

Volume XXV.

Number 3

# O.A.C REVIEW

CHRISTMAS  
1912



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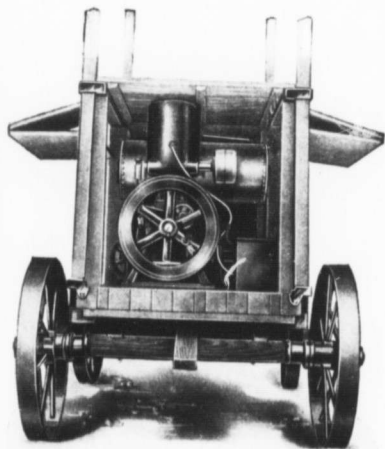
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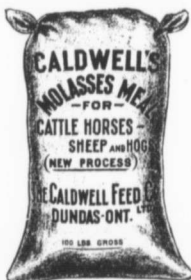
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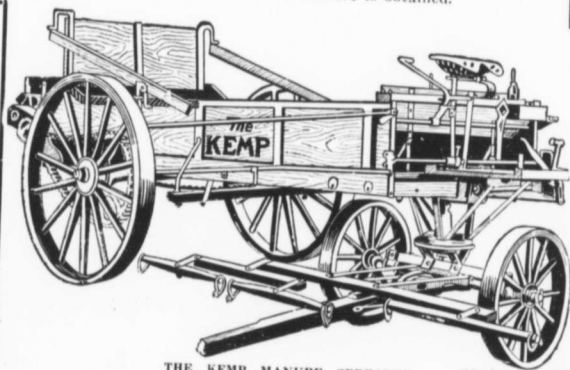
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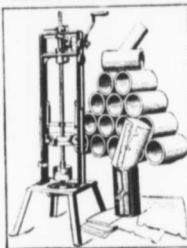
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Series B.

DECEMBER, 1912

No. 3

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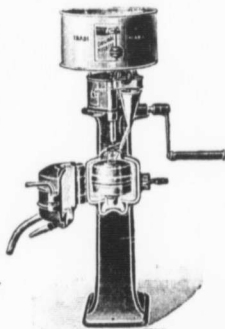


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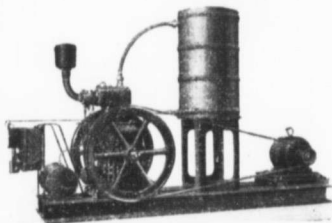
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# THE O. A. C. REVIEW

THE DIGNITY OF A CALLING IS ITS UTILITY

VOL. XXV.

DECEMBER, 1912.

NO. 3



HON. JAS. S. DUFF,  
Ontario Minister of Agriculture.

Mr. Editor:

I gladly avail myself of this opportunity to extend Christmas greetings to the students of the Ontario Agricultural College. I do so more readily because, aside from my official relationship, I am keenly interested in the welfare of the College and of the boys of the College.

I most heartily wish you all a very Merry Christmas and a glad New Year. Christmas, with all its festivities, is a time for meditation and reflection, and perhaps its greatest joys come from recalling the joys of the past and reflecting upon the blessings of the present. It is the time of times at which you will all, or nearly all, be turning your faces and thoughts towards the old home-

stead, and as you do so I would ask you to remember just what the old homestead stands for in the history of this Province. Ontario's history is marked by a few of the conquests of war and many of the conquests of peace, and of the latter the old homesteads are still standing monuments. The story of the old homesteads and their triumphs is the story of the real life of the Province with all of the struggle which went before the triumph. The old homestead sheltered the noble pioneers and nurtured those who have since played the most important parts in the commercial, industrial, political, as well as agricultural life of this Province.

Yours is the heritage of the old homestead, both of its memories and of its achievements, but yours is also the opportunity of enjoying in education, in comfort, advantages your forefathers never knew. You live in a favored land at a favored time. The contemplation of what the rugged pioneers accomplished with their great handicaps should be an inspiration to you as you assume the responsibilities which your great advantages carry with them.

Boys, always respect the old homestead, and conduct yourself so that the old homestead with its old-fashioned standards of honor, integrity and industry, will always respect you. This is my Christmas message, and with it goes my very best wish for your future happiness and prosperity.

Yours very truly,

JAS. S. DUFF.

## A Few Points About Bovine Tuberculosis

PROFESSOR S. F. EDWARDS, B.S.A.



PROF. S. F. EDWARDS

**T**UBERCULOSIS is a slowly-developing disease, which is prevalent among men and the lower animals and is distributed throughout the civilized world. It is a communicable disease, caused directly by a specific microbe or germ, *Bacterium tuberculosis*. No case of tuberculosis can occur in any individual unless the germs are transmitted in some manner to that individual from an already existing case. Accessory causes of tuberculosis are any conditions that lower the natural body vigor; such as dark, damp or poorly ventilated quarters, insufficient or unwholesome food, intemperance in food, drinks or drugs, excessive fatigue, undue exposure in inclement weather, hereditary predisposition. Every normal, healthy

individual has in his body certain protective properties or qualities such as the **phagocytes of the white blood cells**, the **natural antitoxins** and the **bactericidal substances of the blood**, which are designated collectively as the "**defensive mechanism**" of the body. It is the purpose of this "defensive mechanism" to ward off or repel the attacks of invading microorganisms. If any causes or conditions such as those mentioned weaken or destroy any of the defenses, the microbial enemy can more easily find lodgment, and cause the damage of which it is capable.

Four types of the germ of tuberculosis are recognized: the human, the bovine, the avian and a type belonging to the cold-blooded animals. The human and the bovine types are intertransmissible to a limited extent. Of the two hundred thousand deaths occurring annually in the United States from tuberculosis, it is stated that ninety-two per cent. are caused by the human type of the tubercle bacteria, and eight per cent. or sixteen thousand cases by the bovine type, the latter being found almost exclusively among children.

Although tuberculosis was known and described by Hippocrates as early as the fifth century, B. C., it was not until very recent times that accurate knowledge was gained. In 1865, Villemin proved the infectiousness of the disease by inoculating susceptible animals with tuberculosis tissue. In 1862, Robert Koch discovered the

germ of tuberculosis and by isolation, cultivation under laboratory conditions, and reinoculation of pure cultures into susceptible animals, proved that the germ was specific for the malady.

#### Modes of Dissemination.

**In the herd.** The germs of tuberculosis may gain entrance to the susceptible animal in any of three ways; by way of the respiratory organs with inspired air, by ingestion from contaminated mangers, feeding boxes or watering utensils (to calves by feeding infected milk from tubercu-

through a large part of the skim-milk or whey at the factory and may be carried in these by-products back to the farms of B, C, D and so on through a whole neighborhood. This is also a very common method of infection of hogs. It is a significant fact as recognized and stated by dairymen and packers that **"tuberculosis is more prevalent among hogs in dairy districts than in beef districts."**

#### Detection of Tuberculosis in Cattle.

Detection of tuberculosis in the herd may be by one of three possible ways—clinical symptoms, post mor-

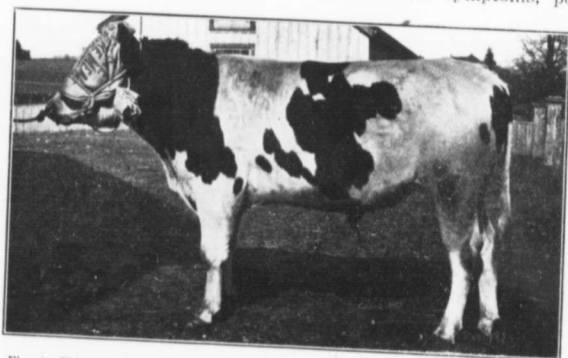


Fig. 1—This bull reacted to the tuberculin test and was slaughtered. Though in apparently good physical condition, he was found on post mortem examination to be badly tubercular. See Fig. 2.

losis cows), or by the more rare method of intra-uterine transmission.

**From herd to herd,** the disease is carried by the transfer of infected animals, as in importations, dispersion sales, or ordinary sales. A very common mode of dissemination from one herd to another is through the medium of unpasteurized skim-milk or whey fed to calves. If tubercular milk from the infected herd of farmer A goes to a creamery or cheese factory, the germs are distributed

tem appearance, the tuberculin test.

**Clinical symptoms** cannot be depended upon. Animals may be well advanced in the disease and eliminating the organisms to infect others in the herd and yet may show no external evidence of the disease.

**Post mortem appearance.** Tuberculosis is characterized by the formation of nodules or tubercles in the tissues of the body, and when these tubercles are found, and a microscopic examination reveals the presence

of the tubercle bacteria, the diagnosis is complete. Detection by this method comes too late, however, to be of most value to the owner. The presence of tuberculosis in the herd should be recognized before it has made such inroads as to cause the death of any animals.

**The tuberculin test.** In the tuberculin test, we have an accurate, reliable method of detecting tuberculosis in affected animals, even in early stages. What is tuberculin?

possibly cause a case of the disease.

Regarding the method of conducting the test, I quote from the Dominion Department of Agriculture, "Regulations Relating to Tuberculosis":

**"Directions for Applying the Tuberculin Test."**

"To obtain the normal temperature of the animal to be tested, at least four temperatures, three hours apart, should be taken on the day the tuberculin is to be injected.

No. .... CERTIFICATE OF TUBERCULIN TEST H. of A. Form No. 4

**DOMINION OF CANADA**

Department of Agriculture Health of Animals Branch

Owner ..... Purchaser .....  
Address ..... Address .....

No.	Age.	Sex.	Name.	March 29, 1911				March 30, 1911				Maximum.	*DECISION.			
				Temperature before Injection.		Time of Injection	Temperature after Injection.		Before Injection.	After Injection.						
		Hours.		p.m.			Hours.									
		8.45	10.45	1.15	5.40	10.00	5.00	7.00	9.30	11.30	1.00	4.00				
1	4	F	Minnie.....	109.	101.6	100.	101.8	101.6	103.8	104.	104.	104.8	105.	101.8	104.8	Diseased
2	3	F	Lady.....	101.4	101.	100.8	101.6	101.2	104.2	106.2	107.	104.4	105.2	101.6	107.	Diseased
3	6	F	Marjorie.....	101.	101.	100.4	101.	99.8	98.4	100.	100.6	101.	100.8	101.4	101.	Healthy

I hereby certify that I have tested with Tuberculin the above described animals, and that this is a correct statement of the temperatures obtained.

Date, March 30, 1911. .... Inspector.

\*Write in this column "Healthy," "Diseased" or "Suspicious." In all suspicious cases a clinical report to be attached to the chart.

When cultures of the organism of tuberculosis are grown for some weeks in a nutrient broth under laboratory conditions, the germs manufacture and excrete into the broth certain products, among which is at least one which has the property when injected into cattle of causing a fevered condition for a few hours in tubercular animals, but has no such effect in healthy animals. In the preparation of tuberculin from the broth cultures, the latter are heated to a temperature sufficiently high to destroy all living tubercle bacteria, hence the injection cannot

"The requisite dose should be injected under the skin with a hypodermic syringe that has been previously sterilized. The skin at the point of the injection should be saturated with an antiseptic solution before the injection is made.

"(The most convenient agents for the sterilization of the syringe and the saturation of the skin are carbolic acid or creolin in solution. The solution is made by the addition of one part of carbolic acid or of creolin to twenty parts of water.

"The hypodermic needle should be dipped in the antiseptic solution after

each injection before proceeding to again fill the syringe or inject another animal.

"After injection five temperatures should be taken at intervals of three hours commencing with the **tenth** hour.

"In cattle which have recently undergone a previous test the reaction frequently begins much earlier, and it is then advisable to take the first temperature not more than two hours after injection, and to continue taking temperatures every third hour thereafter up to the usual time."

The results of an actual test are

and Canada at the present time. Their report on this point reads as follows:

"1. Tuberculin, properly used, is an accurate and reliable diagnostic agent for the detection of active tuberculosis.

2. Tuberculin may not produce a reaction under the following conditions:

(a) When the disease is in a period of incubation.

(b) When the progress of the disease is arrested.

(c) When the disease is extensively generalized.



Fig. 2—Interior of the abdominal wall of the bull shown in Fig. 1. The intestines have been removed and the skin rolled back. The roughened nodular growth is a mass of small tubercles. The spleen, also badly affected, is shown hanging against the rib wall.

shown on the accompanying chart, the Standard Chart of the Dominion Department.

The reliability of the tuberculin test as a diagnostic procedure is shown by the conclusions reached by the International Commission on the Control of Bovine Tuberculosis, a commission appointed by the American Veterinary Medical Association in 1909, and composed of some of the best authorities of the United States

The last condition is relatively rare and may usually be detected by physical examination.

3. On account of the period of incubation and the fact that arrested cases may sooner or later become active, all exposed animals should be retested at intervals of six months to one year.

4. The tuberculin test should not be applied to any animal having a temperature higher than normal.

5. Any animal having given one distinct reaction to tuberculin should thereafter be regarded as tuberculous.

6. The sub-cutaneous injection of tuberculin is the only method of using tuberculin for the detection of tuberculosis in cattle which can be recommended at the present time.

7. Tuberculin has no injurious effect on healthy cattle."

#### **Conditions Under Which Tuberculin Is Supplied.**

The following excerpts from the Dominion regulations state that the conditions under which the Dominion Government conducts the test or supplies tuberculin to others:

"The Department does not test any cattle for tuberculosis, except those imported and exported for breeding purposes, and such herds as are placed entirely under the control and supervision of its officers.

"If any owner of cattle desires to have his animals tested, and will send in to the Department the number of doses required, and the name of any reputable qualified veterinary surgeon whom he wishes to employ to do the work, the latter will be furnished free with sufficient tuberculin, on condition that he reports to the Department the result of the test on charts which are supplied for that purpose.

"The Department does not order the slaughter of tuberculous animals, and consequently no compensation is or can be paid.

"It must be distinctly understood that the remuneration of the veterinarian making the test is to be paid by the owner of the animals and not by the Department."

#### **Eradication.**

In this connection we would again refer to the conclusions reached and methods recommended by the International Commission as above mentioned, a composite of the well known Bang method and others:

"The Commission, after stating the known facts regarding the nature of tuberculosis and enumerating the principles to be observed in its prevention and eradication, recommends the following plan of procedure. It is recognized that in several points there are opportunities, in order to meet individual needs, to change or modify the directions herein given. It is understood, however, that whenever such modifications are made they should conform in the greatest detail to the principles laid down in the report of this Commission. The plan has for its purpose the conservation of the herd whenever that is possible.

"The control of bovine tuberculosis involves a definite procedure under two distinct and different conditions, namely: (1) where a herd of cattle is free from tuberculosis and is to be kept so, and (2) where one or more animals in the herd are infected and the purpose is to eradicate the disease and establish a sound herd.

#### **Procedure Under Condition (1).**

"The prevention of tubercular infection in cattle, free from tuberculosis, consists simply in keeping tuberculous cattle or other animals away from the sound ones; in keeping tuberculous animals out of pastures, sheds or stables where the sound ones may be kept. Healthy cattle should not be exposed to possible infection at public sales or exhibitions. Raw milk or milk by-

products from tuberculous cows should not be fed to calves, pigs or other animals. Cars that have not been thoroughly disinfected should not be used for the transportation of sound cattle. Cattle that are purchased to go into sound herds should be bought from healthy or sound herds only.

#### Procedure Under Condition (2).

"The eradication of tuberculosis from infected herds requires for conservation of the herd different procedures according to the extent of the infection. For a guide to the control of the disease tuberculous herds may be divided into three groups, namely:

1. Where 50 per cent. or more of the animals are infected.
2. Where a small percentage (15 per cent. or less) of the animals are affected.
3. Where a large number (15 per cent. to 50 per cent.) of the animals are diseased.

In eliminating tuberculosis from infected herds the following procedure is recommended:

#### Group 1.

Herds where a tuberculin test shows 50 per cent. or more of the animals to be infected should be treated as entirely tuberculous. The procedure here is as follows:

1. Eliminate by slaughter all animals giving evidence of the disease on physical examination.
2. Build up an entirely new herd from the offspring. The calves should be separated from their dams immediately after birth and raised on pasteurized milk or on that of healthy nurse cows. This new herd must be kept separate from any reacting animals.

3. The young animals should be tested with tuberculin at about six months old, and when reactors are found at the first or any subsequent test, the others should be retested not more than six months later. When there are no more reactors at the six months test, annual tests should thereafter be made. All reacting animals should at once be separated from the new herd and the stables which they have occupied thoroughly disinfected.

4. When the newly developed sound herd has become of sufficient size, the tuberculous herd can be eliminated by slaughter, under inspection, for beef.

#### Group 2.

"The reacting animals should be separated from the non-reacting ones and kept constantly apart from them at pasture, in yard and in stable.

(a) **Pasture**—The reactors should be kept in a separate pasture. This pasture should be some distance from the other or so fenced that it will be impossible for the infected and non-infected animals to get their heads together.

(b) **Water**—When possible to provide otherwise, reacting cattle should not be watered at running streams which afterwards flow directly through fields occupied by sound cattle. The water from a drinking trough used by infected animals should not be allowed to flow into stables, fields or yards occupied by sound animals.

(c) **Stable**—Reacting cattle should be kept in barns or stable entirely separate from the ones occupied by sound animals.

2. Calves of the reacting cows should be removed from their dams immediately after birth. Milk fed

these calves must be from healthy cows; otherwise, it must be properly pasteurized. These calves should not come in contact in any way with the reacting animals.

3. The non-reacting animals should be tested with tuberculin in six months, and when reactors are found at the first six months, or any subsequent test, the others should be re-tested not more than 6 months later. When there are no more reactors at the six months' test, annual tests

to tuberculin should under no circumstances be placed in the sound herd.

7. As soon as the sound herd has become well established, infected animals should be slaughtered, under proper inspection.

#### Group 3.

"Herds that come within this group should be dealt with as in Group 2, where the herd is separated, or as in Group 1, where all of the animals are considered as suspicious



Fig. 5.—Head of a cow, showing the "permanent ear mark." This mark in the ear of an animal shows that she has been tuberculin tested by Dominion authority, and has reacted.

should thereafter be made. All reacting animals should at once be separated from the new herd and the stables which they have occupied thoroughly disinfected.

4. The milk of the reacting animals may be pasteurized and used.

5. Any reacting animal which develops clinical symptoms of tuberculosis should be promptly slaughtered.

6. An animal that has once reacted

and an entirely new herd developed from the offspring.

#### General Precautions.

"In all cases, animals that show clinical evidence of the disease should be promptly eliminated. They should be destroyed if the disease is evidently far advanced; if not, they may be slaughtered for food under proper inspection.

All milk from tuberculous cows



that is used for food purposes should be thoroughly pasteurized. This means that it must be heated sufficiently to kill or to render harmless, any tubercle bacilli that may be present in it. For this, it is necessary to heat the milk for twenty minutes at 149 degrees Fahrenheit, or for five minutes at 176 degrees Fahrenheit. It is important that pails or other utensils used in carrying the unpasteurized milk should not be used, unless previously sterilized, for storing the milk after it is pasteurized.

When diseased animals are found, the stables from which they are taken should be thoroughly cleansed and disinfected. To accomplish this, all litter should be removed; floors, walls and ceilings carefully swept and

the floors, together with mangers and gutters, thoroughly scrubbed with soap and water. Thorough cleansing before the application of the disinfectant cannot be too strongly emphasized. After cleansing, the disinfectant should be applied. A five per cent. (5 p.c.) solution of carbolic acid, a 1-1000 solution of corrosive sublimate, or a four per cent. (4 p.c.) solution of sulphuric acid may be used.

When the stable can be tightly closed, formaldehyde gas properly used is reliable and satisfactory.

If tuberculous cattle have been kept in a small yard, the litter should be removed, the surface ploughed and the fencing and other fixtures thoroughly cleansed and disinfected."



#### DISTRIBUTION OF SEED GRAIN AND POTATOES FROM THE DOMINION EXPERIMENTAL FARMS, 1912-1913

By instructions of the Hon. Minister of Agriculture a distribution of superior sorts of grain and potatoes will be made during the coming winter and spring to Canadian farmers. The samples for general distribution will consist of spring wheat (5 lbs.), white oats (4 lbs.), barley (5 lbs.), and field peas (5 lbs.). These will be sent out from Ottawa. A distribution of potatoes (in 3-lb. samples) will be carried on from several of the experimental farms, the Central Farm at Ottawa supplying only the Provinces of Ontario and Quebec. All samples will be sent free, by mail.

Applicants must give particulars in regard to the soil on their farms, and some account of their experience with such kinds of grain (or potatoes) as they have grown, so that a promising sort for their conditions may be selected.

Each application must be separate and must be signed by the applicant. Only one sample of grain and one of potatoes can be sent to each farm. Applications on any kind of printed form cannot be accepted. If two or more samples are asked for in the same letter only one will be sent.

As the supply of seed is limited, farmers are advised to apply early; but the applications will not necessarily be filled in the exact order in which they are received. Preference will always be given to the most thoughtful and explicit requests. Applications received after the end of January will probably be too late.

All applications for grain (and applications from the Provinces of Ontario and Quebec for potatoes) should be addressed to the Dominion Cerealists, Central Experimental Farm, Ottawa. Such applications require no postage. If otherwise addressed delay and disappointment may occur.

Applications for potatoes, from farmers in any other province, should be addressed (postage prepaid) to the Superintendent of the nearest Branch Experimental Farm in that province.

J. H. GRISDALE,  
Director Dominion Experimental Farms.

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## The Christmas Spirit

J. MILLER

IT was the beginning of Christmas week—and a cold, raw Christmas it promised to be. The snow was not deep, but the cold had been too intense. The west wind whipped across the fields upon the little village of Verchoyle mercilessly. The pale smoke melted into dull leaden skies and trees crackled as little Bobby and Mary Williams started to school. Poor little kiddies, it seemed terribly cold to them that morning. Their mother was a widow, almost worn out with the effort to support herself and two children by washing clothes for the more prosperous of the village and such miscellaneous work as a small village offered. The home was cheerless enough, but her mother-love never wavered and she continued the hard struggle. She lived in a poor old house a mile to the west of the village, just where the highway turned, leading to the town of Albert.

So the children on this morning started for school, running at intervals to keep warm as the keen wind blew through their clothing.

"Wots to eat to-day, Mary?" asked the eight-year-old boy.

"Just bread-an'-butter," said Mary, two years his senior, and upon whom already the cares of the world had begun to rest.

"Got very much?" asked Bobby.

"Three slices each."

Bobby trotted on. He was used to small meals. Insufficiently fed and clothed he had become accustomed to hardship, so he ceased to comment upon the meagre meal.

As they passed through the village they stopped at the one and only store to warm their feet. A large table placed directly in the centre of the store now held the place of honor. On it were displayed toys of many kinds and of various prices. Bobby's eyes opened widely as he saw a repeating air rifle—the very kind he'd longed for and dreamed over. But never a chance, it seemed, had he of ever securing one. He touched it cautiously and lovingly with a world of longing in his eyes, cold toes forgotten. Meanwhile Mary had discovered a doll, black-haired, ruddy-cheeked, beautiful in her eyes beyond description. Forgetful of school they lingered, caressing the treasures until the clock struck nine.

"Oh, Bobby, we'll be late again. We are most every day, and teacher said as how we had to stay in after four next time."

The school house was situated some half mile south of the village owing to the densely populated farming community in that district, so they hastened for it, but alas! accidents were fated to happen that day. Mr. Thompson, a wealthy farmer, lived between the village and the school. He had just purchased a large, good-natured collie pup, which happened to see the children running. With thick woolly hair and laughing jaws he gamboled up to meet them, for of course they wanted to play. He caught Mary's dress playfully, giving a quick, happy bark. But to Mary he was a huge, murderous beast bent on mischief. With a scream she ran.

dropping their dinner as she went. The pup was not averse to bread, and quickly making a small lunch, he scampered after the crying kiddies.

Quite unnoticed by the frightened children, Mr. Thompson stood at his gate. As he approached he stepped out and shouted at the pup, which immediately stopped with front feet spread wide and ears pointed forward, ready at a moment's notice to leap sideways or forward in pure joyful frolic.

The children ran to his side, and he looked down at them kindly.

"So the pup scared you, eh! Well, don't cry; he won't hurt you. You lost your dinner, too. At noon come up here and we'll see what we can do for you. I guess you'd better hurry now; it's past nine."

"Mighty little clothes those youngsters have for this weather," said the farmer to himself, shivering in his heavy flannels.

Contrary to their belief no unpleasant results followed their lateness. The teacher, perhaps, thought the severity of the weather sufficient excuse. Perhaps the Christmas Spirit stirred in her heart.

At noon the children walked, cold and shivering, to Mr. Thompson's door, and Mary timidly knocked. Mrs. Thompson opened the door, and her motherly heart warmed to the forlorn looking pair.

