \$2.50

\$3.00 \$3.50

\$4.00

HOCKEY SKATES

\$1.25 to \$5.00

HOCKEY STICKS

25c. to 75c.

O. A. C. SEAL

PENNANTS \$1.00



JOHN BROTHERTON



Send for Illustrated Catalog.

550 Yonge St.
TORONTO

Official Calendar of the Department of Education for the year 1910

December:

1. Last day for appointment of School Auditors by Public and Separate School Trustees. (On or before 1st December).
Township Clerk to furnish to the School Inspector information of average assessment, etc., of each School Section. (On or before 1st December).
Legislative grant payable to Trustees of Rural Public and Separate Schools in Districts, second instalment. (On or before 1st December).
13. Returning Officers named by resolution of Public School Board. (Before 2nd Wednesday in December).
Last day for Public and Separate School Trustees to fix places for nomination of Trustees. (Before second Wednesday in December).
14. Local assessment to be paid Separate School Trustees. (Not later than 14th December).
15. County Council to pay \$500 to High School and Continuation School where Agricultural Department is established. (On or before 15th December).
- Municipal Councils to pay Municipal grants to High School Boards. (On or before 15th December).
22. High Schools, first term, and Public and Separate Schools close. (End 22nd December).
25. Christmas Day (Sunday).
26. New Schools, alterations of School boundaries and consolidated Schools go into operation or take effect. (Not to take effect before 25th December).
28. Annual meetings of supporters of Public and Separate Schools. (Last Wednesday in December, or day following if a holiday)
31. High School Treasurers to receive all moneys collected for permanent improvements. (On or before 31st December).
Protestant Separate School Trustees to transmit to County Inspectors names and attendance during the last preceding six months. (On or before 31st December).
Auditors' Reports of cities, towns and incorporated villages to be published by Trustees. (At end of year).

WE SHOW MANY EXCLUSIVE MODELS
IN MEN'S AND YOUNG MEN'S
SUITS AND OVERCOATS.

that cannot be procured in this locality outside of this store.

R. S. CULL & CO.

35 LOWER WYNDHAM ST.,
THE NEW CLOTHIERS.

Fowne's English Gloves,
Christy's English Hats.
Loosescarf American Collars.

McHugh Bros. TOBACCONISTS

Dealers in High-Class Tobaccos,
Cigars, Cigarettes, Pipes, Pouches and
all Smokers' Articles.

Get a **BARON PIPE FILLER**—the
latest novelty for Smokers. Handy
and saves tobacco. 25c each. To be
had only at

28 LOWER WYNDHAM ST.

**BROADFOOT'S
RED CROSS
PHARMACY,**



Phone 381 - St. George's Square

MRS E. MARRIOTT, FLORIST.

Violets, Valley, Roses, Carnations,
always in stock.

Phone 378. 61 Wyndham St., opp. P.O.

FOR FIRST-CLASS WORK TRY

Lee Wing's Hand Laundry

57 Quebec St., Opp. Chalmers Church

Latest machinery — no frayed or
cracked edges to your linen when we
do your work.

We call for and Deliver Promptly.

HERE WE ARE
AGAIN

Ready for season '10 and '11, with a full
range of the best lines of Footwear. We
have the Heavy Tan Shoes that are so popular
with the College Boys. Try us, The New
Shoe Man.

J. D. McARTHUR

The Store around the corner, Market Square

ERNEST A. HALES,
68 St. George's Square.
Sells the Best Meats
and Poultry.

Phone 191 Open all Day.

Royal City Mineral Water Works
Manufacturer of
HIGH-CLAS CARBONATED BEVERAGES
247 BROCK ROAD.
Phones—Works 582A A. REINHART
Residence 582B Proprietor.

D. M. FOSTER, L.D.S., D.D.S.
DENTIST,

Cor Wyndham and MacDonnell Streets,
Telephone 14. Over Dominion Bank.

NOTICE

The best and most convenient Barber Shop for
O. A. C. Students.

WM. COON, ST. GEORGE'S SQ.
Street Cars every 15 minutes. Three chairs.
No waiting.