"Come in, dears," she said heartily, and ushered them in to the warm range. Dinner was ready in a few minutes.

"Gee Whiz!" gasped Bobby under his breath.

Mary simply stared. It was seldom they could secure sufficient food to quite satisfy them, even of the plain-

est character, and here was abundance and more.

Mr. and Mrs. Thompson exchanged glances as the children hungrily ate. It was near Christmas, and the spirit of it was in the air.

"Well, dear," said Mrs. Thompson to Bobby, with a crafty look, as she gave him his third generous helping of juicy beef, potatoes and brown gravy, "so Carlo stole your pie today."

"Wasn't no pie," said Bobby, with his mouth full of potatoes; Mary briefly supplementing, "six slices of bread-an'-butter."

"Got your Christmas goose?" said Mr. Thompson in a matter-of-fact tone.

Mary looked at him in amazement. She never remembered in all her life of having tasted goose.

"Never had goose in our lives."

"What will you have on Christmas, then?"

Bobby paused in his now painful pleasure. "Bread-an'-butter, mebbe potatoes."

"Mebbe sausage," added Mary, after a pause. "Ma does Mrs. Smith's washin' this week. Last Thanksgiving' she gave her a lot."

"You poor young ones," said Mrs. Thompson.

"Poor little girl! Poor little kid!" said Mr. Thompson, stroking her hair, and again his glance sought that of his wife. Something gleamed in their eyes—tears or the Christmas Spirit?

That night Mr. Thompson stood by the huge box stove in the store. He watched the school children come in to gloat over the toys which they prayed the saint to bring them. But his interest was centered chiefly on Bobby and Mary. He noted the sor-

rowful longing with which Bobby touched the gun. He watched Mary tenderly turn the doll on its back to see the eyes close. His gaze wandered out into the cold, dark winter twilight. A tender smile played around his mouth, which gradually grew sad—almost bitter. He saw a tiny face, out in the cold dusk, that was now under the snow.

"Hello, Hank," said a lusty voice, as the heavy hand of a burly friend smote his shoulder. "Merry Christmas, man, if I don't see you again."

"Hello, Billy, and a Happy New Year, when it gets here." And Mr. Thompson looked again at the children, with the pleasant smile coming back. He moved toward them, paused, thought a moment, and then turned to get his basket of groceries on the counter.

"Night, Hank," said the owner in a pleasant voice.

"Good night, Ned," replied Mr. Thompson, as he departed. As he opened the door he shivered and turned up his heavy collar, then passing out, was lost to view.

"Bobby," whispered Mary, "see, it's getting dark. Let's go home." So together they started out, cold and shivering, but having at least feasted their eyes on great treasures.

\* \* \*

It was the day before Christmas. The intense cold of the last two weeks had abated, and great, many-shaped snowflakes were falling slowly and softly.

The house of the widow was cold and desolate. She was away that afternoon scrubbing the floors of the sickly wife of a rich farmer a couple of miles distant. The children had gone away to once more be near the treasures that they almost felt were

theirs; but to their sorrow they found them gone. They were too bashful and too heart-broken to inquire for them, but spent their time miserably looking over others they had hardly seen before.

The store-keeper noticed them. His heart was aglow with good cheer—everyone's was, for the morrow was Christmas. So from his largeness of heart, and with the exultation that comes with giving, he called, "Here, kids." So saying, he handed Bobby a warm pair of woollen-lined leather mitts and gave Mary a thick muffler. Their eyes danced with delight, and in the joy of receiving this badly needed clothing they forgot for the moment their disappointment over the gun and doll.

As they ate their scanty supper Bobby suddenly remarked, "Say, Mary, I heard the kids say they wrote to Santa Claus and burned the letter. Then he brought what they wanted. Why don't he ever stop here?" and a puzzled frown spread over his forehead.

"Mebbe he will," said Mary, rather doubtfully, "if we write." So the letter was duly written and burned in the fire in the old cracked cook stove supported by bricks.

Meanwhile the poor, dejected mother was speechless. Long after the children had crept to bed, she sat in the chilly room, her hands clasped before her. How bitter was her heart! She almost was ready to give up. Work was uncertain in the small village, wages were low, and the children wore out so many clothes. Oh, if only her husband Jack were alive! Tears came to her eyes. Jack had been the strongest man in the neighborhood, good-natured, sober and kindly. They had always enough

then. But not even his strength could save him when that huge elm had fallen across his skull. And Jack had left nothing, for he was only a laborer, and his life was not insured.

The tears blinded her—and now it was Christmas! For dinner she remembered she had planned a little treat—bread and butter, a large piece of cheese, sausage and a bottle of pickles. But what were these for a Christmas dinner! Her mother-love welled up strongly. For the little ones she must struggle on. They must be fed and clothed. As her eyes wandered around the desolate room they finally rested upon the stockings hung so pathetically over a chair back.

Suddenly her mind was made up. The children should not be wholly disappointed. From her slim purse she took half a dollar, and throwing on her well-worn coat, started for the village. She bought a gaudy train of tin cars for Bobby and an equally cheap hair ribbon for Mary. With the few cents left she bought some mixed candy.

With her purchases she hurried home and tenderly placed them in the large stockings.

"There, dears," she said, with a happier face than she'd had for many days—the Christmas Spirit blesses even the humble.

Christmas morning broke beautiful and clear. A soft south wind was blowing and the sun's beams set thousands of frost particles sparkling as though the world were all covered with diamonds. It was a beautiful Christmas day, to be sure. But long before the sun had risen the Williams children were up. They crept through the cold rooms to their stockings and then joyfully scurried back to bed.

So there was a Santa Claus after all. Their faith was renewed as they sucked the hard candy to make it last longer.

Noon was approaching when a cheery voice outside cried "Whoa," and they heard sleigh bells at their very door. Next came a knock, and in walked Mr. Thompson.

"Mrs. Williams," said he, "Mrs. Thompson has sent me over to get you and the children to spend the day with us. Dinner will very soon be ready now, and Mrs. Thompson is cross when it has to stand, so hurry, please."

"Oh, Mr. Thompson, you're so kind, I don't know whether I should"—but she glanced at the longing eyes of the children and without more loss of time made herself and the kiddies as presentable as possible, and in a few minutes they were on the way.

Such a dinner as they had that day! Never had they imagined the like, and little Bob so gorged on roast goose and cranberry sauce that his mother was "actually ashamed of that young un."

After dinner they were ushered to the parlor, the sliding doors of which had been closed. As the vision of the Christmas tree, loaded with wonderful things, burst upon them, Mary gasped.

"Gee whiz!" said Bobby.

At once the task of unloading began. Mary first received an oblong box which she opened in eager wonder. With a low murmur of joy she saw her wonderful doll. Then came the longed-for air rifle for Bobby, and clothes for the doll and warm clothes for them all. Everyone got something. Never was there so happy a throng—only a wistful smile played around Helen Thompson's mouth at

times, as she glanced at the happy little girl.

At 2 o'clock Mr. Thompson remarked to Tom, the hired boy, that they'd better do the chores. At 3:30 o'clock a fine bay team and a black one left the yard. At 6 o'clock Tom and Mr. Thompson came in; and against the rickety house of Mrs. Williams a huge pile of wood had appeared. The Christmas Spirit was abroad that grand day, truly. The store-keeper saw Mr. Thompson and called to him as he passed on the way.

"Where goin', Hank?"

"To Widow Williams'. I guess the poor soul needs a little warmth."

"Wait a minute," said Mr. Henderson. "Just give us a hand—" and in a few minutes two hundred pounds of flour and some thick blankets were resting on the load beside the pig and the quarter of beef and the bags of potatoes.

After another huge meal the Williams family were driven home. Mr. Thompson opened the door and watched while the lamp was lighted.

"Why-who-who" said Mrs. Williams, stopping in amazement.

"Oh, I guess you can put it down to the good Lord and the joy of Christmas," said Mr. Thompson, and then rapidly drove away.

Mrs. Williams went to get some of

the old knarled wood while the children shivered. She stood in amazement when she saw the wood, while tears of gratitude came to her eyes. Looking upward at the clear, cold stars she asked God to bless the kind hearts she had found.

Together mother and children sat by the fire, happy and contented. On this evening—the happiest they had ever known—they did not have to go to bed because of the cold. The kiddies stretched their feet out to the fire and fondled their treasures one by one until gradually the curly heads sank and the eyes closed. The little happy mother went to the window after tucking them in bed. In the light of the rising moon the snow shone, and looking upward she prayed for them all while the friendly north star looked down and smiled.

In the Thompson home Helen sat by the fire-place with her husband. A peace and happiness filled their hearts such as they had never known since the baby eyes had closed forever, and the little hands were tightened in death. And in the glowing embers an angel face smiled at them a merry, merry Christmas and a happy good night.

(Editor's Note—This is the prize winning story in the Review competition.)



## The Aim of Fruit Inspection

P. J. CAREY

THE pioneer fruit growers of Ontario never thought of the venture as having any commercial value, the one thought in their minds being the production of something for home consumption. As evidence of this, one can see in the older settled districts the little groups of trees near the farm buildings, some of which are still standing at the age of nearly one hundred years. It was not for many years that anyone thought of local fruit markets, much less of exporting. Then here and there a speculator discovered that there was some money to be made in not only supplying the home market, but in shipping fruit to the outside world as well. Other dealers soon fell into line, and then came competition between buyers. Thus began the great fruit industry of Ontario that has now developed to such enormous proportions that the number of packages now offered to the fruit-purchasing world annually, can be counted by the millions.

There is one shadow, however, that hangs low over the history of the early life of the fruit industry, namely, that the methods employed in laying the foundation of so important a trade, fell far short of being of such a character as to bring about the best results. It is not my intention to go into details, nor do I intend to fasten the blame on any particular portion of the trade. Suffice to say that we started wrong. All concerned, from the grower to the consumer, will now readily admit this.

It took some years for the trade to realize that owing to faulty methods, the apple business was steadily growing into disrepute—evidence of this was furnished by the fact that scores of complaints reached us from all quarters, wherever our fruit was offered for sale. Then was born the "Fruit Marks Act" of 1901 in answer to the demands of those who had the welfare of the fruit trade of Ontario at heart.

In speaking of the attitude of those engaged in the packing and selling of apples, towards the law, I may say that in many cases it was not understood. Much hostility was shown in some sections, some operators seeming to think that an attempt was being made to put them out of the business. A greater mistake could not have been made. Speaking as one who inspected the first package under the law, and who received the original instructions to inspectors, I may say that those charged with the enforcement of the act were most carefully instructed to avoid anything that would unduly embarrass the trade. The aim of fruit inspection was to correct the prevailing evils in the trade, and this was to be done in the quietest possible way, along educational lines, prosecutions only as a last resort. While grade requirements were established, the real aim of inspection was to procure an honest package, the face or shown surface of which would fairly represent the contents.

Now let me say in how far have we been successful. Looking over

the ground carefully this last season, I have summed up my conclusions thus: As to the fraudulently faced package I am very pleased to state that it is now a thing of the past. Fifteen years ago, I feel safe in saying that 90 per cent. of the packages were to some extent overfaced. I feel free to say that to-day the conditions are reversed. The remaining trouble now seems to be to educate the sorters of apples as to what are the requirements of the Fancy, No. 1 and No. 2 grades. The one pleasing feature of the situation now is the fact that except in very few cases, is there any hostility to the law, the great bulk of those engaged in the fruit trade are now fully reconciled to the fact that the "Inspection and Sale Act" (as it is now called) is their best friend. Inspectors are now welcomed and inspection asked for. It has been stated by some that the prices of apples have not advanced

with inspection. Let me say in answer that if prices some seasons are disappointing, it can only be due to natural causes, such as climatic conditions, an increased production, or the ever increasing number of orchard pests. There is one condition that perhaps is lost sight of by those summing up the situation, and that is that the enormous increase in the number of orchard pests has almost more than kept pace with the great amount of educational work that has been done, and has lessened the degree of merit that otherwise would be credited to such work. I am pleased to know the Department are enlarging along educational lines, as well as rigidly enforcing the law. Those who make an honest effort have little to fear from the inspectors, who they will find ready to co-operate with them in giving the necessary instructions to their packers and sorters.





## Consider the Cost

FROM a financial standpoint Dad had been a failure all his life. He was one of the pioneers of the county, was reeve of the municipality for years, and no new policies were ever introduced without consulting dad. He had three sons and two daughters. One studied law, the other medicine, my two sisters were married off, and I, the youngest, was left home on the farm. Long before I was ten years of age my feet were so tough that I could walk in the oat field bare-footed. I was a lazy little rascal, my father said, and my greatest ambition was to learn to run an automobile, and become a chauffeur for some rich, young lady. Dad was determined I should stick on the farm, but mother said I looked like a young cherub, and she was sure the Lord meant me for the ministry. Mother's will prevailed, as it generally did, and accordingly I was sent into town to the high school, dad declaring it was a shame to waste good money on such an idle scamp.

Three years at high school succeeded in smothering the last spark of affection for the farm. I received a week's suspension for stealing apples, and dad thereupon determined it would be useless spending any more money fitting me for the ministry, so I was left to shift for myself. I picked up the city paper and saw an advertisement: "Wanted—cost clerk in manufacturer's office." I applied for the position and received a letter asking me to call at their office in the city. I showed dad the letter, but he shook his head, and reckoned that a cost clerk must be a

shark of some kind. Mother said she knew Sonnie wouldn't do anything wrong, and that if I could once get a start it would only be a few years before I would be president of the concern. Mother triumphed again, and accordingly my trunk was packed, and with tears and blessings I was sent off to the big city, my canvas telescope well packed with cake and apples.

Fearful and trembling I stepped into the office of that large manufacturing concern, and was shown into the manager's office. He asked me a few questions, and finding I did not know anything, decided to hire me. I did not sleep much that night. Before six o'clock I was awake and excited over the novelty of my coming duties. Half an hour before the appointed time I was down in the office. When the stenographers came down they started to flirt with me. I turned crimson, and wondered what mother would think if she could see me among these bad girls. I imagined I would have to get out balance sheets, dictate letters, and consult with the directors as to the ways and means of increasing the efficiency of the plant. Imagine my disappointment when I was made to hunt through dusty files for old reports and letters. By night time I was dusty, dirty and tired, and had not such a favorable impression of office life. I managed to stick to the job, and after a month of hard, dirty work was put on one of the ledgers. I stayed at this all winter. Often at night my head would swim and my back would ache, and in my dreams figures would appear in an endless confusion.

When spring opened up I used to sit in that stuffy office and long for the green fields at home.

Meanwhile things were going badly on the farm. Dad had raised a mortgage to build a new house. Then three of our horses died, and along came an off year in crops. Dad's health broke down. He could not meet his payments and the farm was to be sold. This nearly broke mother's heart, and I was summoned home. It was sixteen months since I had been out in the clear, open fields. Everything seemed to take on a new life. The calls of the barnyard seemed like sweet music after the discordant noises of the city. That day I suggested to dad that he give up the actice management of the farm and turn it over to me. Dad laughed and mother cried, but finally they decided to let me try it.

That first week on the farm I did a good deal of thinking. Other people had made money on the farm; why hadn't dad? He used to work long and hard, but it was really mother who kept the house with her butter and chickens. I decided right there and then that what dad needed was a cost department. I didn't know very much about farming, but somehow or other it seemed to me our ten cows weren't producing enough milk for the food they consumed, and our steers were long, bony brutes, hard to fatten. A few years before, a farmers' institute chap had lectured in the school-house on dairying, and warmed everybody up on the profits to be made in that business. Dad thought his opportunity had come and crossed our good Durhams with Jerseys. As a result our cows were a bunch of nondescript mongrels of all shapes, sizes and colors, and our

calves all had that long, lean, hungry look. Now, this is where dad made a great mistake. The dairy business is a specialized business, requiring men of a certain temperament and training. The farmers in our locality were not suited to that business, and attempts to introduce it generally resulted in dissatisfaction and failure.

I got out a pencil and paper and did some figuring. Our ten cows averaged 2,900 pounds of milk per year. At 15 cents per gallon, this gave \$43.50 per cow. From a report of the agricultural college, I figured out the average cost of feeding these cows for one year was \$57.10. It didn't take a Pierpont Morgan to see that dad's profit was on the wrong side. You will wonder why dad did not go into the receiver's hands long before. For the simple reason that the cows charged too little for their board, dad waited on them himself, and had mother and the kids to help. I decided right there and then to clean out the whole bunch of scrubs and work into some good shorthorn cows of a dairy strain.

Next I investigated the feeding of the steers. Dad used to let his steers grow along till about two and one-half to three years old and then fatten them off for market. I figured out that three steers which dad sold for an average of \$75 had cost \$65 to produce. That left a profit of ten dollars per steer for three years' labor. A butcher would quit business if he couldn't make twenty per cent. on his selling price, and his labor would only be a matter of a few hours. Dad only received a little over ten per cent. for three years' labor. In a report of the Dominion Experimental Farm, I found that up to one year of age it cost \$5.50 to

produce 100 pounds of flesh; from 1 to 2 years it cost \$6.05, and from 2 to 3 years, \$7.05. I figured out that a yearling steer weighing 1,000 pounds would cost \$55.00, and at 8 cents per pound would bring \$80.00, leaving a profit of \$33.00 for one year's labor. A two-year-old weighing 1,500 pounds would cost \$85.00, and at 8 cents would sell for \$120.00, or a profit of \$35.00. This meant a return of \$2.00 for the extra years' labor and privilege of hearing your steers bawl every morning for a year. I saw where dad made his mistake, and determined to shove the young calves right along and get them into the market at from twelve to fifteen months. I still continue to raise the calves on skim milk by restoring as nearly as possible the qualities contained in new milk. As a substitute for the milk fat I use flax seed meal. It contains a high percentage of oil, a low percentage of starch, and has a high rate of digestibility, with a nutritive ratio nearly the same as whole milk. The milk is always fed sweet and warmed to about 95 degrees F. I let the calves nibble at rolled oats at about three

weeks of age, and give them just about all they will eat. I also get them used to alfalfa hay as early as possible. It is surprising how soon a calf will learn to eat. The calves are kept on milk for a couple of months and gradually worked into a ration of ensilage, chopped oats and barley, and plenty of alfalfa or clover hay. By forcing the feed I find it an easy matter to produce a one thousand pound steer at from twelve to fifteen months.

I have now all the farm organized on the cost system basis. My ten short horn cows of a milking strain last year averaged 8,000 pounds of milk and gave a net profit of \$500. I made a profit of \$300 on the steers, and the hogs, sheep, poultry and orchard gave a profit of \$700. This made a total net profit for the year of \$1,500, which is not bad for a one hundred acre farm. In five years I have paid off the mortgage, improved the buildings, equipment and herds, and I now have an option on another hundred acres, and intend to increase farming operations, ever keeping in mind the importance of a cost department on the farm.

G. G. Bramhill, '13.



## Marketing Poultry Produce

PROFESSOR W. R. GRAHAM

ALL will agree that it is desirable to produce goods of the best quality. It would therefore appear unnecessary to discuss this matter at length, but simply to bear in mind that however high may be the standard there is always a probability of the standard being raised.

This of necessity is almost sure to happen as thousands of individuals all over the world are studying the question of "how to please."

Many forget that uniformity of quality is of great importance. While it is desirable to have as good a quality as possible, it must never be forgotten that uniformity of quality is of the utmost importance. We have to look no further than to the Danish nation to have this illustrated.

It is generally conceded, I believe, that there are individuals all over the world who produce butter and eggs equal to the Danish product. Yet we find the Danish product selling in large quantities at better prices as compared with the produce of other countries. This is due to the fact that their produce is practically all alike as to flavor, color, etc. One likes to buy from a reliable firm, not so much because somebody else has not as good produce, but because they can always be depended upon. Let us illustrate this point with another market nearer at home. The better hotels, restaurants and dining-car trade of Chicago demand poultry, butter, apples, potatoes, etc., of uniformity, not only as to quality, but in many instances, as to size. At least one dealer is endeavoring to

supply this trade and is meeting with good success, for the reasons that the buyers of the various places have found that his goods are dependable as to quality and size, and, what is of equal importance, that he has the quantity. The quantity to many might be considered of small importance, but one hundred cars of dressed poultry represent large numbers of live birds. A few further observations of this man's business might not be out of place. The hotels, etc., know that in order to please the guest and hold the trade it is desirable to please, and moreover, to serve everybody alike. Consequently, the one-half of a milk-fed chicken the guest may order must be no larger or smaller than his neighbors or friends. The same applies to baked potatoes and apples, etc., and furthermore, the quality of the goods as to flavor must be the same. It is really astonishing what a pleasing effect it produces on a party of say ten guests who sit down to a table where every portion is the same in every respect. The big man cannot look over at his smaller friend and say, "Your potato is larger than mine, and yet I paid as much for it." Here we find a trade for graded boxed potatoes.

The production of high quality produce in large quantities is no easy task. The production of dressed poultry and eggs require very careful consideration. There is probably no other farm product that has been put on the market in worse condition, due, the writer believes, to ignorance more than any other cause.

The dressed poultry trade, in a

large way, can be handled much more easily than the egg trade. Where the demand requires chickens of exact size and quality, both as to flavor and softness, it practically means that the chickens grown by the farmers will have to be fattened co-operatively or by the packers. The feeding must be uniform in order to have uniform flavor of flesh. The breeding should be as uniform as possible, and hence either the Government or the large interest should lend a helping hand in the way of a breeding station for the distribution of pure bred males. The packing house is a necessity in order to get large quantities of birds that are killed, plucked, graded, chilled and boxed uniformly. Many of the packers have much to learn along this line. The very large packers are working at a disadvantage in that the personality of the party in charge is lost in too many branches. So far only in houses in which everybody has been trained by the packer and comes under his personal supervision have the goods been produced, yet these packers have been able to turn out several hundred cars of poultry a year.

The problem with eggs is much more difficult than it is with dressed poultry. There are two difficult problems, namely, the uniform flavor of the eggs and the getting of the eggs to the market or final consumer quickly.

It is, and will be for some time, a very discouraging work trying to get the farmers in any county or township to feed their hens on good, pure, wholesome food, and not on worms and manure heaps for a portion of the year. Please do not forget that

what is needed is eggs of uniform flavor every day of the year. Secondly, the collecting of the eggs quickly can be accomplished but has some problems that, as yet, are not easy. Many producers forget eggs absorb odors and are almost as susceptible to bacterial infection as is milk. It is therefore not a good plan to have medicated nest eggs, onions or other similar products near new laid eggs. It is equally important that rusty or dirty vessels must not be used for storing eggs.

Co-operation is practically the only method so far successful in gathering eggs quickly. To get large quantities of either good chickens or eggs requires an application of the co-operative principle either in part or the whole.

In conclusion there remains yet one link in the chain. These products must be obtainable at all seasons of the year. Here cold storage plays an important part. The United States Government has spent a large amount of money in investigating this subject, and its work so far goes to show that, provided the stock is properly fed, killed and packed, and furthermore is chilled and frozen quickly, the product will remain in good condition for the seasons. It might be better to say that they recommend large city consumers to buy hard frozen chickens, that are delivered to the consumer hard frozen, this being a better and safer procedure for the family than many so-called fresh killed stock.

The sooner eggs are chilled to a temperature of 29 degrees, the better the product keeps.

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# Wrestling—Professional and Amateur

FREDERICK DAVY

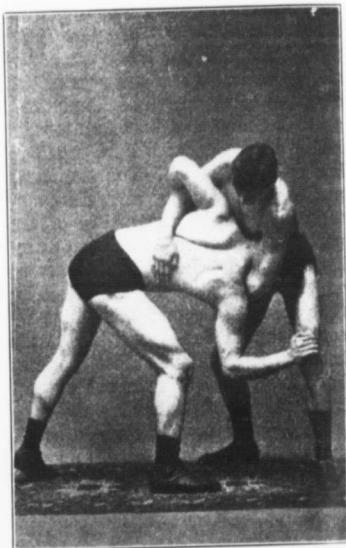
Editor of the Canadian Citizen and Wrestling Instructor Ottawa Y.M.C.A.

**W**RESTLING was man's first game. If the good old sport had a predecessor there is no record of it. Egyptian records there are in stone, and they include practically all the principal holds known to modern wrestlers. The Bible in one of its earliest chapters refers to a struggle between Jacob and an angel. It is not a public performance and from the context it may be inferred that there was no referee. The style and the conditions of the match are omitted, but the winner is announced. In view of the first statement of this article, the reference to the game by the ancient chronicler is important. It shows that the subject was then frequently in men's minds.

Of all the gladiatorial games, wrestling has lasted longest and best. Boxing is not in general public favor. Swift and attractive as is a bout between two active principals, public sentiment is repelled by the frequent exhibitions of gore and the sight of a man knocked senseless by a skilful blow. But in wrestling men are seldom injured. Boxers are led into the ring by their seconds and fanned and bathed between the bouts and in general cared for and looked after with all the detail that is lavished on valuable race horses. But the wrestler, after the bout, takes a rough towel, gives himself a rub-down and is as fresh as a colt in a few minutes.

Wrestling is a game capable of a multitude of variations. England has developed three styles, Cumberland and Westmoreland style, Cornwall

style and Lancashire style. The continent of Europe has stuck pretty fast to the Graeco-Roman style, and in America the elaboration of the Lancashire has become what is now popularly known as catch-as-catch-can. Japan has two styles. One de-



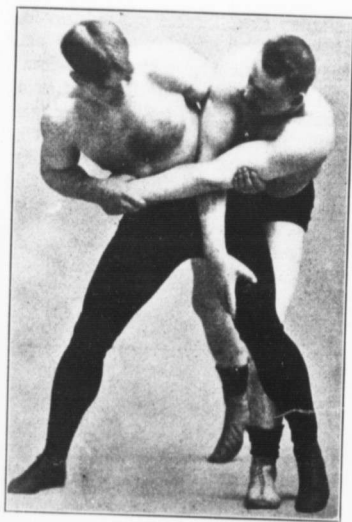
Forward Chancery and Bar Hold. The wrestler securing it, steps back with his left foot, bears down and then prisms his opponent over.

pends almost solely on weight, and the other Judo or Jiu-Jitsu is not of a class to be considered as a game. It includes many of the holds known to catch-as-catch-can men, but usually classed by them as foul.

Graeco-Roman differs only from

catch-as-catch-can in that it does not permit any holds below the waist or any tripping or use of the legs for holds. In Europe it flourishes, and bouts in this style are attended by mixed audiences to a great extent.

But in the United States and Canada, catch-as-catch-can prevails. In recent years, particularly in the practice of Frank Gotch, it has turned to a much greater use of the legs than previously. The "scissor" hold, in a multitude of combinations, has been



Frank Gotch taking a double armhold on his working partner.

much more largely practiced, and one not thus proficient can hardly hope to win, no matter how good he may be in the arms and shoulders.

Wrestling should be begun under the tuition of a careful instructor. Each hold should be studied carefully and practiced "without resistance," the learners taking turn about to take the hold. Each hold, moreover,

should be practiced right and left. To get a hold correctly is the biggest part of the success in the game. In the beginning speed should be ignored until accuracy is secured. If that is done speed will come of itself. As soon as enough holds are learned, the mat work should be commenced with short bouts, of about two minutes at first and a gradual increase up to about ten if the training is for amateur contests. By following this course the beginner will soon be able to note a wonderful advance in strength and endurance. In practicing, men should always choose those of their own weight. What injuries come in wrestling usually come through men tackling too heavy odds of weight and strength.

A word about professional wrestling. Professional wrestling suffers from a lack of organized control. There is no central authority. Referees, however earnest they may be in the desire to preserve the game on its merits as a game, have very little but tradition to guide them. And tradition differs in localities. And tastes differ in localities. But the writer has no hesitation in stating that if professional wrestling could be kept free from rough tactics that are not a part of the game, it would draw a much larger and more enthusiastic clientele. In professional wrestling it is usual for all holds but the "strangle" to be allowed.

In Canada catch-as-catch-can is about the only branch of wrestling that is practised. Under amateur rules bouts last six minutes each with three minutes' rest between the bouts. If at the end of the three bouts a fall has not been secured, the referee may order another bout or may decide superiority on points. No

striking, kicking, butting, etc., or anything that endangers life or limb are allowed, and the rules bar the following holds: the strangle (pressure on the throat), the hammerlock (arm up the back), and the full Nelson (both arms used as a pry upon the head). In amateur wrestling the short bout and the breathing spell between gives opportunity for swift work. The weights are: bantam, 105 pounds and under; feather, 115 pounds and under; light, 135 pounds and under; welter, 145 pounds and under; middle, 158 pounds and under.

What does wrestling do for a man? Many things. It gives him poise and physical confidence. It makes him mentally and physically alert. It strengthens the vital organs wonderfully and makes him better able to resist disease. It toughens the muscles and makes them better able to

stand the bumps and shocks that so frequently come in daily life. Professional wrestlers carry on the game at an age sometimes decades after men are crowded out of other games. Men frequently stay in the ring past forty and fifty, and after that when they do retire is it more often because they are losing in speed than in strength and endurance. One of the greatest virtues of wrestling is the marvellous endurance it gives. The writer has often refereed matches in which men commonly go for fifty minutes at a terrific expenditure of strength and energy. At the end they take their self-applied rub-down and are apparently as fresh as ever. Bouts frequently go much longer than that. They have been known to last for hours. But that is carrying endurance beyond the needs of the average man.



### THE FIRST CHRISTMAS

"This is the month and this the happy morn,  
Wherein the Son of Heaven's Eternal King,  
Of Wedded maid and virgin mother born,  
Our great redemption from above did bring,  
For so the holy sages once did sing,  
That He our deadly forfeit should release,  
And with his Father work us a perpetual peace."

—Milton.





## The Egg As An Article of Food

ONE hundred years ago but very little importance was attached to eggs as an article of food. At that time the different classes of meats were cheap and the different varieties of foods for man were so few in number that eggs occupied but a small place in the diet of the people. To-day, however, that state of affairs is greatly changed, and the hen's egg is one of the staple articles of food for the human race. Its value lies not altogether in its importance as an article of food in itself. Its adaptability to enter into the preparation of numberless food concoctions tends to increase the already enormous demands upon the available market supply. The result is that many countries which but a few years ago were exporting eggs, have ceased to export, and in many instances have been compelled to import in order to supply the home demand. The per capita consumption has increased, and with it there has been a marked increase in the price.

There are several reasons why some countries have ceased to be exporting countries and are importing. First and foremost is the increased home consumption, due to increase in population and increased per capita consumption. Another reason which is partly responsible for this state of affairs is that enormous quantities of eggs are rendered undesirable for food purposes, due to improper handling. This latter fact is due partly to carelessness and to ignorance in handling. Ignorance of the structure of the egg and its susceptibility to absorption of odors and

rapid deterioration. It is therefore of importance in discussing this subject to give some attention to the general structure of the egg and its composition.

The shell of the egg, which is composed principally of calcium carbonate, is not, as many people suppose, an air-tight structure. An egg shell is quite porous, as can be readily proven by removing the membrane which lines the inside of the shell, and pouring a small quantity of ink into the shell. The ink will, in a very short time, pass through the pores and appear on the outer surface of the shell. This porous condition allows for the free interchange of gases and odors between the contents of eggs and the surrounding atmosphere, and also allows for the evaporation of the moisture content. The fact that there is a possibility of free interchange of gases through the shell of the egg while being held renders possible one of the most important operations, in the handling of the egg trade for food purposes, i. e., cold storage.

It is a well known fact among cold storage men that where eggs are held in storage for any length of time, there is a constant breaking down of the yolk and albumen of the egg and co-incident with this breaking down there is liberated varying amounts of poisonous gases. These gases readily pass out through the pores of the shell, leaving the contents of the egg perfectly pure and wholesome. It is owing to the liberation of these gases and the evaporation of the moisture content that cold-storage plants must be

equipped with an efficient system of forced draft where it is intended to store eggs. Now, while the porous condition of the shell is of economic importance in the handling of eggs in cold storage, it is also of economic importance where handling eggs on the general market. Bad odors, molds and bacteria are as readily taken in through the pores in the shell as are the generated gases and moisture given off. Where eggs come in contact with strong odors as are liberated by medicated nest-eggs, vegetables, oils, fish, etc., during the interval between the time of production and consumption the odors are readily absorbed and cannot be detected until the eggs are cooked. It can therefore be readily seen that the egg is one of the most perishable foods upon the market to-day.

Directly inside the shell is found two thin membranes, the one lining the shell and the other surrounding the albumen. If an egg is examined before a candle, a small darkened area, the air space, will be noticed near the large end of the egg. This is between the two membranes, and its size depends entirely upon the length of time since the egg was laid and the atmospheric conditions surrounding it in the interval. At the time the egg is laid and is still warm, no air space is present, but with the cooling of the contents, contraction takes place and the result is a slight air space is developed. Following this, if the egg is subjected to high temperatures for a short period of time or a low temperature for a long period, the air cell increases in size, the amount of increase depending upon the duration of the period. The size of the air space, as revealed by the candle, is the usual indicator of the

age of the egg, and grading takes place accordingly, providing the egg is otherwise in good condition.

The albumen, which lies directly inside the membranes, and the yolk, which is enclosed in the vitalline membrane and surrounded by the albumen, forms the edible portion of the egg. It is these parts of the egg which undergo rapid deterioration when the eggs are improperly handled during the period between production and consumption. If one will take a new laid egg and break it gently into an open plate they will notice on the upper side of the vitallis or yolk a small round spot of lighter color than the balance of the yolk. This is the germinal disc and when the egg has been fertilized it is at this spot that embryonic development begins. It is at this point and only here that decomposition can start in the yolk, and decomposition is only possible here when the egg has been fertilized. With the albumen the situation is different. Coming in direct contact with the shell membranes which are slightly porous, as is the shell, infection from outside sources is more readily possible and the albumen being composed largely of water and protein, forms, with proper temperatures, an ideal medium on which molds and bacteria can grow to perfection. Again, it is of such a nature that it readily absorbs any strong odors which may be present in the surrounding atmosphere.

A point of interest with regard to the changes which take place in the content of eggs in storage is that relative to the moisture. In the newly laid egg the yolk is much more firm than the albumen, containing a larger percentage of solids in the form of proteids and fats. Where

the period of storage is of long duration it is found that the albumen loses a greater amount of moisture than is given off through the shell, while the yolk becomes more liquid. This is due to the fact that moisture passes from the albumen to the yolk through the vitelline membrane by osmosis until an equilibrium is established, and the moisture content of yolk and albumen are the same.

It must be understood that in the foregoing references to storage of eggs and the changes which occur during the period of storage are intended in any way in disparagement of cold storage. It must be understood that cold storage and refrigeration are of the utmost necessity for handling the market supply of eggs. Certain prejudices have arisen against cold stored products (eggs) and in many cases these are justified. However, in order to handle eggs so that they will reach the markets at all seasons of the year in a fresh, wholesome condition it is necessary that some system of refrigeration be introduced which will be active all along the line of handling from producer to consumer.

In the foregoing an endeavor has been made to make clear the structure of the egg, some changes which occur in the content of an egg, and its susceptibility to rapid deterioration. Now, with these points in mind how are eggs to be produced and handled in order to get them into the hands of the consumers in the freshest, most wholesome condition. To the producer the following suggestions are offered:

(1) Keep no male with laying stock except during breeding season.

(2) Collect the eggs once per day in winter and twice daily in summer.

(3) Keep eggs, after gathering them, in a cool, sweet atmosphere, free from odors.

(4) Birds showing symptoms of disease should be removed at once.

(5) Feed only pure wholesome foods.

(6) Keep the nests for the layers clean, comfortable and free from vermin.

(7) Have a sufficient number of nests for the layers.

(8) Market only such eggs as are known to be new-laid, and market the eggs at least once or, better, twice per week.

(9) All eggs should be candled before going to market as fully one and a half per cent. of all eggs are rotten when laid, due to the birds getting partly decomposed animal or vegetable matter in their food.

(10) Keep only pure-bred fowl so as to get a uniform product to market.

(11) Retain all very small, very large, deformed, broken or doubtful eggs at home.

The country merchant receiving most of the eggs from the producer, the following recommendations are offered for his consideration:

(1) Buy eggs according to quality (loss off) and pay accordingly.

(2) Keep eggs away from oils, fish, vegetables or other odoriferous materials.

(3) Candle all eggs bought, grade them and ship twice a week.

(4) During the period of holding keep at as low a temperature as possible.

F. N. MARCELLUS.

## Short Courses At The Ontario Agricultural College, 1913

During the coming winter courses will be given in Stock and Seed Judging, Poultry Raising, Fruit Growing, Apple Packing, Beekeeping and Dairying.

### Course No. 1—Stock and Seed Judging.

**T**HE course in Stock and Seed Judging begins on January 7th and continues till January 18th. From 8:30 to 10 a.m. each day will be devoted to the study of economic seeds. The practical work in this department will consist in the judging of oats, barley, wheat, peas, corn, grasses, clovers and the seeds of various other farm crops; and in the examination and identification of the seeds of some of our worst weeds. In addition to this lectures will be given on the improvement of farm crops, and the destruction of weeds. The work will be conducted by C. A. Zavitz, Professor of Field Husbandry; W. J. Squirrell, Lecturer in Field Husbandry, and J. C. Howitt, Professor of Botany.

From 10 a.m. till noon, and from 1:30 to 4 p.m., practical work in the stock judging will be done by the class in the judging pavilion. The stock to be judged will consist of draft, carriage and roadster horses; beef and dairy cattle, sheep and swine. The animals will be obtained from the college herds and from the herds of some of the leading Ontario breeders. After the students have done their work upon the various classes, the animals will be placed and criticized by experts. In all cases reasons will be given for the placing, so that the students can compare

their judgment of the live stock with that of recognized authorities.

Another interesting feature of the course is the slaughter tests. Fat cattle, fat sheep and bacon hogs will be judged on foot by the class. The animals will then be slaughtered and the carcasses brought before the class, judged and cut up by competent men to illustrate the relative values of the different parts.

In this work G. E. Day, Professor of Animal Husbandry, and Dr. J. Hugo Reed, Professor of Veterinary Science, will be assisted by other competent stockmen.

In the evening lectures on agricultural subjects of a more general nature will be given by members of the college staff.

### Course No. 2—Poultry Raising.

The course in Poultry Raising begins January 7th and continues until January 18th. In this department a special course is offered to those men, women, boys and girls who would like to have special instruction in poultry raising but who do not care to take the time for the regular course. The course is especially designed to produce practical poultrymen. Instruction will be given in the following departments: Construction and equipment of poultry houses; principles of breeding and mating; natural and artificial incubation; the production of eggs in winter; demonstrations and practice in fattening, killing, dressing and pre-

paring for market; parasites and diseases of fowl; and practical instruction in the construction and repairing of coops, feed troughs, etc.

#### Course No. 3—Fruit Growing.

A two-weeks course will be given in Fruit Growing, beginning January 21st and ending February 1st. The subjects to be dealt with are as follows: Where to locate; selection and preparation of soil; nursery stock; tillage and tillage implements; sprays and spraying; frost protection; fertilizing; pruning; co-operative packing and selling; markets. All the common varieties of fruit will be dealt with.

#### Course No. 4—Apple Packing.

The following classes will be given in Apple Packing:

Class 1—Box-Packing, Jan 27th, 1:30 p.m.-Feb. 1st.

Class 2—Box-Packing, Feb. 3rd, 1:30 p.m.-Feb. 8th.

Class 3 — Barrel-Packing. Jan. 27th, 1:30 p.m.-Feb. 1st.

Class 4—Barrel-Packing, Feb. 3rd, 1:30 p.m.-Feb. 8th.

The classes in Apple Packing are entirely separate from the Short Course in Fruit Growing.

A fee of \$2.00 will be required for entrance to each class in Apple Packing.

Address all applications for the packing school to Professor J. W. Crow, Ontario Agricultural College, Guelph, Ont.

#### Course No. 5.—Beekeeping

Beginning on January 7th and ending January 18th, a course of practical lectures and demonstrations in Beekeeping will be given by the regular College staff, and other specialists from various parts of Ontario. The following are some of the subjects to

be considered: Method of Management throughout the Whole Season's Work; Diseases of Bees and their Treatment; Green Rearing; etc.

Those who purpose attending this course are recommended to read "Langstroth on the Honey Bee," and also if possible "The A. B. C. and X. Y. Z. of Bee Culture," before coming. Either of these books can be obtained from the Apiculture Club of the College.

For the benefit of those who cannot attend the whole course, arrangements are being made to hold a two days' convention sometime during the course.

Information regarding the particulars and program of this course may be secured by writing to Morley Pettit, Provincial Apiarist, O. A. College, Guelph.

#### Course No. 6.—Dairying.

The Faculty are prepared to give four courses in Dairying.

1.—Courses for Factory Cheese and Butter Makers, and in the Farm Dairy, for men and women on the farm. Opens January 2nd and closes March 21st, 1913. Only those who have had at least one year's experience in a creamery or cheese factory are eligible for the Factory Courses.

This course is free to residents of Ontario, non-residents will be required to pay a fee of \$5.00.

2.—Course for Dairy Instructors. Begins March 31st and ends April 4th, 1913. This course consists of advanced work in dairying. A special lecturer of international reputation is usually secured for this course.

3.—Summer Course for Butter and Cheese Makers, or for those who wish to learn the business. Begins May 1st and ends September 30th, 1913. Cheese and butter-makers, or farm

dairymen may come to the school at any time during the term, and remain for a short or long period, taking up whatever branches they may be interested in.

4.—Courses for Cow Testing, Cow Owners, January 3rd to 10th; Official Testers, March 31st to April 4th, 1913.

(a) The Course for Cow Owners will consist of practical lessons in weighing, sampling, testing for fat with the Babcock test, and for casein with the Hart test, and in testing with the Lactometer for specific gravity, and calculating the total solids in the milk. In addition lectures will be given on feeding and caring for dairy animals.

(b) The Course for Official Testers is similar to that for cow owners, and is especially designed to promote uniformity among official testers. All those who wish employment in this work are expected to take this course.

No entrance examination will be required for any of these courses, and

no fee will be charged, except where indicated.

Any farmer or farmer's son may enter for any one of these courses, the only condition being that he come in time, and attend regularly and punctually all lectures and demonstrations throughout the course.

Board and lodging may be had in the vicinity of the College and in the city of Guelph at \$3.50 to \$4.50 per week.

Arrangements have been made for reduced rates on all railroads to our short courses. In purchasing railway tickets, secure from the agent, in addition to a regular single first-class ticket, a standard certificate. If coming over more than one line, get a certificate at each junction. The certificate, when signed by the President of the College, will entitle you to reduced rate for the return trip.

For copy of the Short Course Circular or Bulletins, or for Calendar and information concerning the Ontario Agricultural College, address Mr. G. C. Creelman, B. S. A., LL.D., President. L. M. DAVIS, '14.

## The Duel; A True O.A.C. Yarn of '76

WM. SQUIRRELL, Sr.

“MYERS! I challenge you to mortal combat; we will end this once and for all.”

So spoke Buxton, a hot-blooded Englishman. He was in a towering rage, and truly he had provocation enough, for the boys teased him continually and Myers was one of those chiefly instrumental in making his life a burden to him. In a mad moment of desperation Buxton issued his challenge, and immediately ap-

pointed Crumpton, the “Cockney Joker,” to act as his second, and make arrangements for the fight.

Firearms were the weapons chosen by his adversary and the affair was timed to take place in three days. The day following the challenge, however, Buxton's anger had somewhat subsided, and he had begun to think that duels were risky and unsatisfactory affairs, after all. He consulted his second as to the possibility of

settling the quarrel by other means.

"Never," said Crumpton. "You must fight or disgrace your flag and the country of your birth; and I will never speak to you again."

Thus adjured, Buxton determined to fight. On the appointed day he was taken to a secluded place in the woods beyond the experimental grounds, where he found his opponent in waiting with several others. The ground was paced off and the duellists took their stations, Buxton being handed a loaded rifle while his opponent was provided with a revolver. Around them the stately trees arose out of the white blanket of snow and seemed to look down on the scene in silent disapproval.

"Each looked to sun and stream and plain

As what they ne'er might see again."

Then Buxton asked for a few moments respite to prepare himself for death, and withdrew a little while apart. This duty performed he again took up his position opposite his waiting adversary.

On the word, both fired. Myers' shot went high in air; he staggered, then fell face downwards and lay still, the snow spattered red around him. Buxton gazed horror-stricken at the fallen figure for a moment; then, dropping his rifle, moaned, "I've killed him; what shall I do, oh! what shall I do!"

"Run for your life," advised Crumpton, excitedly. "Run for your life, man!"

Buxton darted off, but in a few moments returned.

"Where shall I go? What shall I do? I have no money," he exclaimed in terror.

"Here! take this," promptly replied his second, handing him his pocket-book. "Now run!"

Away sped the fugitive through the wood. No sooner had he disappeared than the "dead man" jumped to his feet and joined the others in a chase after the runaway. Over the fields they streamed and across the river. Crumpton hard upon the heels of his man but unable to catch him, and the "dead man" far in the rear spending his breath in spasms of laughter. Finally Crumpton caught the fugitive on the railroad tracks attempting to board an outgoing train.

"Come back with me, it's all a joke," he implored.

But his victim struggled hard to escape and would have succeeded, but for the arrival of other conspirators. No assurances or entreaties availed. Buxton had seen his foe fall and his blood bespatter the snow. He was a murderer!

Just then the "dead man" came up, quite evidently in sound health, but badly out of breath. Buxton gave back in amazement,—

"He's alive! but he must be wounded! I saw his blood!"

For answer his tormentor displayed a number of blank rifle cartridges, and a small bottle still containing a quantity of red paint.



## The Gift Of The Wise Men

O. HENRY

ONE dollar and eighty-seven cents. That was all. And sixty cents of it was in pennies. Pennies saved one and two at a time by bulldozing the grocer and the vegetable man and the butcher until one's cheeks burned with the silent imputation of parsimony that such close dealing implied. Three times Della counted it. One dollar and eighty-seven cents. And the next day would be Christmas.

There was clearly nothing to do but flop down on the shabby little couch and howl. So Della did it. Which instigates the moral reflection that life is made up of sobs, sniffles and smiles, with sniffles predominating.

While the mistress of the home is gradually subsiding from the first stage to the second, take a look at the home. A furnished flat at \$8 per week. It did not exactly beggar description, but it certainly had that word on the lookout for the mendicancy squad.

In the vestibule below was a letter-box into which no letter would go, and an electric button from which no mortal finger could coax a ring. Also appertaining thereunto was a card bearing the name "Mr. James Dillingham Young."

The "Dillingham" had been flung to the breeze during a former period of prosperity when its possessor was being paid \$30 per week. Now, when the income was shrunk to \$20, the letters of "Dillingham" looked blurred, as though they were thinking seriously of contracting to a modest and unassuming D. But whenever

Mr. James Dillingham Young came home and reached his flat above he was called "Jim" and greatly hugged by Mrs. James Dillingham Young, already introduced to you as Della. Which is all very good.

Della finished her cry and attended her cheeks with the powder rag. She stood by the window and looked out dully at a grey cat walking a grey fence in a grey backyard. Tomorrow would be Christmas Day, and she had only \$1.87 with which to buy Jim a present. She had been saving every penny she could for months, with this result. Twenty dollars a week doesn't go far. Expenses had been greater than she had calculated. They always are. Only \$1.87 to buy a present for Jim. Her Jim. Many a happy hour she had spent planning for something nice for him. Something fine and rare and sterling, something just a little bit near to being worthy of the honor of being owned by Jim.

There was a pier-glass between the windows of the room. Perhaps you have seen a pier-glass in an \$8 flat. A very thin and very agile person may, by observing his reflection in a rapid sequence of longitudinal strips obtain a fairly accurate conception of his looks. Della, being slender, had mastered the art.

Suddenly she whirled from the window and stood before the glass. Her eyes were shining brilliantly, but her face had lost its color within twenty seconds. Rapidly she pulled down her hair and let it fall to its full length.

Now, there were two possessions



of the James Dillingham Youngs in which they both took a mighty pride. One was Jim's gold watch that had been his father's and his grandfather's. The other was Della's hair. Had the Queen of Sheba lived in the flat across the airshaft, Della would have let her hair hang out the window some day to dry just to depreciate her Majesty's jewels and gifts. Had King Solomon been the janitor, with all his treasures piled up in the basement, Jim would have pulled out his watch every time he passed, just to see him pluck at his beard from envy.

So now Della's beautiful hair fell about her, rippling and shining like a cascade of brown waters. It reached below her knee and made itself almost a garment for her. And then she did it up again nervously and quickly. Once she faltered for a minute and stood still while a tear or two splashed on the worn red carpet.

On went her old brown jacket; on went her old brown hat. With a whirl of skirts and with the brilliant sparkle still in her eyes, she fluttered out the door and down the stairs to the street.

Where she stopped the sign read: "Mme. Sofronie. Hair Goods of All Kinds." One flight up Della ran, and collected herself, panting. Madame, large, too white, chilly, hardly looked the "Sofronie."

"Will you buy my hair?" asked Della.

"I buy hair," said Madame. "Take yer hat off and let's have a sight at the looks of it."