**The College Boys Always Go to The
OPERA HOUSE BARBAR SHOP**

First-Class Work James Smith,
Guaranteed. Proprietor.

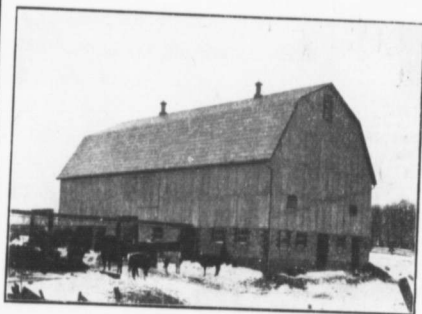
MIDNIGHT SUPPERS.

Bacon, Oysters, Fancy Biscuits,
Olives, Pickles, Chocolates, etc.

J. A. McCrea & Son.



How About Your Roof?



SAFE LOCK Metal Shingles

are the kind that wear well, look well, and keep out the weather. They have a positive hook lock on all four sides, and are absolutely proof against every element. Wind, rain and snow cannot penetrate a Safe Lock roof. Fire and lightning cannot injure it. Safe Lock Shingles lock so securely that they cannot be blown off by even the heaviest windstorm.

Write us for our Free Booklet, "Truth About Roofing," giving particulars of our Lightning Guarantee.

The Metal Shingle & Siding Co.

Preston and Montreal, Canada

LIMITED



Everything in Jewelry.

Repairing a Specialty.

E. F. Nicholson
OPTICIAN

Upper Wyndham St.

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CHINA is always appreciated; so is *Cut Glass and Pottery*, *Brassware* is especially attractive.

We have all four—they're gifts that are sure to please.

Prices from 5c upwards



Spend a few moments in our China Department when next you town.



Benson Bros.

Students Wants

Gymnasium Shoes, Football Boots, Slippers and Rubbers.

The most complete and largest stock of Fine Fall and Winter Footwear in the city.

Neill, the Shoe Man

THE GUELPH OIL CLOTHING COMPANY, Limited,

Manufacturers Oiled Clothing, Tarpaulins, Tents, Awnings, Stack and Binder Covers.

JAMES H. SMITH

Opposite Traders Bank.

Molasses Taffy, Walnut Cream and Maple Cream. Best in the City.
Fresh Everyday.

LUNCHES SERVED

The largest and best equipped Studio in Guelph. We are at your service for

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R. H. McPHERSON,

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Hair Cut, 20c.; Shave 15c. Close 8 p.m.

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FREDERICK SMITH,

PLUMBER, STEAM
AND GAS FITTER,

Sanitary Appliances. Estimates Furnished.
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THE BURGESS STUDIO

High-Class Portraits.

SPECIAL RATES TO STUDENTS

Regal Shoes
For Men.

Serosis Shoes
For Women.

W. J. THURSTON,

Sole Agent,

THE NEW SHOE STORE,

39 Wyndham Street.

KING EDWARD BARBER SHOP

Headquarters for a first-class
shave and hair cut or shoe shine.

CHAS. BOLLEN, - Proprietor.

SUEY WAH!

Hoop la! Come to the Big Laundry. Expert workmen. Hand work only. College calls made Monday, Wednesday, and Friday.

16 Wilson St., GUELPH.

If you want a pen point that flows freely, and lasts two to four times longer than any other. Try

RIVER SERIES

Practically non-corrosive—Ask your Stationer, or write to

The BENSON-JOHNSTON CO., Ltd

CANADIAN AGENTS,

HAMILTON, - - - ONTARIO.



A XMAS



For Your Friends!

Whenever you see anything really good—this time of year—you think of some one for whom you would like to buy it. You think of it going by post or express, to be looked at, admired and put away as a souvenir of your kindly thought.

But even if you haven't seen *Farmer's Magazine*—we'll send you a copy to remedy that little difficulty—you can imagine how unusually pleased your best friends will be when you send each of them a year's subscription (Oh! Yes, you will do it!); to be received by them every month regularly for thirteen months; each time with grateful feelings to you for the solid pleasure and information they receive in its pages.