Down rippled the brown cascade.

"Twenty dollars," said Madame, lifting the mass with a practiced hand.

"Give it to me quick," said Della.

Oh, and the next two hours tripped by on rosy wings. Forget the hashed metaphor. She was ransacking the stores for Jim's present.

She found it at last. It surely had been made for Jim and no one else. There was no other like it in any of the stores, and she had turned all of them inside out. It was a platinum fob chain, simple and chased in design, properly proclaiming its value by substance alone and not by meretricious ornamentation—as all good things should do. It was even worthy of The Watch. As soon as she saw it she knew that it must be Jim's. It was like him. Quietness and value—the description applied to both. Twenty-one dollars they took from her for it, and she hurried home with the 87 cents. With that chain on his watch Jim might be properly anxious about the time in any company. Grand as the watch was, he sometimes looked at it on the sly on account of the old leather strap he used in place of a chain.

When Della reached home her intoxication gave way a little to prudence and reason. She got out her curling irons, lighted the gas and went to work repairing the ravages made by generosity added to love. Which is always a tremendous task, dear friends—a mammoth task.

Within forty minutes her head was covered with tiny, close-lying curls that made her look wonderfully like a truant schoolboy. She looked at her reflection in the mirror, long, carefully, and critically.

"If Jim doesn't kill me," she said to herself, "before he takes a second look at me, he'll say I look like a Coney Island chorus girl. But what could I do with a dollar and eighty-seven cents?"

At seven o'clock the coffee was

made, and the frying-pan was on the back of the stove hot and ready to cook the chops.

Jim was never late. Della doubled the fob chain in her hand and sat on the corner of the table near the door that he always entered. Then she heard his step on the stair away down on the first flight, and she turned white for just a moment. She had a habit of saying little silent prayers about the simplest everyday things, and now she whispered: "Please, God, make him think I am still pretty."

The door opened and Jim stepped in and closed it. He looked thin and very serious. Poor fellow, he was only twenty-two—and to be burdened with a family! He needed a new overcoat and he was without gloves.

Jim stopped inside the door, as immovable as a setter at the scent of quail. His eyes were fixed upon Della, and there was an expression in them that she could not read, and it terrified her. It was not anger, nor surprise, nor disapproval, nor horror, nor any of the sentiments that she had been prepared for. He simply stared at her fixedly with that peculiar expression on his face.

Della wriggled off the table and went for him.

"Jim, darling," she cried, "don't look at me that way. I had my hair cut off and sold it because I couldn't live through Christmas without giving you a present. It'll grow out again—you won't mind, will you? I just had to do it. My hair grows awfully fast. Say 'Merry Christmas,' Jim, and let's be happy. You don't know what a nice—what a beautiful, nice gift I've got for you."

"You've cut off your hair?" asked Jim, laboriously, as if he had not arrived at that fact yet even after the hardest mental labor.

"Cut it off and sold it," said Della. "Don't you like me just as well, anyhow? I'm me without my hair, ain't I?"

Jim looked about the room curiously.

"You say your hair is gone?" he said, with an air almost of idiocy.

"You needn't look for it," said Della. "It's sold, I tell you—sold and gone, too. It's Christmas Eve, boy. Be good to me, for it went for you. Maybe the hairs of my head were numbered," she went on with a sudden serious sweetness, "but nobody could ever count my love for you. Shall I put the chops on, Jim?"

Out of his trance Jim seemed quickly to wake. He enfolded his Della. For ten seconds let us regard with discreet scrutiny some inconsequential object in the other direction. Eight dollars a week or a million a year—what is the difference? A mathematician or a wit would give you the wrong answer. The magi brought valuable gifts, but that was not among them. This dark assertion will be illuminated later on.

Jim drew a package from his overcoat pocket and threw it upon the table.

"Don't make any mistake, Dell," he said, "about me. I don't think there's anything in the way of a haircut or a shave or a shampoo that could make me like my girl any less. But if you'll unwrap that package you may see why you had me going awhile at first."

White fingers and nimble tore at the string and paper. And then an ecstatic scream of joy; and then, alas! a quick feminine change to hysterical tears and wails, necessitating the immediate employment of all the comforting powers of the lord of the flat.

For there lay The Combs—the set of combs, side and back, that Della had worshipped for long in a Broadway window. Beautiful combs, pure tortoise shell, with jewelled rims—just the shade to wear in the beautiful vanished hair. They were expensive combs, she knew, and her heart had simply craved and yearned over them without the least hope of possession. And now, they were hers, but the tresses that should have adorned the coveted adornments were gone.

But she hugged them to her bosom, and at length she was able to look up with dim eyes and a smile and say: "My hair grows so fast, Jim!"

And then Della leaped up like a little singed cat and cried, "Oh, oh!"

Jim had not yet seen his beautiful present. She held it out to him eagerly upon her open palm. The dull, precious metal seemed to flash with a reflection of her bright and ardent spirit.

"Isn't it a dandy, Jim? I hunted all over town to find it. You'll have to look at the time a hundred times a day now. Give your watch. I want to see how it looks on it."

Instead of obeying, Jim tumbled down on the couch and put his hands under the back of his head and smiled.

"Dell," said he, "let's put our Christmas presents away and keep 'em a while. They're too nice to use just at present. I sold the watch to get the money to buy your combs. And now suppose you put the chops on."

The magi as you know, were wise men—wonderfully wise men—who brought gifts to the Babe in the manger. They invented the art of giving Christmas presents. Being wise, their gifts were no doubt wise ones, possibly bearing the privilege of exchange in case of duplication. And here I have lamely related to you the uneventful chronicle of two foolish children in a flat who most unwisely sacrificed for each other the greatest treasures of their house. But in a last word to the wise of these days let it be said that of all who give gifts these two were the wisest. Of all who give and receive gifts, such as they are wisest. Everywhere they are the wisest. They are the magi.



### THE SEASON OF JOVIALITY

"Christmas time! That man must be a misanthrope indeed, in whose breast something like a jovial feeling is not aroused—in whose mind some pleasant associations are not awakened—by the recurrence of Christmas."

—Dickens.

# Pure Water and How To Get It

C. J. LYNDE, MACDONALD COLLEGE

**I**S the water in your well the best in your part of the country? Practically every man you meet will answer "yes", if asked this question.

In many cases he is right, and in many he is wrong. If he is wrong and his water is not good, his well is poorly made or poorly located. How then should a good well be made, and where should it be located?

**Source of the Water in the Wells.**—Nature supplies us with an abundance

flows in on the upper side A and out on the lower side B. A source of contamination on the upper side of a well spoils the water in the well, see Fig. 2. The common sources of contamination are, a privy vault, a barn yard, a pig sty, etc.

Sanitary experts recommend that a well be placed on higher ground than any source of contamination, and at least one hundred feet from it. This answers one of the points stat-

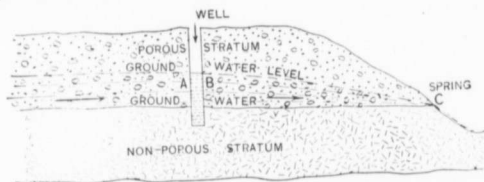


Fig. 1—Ground water is the source of the water in wells and springs.

of pure water in the form of rain or snow. This is the source of the water in all wells. The water is pure when it falls upon the ground. If it is not pure when it comes from the well, it has been contaminated in the well or on the way to the well.

When rain or snow water sinks into the soil it moves down through the porous layers of soil until it comes to a non-porous layer of clay or rock. It then flows along on this non-porous layer towards the neighboring springs and streams. This water in the ground is called ground water. This is the source of the water in wells, see Fig. 1.

**Where to Locate a Well.**—The ground water in Fig. 1 is flowing towards the Spring C. The water in any well is constantly changing. It

ed above, namely, "Where should a well be located?"

**How to Protect a Dug Well.**—There are three types of wells, the dug well, the driven well, and the drilled well. The dug well is by far the most common. How should it be protected?

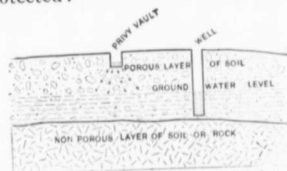


Fig. 2—How a well is contaminated.

When water passes through the soil it is freed from organic impurities. Ordinary surface water is made fit for drinking by passing through ten feet of soil. This is true

for ordinary surface water, but not for the leachings from a barnyard or privy vault.

To protect a well then, we construct the sides in such a manner that all surface water must pass through at least ten feet of soil before it enters the well.

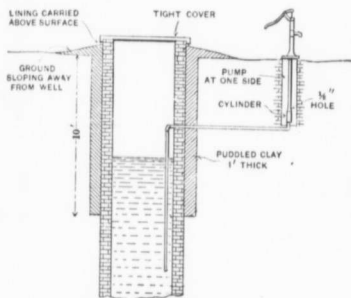


Fig. 3—A good dug well.

A good dug well is shown in Fig. 3. It is lined with brick, laid dry at the bottom and set in cement for the upper ten feet. The lining is carried one and one-half feet above the surface of the ground, and the ground is sloped away from the well. This keeps the surface water from running into the well at the top.

The lining for the upper ten feet is backed by a layer of puddled clay one foot thick. This clay is practically non-porous to water. No water can enter the well then until it has passed through at least ten feet of soil.

The top of the well has a tight fitting cover. This keeps out insects, field mice, toads, worms, etc. If these are allowed to fall into the water, they die and spoil the water.

The pump is set at one side of the well. This is simply to keep the drip water from washing back into the well. This is a good arrangement, but not essential.

To sum up, this is a good dug well because surface water cannot enter until it has been filtered through at least ten feet of soil.

The lining may be stone set in cement, concrete, drain tile, etc. It must be watertight for the upper ten feet.

**The Driven Well.**—A cheap and excellent well is the driven well. Two of these are illustrated in Fig. 4. The driven well consists of a perforated drive point on the end of a galvanized iron pipe. It can be used in any soil through which the water flows at all readily, and where the ground water level is not at a greater depth than about twenty-five feet.

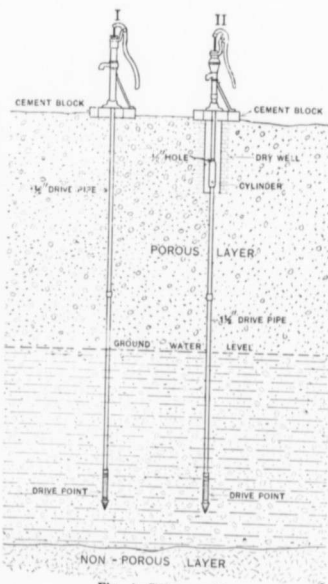


Fig. 4—Driven wells.

In the well on the right the cylinder is placed at the bottom of a dry well five feet deep. An eighth inch

hole above the cylinder allows the water to flow out of the well when the pumping ceases. This protects the pump from damage by frost.

If the drive point is down ten feet, all the water which enters the pipe is filtered through at least ten feet of soil. This well is then as good as the dug well described above. If the drive point is down twenty-five feet, the well is better than the dug well above, because the water is filtered through a greater depth of soil.

**The Drilled Well.**—The best type of well is a deep well such as the drilled well shown in Fig. 5. The drilled well usually passes down through a non-porous layer of clay or rock into the second or third water bearing layer. A wrought iron casing is driven down to the rock and driven a foot or two into it. This keeps out the surface water.

This is the best type of well, because the water is free from organic impurities. It is filtered by traveling a great distance through soil or rock.

To get pure water then, we must locate the well above any source of contamination, and at least one hundred feet from it. In addition we must construct the well so that all

surface water passes through at least ten feet of soil before it enters the well.

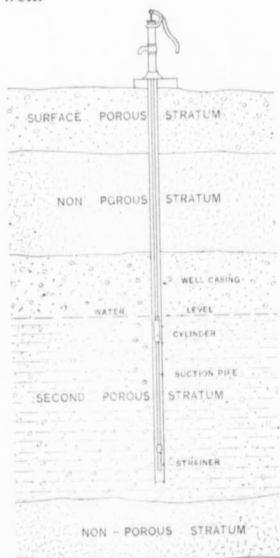


Fig. 5—A drilled well.

NOTE.—The illustrations are from "Home Waterworks", Sturgis & Walton, Publishers, New York.

C. J. L.



# Lambton County as a Fruit District

W. H. PORTER, B.S.A.

District Representative, Lambton County

**I**N this age of real estate boom and land speculation one has acquired the habit of glancing only casually or with suspicion at articles written concerning localities and districts. Without any consideration, we pronounce them at once the finished product of some publicity employee or the effulgent offerings of a

must take into consideration soil, locality, climate and markets and when these are all conducive to the production of an article of the highest quality, success then depends upon an ordinary amount of intelligence on the part of the grower, a lack of which commodity we are all loth to admit. Lambton County has been very



No trouble to grow apples in Western Ontario.

class of verbose land agents. Not a few over credulous investors have been shorn of their surplus dollars by shears in the hands of these agencies, but it has tended to educate interested parties to assure themselves of certain conditions, favorable and unfavorable, which go to make districts objectionable or desirable.

When examining a locality and looking into its conditions and possibilities relative to fruit growing, one

must take into consideration soil, locality, climate and markets and when these are all conducive to the production of an article of the highest quality, success then depends upon an ordinary amount of intelligence on the part of the grower, a lack of which commodity we are all loth to admit. Lambton County has been very modest in advertising her adaptability for fruit growing. For many years a few growers have been producing apples, plums, pears and peaches of first-class quality, but the production of small fruits in the county being small they did not have to seek a market abroad and consequently little was heard of Lambton as a fruit producing county. In time farmers began to see that their soil was similar to that producing the

best kind of fruit; planting became general and to-day plantations of forty to fifty acres are not uncommon, while smaller orchards are so much in evidence that the northern part of the county has gotten into long clothes as a fruit producing area.

A closer examination of conditions will prove that it is not confidence misplaced. Soil, climate, land and water are so favorably adjusted as to make conditions ideal. In the north, which is the fruit area proper, the soil varies from loam with gravelly subsoil to straight sand and gravel which is known as the "ridge." Peach trees do exceptionally well on this formation and during the first two or three years of growth beans are grown between the trees. They yield at the rate of twenty to twenty-five bushels per acre and more than repay all expenses connected with the trees until these monopolize the land. Tobacco is another crop which repays well in inter tilling and growers claim that at 12c per pound they can get remunerative returns from their young orchard land. Since the advent of the canning factories Tomato culture is becoming popular. Early Tomatoes are most profitable for they are sold \$1.50 to \$1.75 per 11 quart basket and then the later pickings are turned over to the factories by the bushel at paying figures.

The growth of the young trees and the early age at which they bear fruit is the best testimonial of favorable soil conditions. In the orchard of Johnson Bros., Forest, is a tree which in the autumn of 1911 when only five years of age produced fourteen 11 quart baskets of saleable peaches. This tree is no better than the average in the ten acre orchard in which it stands. My reason for

citing this particular tree is that it was chosen as representative of the orchard.

To arrive at a clear understanding of climatic conditions it is necessary to explain the geographical position. Tracing the 43rd parallel of latitude eastward we find it passing through the northern part of the county and touching at Welland in the Niagara Peninsula thus casting the greater part of the fruit producing area of that district north of the corresponding area in Lambton County. This geographical situation in favor of the county is not appreciated by those unfamiliar with Western Ontario. The second glance at the map will reveal the presence of a large body of water extending along the entire length of the north western side of the county. This body of water, Lake Huron, has a remarkable modifying influence on the climate and accounts to a large degree for the absence of extremes in temperature. The general slope of the land is northerly, a particular feature sought by all experienced growers for it retards unseasonable growth in early spring and ensures a greater absence from injury in winter than where the trees are subjected to the direct rays of the sun.

All that has been said relative to soil and climate would avail nothing were there not convenient shipping facilities. Here is where Lambton County is particularly favored. Ontario's population is most dense in the western part which gives Lambton County full advantage in this regard. Further about half of the population in the county is urban and this, augmented by a large summer resort trade along the lake and river makes a large consuming population. Ontario, British Columbia



and the Western States are all making a strong bid for the western market and when the hammer falls it will be found that the locality which can place its produce there with most convenient and least expensive shipping facilities will be the highest bidder. Produce can be gathered in the county in the morning, put aboard boats, and shipped at one o'clock en route to Fort William, Port Arthur and Sault Ste Marie, where a good market is found, or it can be

comparison actual conditions in Lambton County, and nothing is more reliable than an understanding of conditions substantiated by official records.

What has been said will convey no idea of the possibilities of the county. Out of 659,000 acres over 80,000 acres are suitable for the production of tender fruits and vegetables, and the parts of that now developed comprise a very small fraction of the whole. With the devel-



It's worth while in harvest time.

forwarded to the West much more cheaply than where the advantages of water rates do not exist. By rail direct, the produce is one day's journey nearer the market before it ever leaves the depot at Forest or Sarnia. These are circumstances that will sway the balance in days of keen competition between large fruit producing districts.

I do not wish to speak in a deprecatory manner of any other locations; my only aim is to explain by

development of the fruit industry has come an increase in land values. Land which a few years ago was grazing cattle and considered worth fifty dollars an acre, is now selling at seventy-five to one hundred dollars per acre. At this figure one can profitably start a plantation, for in five years he will receive returns from the trees and in the meantime can be raising early tomatoes, tobacco, early potatoes and beans.

Beans are now being commonly

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grown, and an estimate, not of what now can be done, but of what is actually being done, will not be out of place. Twenty bushels per acre at two dollars per bushel is a very conservative estimate for this year, and yet it returns to the grower forty dollars per acre while his trees are coming to a bearing age. This is one reason why so many businessmen have made investments in fruit land, and it is good reason why we can, without any hesitation, recommend the district to prospective fruit growers. As an instance of what the orchard itself will do, I will simply refer to the records of a 2½-acre plum orchard interplanted with Marlboro raspberries, near the village of Arkona. This orchard is owned by E. D. Morningstar, and it returned to him in one year \$1,400.00.

Cheap land is yet plentiful and changing hands frequently. In the outskirts of the town of Forest can be bought 10-acre blocks of peach orchards at three hundred dollars per acre. About half of these trees are five years old and the remainder two years old. Only one quarter of a mile from the canning factory and depot, the produce can be speedily handled, which is a big factor in marketing small fruits.

Undeveloped fruit land ranges from seventy-five to one hundred dollars per acre, and can be purchased on easy terms. Many growers, in addition to their own orchard, rent

from their neighbors, and devote their entire attention to the one industry.

A young man with a very small capital could, through the renting system, work himself quickly into the business, while one could not find a surer investment for his surplus dollars. The land, after planting, will increase in value \$50 per acre each year until the trees are at their best. This, with the returns from the intercropping, is a very satisfactory profit.

The country is yet young; it has not yet touched the fringe of its possibilities in fruit growing, and it is still free from infestation by the San Jose Scale, that destructive insect which has laid waste many productive orchards in Southern Ontario and can only be held in check by the most diligent spraying. The county is well served by co-operative associations which are, this year, demonstrating their usefulness in disposing of the crop.

The outstanding features alone have been mentioned in this resume of the conditions surrounding the fruit industry in Lambton County. Errors and omissions are unintentional. My exclusive aim is to present the truth regarding the industry so important in Ontario, and picture one part of the Province where anyone, wishing the profits and social advantages of horticultural life, may cast their lot.



# Christmas Customs

G. H. UNWIN, B.S.A.

THE Christmas of two hundred years ago was a very different thing from the staid and decorous festival of to-day. It was, above all, a season of jollity and carelessness. Work was dropped, masters descended from their pedestal of authority, misers grew liberal, and young and old rejoiced. An excellent description of the celebration is given in a poem by George Wither, who lived in the early part of the 17th century. I quote a few of the verses:

So now is come our joyful feast,  
 Let every man be jolly,  
 Each room with ivy leaves is drest  
 And every post with holly.  
 Though some churls at our mirth  
 repine,  
 Round your foreheads garlands  
 twine;  
 Drown sorrow in a cup of wine  
 And let us all be merry.

Now all our naybors' chimneys smoke  
 And Christmas blocks are burning,  
 Their ovens they with baked meat  
 choke  
 And all their spits are turning.  
 Without the door let sorrow lye  
 And if for cold it hap to dye  
 We'll bury it in a Christmas pye  
 And evermore be merry.

Now every lad is wondrous trim  
 And no man needs his labor  
 Our lasses have provided them  
 A bagpipe and a tabor.  
 Young men and maids, and girls and  
 boys

Give life to one another's joys  
 And you anon shall by their noise  
 Perceive that they are merry.

Now poor men to the justices  
 With coupons make their errants,  
 And if they hap to fail of these  
 They plague them with their war-  
 rants,  
 But now they feed them with good  
 cheer  
 And what they want they take in  
 beer  
 For Christmas comes but once a year,  
 So therefore let's be merry!

There are many more verses in the same strain of boisterous mirth which was characteristic of the old-time Christmas. It was the custom to devote a period commencing on All Hallow Eve and lasting till Christmas, to pranks and jesting, games, mumming and such amiable fooling. A "Lord of Misrule" presided over the revels and during his reign he held absolute sway. The reign of Misrule has an interesting survival in the annual gate-lifting and property-smashing episodes of our own up-to-date Hallowe'en; but civilization has gradually pruned off most of the Yuletide observances, and has retained only those which conform to the gravity and "common sense" of modern life.

This is, of course, only natural. In the most important of Christian festivals there has always been a certain amount of the pagan element. The merry-making of Christmas is supposed to be derived from varied

customs, most of them heathen in origin. Some authorities point to the ancient Roman Saturnalia, a feast given in commemoration of the mythical "golden age" of Saturn, when the earth was without sin. This festival was marked by the prevalence of universal license and merry-making. Slaves were permitted to enjoy for a time a thorough freedom in speech and behavior. It is said even that their masters waited on them as servants. Some of our Christmas customs, such as the decoration of houses with holly and mistletoe, and the burning of the Yule log, came from the northern nations, especially the old Germans. On the other hand the singing of Christmas carols and the acting of Christmas plays can be traced to the efforts of the church to make the religious part of the festival more attractive to the popular mind. The church also, making the best of a bad business, adopted many pagan customs and sanctified them to Christian use. But there has been ever a tendency for ecclesiastical authority to frown down excessive jollification, which took an undue portion of popular enthusiasm, so detracting from the sacred character of the festival. Thus in 1644, during the Reformation, Christmas Day was forbidden by an act of parliament. The day was appointed a fast day; shops were compelled to be open for business, even plum puddings and mince pies were condemned as heathen devices. Needless to say these innovations were met with determined resistance and at Canterbury they were the cause of riot and bloodshed. With the restoration of the Stuarts, however, the old order was resumed, but for a long time, among dissenters,

Yuletide and Fooltide were synonyms.

The term "Yule" has excited great discussion among antiquaries. The most widely accepted theory, however, is that it is connected with the gothic word "hiul," which is the same word as "wheel." This, applied to the winter solstice, would refer to the fact that the year wheeled, or turned at this point. Yule-tide is marked in the old clog almanacs with the picture of a wheel, which lends support to this theory. The festival, then, was celebrated among the northern nations, in anticipation of the return of summer. To this end holly, mistletoe, and other greenery were hung about, as a token that the earth would again clothe itself in a mantle of green, and the returning summer would bring new growth. The same idea, further developed, is responsible for the Christmas-tree, which was also a symbol of the returning summer season, when the trees should again be loaded with fruit. So that our custom of decoration with holly and the hanging of mistletoe, can be traced directly to the heathen. With reference to the Christmas-tree, it is a curious fact and one not universally known, that the Prince Consort first introduced it into England in the year 1840. Like many other things it was "made in Germany." Perhaps this accounts for the fact that the Anglo-Saxon peoples have not taken very kindly to the Christmas tree, which has always been, and still is, immensely popular in Germany.

The custom of burning the Yule log was still observed in parts of England as late as 1870. The huge log was dragged into the great hall by a crowd of retainers and humble folk

of the neighborhood. Here it was lighted amid universal rejoicing, a symbol of good-fellowship and forgiveness. Meat and drink were there in abundance, and many a starving person could eat his fill by the light of the Yule log. Herrick has described the custom in his inspiring verse.

Come bring with a noise  
My merry, merry boys,  
The Christmas log to the firing  
While my good dame  
Bids ye all be free  
And drink to your heart's desiring.

With the last year's brand  
Light the new block, and  
For good success in his spending  
On your psalteries play  
That sweet luck may  
Come while the log is a teending.

Drink now the strong beer  
Cut the white loaf here  
The while the meat is a shredding  
For the rare mince pie  
And the plums stand by  
To fill the paste that's a kneading.

The observance of this custom was supposed to bring good luck to the house and neighborhood. But the charm was destroyed if a person with a squint entered the hall, and a similarly evil omen was the arrival of a flat-footed woman.

The legend of Santa Claus, the mysterious benefactor of children, is of disputed origin, but is generally conceded to have come, like the Christmas tree, from Germany. According to an old saga, the god Woden, with his wife Berchta, descended upon the earth, mounted on a white horse, and remained there from the

25th of December to the 6th of January. During this time there was universal celebration, fires blazed everywhere, trials were suspended and criminals released. In later times St. Nicholas became associated with the distributing of presents to children. This genial personage is described as being the patron saint of sailors, parish-clerks and thieves—hence the term "a knight of St. Nicholas." He is sometimes represented in art as carrying three golden balls, which would lead one to infer that, in addition to being the patron saint of thieves, he was also that of pawn-brokers! The transition is not unnatural. The white horse of Woden has become the reindeer of Santa Claus, and the automobile or aeroplane of Father Christmas.

The giving of presents is a heathen custom. There is no personal feeling in this statement, though some might be disposed to take it too literally. It is impossible to say where it originated, but it was in any case very prevalent among the Romans. The term Christmas Box originated in the practice of placing a box in churches. Gifts or money were placed in this, which was opened by the priest on the day after Christmas, the contents being then distributed to the poor people. From this comes the name Boxing Day, the day after Christmas, which is not, as some people vaguely imagine, connected in any way with the noble art of self-defence. The custom developed still further, servants and apprentices made a practice of carrying a box round to all their patrons or customers and demanding a Christmas Box. It became such a nuisance in London, where old customs linger,

that in 1836 it was forbidden. Unfortunately it still continues to some extent. The mutual interchange of presents, however, is a graceful custom which will probably outlast many others. It is in the true spirit of good-will, which, after all, is the central idea of the Christmas festival. In a practical and essentially selfish age it is a little bit of ever-green sentiment from the good old times.

## Our Social

**G**ARLAND and I spent our last summer's vacation from college near a certain village in Manitoba. We made ourselves extremely popular with the people of the locality, but, unfortunately, we both managed to fall in love with the same girl—or thought we did.

One day, towards the end of the summer, an idea came to me. Why could I not get up a social as a farewell event, keep Garland out of it until the last moment and secure the credit to myself, thus showing mi-lady Muriel my superior qualifications. My school-mate's strong aversion to work in any form assured me of a free hand in the matter. In spite of difficulties I got the social organized, finding a real friend in need in the school-mistress, a newcomer to the village, who, besides promising to assist on the programme, got the children to decorate the school-house for the occasion.

On the night of the social, Garland drove Muriel to the school, but refused to do anything else. He assured me, however, that I was "doing fine." I thanked him and withdrew to the basement to get ready the refreshments that I had collected that day from the ladies of the village.

Then my troubles commenced. The ice cream had steadily refused to freeze beyond the sloppy stage; then

I found that I had left out the flavoring. Also, in spite of a seething furnace in the stove, which made the place as hot as a stoke-hole, the water for the coffee could not be coaxed to boiling-point. Then the chairman came down stairs and asked for a programme so that he could start proceedings. Alas! I had left the only copy at home. Going up stairs and glancing around the packed school-room, I caught sight of Garland sitting beside Muriel at the back of the room. An almost irresistible impulse came over me to take him by the scruff of the neck and make him do something, especially when the chairman, in his opening remarks, referred to "our two college friends who had so ably organized that function." Garland grinned on hearing that.

The first item on the programme was a quartette in which I took the bass. In the middle of it I recollected that the basement door was open and that there were dogs prowling around outside. I decamped for the basement and was just in time to see the tails of two curs disappear round the door. They had bolted two lemon cakes and one had been in the ice cream. I determined to say nothing about it, however, on the principle that "What the eye does not see, the stomach will not be upset over."

Going upstairs again, my ears

were saluted by a most surprising discord of sound. I was at a loss to account for it until I recollected that the second item was an organ selection with mandolin accompaniment. The two performers had never practiced together before and the fellow with the mandolin, utterly regardless of Muriel at the organ, had taken the bit between his teeth, so to speak, and was vamping in a totally different key. He seemed to think he was doing tremendously well too, but it was a relief when the organ gave up in despair and left him a clear field. The tune was supposed to be "Killarney," but I think it was unrecognizable, and Garland, the brute, got him enchored at the close.

A comic song was next announced, but the singer was no where to be found until I discovered him dressing for his part in the shed outside, and struggling into a pair of trousers two sizes too small for him. He at last appeared on the platform in a very heated condition and found that he had completely forgotten his song. He beat a hasty retreat and refused to respond to an enchoire.

Then the school-mistress was called upon for her recitation. From my vantage-post behind a screen I could see that she delighted the audience, and felt grateful to her. After that things went more smoothly, so I ventured down-stairs again to see about the refreshments. By this time the water was boiling, so I emptied it

into the package brought by the ladies, when, horrors! I found that two of them were tea and two were coffee. However there was no help for it, so I set my teeth and recklessly stirred up the mess. I afterwards heard people arguing upstairs as to whether the liquid served was tea or coffee, or neither, but I said nothing. The ice cream proved insufficient in quantity to go around, and there were many sarcastic remarks both from those who had some and those who did not. One old lady asked what I had put in her cream to make it taste like that.

To complete the disaster I spilt a dish of half-frozen cream on Muriel's best dress. That it was the last straw, or rather the last drop, I could plainly see. If looks could have frozen that ice cream would never have melted—but it did. I bolted outside to the fresh air, there to wait for the school ma'am. I needed sympathy, and she, I knew, was the only one who appreciated my efforts for the betterment of that community. When she appeared I asked for the privilege of driving her home, and she consented. That drive did much to soothe my injured feelings and by the time it was over Muriel's influence had vanished. The school-mistress and I correspond now—just as friends, you know. As for Garland, by this time he has forgotten all about Muriel.

S. H. H.



## The True Meaning of Christmas

THERE is probably no festival, religious, patriotic, or of any other character, which is so widely observed throughout the world as that of Christmas. In an age in which time honored institutions are apt to be shorn of some of their former glory and ancient customs are liable to fall into disuse, it is really remarkable how Christmas is not merely retaining the hold which it has upon the whole civilized world, but how its observance is becoming more marked as time goes on. The preparations for it begin earlier and are more elaborate than they used to be, its festivities are on a larger scale, its gifts and benefactions are more lavish and more carefully chosen. This is no doubt due in part to the pride and energy of the purveyors of the said gifts. Modern business methods have done much to create as well as to supply the demand for all kinds of tokens, not only at Christmas but at their anniversary seasons as well, and no doubt the time and care which are now given to Christmas preparations and the generous and almost reckless expenditure which marks that season are in a large measure the outcome of these methods. But while that is true, the fact remains that while seeking primarily their own advantage, the merchants have incidentally done a great deal to develop the Christmas spirit, and there is an ever-increasing desire not merely to have a good time during the Christmas holidays, but to help to make other people happy. And this is an excellent thing, however commonplace may be some of

the causes which help to bring it about, for while we are all justified in trying to enjoy ourselves at this glad time, the true Christmas spirit is to make others happy rather than ourselves.

And so practically every Christmas observance is of this character, something which suits the personal gratification of the individual in the general joy of the family or the community. When we go for our summer holidays, we think more especially of ourselves—what we would like to do, where we would like to go, what particular form of relaxation is best suited to our temperament and need and inclination. But Christmas gives expression to the fact, too little realized by any of us, that the truest and brightest form of enjoyment consists rather in making our contributions towards the happiness of the family than in seeking our own personal amusement.

And the chief reason why this is true is that Christmas commemorates and continually reminds us of the coming into the world of Him who came to be a unifying force, binding together in peace and love and mutual service, not merely families and select circles of friends, not merely all the members of one community, or the citizens of one country, but all people, nations and languages.

We do well to manifest the Christmas spirit by gifts and tokens to our relatives and friends, and better still by "sending portions to them for whom nothing is prepared," but we miss the true meaning of what we are doing, if the reason for Christ-



mas is forgotten, if we allow it to become merely a secular carnival of goodwill. We have said above that the observance of Christmas is on the increase, and that we believe to be true, but there is ground for fear that forgetfulness as to its origin and true meaning is likewise on the increase, and that there is a danger of this festival, like many other ancient institutions, becoming, so far as a great many people are concerned, entirely secularized. This is all the more regrettable and all the more astonishing when we consider how eloquently the ordinary Christmas customs remind us of some of the practical results which were meant to be brought about, and which, to a large extent, are in process of being brought about, through the influence of that religion whose founder became man on Christmas Day.

Why is it that we select this particular time, for instance, as the most suitable occasion for the annual reunion of scattered families? There are few young men and women who are not willing to incur expense and suffer inconvenience if by so doing they can spend Christmas Day at home. Why? Is it not because, as we have said above, He who was born on that day came into the world to be a unifying force, to bring peace and harmony and co-operation. The single family wherein is found love and concord, the members of which delight to be together and help one another, even when that involves sacrifice, is a type of that larger family which is comprehended in the expression, "the brotherhood of man," the members of which are all bidden to address God as "Our Father." The Christmas message of "peace on earth" reminds the members of the

vast family that there ought to be between them the same bond of fellowship which exists in the smaller family, that co-operation rather than competition should be the principle which animates humanity, and that if two classes of people find their interests mutually hostile, there must be something wrong in the attitude of one or both of them.

Then again, as we conjure up the vision of a happy united family, we think of it as a society in which woman is treated with reverence and tenderness and consideration, and it is one of Christianity's best gifts to the world that it has striven to drive home that idea of woman's relation to man. No other religion has taught man that. The devout Jew thanked God in his daily prayers that he had not been borne a woman, and in heathen countries women pray that at their next reincarnation they will be born as men. Whatever difference of opinion may exist in civilized countries today as to how far the theory of equality between the sexes should be literally carried, there can be no comparison between woman's place in Christian lands today and the position she occupied in the world before the era of Christianity began. In this respect as well as with regard to co-operation the ideals of the family should have their counterpart in the larger life of the race. Christmastide is marked not only by family reunions, but also by the interchange of presents between relatives and friends. These may be costly or of little or no intrinsic value; in either case the idea is the same, the expression of goodwill, the desire to give happiness, the assurance that though far apart we remember one another at this glad time when God

gave to all mankind the greatest gift that Almightyness could offer.

But it is when we think of the gifts we bestow upon those who are unable to make any return that we realize how our Christmas customs reflect the spirit of Him whose birthday we are honoring. To visit and relieve the sick, the lonely, the desponding, to send Christmas cheer to those who cannot afford it, to gladden the hearts of little children who otherwise could not share the delights of their more fortunate neighbors; this surely is a Christlike thing, and once again we are startled as we realize that this instinct of mercy to the weak and suffering which is now implanted in the hearts of all civilized people is that which Christianity has introduced into the world. We are so used to finding it even in persons who make no profession of religion that we hardly

realize how radically the example and teaching of Christ have changed the attitude of the strong towards the weak, the fortunate towards the unfortunate. We do not always do all that we should in this respect, but we recognize that if we adopt the worldly maxim of "the weakest to the wall" we are falling short of the ideals set before us by Him who gave us so thrilling a picture of the fate of Dives. To grace this season of reunion and goodwill, we deck our homes as well as our churches with garlands and the traditional holly boughs; we plan all manner of festivities and generally mark it as the most joyous time in all the year. So must true joy ever accompany the spirit of unselfishness, and we shall find our greatest content and delight in the things which we share with others.

—Gilbert F. Davidson.



I wish you a Merry Christmas  
 'Tis good to be merry, you know;  
 I wish you a welcome reception  
 Wherever to visit you go.  
 I wish you delight on your meeting  
 The friends you now cherish so dear.  
 I wish you a Merry Christmas  
 I wish you a Happy New Year.

I hope the old year may have added  
 To your joys and your pleasures and friends,  
 Or if the Old Year has deceived you  
 The New one will make you amends.  
 Let prudence but guide your endeavor  
 And away with repining and care;  
 'Tis the way to be merry at Christmas.  
 'Tis the way for a Happy New Year.

—Old Carols.

## A New Departure in the Drainage Campaign

WM. H. DAY

ON October 11th, 1912, the first practical drainage demonstration in Ontario was held on the farm of Mr. Neil McDougald, near Tara, in the County of Bruce. The College ditcher had been shipped up for the occasion and was in operation throughout the day. From Morning till evening spectators came and went, some three hundred in all, two-thirds of whom were present at the demonstration proper, which lasted from 1:30 to 4:30.

from it in ten or twelve years. Previous to the picnic a drainage survey of this low land had been made, and a map prepared showing the system of drains best adapted to the field, and illustrations from this practical problem added point and interest to the address.

Just previous to this picnic the Experimental, Horticultural and Farm Departments, together with the Department of Physics, had decided to purchase a traction ditcher for the



1—The Traction Ditcher.

In May last, Mr. Archie Crow, President of the Farmers' Club at Hall's Corners, near Tara, invited the writer to attend a drainage picnic to be held in Mr. McDougald's beautiful grove, and deliver an address on drainage. The date was set for June 19th. The day was beautiful, the crowd large, and the interest in the subject intense, although little, if any, drainage had been done in the locality. Adjacent to the grove lies about twenty acres of flat land of most excellent quality, but so wet that only one crop has been harvested

College, the first three with a view of draining certain portions of the College farm under their respective charge, and the last with a view of using it in pushing the drainage campaign into parts of the province that have not yet been reached. Haldimand County impelled the writer to evolve this idea for extending the drainage campaign. From 1906 to 1912 only two or three surveys were made there and no drainage is being done. Why? Time and time again Haldimand people have flung this at me: "It's all right for you to talk

drainage where the soil is light, as at Guelph, but our soil can't be drained; it's so heavy." "But," I have answered, "Essex and Kent soils are just as heavy, and they drain very successfully." "Tut, man, they are light." (Smiles from the inhabitants of Romney and some other western Townships). Haldimand is heavy clay. The water simply will not go through it. You should come down and see for yourself." And when I went I found it no heavier than clay

first, but finally was approved, an appropriation from the Federal Subsidy set apart for the purpose, and when the urgency was fully understood, the Hon. Mr. Duff suggested that I select even more plots in Haldimand than at first intended. And the idea grew of applying the plan not only to Haldimand but to other parts where, for one reason or another, drainage has not yet taken root.

During my address at the Tara



2—The Demonstration at Tara.

in other parts where drainage is a proven success; but I concluded there was but one way to convince Haldimand, viz., to actually put in some drains. The following plan suggested itself to me: To select plots of say ten acres, drain half, leave the other half undrained, sow both halves to the same crop each year, harvest and thresh the drained and undrained parts separately, and thus determine exactly the effect of the drainage. The plan seemed a little radical at

picnic, I mentioned the work outlined for Haldimand, and later in the day the officers of the Farmers' Club urged me to locate a demonstration plot on the flat land beside the picnic grove, suggesting that in case such was done they would hold another picnic when the drains were being laid, and still another next June or July to observe the difference in crops on the drained and undrained land. Feeling that the purpose of the demonstration plots would thus

be pre-eminently served, their request was acceded to.

While this plan in its simplest form should convince the most skeptical as to the value of drainage, we have amplified it so as to determine the most desirable depth and distance apart at which drains should be laid. Part of each plot will be drained two feet deep, and part three, and some of the drains at each depth will be put two rods apart and some four.

The conditions governing these demonstration plots in the future are as follows:

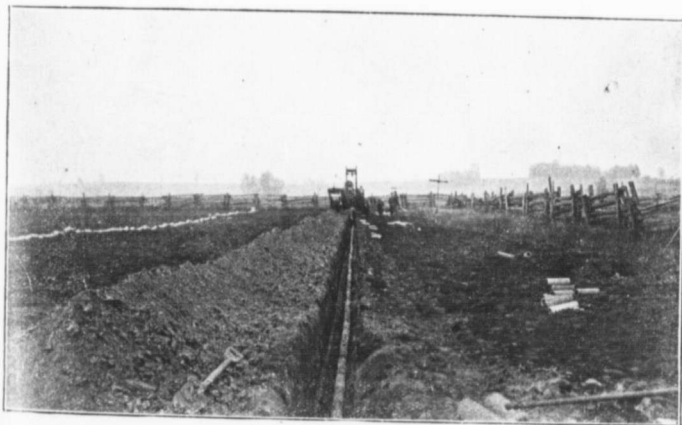
1. The plots must be situated in a locality (Township) where little or no drainage has been done. This campaign is intended to reach districts not reached by the survey campaign.

2. A field from ten to twelve acres is required. It must lie along a main road, and slope toward the road, so that passers-by may observe results. There must be a good outlet reasonably convenient to the field.

3. The Department of Physics will make the survey, prepare the plans, dig the drains and lay the tile, hold a public drainage demonstration while the drains are being put in, also another the following year when the crops are growing, to observe and discuss results.

4. The owner will provide the tile, haul and distribute them, fill the ditch and board the men while the machine is doing the work. He must also agree to leave the other half of the field undrained for three crops, sow both halves to the same crop each year, harvest and thresh the two parts separately, and report promptly to the Department the yields from the drained and undrained parts.

From the intense interest aroused by the Tara demonstration, and the resulting activity in drainage matters in that locality, I can see already that this new departure in the drainage campaign is likely to prove even more valuable than the survey campaign itself.



3—The Traction Ditcher in Operation.

THE LIBRARY, UNIVERSITY OF CALIFORNIA

FIRST PRIZE PHOTOS IN REVIEW COMPETITION

Shown by H. D. Leppan.



Far from the Madding Crowd.



At Pasture.



The Bridge.



# THE O. A. C. REVIEW

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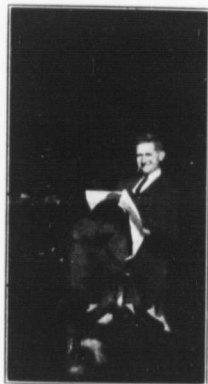
H. P. HORROBIN, Locals.

## Editorials

As has often been stated, Christmas comes but once a year, and Christmas wishes in direct proportion. We wish all our readers a very merry Xmas. To our fellow students we wish all the success

**Xmas**

the Review. We have a much larger subscription list, a greater volume of advertising, and we hope, an improving paper. The College has received two needed improvements in the shape of a large new dairy barn and a new experimental building, while we are all blessed with the prospect of a new dining hall in the near future. The leap year will soon be over, bringing satisfaction or sorrow. Our hope is that one and all may have a happy Christmas reunion and a pleasant vacation time.



Ye Editor.

at the exams, they deserve, and a handsome amount in addition. It has been a very successful year to

At time of going to press, our Rugby team are winners of the Junior Intercollegiate Football Championship, and are looking forward

with confidence to the winning of the Dominion championship by defeating St. Lamberts. We would like to give three cheers on paper, but it can't be done. The past few Rugby seasons have been so unsuccessful for the O. A. C. that the surprise is half the pleasure of the victory.

To no one particular source can the success of the team be attributed, but it is, in the opinion of the on-looker, mainly due to hard and systematic training. Our boys did not have the terrific grind which teams from some of the larger colleges and universities go through. But they worked faithfully and consistently night after night out on the campus, they followed as much as possible the diet and habits laid by the football executive at the first of the season, and they virtually gave up everything else for the sake of the team. To the boys individually then is an immense amount of credit due. Seldom has a team been turned out at the O. A. C. possessing the physical fitness our fellows had after the first two weeks and never has the value of training been better illustrated.

Mr. Gandier and Captain Webster deserve great commendation. Prospects were not conspicuously bright at the opening of the term, but thanks to the ability of the manager and captain in sizing up the situation the weak spots were strengthened and the strong ones made stronger. They believed in the theory that nothing is so contagious as enthusiasm, and they had the whole college behind them solid. They developed team work, not individual brilliancy, and although there were many cheer-raising runs during the games, it could plainly be seen that the boys were working together as a man.

Mr. McLennan and the second team worked hard, and if they did not share conspicuously in the glory of the victory, they at least have the consolation of knowing, as we all know, that their assistance in working out with the firsts was invaluable. It might be well to give them more games an-

other season and keep up their interest.

The fact that the last game is being played on November 23rd will probably preclude any possibility of the year games being played, and after the amount of feeling shown in past years, together with the number of men hurt—usually far more than in outside games—and other evils, of which we will say nothing, it is not to be regretted that this is the case.

All honor to the football team. May they wade through the coming exams as irresistibly as they waded through the Varsity and Kingston lines.

While at the Horticultural Show in Toronto recently it was the fortune

### The Price of Apples

of the writer to see as pointed an illustration as could perhaps possibly be obtained of the weakness of the present system of marketing farm produce. At a meeting in Victoria Hall Mr. Johnson, of Forest, asserted, with too much truth, that 19 per cent. of the apple crop of Ontario was rotting on the trees or being fed to the stock. Coming out from this meeting one was confronted a few steps down the street by a sign in a little fruit stand—"Apples, 3 for 10c!" And such apples as they were, too. They were not Ben Davis, but they must have been closely related to that delicious variety of apple.

A life history of these apples would be very interesting reading to their producer, to the consumer and to the student of rural economics. Perhaps they were bought on the tree by some shrewd buyer at a figure equal to or less than the cost of production. After some sharp bargaining he sold them to a city fruit merchant, who took



them as a speculation. The speculation proving successful, a brother merchant bought them over at an advanced price, and after several minor commissions and profits had been paid they finally reached the end of their journey at the fruit counter on Queen street, there to be exhibited as an example of the high cost of living. There is material for thought in this little tale. Greater production of farm products is not the prime necessity at the present time. The elimination of the excessive number of grafting middlemen, and the establishment of a more direct route from the farm to the city consumer should be the aim of the district representatives, and every one else interested in agricultural development.

#### LIBRARY HOURS

Of all the institutions on the college campus the library is probably less known than any other. I do not mean that it's mere external and internal appearance is not familiar to the students. But the vast resources in scientific and technical knowledge contained on its shelves, and the broadness of the information which can be so easily obtained, are comparatively unknown to the majority of the fellows in the school, especially to those of the two junior years. There is nothing that makes a man realize how small the knowledge he possesses than a few hours spent in a library, and if he is of the right stuff nothing will stir his ambition more. He may learn all that is required of him to know to pass examinations and never enter the doors of the Massey library, but at the same time he cannot be-

come familiar with sciences and arts not covered by the curriculum, and which are a necessary adjunct to a college education.

Why, then, considering the great advantages that undoubtedly accrue from a closer acquaintance with the shelves, is the library not more commonly patronized? The librarians are willing and anxious to do all in their assistance when requested; there is abundance of space and light for reading and writing. But a glance at the timetable will discover the reason. Lectures commence at 8:45 in the morning, and at almost the same time the library doors open. As the last weary lecture is over at twelve o'clock, they close. When labs. commence at 1:15 or 1:30, again the portals open to the world and remain so until 5:45. Practically, then, the only time at which the place is available to the students, on a full timetable, is from 4:30 until 5:45 in the afternoon of five days in the week, and the whole of Saturday afternoon. These daylight hours are nearly always taken up with sport, business or sundry commissions. And so, instead of every encouragement being given to men to spend some time in the library the reverse seems to be the case.

Why not extend the hours? It would be a simple matter of adjustment to have the building open at noon. And even if a larger staff were required one would think it would be profitable to allow reading there in the evening. At least the experiment, which was rather unsuccessful before, could be tried, and, were the importance and value of the library impressed upon all, should prove a decided success.

# Athletics

## FIELD DAY.

The twenty-first annual field day, held on Thursday, October 17th, was a decided success. Weather conditions were ideal, the large crowd present bearing testimony to this fact.

From an Athletic point of view, the boys performed well. Close finishes marked the events. Three records, the high jump, the quarter mile run and the discus throw being lowered, by R. W. Mollison, W. Horobin and F. Forsyth respectively.

The Seniors, Sophomores and Freshmen had a great fight for premier honors, the result not being known until the last event was decided the Sophomores winning. Few Freshmen years have accomplished as much on their first field day as class '16.

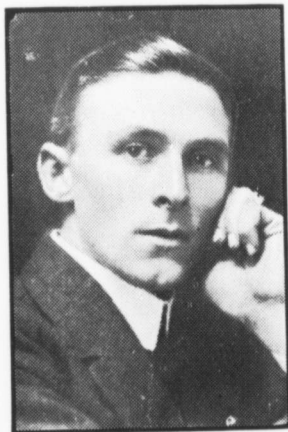
A worthy feature of the afternoon's sport was the absence of ill-feeling which often manifests itself between the Freshmen and Sophomores. Both years are to be highly commended for their action in joining together at the last, giving three cheers for each other and the college yell.

The girls from the Hall were greatly in evidence, and their presence undoubtedly spurred the boys to make their best efforts. However, we would not deny that it was the fudge they sold at the booth that was the cause.