Farmer's Magazine is the highest-class farmer's publication in Canada. It is a big, up-to-date home magazine for the whole family. It is the farmers' Investigator of Suspicious Questions! It costs only \$2.00. The Christmas number will be mailed by us so as to reach your friends not later than Christmas Eve, along with a beautiful Christmas card in colors.

Mr. Patrick, '12, is our representative at the O. A. C. He will take the money any time, day or night; or send it to

Farmer's Magazine

145 UNIVERSITY AVENUE, TORONTO

PRESENT



For Yourself!

☐ Christmas is the season of giving, of hearty generosity. You have been planning to spend your ready cash to make the most of it in personal souvenirs among your friends.

☐ Quite right. Be generous—but be just to yourself as well! A New Year is before you—a year of progress, of increased knowledge you intend it to be.

☐ You intend to become well posted on all questions which concern you and other citizens of Canada, so that you may be a better citizen of the Canada that is growing.

☐ You intend to know more about the possibilities of improving the conditions of living in your home community—in your home itself. You intend that you will help to make the farmer's life and lot the happiest and the most profitable of all. There is no help for your ambitions more useful than that provided in reading *Farmer's Magazine* regularly. The price to end of 1911 including November and December, 1910, is only \$2.00. Make your decision to take it NOW.

☐ Hand the money to Patrick if you are in College or Institute. If not send to

Farmer's Magazine
145 UNIVERSITY AVENUE, TORONTO

SNOWDRIFT, PEOPLES'
MAPLE LEAF

Three Well-Known Brands of Flour,
Ask for them and be sure you get them.

THE JAMES GOLDIE CO.

LIMITED

GUELPH, ONTARIO.

Telephone 99.

PRINTING

We execute the finest grades
of printing, plain or in colors,
promptly.

Kelso Printing Co.

St. George's Square,

Phone 218.

Opp. Post Office

"Eclipsed by None."

**Walker's Electric
Boiler Compound**

It removes the scale or incrustation from
boiler without injury to the irons, packings or
connections, and prevents foaming.

The only reliable boiler compound on the
market to-day. We also handle cylinder, engine
and machine oils. Lie sodium phosphate engine
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Entomological Supplies,
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College Pins.

The Clothes

made by SCOTT, the Tailor, are not
surpassed in Guelph, and Guelph is as
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FOR PARTICULAR MEN

We like to make clothes for the particular
man. Anyone can suit the fellow who is easily
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ence and ability to suit the really careful
dresser. Ask the particular man what he thinks
of the last suit or overcoat we made for him.
It is likely he will tell you they are the best
he ever had, even for double the price. Suits
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R. J. STEWART,

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**OUR BUSINESS
IS MEN'S WEAR**

Young Men, come here for up-to-date Cloth-
ing, Hats, Caps, and Furnishings.

Oak Hall Clothing is sold in 2,000 stores in
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Are always Fresh, Wholesome
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At Guelph, Truro, St. Anne de Bellevue,
Winnipeg, and the trade generally.

Horse Owners! Use
GOMBAULT'S
Caustic
Balsam



A Safe Speedy and Positive Cure

The Safest, Best BLISTER ever used. Takes
the place of all liniments for mild or severe action.
Removes Bunches or Hemorrhoids from Horses
and Cattle. SUPERSEDES ALL CAUTERY
OR FIRING. Impossible to produce scar or bluish.
Every bottle sold is warranted to give satisfaction.
Price \$1.50 per bottle. Sold by druggists, or
sent by express, charges paid, with full directions
for its use. Send for descriptive circulars.
SUE LAWRENCE-WILLIAMS CO., Toronto, Ont.



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Seldom See

a big knee like this, but your horse
may have a bump or bruise on his
Ankle, Hock, Stifle, Knee or Throat.

ABSORBINE

will clean them off without leaving the
horse up. No blister, no hair loss.
\$2.00 per bottle, deliv'd. Book 8 D free.
A 100% BOTTLE, 4 1/2 oz., for mankind, \$1.
Removes Painful Swellings, Enlarged Glands,
Goutte, Wens, Bruises, Varicose Veins, Varico-
sities, Old Sores, Ailays Pain. Book free.
W. F. YOUNG, P.O.B., 1, Temple St., Springfield, Mass.
LYBANS Ltd., Montreal, Canada Agents.