E. F. Pølmer won the grand championship with 23 points, F. Forsyth

being second. For an all around man Frank is hard to beat, and his victory was popular.

The prizes were presented in the evening the gymnasium. Mrs. (Dr.) Reed graciously presented them, while Dr. Creelman and Dr. Reed made short addresses. A musical



D. H. Gillies  
Our New Physical Director.

programme was provided, and before the audience dispersed a number of college songs were sung.

"Jeff" Tisdale and his executive deserve the highest praise for the able manner in which they supervised the day's proceedings.

Following is a list of the events and winners:

## SHORT RUNS.

**100 Yards Dash**—1st, Puleston, '16;  
2nd, Palmer, '13; 3rd, White, '16.  
Time, 11 seconds.

**220 Yards Dash**—1st, Palmer, '13;  
2nd, Horobin, '15; 3rd White, '16.  
Time, 24¼ seconds.

**440 Yards Run**—1st, Horobin, '15;  
2nd Palmer, '13; 3rd, White, '16.  
Time, 55 seconds. Old record,  
55 3-5.

**120 Yards Hurdles**—1st, Culham,  
'13; 2nd, Palmer, '13; 3rd, Barrett,  
'16. Time 18 seconds.

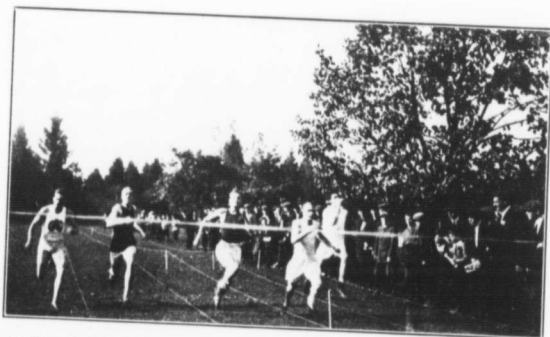
**Champion of Long Runs**—A. H.  
White and D. B. Fraser (tied), 8  
points.

## WEIGHT EVENTS.

**16-Pound Hammer**—1st, Forsyth,  
'14; 2nd, Evans, '15; 3rd, Carroll,  
'16. Distance, 72 ft., 6 in.

**16-Pound Shot**—1st, Evans, '15; 2nd,  
Forsyth, '14; 3rd, Culham, '13.  
Distance, 34 ft., 4½ in.

**Discus**—1st, Forsyth, '14; 2nd,  
Evans, '15; 3rd, Culham, '13. Dis-  
tance, 100 ft., 4½ in. Old record,  
99 ft., 3 in.



Sports Day—Finish of the 100-yards Puleston in first place, Palmer second, White third.

**Champion of Short Runs**—E. F. Pal-  
mer, 14 points.

**Champion of Weight Events**—F.  
Forsyth, '14, 13 points.

## LONG RUNS.

**Half-Mile**—1st, White, '16; 2nd, Pal-  
mer, '13; 3rd, Smith, '15. Time,  
2 min., 10 1-5 sec.

**One Mile**—1st, Fraser, '15; 2nd,  
White, '16; 3rd, Harding, '13. Time  
4 min., 52½ sec.

**Three Mile**—1st, Freeborn, '14; 2nd,  
Fraser, '15; 3rd, Hall, '15. Time,  
16 min., 21 sec.

**Mile Walk**—1st, Tisdale, '13; 2nd,  
Burrows, '15; 3rd, Laidlaw, '14.  
Time, 9 min., 10 sec.

## JUMPS AND VAULTS.

**Standing Broad Jump**—1st, Mollison,  
'15; 2nd, Vary, '15; 3rd, Bryden,  
'16. Distance, 9 ft. 5½ in.

**Running Hop, Step and Jump**—1st,  
White, '16; 2nd, Bryden, '16; 3rd,  
Palmer, '13. Distance, 39 ft., 8 in.

**Standing High Jump**—1st, Mollison,  
'15; 2nd, Bryden, '16; 3rd, Fore-  
man, '16. Height, 4 ft., 7 5-8 in.  
Old record, 4 ft., 6 in.

\* Indicates record broken.

**Running High Jump**—1st, Dougall, '13; 2nd, Mollison, '15; 3rd, Foreman, '16. Height, 5 ft., 5½ in.

**Running Broad Jump**—1st, Palmer, '13; 2nd, Vary, '15; 3rd, Bryden, '16. Distance, 18 ft., 11½ in.

**Pole Vault**—1st, Seitz, '16; 2nd, Forsyth, '14; 3rd, Evans, '15. Height, 8 ft., 9 in.

**Champion of the Jumps and Vaults**—R. W. Mollison, '15, 13 points.

### O. A. C. 19, McMASTER 13.

McMaster College and O. A. C. played an exhibition game of football on the College Campus on Saturday, Oct. 12th. O. A. C. were the victors after a well contested game, by a score of 19-13.

A strong northwest wind was blowing down the field which made sure catching impossible. Despite this, some splendid football was seen. A large crowd was present, a number of McMaster followers having come up to cheer their favorites on.



Sports Day—The three-legged race. Note Presidents Tisdale and Hextall leading.

### NON-CHAMPIONSHIP.

**16-Pound Shot (under 140 pounds)**—1st, Foreman, '16; 2nd, Nixon, '14; 3rd, Webster, '13. Distance, 31 ft., 4¼ in.

**Three-Legged Race**—1st, Tisdale and Hextall, '13; 2nd, Campbell and Webster, '13; 3rd, Binkley and Binnington, '15.

**Relay Race**—1st, Class '15; 2nd, Class, '16; 3rd, Class '13.

**Grand Championship**—E. F. Palmer, '13, 23 points.

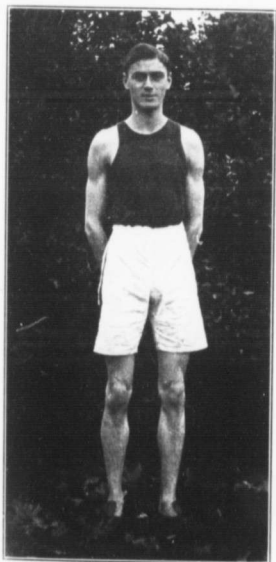
**Freshman Championship**—A. White, '16, 16 points.

McMaster won the toss, and O. A. C. kicked off against the wind. College scored first on a kick to the dead-line by Herder. McMaster quickly evened up, and soon after assumed the lead by scoring and converting a try.

Playing with the wind in the second quarter, College soon cut down McMaster's lead. A fine run by McElroy paved the way for a try which Hockett converted. Then Herder, aided by the wind and some effective booting, netted College four points. Half time score, 11-7 in favor of College.

On changing ends McMaster assumed the offensive and play was for the greater part of the period in O. A. C. territory. Finally the Baptists got over for a try, which was converted.

With two to tie and three to win, College soon put the game on ice. Slowly but steadily they worked the ball down to McMaster's line, and Jackson was sent over for a try. The



E. F. Palmer, Grand Champion Annual Field Day.

backs did some more great booting, and ran the score up to 19-13.

The Baptists presented a well-balanced team, with Ashmore and Phillpott doing their best work. This heavy line did not buck as well as their weight indicated, and they did not get their onside kick working right.

The College line threw their

heavier opponents back in great style, and gave the backs good protection. The back division also played well, Herder's work being especially good. The teams:

McMaster — Full back, Waters; Halves, McGregor, McCrimmon, Campbell; quarter, Ashmore; scrimmage, Haddon, Reno, Hisey; insides, Whan, Graham; outsides, Ashmore, Kellock; middles, Zeeman, Williams; spares, Cline, Hyde.

O. A. C. — Full back, Campbell; halves, Madden, Herder, Hockett; quarter, McElroy; scrimmage, Neelands, Davison, Dudgeon; insides, Hall, Jackson; outsides, Wilson, Webster; middles, Braithwaite, Oswald; spares, Brown, Bertram. Referee, J. Simpson, O. A. C. Umpire, R. V. Howard, McMaster.

#### O. A. C. 21, VARSITY III, 10.

The red and blue again came home on the long end of the score, when on Saturday, October 19th, they defeated Varsity III at Exhibition Park, by 21-10. The game was the first of a series of home and home games for the championship of the Western Division of the Junior Intercollegiate.

The game was fast from start to finish and on the play College deserved their victory. They played with a vim and dash that showed they meant business. The fruits of good consistent training could be readily seen, not a College man being laid off. Varsity put up a fast, clean game, but lacked condition.

In the first quarter O. A. C. played with the wind. Capt. Webster started the fun, when he broke through the Varsity line, intercepted a pass, and kept on going until he had the ball behind the line for a touch, which

Herder converted. College kept the ball in Varsity ground for the rest of the quarter and Herder, by some good booting, added four points.

Playing with the wind, Varsity soon kicked to the dead-line for their first point. Play was mostly in College territory, but our boys held them out. Finally Varsity secured the ball on an offside, and went over for a try, which was not converted. Half time score, O. A. C. 10, Varsity III, 6.

After the rest Herder's leg seemed to regain its former good strength, he being responsible for five more points by his punting. Then one of Varsity's backs dropped a punt, an opportunity of which Webster availed himself by dribbling the pig-skin over the line and falling on it for a try. Herder converted.

Varsity played stubbornly in the last quarter, but could only obtain four points by kicking. The final score read 21-10, giving our boys a lead of 11 points for the return game.

For Varsity Boddy and Bryne played well, and Dr. Gruchy's work at quarter was good. The poorest work was on the line, which did not seem to be able to stick together.

All the O. A. C. boys played splendidly, but the work of Herder and Webster deserves special mention. The line was a veritable stone wall and afforded the backs good protection. The teams:

Varsity — Backs, Boddy, Milne, Bryne, Smithson; quarter, Dr. Gruchy; outsides, Asland, Rankin; middles, Jeffs, Wigle; insides, Robinson, Miller; scrim., Cockburn, Levy, McTavish.

O. A. C.—Backs, Madden, Herder, Simpson, Henry; quarter, McElroy;

outsides, Webster, Wilson; middles, Braithwaite, Brown; insides, Hare, Jackson; scrim., Neelands, Davison, Dudgeon.

Referee—W. J. Squirrel, O. A. C.

### O. A. C. 28, VARSITY 10.

Varsity Campus, Oct. 26th

The score does not indicate the virtues of the game when the "Red and Blue" played the return match at Toronto. It was a battle to the three quarter post, when Varsity led by a score of 10 to 8. A fresh breeze swept the field from north to south, and the advantage was always with the defenders of the north goal. At 11:15 Referee Sifton blew his whistle and made it plain that unnecessarily rough tactics would not be tolerated, and as a result the game was clean and fast from beginning to end. Varsity won the toss and elected to play with the wind.

First Quarter—O. A. C. kicked into Varsity territory and kept the ball there for a few minutes by clean tackling. Aided by the wind, Varsity sent the play towards College goal line and attempted to kick to the dead line but failed, Simpson securing the ball, and by brilliant dodging and hurdling he carried it five yards out. College fought desperately and worked the ball well out to midfield before Varsity had an opportunity to kick. Simpson, Madden and Herder worked like a machine, repeatedly running out punts from behind their goal and evading Varsity tacklers. The bucking and defensive work of College in this quarter was sensational. Even with the aid of the wind Varsity could not send the ball to the dead line nor tackle College backs for a rouge. Score, 0-0.

Second Quarter—After a minute's

play Kilgour was sent to the timers with a fifteen minute penalty, Webster going to quarter. The play continued at the south end of the field with Varsity fighting for their lives. Herder's long kicks began to tell and two balls to the dead line and one rouge were chalked up to the credit of College. Half time score, College 3, Varsity 0.

Third Quarter — Varsity started with a rush. Kilgour was still with the timers and College played with an unlucky thirteen. Varsity secured an offside three yards from College goal line. In two downs the ball was over. Varsity failed to convert. Score, Varsity 5, O. A. C. 3. With their quarter again on the job, the College machine began again to show the results of training, and by repeated bucking and end runs the play was carried up the field. Webster, Wilson and Hockett tackled everything in sight and College finally obtained the ball ten yards out, and by a pretty criss-cross Simpson strolled over for an easy try. Herder failed to convert. Score, College 8, Varsity 5. This put renewed vigor in the Varsity boys, and the play quickly travelled to the other end, and by a nice end run, Varsity scored their second try, which was not converted. Score, Varsity 10, College 8.

Last Quarter—College now began to show both team play and physical condition. On the other hand Varsity began to weaken, showing lack of condition. College backs left a trail of tacklers behind them and the line smashed through Varsity almost at will. Varsity muffed behind their line, and Webster, who was working like a demon, fell on the ball. Herder converted. College 14, Varsity 10. It was now a procession for College.

Two more tries and a number of rouges soon ran the score beyond the danger line. Final score, College 28, Varsity 10.

The whole College team worked well. Hockett played his first league game and did everything that was expected of him at flying wing. Captain Webster was prominent in the play at all times. Wilson surprised everybody by his offensive work, and repeatedly gathered in loose balls; in fact, it was a real rugby team which trimmed Varsity on its own field. If the red and blue boys are defeated in the finals of the Junior Intercollegiate it will be after a rough struggle, and when every inch of ground has been fought for. The teams:

Varsity — Backs, Boddy, Milne, Byrne, Smithson; quarter, De Gruchy; outsides, Adland, Rankin; middles, Jeffs, Wigle; insides, Robinson, Miller; scrim, Cockburn, Levy, McTavish.

O. A. C.—Backs, Madden, Herder, Simpson, Hockett; quarter, Kilgour; outsides, Webster, Wilson; middles, Braithwaite, Brown; insides, Hare, Jackson; scrim, Neelands, Davison, Dudgeon.

Referee—Mr. Sifton, Varsity.

Umpire—Mr. Clark, O. A. C.

—"Leap."

#### WOODSTOCK vs. O. A. C. II.

A hard game of rugby was played when O. A. C. II. visited Woodstock College. The score, 24-0, did not give a correct idea of the play. The home team had to fight all the way to gather in their total. The back division of the Woodstock team was a fast and strong combination and on the other hand the O. A. C. line was superior. Time and again Woodstock failed to move the ball an inch when

THE LIBRARY, UNIVERSITY OF SUEZ

but a few yards from the visitors' line. The score at half time was 15-0, and the Woodstock aggregation succeeded in running up nine more points in the last half.

#### Woodstock College vs. O. A. C. II.

On Saturday, October 19th, Woodstock College defeated our second by 20-10. The first half was fast and close, and an exciting finish was expected. Our boys fell down in the second half, however, and handed the game to the visitors. The back division played erratic ball and Woodstock took advantage of their fumbles. Price was undoubtedly the star man on the field, his end rushes netting great gains. The teams:

Woodstock College—Backs, Weekins, Price, Sutherland, Harris; quarter, Matheson; middles, Wilson, James; insides, Breckenbridge Swift; scrim, Smith, Moore, Parsons.

O. A. C. II.—Backs, Hales (Gandier), Creelman, Williams Langley; quarter, Culverhouse (capt); out-sides, Welton, Bergey; middles, Bertram, Sibbett; insides, Pratt, Donald; scrim, Townsley, Steckle, Kirkley.

Referee—S. H. Gandier, O. A. C.  
Umpire—A. W. Baker, O. A. C.

#### G. C. I. vs. O. A. C. III.

Our thirds defeated the G. C. I. by 17-0 in a game played on the College campus on October 10th. The game was not marked by any very brilliant play, as our team was composed of men who were just learning the

game. However, the score indicates what the thirds may do with some practice, for the G. C. I. were entirely outclassed.

#### Cross Country.

The field that waited for the pistol in the annual cross country run on November 1st was a very small one. An all night rain meant about 5½ miles of slippery roads, wet meadows and mucky ploughed fields, and no doubt the prospect was uninviting. This event was well contested last year, fine weather and a good course



Freeborn in the cross country run.

contributing toward record time for the run, S. G. Freeborn winning in 31:11. This fall he put his second shield on the Hallman-McKillican Cup, doing the heavy course in 32:18.

The trophy must be won three times before it becomes personal property. Though it has become regarded as a permanent ornament in the library, it looks as if Switz will take it home with him in 1913.

#### O. A. C. 23, KINGSTON 7.

"Hurrah, hurrah, we're champions again,  
Hurrah, hurrah, bring on some better men,  
For we were not afraid to meet poor Kingston from the "Pen"

While we were fighting for the Farmers."

(Sung to tune "Marching Through Georgia").

The down-town section of Guelph was rudely awakened by the above



refrain when the midnight train arrived from Toronto Saturday night, November 9th, bearing the College rugby team which had badly defeated Kingston at Port Hope in the afternoon, for a sudden-death game for the championship of the Junior Intercollegiate series. The team was then conveyed in triumph to the College, where arrangements for formal celebrations had been previously prepared.

This has been the most successful rugby season at the College for some years. Those who saw the team perform earlier in the fall saw in them a nifty bunch of athletes, which would cause trouble for the other teams of the Intercollegiate. They have lost one exhibition game, the first of the season, but beginning with the 39-0 victory over St. Jerome's, an unbroken string of victories has rewarded the faithful training of the team. McMaster was overcome after a stubborn contest. Varsity Juniors, an anticipated stumbling block, were defeated 21 to 10 and 28 to 10, and College went into the finals of the Junior Intercollegiate with Kingston full of confidence and with their fighting togs on. Two heavy losses were previously sustained by the enforced absence of Curtis and Jackson through injuries. These men showed exceptional form as ground gainers, but Oswald and Davidson, who filled the gaps, soon demonstrated that they also were some rugby players.

Manager Gandier took his team to Port Hope Friday evening in order that the boys might be well rested by Saturday afternoon. The T. C. S. grounds had been thoroughly soaked by Friday's rain. Saturday's sun and a good breeze dried up the pools, but

the field was sticky and treacherous. Kingston was first to take the field. They were a tall, rangy bunch, and showed speed and punting ability. The Guelph boys came on when referee Voght and Umpire Peary of T. C. S. called the players together for preliminary instructions. These officials handled the game with satisfaction to both teams. College won the toss and took the wind.

#### First Quarter.

The kick-off took the play to College end but punting brought it back. Both teams fought stubbornly and play remained even for five minutes. Kingston showed exceptional class in running and tackling but could not gain ground on College line. Kingston made a mess of a cross and muffed, College securing on their five yard line. On the second down, Hare bucked and threw himself full length over a Kingston tackler for a try. Herder failed to convert. College tore Kingston line and blocked a number of kicks, but lost their advantage by repeated off-side interference. Kingston backs now made a couple of pretty runs. On punts Kingston wings followed fast, nailing College backs in their tracks. Play see-sawed to the end of the quarter with Kingston showing splendid tackling and speed, while College excelled in team work. The mud bothered both back divisions. Score, College 5, Kingston 0.

#### Second Quarter.

On a punt College was nailed on its 25-yard line and lost again on interferences, and a nasty low kick carried the play to the 5-yard line. Interference again favored Kingston, and a fast buck through left carried the ball over. (Not converted.) Kingston worked furiously, and with

the aid of the wind, they succeeded in nailing Herder for a rouge. Another rouge followed, making it 7 to 5 in Kingston's favor, who appeared to weaken at this stage after their severe spurt. College took brace, and after some nice running by the backs and an extremely long punt by Herder, against the wind, Kingston held the ball on their 25-yard line. They lost on forward pass, and Herder carried the ball 25 yards on a trick play through scrim. Good bucking and an end run gained 7 yards, then a centre scrim buck carried it over. Herder converted. Kingston continued to show signs of weakening and College had the best of it. Neither teams could get within scoring range, and half time whistle blew with the score 11 to 7 for College. Herder, McElroy, Huckett and Webster were responsible for much ground in this quarter.

### Third Quarter.

College took the field with confidence. Kingston were plainly worried, though they started off with a rush and held their own for some minutes. College repeatedly blocked kicks and had another run of hard luck on interference. Madden had his ankle wrenched out but resumed play. College secured on Kingston's 25-yard line. Simpson took a beautiful long pass from Madden and gained 30 yards by clever running. Another end run by Simpson took the ball over (not converted.) College made steady gains while Kingston was always in distress. Wilson, who was playing a heady game, twisted his knee in the end run and retired. Campbell took his place. A rouge gave College another point. Madden's passing and Simpson's gains featured. Score, College 17, Kingston 7.

### Last Quarter.

Kingston had the wind and kicked at every opportunity, but Simpson and Herder carried the ball back for big gains. Madden's catching was brilliant and his long passes daring, but he got away with it as usual. College was finally downed 35 yards out. Simpson took a long pass and sprinted up the field for a 60-yard run, the most brilliant play of the game. College bucked for yards. Kingston line could not hold, and two bucks took it over for another try. Play continued in Kingston territory and another rouge was registered. Game over. Score, College 23, Kingston, 7.

Enough cannot be said of Simpson's work on the half line. Judging by Saturday's play, senior company is not too fast for him. Madden's headwork was splendid. Captain Webster's tackling was much in evidence, and he kept the boys "gingered" up as usual. Huckett, at flying wing, was effective in smothering the opposing backs. Herder out-booted the Kingston punter and was always on the job in spite of a painfully sore foot. The whole line held splendidly but showed a slight weakness on off-side interference. As a buck, Hare was easily the pick of the field. McElroy at quarter always kept the play fast and broke through for nice gains. The whole team demonstrated that it is a football machine possessing brains and physique.

### College Line-Up.

Scrimmage, Neelands, Dudgeon, Sibbitt; r. wing, Hare, Braithwaite, Wilson (Campbell); l. wing, Davidson, Oswald, Webster (capt.); flying wing, Huckett; centre half, Madden; r. half, Simpson; l. half, Herder; quarter, McElroy; spares, Brown, Campbell, Donald, Welton.

## Optimism from the Sports Managers

### HOCKEY PROSPECTS FOR 1912.

Hockey prospects for the season of 1912, perhaps, do not appear so bright as in the past two seasons, due to the fact that we have lost three or four of our best men. But, notwithstanding this fact, I think that with the material in the Freshmen year and the other years the O. A. C. will turn out one of the smoothest, most uniform, hard-working teams that have worn the red and blue for some time.

The great fault of our teams in the last three years has been lack of training. Anyone who has played the game knows that to stand the pace for a full game a player must be in the best physical condition. Last winter we lost to MacDonald College because, although an inferior team, they were in the pink of condition, and stayed right with the game until the referee's whistle blew for full time.

The hockey season is rapidly approaching. You can't start to train too early. If you do not play football take some regular exercise in the gym and keep yourself in shape. This season the man who wears the colors of the O. A. C. on the first hockey team is going to be the man who can play a hard game all the time.

Last season we did not have enough practice. This season we will make arrangements to have at least three regular practices a week, and have fourteen men on the ice for each practice.

This season we will likely enter a team in the intermediate section of the O. H. A., and with Preston playing senior, we should clean up on

this division. Then after the O. H. A. season is over, we can enter a team in the Intermediate Intercollegiate, and as the Intercollegiate season does not begin until the O. H. A. season is practically over, we could play the same team.

The last game of the season will in all probability be with MacDonald College. In the last two meets they have won the hockey. This year we just need two things to trim them, and trim they right. Are we going to get it? Yes, if every man does his part.

H. M. McELROY, Manager.

### INDOOR BASEBALL.

Now that the football season is over, our thoughts turn to the winter indoor sports, basketball and baseball. Indoor baseball is the game which is suited more than any other to the man who cannot enter into more strenuous games. It affords as much scope, however, for "inside work" as does the outdoor game.

This year is an important one for the College. In the inter-college series with MacDonald, each team had won once—MacDonald here two years ago, and our team at St. Anne's last year. It is up to us to get busy and win the "rubber."

Of last year's team about one-half are still in college. Men must be found to fill the vacant places, and every man should turn out. The short series of inter-year games before Christmas will give us a line on the various men. But aside from this, every man should turn out to learn the game. "All work and no play makes Jack a dull boy," is true

here at college as elsewhere. This game is suited to the man who wants to "plug" and gives as his excuse "that he isn't strong enough physically" for the more strenuous games. Let such men turn out to their year practices and help make their team strong, and keep themselves in better health.

The faculty has a strong ball team which is willing to play games with every year. The captains should arrange games with them. The practice would be very beneficial.

A. H. MacLENNAN, Manager.

#### BASKETBALL.

Splendid material, interest and enthusiasm mark the coming of the basketball season. With the stars of past years and an unusually promising lot of new-comers, the management in this branch should have lit-

tle difficulty in placing on the floor a winning team. Unfortunately, as experience has taught us, it is difficult to locate a basketball league which is satisfactory. Nothing better has been found this year, and so it has practically been decided upon to arrange several good exhibition games and to enter the finals of the Inter-Faculty Series at Toronto. All the exhibition games will be in the nature of practice. It will be remembered that next term MacDonald College pays us a visit. We are determined, in basketball at any rate, to be decisive winners. Fellows are reminded that to get in the basketball games means excellent condition and hard work. If enough turn out and prove their worth, a second team will in all possibility be organized and games arranged for it.