Melfort, Sask., Jan. 30th, 1908.

Dear Sir,—I have used your AB-
SORBINE for quite a while, and must
say it is a splendid remedy for what it
says on the bottle.

Yours truly,

M. BURROUGHS.

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Wide Range of Stock Carried.

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LEE LEE & COMPANY

Opera House Block

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Goods called for on Monday, and re-
turned on Wednesday. We guarantee
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You who are not subscribers just stop and think of the money that is required to buy agricultural text books and then figure out what you get in 52 copies of CANADIAN FARM for \$1.00, or a weekly cost of less than 2c.

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FARM PRESS, Limited

12-14 Wellington St. E.

TORONTO, ONTARIO

There is an epidemic of absentmindedness going around just now. To cite one or two cases:

Harry King started to prepare for basket-ball practice the other evening about 9 a.m., but instead of putting on his athletic togs, he donned his night attire and was proceeding to say his prayers when Bramhill brought him back to real life.

Miller shaved last Wednesday evening. Now it is very unusual for Miller to shave on a week-day and hence he thought it was Sunday. So he carefully dressed in his best clothes and was well on his way to church when he discovered his mistake.

When the football team visited Galt recently, Hutchinson, in playful mood, drop-kicked the ball through an hotel keeper's window. The proprietor na-

turally was not pleased. He said: "You have the choice of paying for the window or being handed over to the majesty of the law."

"Oh," said Hutch, "I'm glad to hear you have Local Option in this town, I guess I'll pay."

~ ~

Dr. Reed—The most experienced practitioners are sometimes disappointed in their prognosis.

Culham (sadly)—I wonder if that has anything to do with being disappointed in love.

~ ~

Scene—Lower Hunt, 12 o'clock, in imitation night.

Darling (shaking McKee)—Are you a married man or a Protestant?

McKee (half awake)—Be the powers of Mulkenny, it's ould Nick him self!!!

HECLA FURNACE

Is Guaranteed Gas-Tight and Smoke-Tight

20 years use has proved the strength of this guarantee.

In the "Hecla" Furnace, the **cast iron** top and bottom of the radiating chamber, and the **steel** sides, are

fused.

That is, they are heated at white heat until they become practically one piece of metal.

These **Fused Joints** are

absolutely and permanently tight.

nor any possibility of there being an opening, between the fire and the warm air chamber.

20 years use, proves this.

Fused Joints are a

perfect guarantee against smoke, gas and dust in a "Hecla" heated home.

No other furnace has Fused Joints— they are

exclusive "Hecla" patents. Insist therefore on a Hecla.



If you are going to put in a new furnace this year, let us plan the heating arrangements, and tell you just what it will cost to install the right furnace to heat right. Write for free copy of our book "Hecla Heated Homes."

105

CLARE BROS. & CO. LIMITED, PRESTON, Ont.

Guelph Radial Ry. Co.**TIME TABLE.**

Cars leave the college landing for the city at about 20 minutes intervals, as follows:

a.m.		
6:25	8:35	10:45
6:45	8:55	11:05
7:05	9:20	11:30
7:30	9:40	11:50
7:50	10:00	12:15
8:10	10:25	
p.m.		
12:35	4:15	8:05
12:55	4:35	8:25
1:15	5:00	8:45
1:40	5:25	9:10
2:03	5:50	9:30
2:20	6:15	9:50
2:45	6:40	
3:05	7:00	10:15
3:20	7:20	10:35
3:50	7:45	

R-turning, cars leave St. George's Square 10 minutes later.

SKATES AND SKATE STRAPS
HOCKEY STICKS AND PUCKS
TOBOGGANS AND SLEIGHS
GLOVES AND MITTS
SPORTING GOODS OF ALL
KINDS
EXCELLENT VALUES IN
RAZORS AND POCKET KNIVES.

**McMILLAN BROS.**

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**GUELPH'S NEWEST and BEST
CONFECTIONARY and
LUNCH ROOM**

Special Lunches put up for Students to take to their rooms.

Ice Cream and Fruit sold all the year round.

Our special Saturday sales of candies of our own make appeal to everyone. We want every student to try our specials.

Students invited to use our store while waiting for the street cars.

SPA CANDY STORE

WYNDHAM AND MACDONALD STS.

W. A. HAIGHT, Manager.

**Many Deceive
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By thinking their eyesight is good, when all the while a slight, scarcely noticeable strain is injuring the optic nerve. The results are expressed in headaches, nervousness, and other ailments. Prevention is better than a cure.

LET US DO THE PREVENTING

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Optometrist and Optician,
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BOTANICAL, ENTOMOLOGICAL, NATURE STUDY, EXPERIMENTAL and MANUAL TRAINING, DRAWING MATERIALS and OUTFITS, NOTE BOOKS, FILLERS, INKS, PENCILS, FOUNTAIN PENS.

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Engines.

Concrete Mixers.

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Cleanliness in every detail is a rule rigidly enforced.

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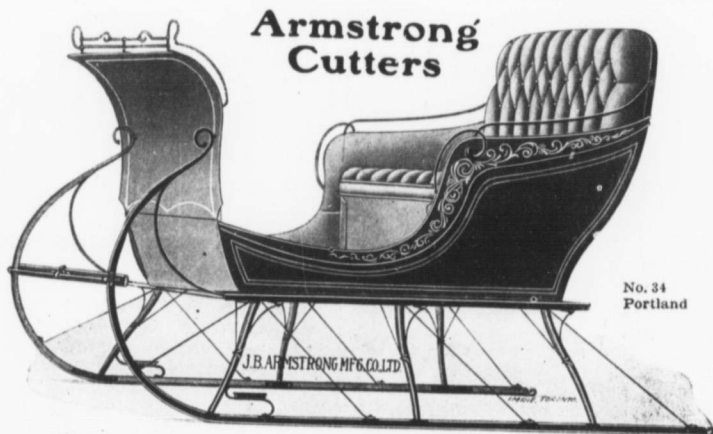
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Managing Director.

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Our Cutter line embraces the very latest and best features in Cutter construction, both for styles and strength in construction. These features assist the agent to effect quick sales, and for the user satisfactory service.

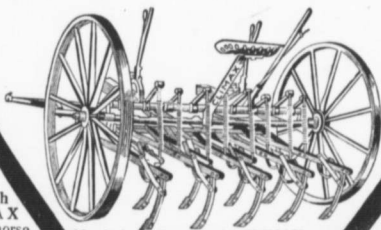
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It soon
earns
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In any soil, on any farm, the CLIMAX
earns money for you every minute you use it



**Very
Strong**

You can rip sod land with the CLIMAX and a 3-horse team—so it MUST be built strong! Yet the teeth won't smash if they strike a stone—their joints unlock and fly back to pass over unharmed.

Manitoba College used a CLIMAX on land rank with wild mustard; got rid of that bad weed; and grew oats 71 inches in the straw without a weed in the whole crop! The CLIMAX certainly does destroy weeds!

**Easy
Handled**

Each pole has a tilting lever; and these, with the pressure lever—all in easy reach of operator—exactly regulate depth of cut. Teeth go right for the roots of the weeds, and rip them out of the soil.

This is the stiff-tooth cultivator that gets the weeds OUT of the soil—not merely cuts off their tops or just tickles the roots a little. On dirty land you surely need the

Frost & Wood Climax Cultivator

You can have your choice of points—2, 4, 7 or 10 inch. You ought to learn all the merits of this money-making weed-banisher. May we send you Catalogue?