P. E. CULVERHOUSE, Mgr.



A. W. White, Freshman Champion Annual Field Day and winner of Savage Cup at Varsity Interfaculty Meet, for scoring greatest number of points.

# ALUMNI

The Alumni department extends to all ex-students the compliments of the season. While thanking all for past favors, we solicit greater endeavor in the future. Your hearty co-operation is imperative to make this department an increasingly valuable resume of the interesting items relating to our graduates.

might be of interest to the readers of the Review to know something of the ex-students who are in that part of the country, I append the following list.

Among the number, one who took a prominent part in the programme, was R. M. Winslow, '08, Chief Horticulturist for the Province. Ben Hoy,



(Photographer, Maxwell (Frosby) Scott, '14)  
Reading from left to right—A. M. Bosman '12, Geo. Harcourt, Alf. Atkinson '01, W. A. Laing, W. J. Elliott '98, Ed. White '12, P. E. French '11, S. Rogers '12, M. S. Middleton '12, Prof. R. Har-

## COLLEGE WELL REPRESENTED.

It was my good fortune to attend the Sixth Irrigation Congress held in August at Kelowna, B. C. To one who felt that he had travelled a long distance from Guelph and the Ontario Agricultural College, it was a surprise and a pleasure to meet so many men who had been students at this institution. Thinking that it

'09; M. S. Middleton, '12; P. E. French, '11, Assistant Provincial Horticulturist, were also present, and E. W. White, '12, who is now a fruit inspector, working under the direction of the Chief Horticulturist. These men are working among the fruit growers of the Okanagan Valley and other adjacent districts. H. R. McMillan, '06, Chief Forester for B. C., with headquarters at Victoria,

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was on hand getting acquainted with conditions, and also took part in the programme. F. C. Nunnick, '10, Agriculturist of the Conservation Committee, was present for part of the time, as was also A. D. Campbell, '09, of the Seed Commissioner's Branch, stationed at Calgary. Prof. W. J. Elliott, '98, superintendent of lands in the Natural Resources branch of the C. P. R., stationed at Calgary, is a director of the Irrigation Association, and was an active worker in the various sessions of the convention. Prof. Alf. Atkinson, '01, of Bozeman, Montana, delivered a stirring address on the growing of alfalfa under irrigation conditions. George Harcourt, '89, Deputy Minister of Agriculture for Alberta, represented his province at the convention, and, as chairman of the executive committee of the Dry Farming Congress, extended a cordial invitation to the delegates present to attend their annual meeting, which is to be held in Lethbridge in October. A. M. Bosman and S. Rogers, '12, who, before returning to South Africa, spent the summer studying dry farming problems in the Western States, gathered some helpful information regarding the growing of fruit under irrigation conditions. H. B. Cooley, '10, was present in the interests of the Noble Advertising Co., Vancouver.

In addition to the above list of graduates who were present at the convention, I met H. Maxwell Scott, who completed his Sophomore year last spring, who was working on the Rainbow Ranch, adjoining Kelowna, gaining experience in growing fruit on irrigated lands. A. F. R. De Hart, '94, who at one time owned a great part of the town site of Kelowna, has

found dealing in real estate so profitable that he has combined real estate with his fruit farming operations. F. A. Lewis, '00, has a fine fruit farm at Rutland. He was fortunate in selling part of his farm for the town site of Rutland.

At the close of the convention the delegates were banquetted by the fruit growers of Penticton, which lies some forty miles south of Kelowna, at the bottom end of the lake. On the way down I had the good fortune to meet W. A. Laing, of the class of '79-80, who has spent fifteen years in this valley at Peachland, going there from Manitoba, where he was farming previously. At this point Dan McLaughlin, a class-mate of W. A. Laing, is also carrying on a fruit ranch, and has been in that district about twelve years. J. L. Webster, another of Mr. Laing's class-mates, is fruit farming in Vernon, at the upper end of the valley, and M. Kelleher, of our present junior class, spent the summer with him. Messrs. Dunlop and Gravely, of last year's Sophomore class, are also farming in that same district. At Summerland I met F. E. Gifford, of class '14 Freshman class, who is superintendent of a new fruit packing house recently opened at that point.

An effort was made to get a group photograph of the seventeen ex-students of the O. A. C. attending the conference, but, unfortunately, rain, which it is said always falls during the meeting of the association, prevented our plans from being carried out. The accompanying picture of those who were privileged to attend the banquet at Penticton was taken on board the C. P. R. steamer "Aberdeen," just previous to landing.

R. HARCOURT.

Cupid is very busy with our old boys. Another of Class '12 has fallen a prey to love's enticing charms. On Saturday, October 26th, Mr. Walter Graham, of Britannia Bay, was united in marriage to Miss Margaret Garvin, of Smith's Falls, Ont. Mr. and Mrs. Graham left for a short wedding tour, after which they will reside on their farm at Britannia Bay.

We are pleased to note the appointment of W. Dawson as district representative for Perth County. "Billie" was graduated last June. He successfully piloted the Review through the year 1911.

J. L. Webster, '80, was among those who attended this college in its infancy. While here he won the silver medal of his year. About thirty years ago he took the western trail, and, after spending some time in the middle west, located near Vernon, B. C. on an 80 acre fruit farm. Mr. Webster is considered one of the best authorities on fruit growing in this district. He is also known as one of the best shots in this locality. Whether this accomplishment is due to the necessity of defending his fruit from birds, wild animals or the O. A. C. students who have been assisting him is a matter of conjecture. We are open to conviction.

Co-education scores again. The culmination of a romance started on College Heights was the marriage on September 11th of Miss Myrtle Morse, of Campbellville, Ont., to Mr. F. E. Ellis, '10, of Peterboro. The event took place at the home of the bride under an arch, the feature of the decoration of which was two

pennants, one of Macdonald Hall and one of O. A. C. After the ceremony the happy couple took a trip through Quebec and the Maritime Provinces, visiting Mr. Ellis' parents at Truro, N. S. They are now settled at 305 Margaret Avenue, Peterboro, where they will be pleased to welcome college friends. A snap taken after the wedding is reproduced on this page.



"Just Married."  
Mr. and Mrs. F. E. Ellis

Mr. Ellis, after graduating, was appointed associate editor of Farm and Dairy, a position which he still holds. The Review extends to Mr. and Mrs. Ellis its sincerest congratulations.

The members of the O. A. C. Old Boys' Association of British Columbia held their annual banquet in Van-

couver on the evening of October 3rd.

There are in this western province about one hundred and fifty ex-students of the O. A. C. and twenty of the Macdonald Institute.

Mr. F. M. Logan, as President of the association, filled the position of toast-master in his well-known, witty and jovial manner. Nearly every stage in the history of the college was represented, and the following toast list afforded an opportunity for

**Annual Workout O. A. C. (B. C.)  
Students' Gastronomical-Oratorical Association.**

- Relishes.  
Zavitz Variegated Alfalfa,  
Irish Plums  
Soup.  
La Fin de Graham's Chargers  
Fish.  
Campus Cod Museum Graduates  
Solace de Friday Sauce  
Meats.  
Young Turk  
Italienne Cranberry Sauce



Residence of J. L. Webster, '80 Vernon, B.C.

the recounting of many interesting incidents in the life of the College.

The King; College Days, W. H. Wade, '74; Paul T. Black, '83; Mrs. S. Craig. Our Professions, W. T. McDonald, '02 (agriculture); H. R. MacMillan, '03 (forestry); Wm. Lucas, '98 (real estate); A. H. Hand, '05 (journalism); R. C. Treherne, '10 (Bugology); R. M. Winslow, '08 (Horticulture). Macdonald Hall, L. H. Newman, '00; Mrs. C. W. Esmond; Miss Martha Rath. The Ladies, T. F. Paterson, '97; Mrs. Blanche Barnett.

- A la mode de Mme Craig.  
Vegetables.  
Reed's (Doc) Podded Pellets  
Day's Dugouts  
Dessert.  
Dean's Dusty Frosty Fillers  
Pantry Loot  
Cafe Noir (Mumm's Extra Black)  
Wines.  
Capilano Champagne  
Glacial Aqua Pura  
Sparkling Burgandy (nit)

The attached menu card will convey an idea as to the condition the



speakers were in before the toast list was reached, and the following members, though responding to the roll call, were unable to talk: Mrs. F. M. Logan; G. S. Harris, '02; G. H. Gilmour, '05; Miss Bella Brown; Dan Patch; W. J. Hill-Trout, '14; N. Grimmer, '09; Mrs. Grimmer, C. N. Esmond, '05; Roland D. Craig, '98; Miss Bertha Watson; Mrs. T. F.

Paterson; Mrs. W. H. Wade; Miss E. Fonda; R. B. Cooley.

The following officers were elected for the ensuing year: Honorary President, James Mills, M. A., L. L. D.; Honorary Vice-President, G. C. Creelman, B. S. A., L. L. D.; Honorary Matron, Mrs. S. Craig; President, Wm. H. Gunn; Secretary, Roland D. Craig.

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#### TO OUR OLD BOYS.

Our circulation manager and his assistant are worried to death. Relieve them by sending in your subscription. One subscription unsolicited is worth two of the other kind. Price to ex-students 50c per year, or six years for \$2.50. We suggest the latter.

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College Parlor.

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acting as toast-master, delivered the opening address, and proposed "The King," to which all heartily responded. President Creelman, in a short speech, while proposing "Canada," welcomed the students of the different countries, and introduced Mayor Thorp, who responded at some length.

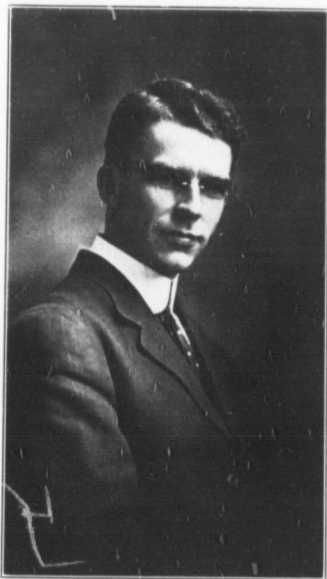
The "Other Countries" was the subject of the next toast, the various countries being represented by students from them. J. B. Lund, in proposing England, explained that as the middle classes, the backbone of England were fast following Capital and Labor to Canada, this country would be greatly benefited. H. P. Horbin, in representing the United States, referred humorously to the different American qualities, and characterized his people as "pushers." In speaking for the Argentine, Mr. R. Diaz mentioned the rapid growth of that Republic, and the vast possibilities that lay there as an agricultural producing state. R. H. Ferguson dealt with New Zealand, and in his speech dwelt upon the resources of his country. South Africa was represented by H. D. Leppan. He explained that though the general impression was contrary, the different races in that country were not assimilating rapidly. Mr. G. H. Unwin had the difficult position of replying to all these toasts. During the course of his speech, which was pointed with some excellent stories, he expressed his belief that the cause for universal peace was developing.

Hugh Guthrie, M. P., then proposed "Our Imperial Relations." The main idea running through his speech was that Imperial Federation was not feasible at the present time, as the colonies were too far distant from the seats where diplomacy was most

needed, as for instance the Balkans, to have the right grasp of European affairs. He expressed unbounded confidence in the English statesmen in managing their own affairs.

In his speech when proposing "Our Universities," the Ven. Archdeacon Davidson emphasized the fact that after all it was the social side of college life that was the most important.

The singing of the National Anthem brought to a close a most successful banquet.



F. N. Marcellus, B.S.A.

#### New Appointments.

F. N. Marcellus, B. S. A., has been appointed to the Poultry Department, where he has charge of the experimental breeding, and of the organi-

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zation and executive work in connection with the poultry industry of the province.

Mr. Marcellus was born at Morewood, in Dundas County, and in time came to this college, graduating with the class of '11. During his fourth year, he and Mr. M. C. Herner, '11, obtained first place in the Judging competitions held at the Boston Poultry Show. After graduating, he took the position of district representative at Collingwood for four months, going from this place to the Agricultural College at Ames, Iowa. Although he at first had the position of assistant in the Poultry Department, he soon took full charge of the work and remained there until September 27th of this year, when he came to Guelph.

The establishment of a forestry branch to take up provincial forest conservation and reforestation has been decided upon by the Ontario Government.

Professor E. J. Zavitz, who for several years has been in charge of the Government's reforestation work in Norfolk County, has been chosen as the man to take charge, and yesterday his appointment was announced by Hon. W. H. Hearst.

As Provincial Forester Prof. Zavitz will be connected with the Department of Lands, Forests and Mines. While reforestation on the waste lands of older Ontario will, of course, be made a part of the Government's forestry policy, it is likely that for a time Prof. Zavitz will give particular attention to Northern Ontario. The north has, as yet, no pressing need of reforestation, but there has been an urgent demand for systematic conservation of the timber, not only

through more restrictions upon lumbering, but through the elimination of careless methods that pave the way for fires and there accompanying heavy losses. The Department of Lands, Forests and Mines has been encouraging the lumbermen to "clean up" after cutting, and the last timber lease given allowed the lessees a lower rate for timber where the slash was disposed of.

Prof. Zavitz will advance this educational work, as well as study other methods of scientific conservation.

Until other arrangements are made Prof. Zavitz will continue his lectures at the Ontario Agricultural College and his supervision of the Norfolk Reforestation Station. It is probable that in the organization of the work the Norfolk station will be turned over by the Department of Agriculture to the new branch of the service.

Mr. S. Curzon has been appointed to fill the position of Fellow in Chemistry which was vacated by G. P. McKay leaving for Toronto.

#### The Fire Brigade.

Excitement was intense. The siren of the engine room was frantically signally a fire at the Dairy Building. The members of the fire team rushed to their reels, dragged them out of the shed and began down the long incline, the heavy vehicles bumping along behind them. Arriving at the Dairy the hose was attached to the hydrant, and the ladder having been placed in position, the boys mounted up and the water was turned on.

Luckily for the Dairy Building, there was not a sign of a fire near by.

Taking the practice as a fire drill it was a decidedly poor one, and if

fire had threatened the building it would have gained immense headway before the water could have been played upon it. The two Freshmen reels that turned out were poorly manned, while the Sophomores' team did not show up at all. Considering that this was their second practice, the boys did not do so badly, but they were slow in starting, they made very poor time when on the way, one reel, in fact, walking for a while, and they were slow in unrolling the reel and attaching the hose to the hydrant. Inexperience showed up everywhere.

Now its up to the captains of each reel to get his men accustomed to the drill and into such shape that they can stand a hard run, for it sometimes happens, as it did last winter, that real necessity for the brigade comes along. Besides that, such a poor turn-out is bound to be disheartening to those members of the team who do come, and it must indeed be to the Dean, who has charge of the work.

#### PRESIDENTS OF THE SOCIETIES.

Maurice Howitt was born at Stoney Creek, where his father, the Rev. Canon Howitt, soon began to instill Christian principles into his life. Soon after arriving at the O. A. C., his "Y. M." character was quite noticeable. He has interested himself in the Christian work—mission study claiming his chief attention. "Moss" is an enthusiastic Student Volunteer, Bible Study Leader and Boy Scout Master.

A quiet fellow, reserve and unassuming, he has won the good freindship of his class-mates, and is gradually evolving into a man of influence. In his position as President of the Y.

M. C. A., he has an opportunity for further extending this power.



Maurice Howitt.  
President Y. M. C. A.

Coming from the town of Hickson, Ont., the genial and ever-smiling "Harry" entered College with Class '13. Not only of a pleasing countenance, he is a most pleasing speaker



H. M. King.  
President Union Literary Society.

and from the very first to take an interest in matters literary.

Original, energetic and popular among his fellow-students, he was elected to the presidential chair of the Union Literary Society in the spring term of his third year. With a man like Harry as head, we predict a prosperous future for the "Lit."

A good athlete and student, and a command possessed by few, we have no reason to doubt his future success.

The president of the Philharmonic has taken charge of the musical side of college life with an energy and vim, characteristic of all his work. His ability to sing is only equalled by his agility on the parallel bars and his speed on the track.

Percy comes from England, but has spent several years in different parts of Canada, so that he has been "round the round" world. "What I mean to say" is, that he has had a wide experience, and as a result the



W. H. J. Tisdale,  
President Athletic Society.

"A man that is young in years may be old in hours." Such we have found W. H. J. Tisdale to be. Elected last spring to one of the most difficult positions our students have to fill, he, as president, has guided the Athletic Association triumphantly through the fall term.

"Tissie" was born at Paris, and after receiving his primary education in that town, came to us '09. Here he has found many opportunities to evince his executive ability, having served on the executive of nearly every college society, and in his junior year as class president.



P. S. D. Harding.

Philharmonic is making a steady progress under his leadership. Whilst Percy's inclinations are turned towards Guelph, he desists from the paths of pleasure and makes his society one in which there are no discords.

**Cosmopolitan Dance.**

The Cosmopolitan Club held their annual dance at Macdonald Hall on Nov. 14th. The expectation of a splendid time attracted over sixty boys, one, in fact, coming in from six miles out in the country. And their expectations were realized.

The dancing, as usual, took place in the gymnasium. The music, furnished by Noonan's orchestra from Buffalo, was exceedingly good, and repeated encores were called for and given. "Soon, all too soon," however the end came for the enthusiastic dancers and before the clock struck twenty-five minutes to two the hall was in darkness.

**Union Lit.**

The Delphic Society, winners of the first Union Literary Society debate, sent two representatives, Messrs. Tennant and Finn, to debate with the Maple Leaf Society, whose banners were upheld by Messrs. Abraham and Waterman. The opposing parties met in Massey Hall, on the evening of November the sixteenth. Following was the programme:

Orchestra—Waltz "Heart Murmurs."

Quartet—Messrs. J. W. Lawrence,

J. E. McRostie, R. B. Hinman, P.

Vahey.

Debate.

Solo—Miss Jean Sinclair.

Reading—Miss Pearl Carter.

Orchestra—Two-Step, "Curly."

The subject chosen for discussion was "Resolved, that Government Ownership of Public Utilities is in the best interests of the people." The judges, after some consultation, decided in favor of the negative argument, presented by the Delphic Society. Prof. W. H. Day acted as critic and offered some excellent criticism, not only to the speakers on the platform, but to the audience. The orchestra, and indeed all the entertainers, were admirable, and drew warm applause from the delighted crowd.

**COMPETITION RESULTS**

The recent competitions held by the Review were, excepting in one department, very successful. The photos, the cartoons and the short story competitions brought to light considerable talent. The prize-winning photos and cartoons and the first prize story appear in this number. The judges of the poems submitted, however, stated that none of these showed sufficient literary merit to be given a place, and no awards have therefore been made. Following is the list of winners, first prize being \$10 cash, and second \$5:

Short Story—1st, J. Miller, '13;  
2nd, "Microbe."

Photos—1st, H. D. Leppan, '14;  
2nd, Archie Campbell, '13.

Cartoons—1st, A. Cory, '15; 2nd, R. Diaz, '13.



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# MACDONALD

## THE PRESENTATION.

Friday, October 4th, was a busy day at Macdonald. In the morning, string-mops, dusters, and pot plants from the greenhouse was much in evidence about the halls, but by noon all signs of confusion had disappeared, and the girls who had spent the morning cooking cookies and sandwiching sandwiches began to appear in fresh white dresses to take their part in showing the visitors and guests of the day about those halls to which they themselves were strangers but recently. People had come from far and near to be present at the ceremony of the afternoon, and as the students heard this one and that one tell of memories of her who was the mother of the technical movement in women's education, it was borne into their minds as never before how far reaching the influence of one strong personality may be.

At 2:30 all gathered in the Assembly Hall, where President Creelman gave a short address of welcome to the guests of the afternoon, and then Mrs. E. D. Smith, of Winona, a co-worker with Mrs. Hoodless, read an address of presentation from the Women's Institute. As the audience heard of the life and work of Mrs. Hoodless they realized how great a debt modern education in Canada owes her, and how strong a champion of domestic education had been lost to the world in her death.

The curtains were drawn aside, and the portrait disclosed to view. Every person in the assemblage rose and stood bowed, with one consent, in homage before it.

An address by Dr. Creelman and a few short addresses by delegates tes-



Portrait of Mrs. Adelaide Hoodless, President of Macdonald Hall, by Women's Institute of Ontario.

tified to the indomitable courage and ability of Mrs. Hoodless.

The second ceremony of the meeting was the unveiling by Miss Margaret Smellie of a bronze tablet in memory of Mrs. Hoodless, the history of which is as follows:

In the year 1910, the professional students in attendance at Macdonald



Institute felt that they would like to leave some lasting tribute to the memory of Mrs. Hoodless from all students who had been under her personal care and instruction. A representative of each class then in attendance was elected, and Miss Watson was asked to appoint a representative from each graduating class of previous years. These formed a committee, which, after considering plans for several different forms which their memorial might take, finally decided on the bronze tablet, duly inscribed.

The committee consisted of the following: Miss Ewing, Hamilton Normal School; Miss Berry, of year 1905; Miss McHaig, of year 1906; Mrs. Jones, of year 1907; Miss Allan, of year 1908; Miss James, of year 1909; Miss Smellie, of year 1910; Miss Calhoun, of year 1910; Miss McInnes, of year 1910; Miss Frank, of year 1911; Miss McAdams, of year 1911; Miss Goldie, of year 1910.

The address read by Mrs. E. D. Smith referred to the pleasure and gratitude felt by all when assembling to honor the memory of Mrs. Hoodless. It recounted the history of the founding of women's institutes through the enthusiasm and energy of Mrs. Hoodless, and the great work that has since been accomplished by the institutes; of the organization of the Dominion Y. W. C. A. by Mrs. Hoodless, and her founding of the Ontario Normal School of Domestic Science; of her assistance in organizing the National Council of Women, and her representation of this body at Washington in 1898. Wishing to recognize her able efforts and record in a permanent manner their appreciation of her successful agitation for the improvement of women in rural

districts, the Women's Institutes duly presented the portrait of Mrs. John Hoodless to the Macdonald College, Guelph.

Dr. Creelman, in replying, accepted the gift of the portrait on behalf of the Women of Canada, the Province of Ontario and the authorities of the college, and looked for renewed enthusiasm on the part of the future Macdonald students as they gazed on the beautiful womanly features of her who did so much in the cause of education.



The Memorial Tablet to Mrs. Adelaide Hoodless.

#### MEMORIAL TO MRS. HOODLESS.

Noble type of womanhood;  
Leader in ideals sublime,  
Your echoes will roll ever  
Down endless years of time.

Peerless home appelland,  
How wonderful your thought,  
And marvellous the greatness  
Your woman's voice has wrought.

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Your life was a shining star,  
Your work a constellation,  
Which shone so brightly ever,  
With light and aspiration.

Among the noble things of earth,  
Your works will ever stand,  
So those who never knew you,  
Seeing these will comprehend.

Noble type of womanhood,  
Your motto, "Home and Nation,"  
Inspires our beauteous sisterhood,  
And claims their admiration.

—Rae Black.

#### THE HALLOWE'EN MASQUERADE.

Except to the energetic committee workers, the few days preceding seemed like weeks, but finally the

booking dances and proms with unknown partners, and exchanging repartee with any or all of the brightly dressed visitors from across the campus. Our dress problem was largely solved for us by our adoption of costumes similar in appearance. Some of us made excellent Pierettes, and some of us might have had more appropriate costumes, but the mass of opinion was that the dress was decidedly pretty and dainty. Ask the boys.

The grand march to an onlooker must have been a puzzle indeed. Why should Romeo be stepping side by side with a Mexican bull-fighter? And that ridiculous clown with that grave elderly lawyer with the flowing wig; and that big homely nigger from the cotton fields of Alabama



hour arrived. The weather outside, on the evening of the mask, was depressing in the extreme, but it only served to heighten the effect of the brilliant display inside the Hall. Cares, studies, labs. and dems. alike were forgotten in the fun of surmising the identity of some handsome cavalier or dusky son of Ham, of

with green-coated Robin Hood? And intertwined through all the petite figures of the French girls with their high Mother Goose hats and tantalizing masks. And who allowed that decrepit, old, blind man with the dog to come in and worry people with his plaintive appeals. If, as his card read, he had a "large wife," why

didn't she come and take him away?  
When it was discovered it was only  
Mr. Spencer disguised for the occa-  
sion, the judges immediately award-  
ed him the prize of honor, to be  
shared, however, with Miss Tilt, who  
might have successfully passed as  
the original "Redwing."

Dancing "en masque" was some-  
what awkward, owing to the limits  
of the range of vision imposed by the  
masks and the space occupied by  
some of the adornments of the  
masqueraders. The real programme  
of dancing commenced shortly after  
unmasking and continued until the  
orchestra was exhausted.