The Frost & Wood Co. Ltd. Smith's Falls
Canada

**WE
ARE
HERE**



Selling Oysters

FRESH FROM THE
BRINY DEEP,
COMBINED WITH
MILK OR CREAM,
THEY MAKE A
DELICIOUS STEW

Hot Drinks

Coffee	With
Chocolate	cakes or
Claret	biscuits
Bovril	make a
Clam Bouillion	charming
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There is nothing so appropriate for a gift as a dainty box of our confections :-:

The Kandy Kitchen

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GUELPH, ONTARIO



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1866 and Home Magazine 1910

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THE BEST AGRICULTURAL JOURNAL IN AMERICA
WITH INVALUABLE HOUSEHOLD DEPARTMENT.

WEEKLY

\$1.50 per year

Agents Wanted



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Much alarming reports are carried by mail to us from Canada-land, in re-meration of outbreaks of violent obstreperosity on the part of heathen cut-lawless savages, frequenting in forests and suburbs of Guelph townsite, Ontario Province.

Many soldier troops are being hurried with cheers and bravery from authority of Toronto, transported by reckless speed upon C. P. R.

Attachments of illustrious warriors were cruelly assaulted inside city limits by aboriginal horde of cannibals, resulting in bleed of great quantity being spilt. The indulgence of strenuous shout and reading of Riot Act by gen-

eral of noble troops relayed much of enthusiasms of the ferocious savages, which made retirement outside city limits, carrying wounded dead. Great terrorisms are struck in the hearts of all hearers by curdling blood-yells of Alerebo savages.

Heroic Y. M. C. A. some time ago will send noble missionary to Guelph, Canada-land:—much sympathy, alas, to be devoured by abnormally appetites of Alerebo cannibals.

It is the function of a certain member of the faculty to take the lady teachers for early-morning nature study strolls during their summer course at the College. It is reported that the gentleman became so interested in the work that it was found necessary to send him a request, "not to take the young ladies such long distances in future, please."

Buying Sporting Goods Here Means Buying Them Right!

Winter Sports

This year's showing of winter sporting goods is the finest in the Dominion. In skates we have all the best makes; "Lunn's" \$5.00 and \$6.00, "Automobile" \$4.00, \$5.00 and \$6.00, "Star" \$1.00 to \$5.00.

Toboggans from the best factory in Canada, 3 ft to 10 ft., at \$2.00 to \$13.00.

In "Skis" we are showing the world famous "Hagen" make, price \$3.00 to \$10.00; Genuine Hagen Ski Harness. \$3.00 pr. Send for our new complete sporting goods catalog.

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Plain Pennants, 18 inch, at	25c	Seal Pennants, 15x34 inch, at....	\$1.00
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THE CENTURY CREAM VAT

Is something entirely new—send for description and prices.

THE "SUCCESS" COMBINED CHURN and BUTTER WORKER

Known everywhere to be the best.

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In use in all the best creameries in Canada and the U. S.

MILK BOTTLING MACHINERY; BOTTLES, WASHERS

And everything for the milk depot.

CHEESE FACTORY, CREAMERY, and DAIRY MACHINERY.

We are the largest manufacturers of these lines in Canada, and carry a complete stock. Write for catalogues and prices.

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and the best value
for the money
of them all.
is

TOLTON'S No. 1 DOUBLE ROOT CUTTER

POINTS OF MERIT:

1. To change from pulping to slicing is but the work of a moment.
2. There are two separate wheels one for pulping and the other for slicing.
3. The united force of both wheels is always used in doing the work in either capacity.
4. The hopper is between the wheels, and does not choke.

The Only Double Root Cutter Manufactured Fitted with Roller Bearings, Steel Shafting and all that is latest and best in principle material and construction.

Send for Descriptive Circular and Prices.

Tolton Bros., Limited
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Call on us when you want choice flowers, Roses, Carnations, Valley, Violets and all flowers in season.

We handle "Dale's" flowers.

Phone orders receive careful attention.

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Phone 436. St. George's Square

Look! ☐☐ Look!

Suits Pressed	- - - - -	50c
Suits Cleaned and Pressed	- - - - -	75c
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Velvet Collars	- - - - -	7c to \$1.25
Dry Cleaning	- - - - -	\$1.25

Work done by practical tailors.

Chas. A. Kutt, 49 Quebec St.

Start Right

In a stylish "T. & D." suit, or overcoat, or both. Ready-to-wear, \$10.00 to \$25.00; made-to-measure, \$17.00 to \$30.00.

You'll find "T. & D." a thoroughly dependable place to buy good clothes and mens furnishings.

THORNTON & DOUGLAS, Ltd.

Clothing Manufacturers.

LOWER WYNDHAM ST.

(The College Man's Shop).

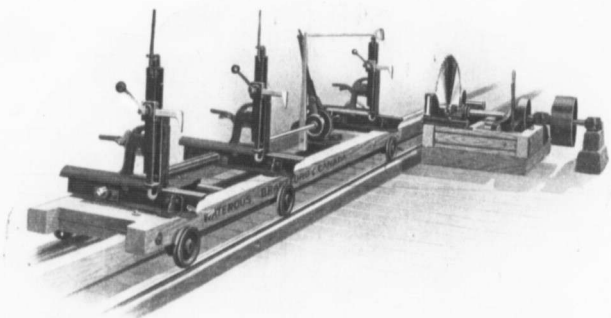
Excels for making



PURITY FLOUR

WATEROUS PORTABLE SAWMILLS

LIGHT, COMPACT, DURABLE.



In sizes that will cut 2,000 to 8,000 ft. per day. Let us send you Catalogue No. 100. Write for it to-day. A post card will do.

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"What's Wrong with the World"

Consult G. K. Chesterton's new book

\$1.75

The best book of the year by a Canadian Author

"Janey Canuck in the West"

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Another clever book by a clever Canadian

"The Faith of a Layman"

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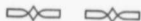
By Baroness Orczy (Author of "The Scarlet Pimpernel")

\$1.25

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Test the truth of this statement next season by using a fertilizer containing

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This indispensable plant food produces LARGER CROPS OF BETTER QUALITY AND PROMOTES MATURITY.

Order your supplies of MURIATE OF POTASH AND SULPHATE OF POTASH early from reliable fertilizer dealers or seedsmen.

Write us on any matter relating to the cultivation of the soil and get copies of our free bulletins, including: "Records of Fertilizer Experiments," "Farmers Companion," "Artificial Fertilizers," "Fertilizing Hay and Grain Crops," etc., etc.

Dominion Offices of the Potash Syndicate,

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The Royal Military College of Canada



THERE are few national institutions of more value and interest to the country than the Royal Military College of Canada. Notwithstanding this, its object and the work it is accomplishing are not sufficiently understood by the general public.

The College is a Government institution designed primarily for the purpose of giving instruction in all branches of military science to cadets and officers of the Canadian Militia. In fact it corresponds to Woolwich and Sandhurst.

The Commandant and military instructors are all officers on the active list of the Imperial army, lent for the purpose, and there is in addition a complete staff of professors for the civil subjects which form such an important part of the College course. Medical attendance is also provided.

Whilst the College is organized on a strictly military basis the cadets receive a practical and scientific training in subjects essential to a sound modern education.

The course includes a thorough grounding in Mathematics, Civil Engineering, Surveying, Physics, Chemistry, French and English.

The strict discipline maintained at the College is one of the most valuable features of the course, and, in addition, the constant practice of gymnastics, drills and outdoor

exercises of all kinds ensures health and excellent physical condition.

Commissions in all branches of the Imperial service and Canadian Permanent Force are offered annually.

The diploma of graduation, is considered by the authorities conducting the examination for Dominion Land Surveyor to be equivalent to a university degree, and by the Regulations of the Law Society of Ontario, it obtains the same examinations as a B.A. degree.

The length of the course is three years, in three terms of 9½ months each.

The total cost of the course, including board, uniform, instructional material, and all extras, is about \$500.

The annual competitive examination for admission to the College, takes place in May of each year, at the headquarters of the several military districts.

For full particulars regarding this examination and for any other information, application should be made to the Secretary of the Militia Council, Ottawa, Ont.; or to the Commandant, Royal Military College, Kingston, Ont.

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☹ You see, the early disability of the shoddy thing, and poor performance while it does hang together, makes it a losing proposition no matter how cheap.

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