"No sleep till morn when youth  
and pleasure meet

To chase the glowing hours with  
flying feet."

The music was good, the floor was  
like ice, the supper served by the  
"garçons" in the dining-room below  
was very edible, and partners were in  
plenty. Under these conditions en-  
joyment was inevitable, and we will  
wait long to have as pleasant an  
evening again. Non-dancers were  
entertained with Hallowe'en games.  
When it was seen that the edict of  
the committee was to be enforced,  
and that the fun was to cease, re-  
gret tinged our thoughts that  
all must end so soon, and  
that one of the best times we  
have had at Macdonald was  
over.



"When Earth's last picture is painted and the tubes are twisted and dried,  
When the oldest colors have faded, and the youngest critic has died,  
We shall rest, and, faith, we shall need it—lie down for an aeon or two,  
Till the Master of all Good Workmen shall put us to work anew!

"And those that were good shall be happy; they shall sit in a golden chair;  
They shall splash at a ten-league canvas with brushes of comets' hair;  
They shall find real saints to draw from—Magdalene, Peter and Paul;  
They shall work for an age at a sitting and never be tired at all!

"And only the Master shall praise us, and only the Master shall blame;  
And no one shall work for money, and no one shall work for fame,  
But each, for the joy of the working, and each, in his separate star,  
Shall draw the Thing as he sees it for the God of Things as They are!"

## Much Ado About Nothing

Senior—"Why is a Senior like an envelope?"

Junior—"Because she must be properly addressed."

Senior—"I believe you are the first Junior that has recognized that fact."



It was on a crowded railway train I saw the maiden first;

My heart with rapturous delight I thought was going to burst.

She was stately as a lily, as graceful as a fawn;

In breathless admiration, I gazed her up and down.

Her hair was silken sunbeams, her eyes were like a heaven;

They acted on my blase heart like a little piece of leaven.

I thought of Mary, Queen of Scots, and lots of other ladies,

But to compare was most unfair—'twould make them squirm in Hades.

I thought of Grenze and Romney, and I really had to smile,

This damsel with the wondrous face had them beaten by a mile.

I turned and looked at her again, my eyes once more to feast—

My dreams dropped dead right in

their track, to say the very least. I saw a space where was her mouth; it gaped due east and west; A horrible suspicion was my mind's unwelcome quest.

She reached into that lovely mouth and stretched a piece of gum!

I gave a gasp; my faculties were all but stricken numb;

She looked at it with loving zest; it came and went and came.

My joy in lovely ladies has since never been the same.

—L. L. L.



### On Sports Day.

First Damsel—"What's that funny thing that man's throwing around?"

The Wise One—"That's the disc they play discus with."



He was very high as to collar, very correct as to suit, very shiny as to shoes, and rather young. He sat on the top step of the verandah of his liege lady, while her pet terrier settled itself in a humble and contemplative attitude before him.

Quoth he: "What's it looking at?"

Quoth she: "He sees another puppy in those shoes."



# 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.

## WOODWORK COURSE—LESSON NO. 3

The previous lesson in woodwork consisted of models for use at the bench. We will now proceed with the making of articles of use in the house, on the desk or writing table.

The first of these will be a Letter or Envelope Rack. For this model the following materials are necessary: (1) Quarter Cut Oak—one piece  $\frac{3}{8}$  in. by 6 in. by  $10\frac{1}{2}$  in. One piece  $\frac{3}{4}$  in. by  $2\frac{1}{4}$  in. by 6 in. (2) Brass. Screws—two flat head, No. 5 by  $\frac{3}{4}$ ; two round head, No. 5 by  $\frac{3}{4}$ . (3) Spirit or Oil Stain. (4) Wax.

The working drawing (Fig. 1) and the sketch (Fig. 2) shows that the model consists of three parts: a front piece, A, a back piece, B, and a support, C.

We will make the support first. Read over carefully the directions given in the Introductory Lesson on squaring up a piece to a definite size. Take the small piece and proceed as follows:

1. Prepare a true face.
2. Prepare a true edge.
3. Gauge and plane to the finished thickness,  $\frac{5}{8}$  in.
4. Gauge to width and true up one end.
5. Mark the length with the knife, square a line around the piece with knife and try square, saw off waste and plane to length with smoothing plane.

All the above steps should be carried out carefully, paying especial attention to the squareness of the edges with the face.

We will now prepare the front and back pieces:

1. Prepare a true face.
2. Prepare a true edge.
3. Gauge and plane to thickness.
4. Gauge to width and true up one end.
5. True up the other end.
6. Plane to width. Compare the width of this piece with the length of the piece C, taking care to have them exactly the same.
7. Set off from each end, on the piece just finished, the outline of the top of the front and back pieces. This setting out will appear as in Fig. 3. Having set out these lines, proceed as follows:

8. Saw the pieces apart along the line A-B, Fig. 3. This may be done by placing the piece on the bench hook and sawing with the back saw, or by holding it edgewise in the vise and sawing with a fine-toothed cross-cut saw.

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9. Saw off the waste from each piece, holding the piece in the vise, as in Fig. 4, and sawing from the sides towards the ends with the grain.

10. Smooth the sawn ends with the smoothing plane. Be sure to plain from the sides towards the point "with the grain." Work very carefully, so as to have angles at top of front and back pieces alike.

The pieces are now to be prepared for fastening together.

1. Gauge a line on the middle of the two long edges of piece C, Fig. 5.

2. Square a line, using the try square and pencil or knife, across the pieces A and B,  $\frac{3}{8}$  in. up from the bottom, on the sides that are to be placed next the support. Notice that the piece C is set up  $\frac{1}{4}$  in. above the ground on which A and B rest. Using a pencil, carry this line across the narrow edges as well. Fig. 6.

3. On the lines thus set out, mark the points for inserting the screws. These are placed  $\frac{3}{8}$  in. in from each end and in the centre.

4. Drill the holes for the screws, selecting a drill the size of the screw shank. Fig. 7.

5. Clamp A to C so that the line gauged on C is against the line on A. The ends of the groove made by the gauge on C and the pencil lines on the narrow edges of A assist in getting them placed accurately. Use a wood hand screw and hold the pieces as in Fig. 8.

6. Using the same drill, make a mark through the holes already bored, on the piece C. This process makes a small cone-shaped depression on C, which assists in centering the smaller drill to be used next.

7. Select a drill with a diameter equal to that of the screw at the root of the thread and placing the point in the holes already bored, drill a hole in piece C deep enough to clear the point of the screw when it is in place. The reason for drilling this hole is that it makes it easier for the screw to be driven in and lessens the danger of the head of the screw twisting off, as it often does if an attempt is made to drive it into hard wood without the preparation.

8. Remove the clamp and carry out the same operation with the back piece. In addition the holes in the piece B have to be countersunk for the flat-headed screws.

The pieces may now be assembled to see that they fit. Screw the front and back pieces to the support, using flat-headed screws at the back and round-headed ones at the front. There still remains two screws to be put in place. Drill the holes into C and insert the screws.

Note—In putting brass screws into hard wood the thread of the screws should be lubricated with a little wax or hard soap, thus causing them to enter the wood easier.

9. Take the pieces apart and carefully sand them with No. 0 sand paper, wrapping the sand paper around a small block of wood and using great care to keep the edges sharp.

The model is now ready to stain. For this purpose the following stains are very convenient: Johnson's Wood Dye, Sherwin-Williams' Handicraft Stains, "Solignum." A brown color will be the most satisfactory

These stains are easily applied with any flat brush of about an inch in width. Apply the color rapidly and evenly, then wipe off any surplus with a piece of waste. This will give you an even tone and serve to lighten it if it is too dark. Set the pieces aside to dry, and when they are perfectly dry they are ready to polish.

A wax polish is the most convenient to apply, especially in the prepared forms, such as Johnson's Prepared Wax or Sherwin-Williams' Floor Wax.

Prepare the wax for use by putting about a level teaspoonful on a piece of glass and coloring it with a couple of drops of stain.

The wax may now be applied to the wood with a piece of soft cloth. Rub it well into the grain of the wood, finally leaving a very thin coat of the wax on the whole surface. This will dry in a short time, 15 to 20 minutes.

The surfaces are now polished with a piece of flannel by rubbing them briskly. If the polish is not great enough, give the surfaces another coat of the wax and polish again.

Assemble the model by putting in all the screws. Try to have the cuts on the screw-heads running in the same direction, either vertically or horizontally.

The outline of the model has been kept rather simple, but some alternative ones are suggested in Fig. 9. Remember that simple but well proportioned outlines are not so liable to tire the eye as the more complicated ones would.





# LOCALS



## FRAGMENT OF AN OLD MANUSCRIPT

Now it came to pass in those days which are before the coming of the Great Snow, that there came together a great multitude upon the plain which is called *Ecksi Bishon*. And many young men and maidens were there. And the cause of their coming was on this wise. Fourteen strong men of the tribe of *Ag*, who dwelt upon the mountain which is called *Kollig Haits*, came to give battle to fourteen other braves of the tribe of *Varshi Ti*. Therefore did the young men and maidens of the tribe of *Ag* come together in a great multitude. For it is the custom of this tribe, yea, and of all other tribes in the land, to take much joy in deeds of valor and in the shedding of blood.

Now the prize of the battle was a leatheon egg of large size, which did bound and jump in such wise that the warriors had much ado to secure it. Nevertheless, when one had grasped it, then did certain others fall upon him violently and ill-treat him, so that he was cast head-long and was in sore straits. Then did the chief warrior, whose name is *Reph Arce*, blow upon a silver instrument of music, and

thereat, for a short space, the conflict ceased. But the men of *Ag*, taking the egg in their midst, did rush valorously forward, and those of the *Varshi Ti* did meet them, and great was the crash thereof. Now a certain *Ag*, by name *Bun Gnee*, which is by interpretation *Rabbit*, or *He of the Iron Nose*, did burst through the battle and strive to escape. But the men of *Varshi Ti* flung themselves upon him and would not let him go. Whereat the multitude rejoiced exceedingly and cried with a loud voice upon the *Kat Trap*, the emblem of the tribe. Then did *Hur Dur*, of the tribe of *Ag*, grasp the egg and smite it violently with the right foot, so that it flew upwards and fell afar where none of the men of *Varshi Ti* could grasp it. And



Solving the Labor Problem.

the multitude shouted greatly and the sound of their shouting was as the cry of wolves on a frosty night.

Now it came to pass that a certain warrior was cast headlong and could not rise. Then did *Reph Arce* play loudly upon the silver instrument of music, and there came one bearing water in a vessel. But when he saw the water he rose up and stood upon his feet. For it was a cold day.

And the battle waxed exceedingly fierce, and the men of *Varshi Ti* strove mightily with hand and foot and knee and elbow, but they could not prevail. For a certain *Ag* warrior, by name of *W'ebz Tur*, did grasp the egg, and, running swiftly, did place it far behind the host, where no man was. And the people shouted: "A Try! A Try!" Whereof the meaning is not plain, but the men of *Ag* rejoiced.

Now *Bu Gher*, which being interpreted is *The Cunning One*, a small warrior but full of valor, having the egg with him, did run swiftly to one side, and the *Varshittes* came upon him. But he, seeing how they came in great numbers, did cast the egg from him so that it fell into the hands of *Hur Dur*. Wherefore he deserveth praise, for covetousness is a sin. And *Hur Dur*, running swiftly, came nigh unto the end of the plain. Nevertheless a certain *Varshittite* did grasp him by the knees, and he fell.

And in the end the men of *Ag* prevailed and the victory was with them. And the young men and maidens went on their way rejoicing and making merry after their fashion. But the men of *Varshi Ti* did not rejoice.

G.



Johnson—"I hear Miss K. and Mr. Stark were playing tennis tonight."

Weir—"Was there a racquet?"

Johnson—"No; I think it was a love set."

Archie Campbell intimated last year that he intended to settle down to study in his senior year. Consequently there is no tea room on College Heights. He has developed a great interest in Bea's.

Ask Lew Henry or Miss S. what they found in Culham's suit case during the delay at Guelph Junction.

Bramhill (at Union Debate)—"Somewhere between Vice and Virtue we are."

Voice from Seniors—"Where is Hextall?"

Tissie—"At Macdonald Hall."

Hutchinson appeared at the Masquerade without a mask. He was highly disgusted when asked what he was impersonating.

Brough—"I smell cabbage burning."

Hunter—"You've got your head too close to the fire."

Shaver had a close shave the other day while judging in Claremont. Lost by a quarter and finished in a lather.

Stark (at Union debate)—George Washington's parents were both great men.

Peren (buying a hat)—"I want to buy a hat that will suit my head."

Clerk—"How would a soft, green one do?"

Stranger—"Is that the President of the college that I was just talking to?"

Student—"No; that's just Bill Weir."

Allan—"Do you think I sang well at practice this evening, Miss G.?"

Miss G—"You sang splendidly, Mr. Allan. Just like a martingale."

It was rumored that the Poultry Club was going to act in collaboration with the Cosmopolitan Club in giving the next dance, but on being questioned the chairman of the Poultry Club indignantly denied this.

#### If the Truth Were told in Residence.

"Yes, Mr. Hopkins, I threw that water and was about to throw more as you came along."

"Please, may I have an excuse from 'Student Labor?' I have an appointment with the dentist."

"Yes, Professor, those bugs were collected when I was a small boy and have been used every year since."

"No, I can't sing, but the choir practices at the Mac."

"Yes, I filled my laundry bag in the orchard, and it wasn't with clothes."

"Yes, we're delighted to serve on any committee at the Mac."

Signed—Hutchinson, Sutton, Weir, Peren and Bradshaw.

Herder made a spectacular rush down the field, amid the yells of the crowd, but when the applause had subsided, it was apparent the ball was not in play.

Miss G.—"Oh, dear! Why does he have to bring the ball back?"

Brough—"I don't know; unless he got an enchore."

Dr. Reed—"Kindly name the bones of the donkey's skull."

Horan—"I have them all in my head but I can't think of them."

Hextall (at Hallow'een dance)—  
Won't you take this chair?

Miss S.—After you.

King (at union debate) — "Is there any undone business?"

McElroy (at supper table)—  
"Where's the forks?"

Nixon—"What do you want forks for? There isn't any meat"

McElroy—"Well, how can I reach the bread?"

Bergey walked into Laidlaw's room Friday night.

"Done any studying, Laidlaw?"

Laidlaw—"No; I've only been in five nights this week, and here it is seven o'clock, and I haven't done a thing tonight."

#### Botanically Speaking.

Curtis—"That young Miss — is quite a society bud, isn't she?"

Smith—"Yes, rapidly blossoming into a wallflower, too."

#### A Dialogue in the White Family.

Father—"How were you on athletics in college, son?"

Art—"I was good at relay events, dad."

Father—"That's what I understood. Well, you can just relay all the carpet your mother took up last spring."

Father (to his friend's pretty daughter)—"Good-by, my dear. I won't kiss you; I have such a cold."

Blondey W. (with alacrity)—"Can I do anything for you, father?"

**At the Football Game.**

Elderly Gentleman—"Come away, wife, or else they will want us afterwards as witnesses."

"Chaunty" Smith—"What do you intend to do with the soap, Molly?"

Mollison—"Just a little scheme of mine to slip through the exams."

Some freak combinations in the first year:

Yule Love Elgie.

Easton West.

French Garlick Orr Young White Hare.

Small Currans.

MacDonald Hall.

Lord! Love Chaunty.

Woolley West.

Small Bird.

**At the Dining-Room Door.**

Altenburg—"What time is it?"

Pulleine—"Twenty minutes to."

Altenburg—"To what?"

Pulleine—"To wait!"

Kingsmill (talking to Webster)—  
"Did you notice how generous Darling is getting?"

Webster—"No; how do you make that out?"

Kingsmill—"Why, he's buying all his own tobacco now."

**A Broiler.**

His Satanic Majesty—"And who are you?"

Bull Moose Dudgeon—"An ex-football player, your worship."

H. S. M.—"Aha! Spiketail, fetch me the gridiron."

Continued on Page xvii.

# The Dominion Bank

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Practically all of the new municipal systems started in Ontario during the past nine months have placed their orders with us for all their requirements, as we furnish everything from the poles, cross arms, etc., to telephones and switchboards.

What we have done has been done on the quality of our construction, material and the merit of our telephones and switchboards, and our ability to give prompt shipments and guaranteed satisfaction.

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Write us and ask for No. 3 Bulletin.

**CANADIAN INDEPENDENT TELEPHONE CO., LTD.**

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## OMAR AT COLLEGE

Dreaming while Dawn's Left hand was in  
the Sky,

I heard a Voice within the Senate cry—  
"Awake, and cheer the Freshmen with  
Advice  
Before the Greenness of their Youth be  
dry!"

Myself when young did eagerly frequent  
Tutor and Prof., and heard great Argu-  
ment

Of Latin and of Greek; but all I heard  
Came out by the same Ear where in it  
went.

There was the Sight for which I found no  
Key;

There was the Verb whose Root I could  
not see;

Some little thought there was if *iyui*  
A while; then *kdw*; then some more of  
*iyui*.

Waste not your Hour, nor in such vain  
Pursuit

Of ghostly Tongues endeavour and  
dispute;

Better be jocund with the friendly Key,  
Than plug without one—and be plucked  
to boot.

Alas! What boots it with incessant Care  
O'er your Red Books to toil with Groan  
and Tear,  
And strictly meditate the thankless Muse—  
To have "C—" on your Theme appear?"

But the Corrections teach you, People say,  
To sling your Gass with more Precision?  
Nay—

If so, by striking out each word that helps  
You shoot your Face off in a fluent way.

Some for the Glory of High Firsts; and  
some

Sigh for the Pleasures of Rink Night to  
come;

Ah, take your skates and let your Latin go;  
Hark the glad Music of the Band and  
Drum!

Why if a Chap can fling his Books aside,  
And o'er the Ice with Her for eight Bands  
glide,

Were't not a Shame—Were't not a Shame  
for him  
In some dark Attic cramming to abide?

And if the Puck you chase, the Hand you  
press,

End in a Pluck in every Subject,—yes,  
Think then you know To-day what Yester-  
day

You knew—To-morrow you cannot know  
Less!

Dalhousie Gazette.

THE DEPARTMENT OF AGRICULTURE OF THE PROVINCE  
OF ONTARIO

Have equipped a Demonstration Car with roots, vegetables,  
grains, grasses, etc., of Northern Ontario, and the  
Itinerary is as follows:

Dec. 2nd—Guelph.	Dec. 12th—Paris.
Dec. 3rd—Elmira.	Dec. 13th—Ingersoll.
Dec. 4th—Heidelberg.	Dec. 14th—Denfield.
Dec. 5th—Berlin.	Dec. 16th—Centralia.
Dec. 6th—Baden.	Dec. 17th—Exeter.
Dec. 7th—New Hamburg.	Dec. 18th—Hensall.
Dec. 9th—Stratford.	Dec. 19th—Kippen.
Dec. 10th—Bright.	Dec. 20th—Clinton.
Dec. 11th—Richmond.	Dec. 21st—Goderich.

Kindly note the car will be in your town on above dates.



**THE CASHIER SAID**—"I notice your Butter Checks have been getting bigger lately. Did you buy another cow?"

**THE FARMER SAID**—"No, I'm using WINDSOR SALT. It makes better butter and I am getting better prices. It certainly does pay me to use Windsor Dairy Salt."

**THE CASHIER SAID**—"I should say it does. Do you mind if I let some of my friends in the secret?"

**THE FARMER SAID**—"Go ahead. Tell them all to use WINDSOR DAIRY SALT if they want to get the 'top' price for their butter"

67D

**WINDSOR  
DAIRY SALT**

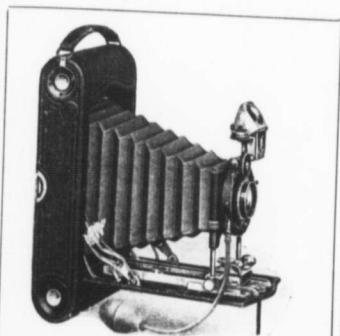
**Macdonald Memories.**

Ex-O. A. C.—"Do you remember your old school friend, Miss \_\_\_\_\_?"

Ex-Mac.—"Yes, indeed I do. A most absurd looking thing! So silly, too! What became of her?"

Ex-O. A. C.—"Oh! Nothing; only I married her."

Continued on Page xx.



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Grammar, 15 cents.

The following will be published:

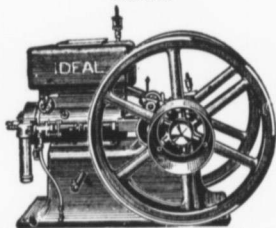
- (2) Geography.  
History.  
Literature.  
Nature Study and Elementary Science.
- At a later date the following will be published:
- (3) Composition and Spelling.  
Manual Training.  
Art.

The manuals named in lists (1) have already been distributed amongst the schools.

The manuals named in lists (2) and (3) will be distributed as soon as they are published.

## Brantford Gasoline Engines

We manufacture the most complete and up-to-date line 1½ to 50 H. P.  
Stationary, Portable and  
Traction



We also manufacture complete lines of  
**WINDMILLS**

Grain Grinders  
Saw Frames, Pumps  
Tanks, Water Boxes  
Power Spraying Outfits, etc.  
**GOOLD, SHAPLEY & MUIR CO.,**  
Limited  
Brantford - Canada.



### UNDERWOOD

The Underwood is used more extensively in Canada than all other makes of typewriters combined.

550 Underwoods are sold every day. The Underwood is the "aristocrat" of the typewriter world.

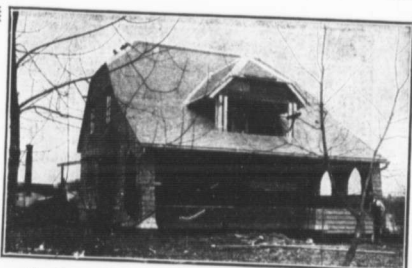
*United Typewriter  
Co., Limited*

EVERYWHERE IN CANADA.

Head Office, Toronto.



**Where Weather-  
Resistance Is  
Most Needed**



Don't overlook the fact that the part of any building which is most fiercely and most persistently attacked by the elements is the roof. Rain, hail, driving snow, blazing sun, tearing winds, devouring flames, all wreck their utmost energy on the roof.

**ASBESTOSLATE CEMENT SHINGLES**

offer the best protection against these attacks. Made of two practically indestructible materials, Hydraulic Cement and Asbestos, these shingles are absolutely proof against the destructive agents which so quickly destroy wooden shingles, metal roofing, "ready roofing," and slate.

Asbestoslate Cement Shingles make the handsomest, most enduring roofs that money can buy at a moderate cost.

Made in three soft colors, Slate, Grey and Red. Write today for Booklet G. R.

**ASBESTOS MANUFACTURING CO., LIMITED**  
E. T. Bank Bldg., Montreal. Factory at Lachine, Que.



**The Royal Military College of Canada**



**T**HERE 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 exemptions 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 \$800.

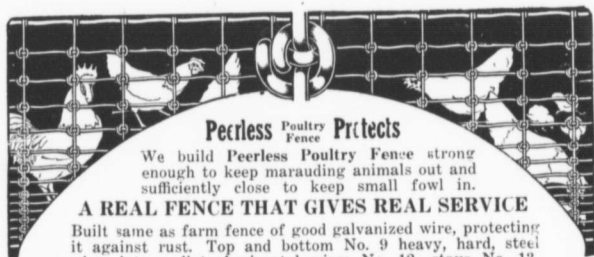
The annual competitive examination for admission to the College, takes place in May of each year, at the headquarters of the several military districts.

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.

H.Q. 94-5.

9-09.

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



### Peerless Poultry Fence Protects

We build Peerless Poultry Fence strong enough to keep marauding animals out and sufficiently close to keep small fowl in.

#### A REAL FENCE THAT GIVES REAL SERVICE

Built same as farm fence of good galvanized wire, protecting it against rust. Top and bottom No. 9 heavy, hard, steel wire—intermediate horizontal wires No. 12—stays No. 13. 32 to the rod. This makes an excellent, all round, general purpose fence suitable for turning all classes of stock.

Agencies nearly everywhere. Live agents wanted in unassigned territory.

The Bahwell Hoxie Wire Fence Co., Ltd., Winnipeg, Man., Hamilton, Ont.

#### LOCALS

Salesman—"Rather neat article in haberdashery, don't you think? Very exclusive—only \$10.

Seitz—"Yes, that excludes me."

Palmer stood in Chumpy's Lane,  
His head was in a whirl,  
His mouth and eyes were full of hair,  
And his arms were full of girl.

This Journal is printed on

### Reliance Coated Book

Manufactured under special formula exclusively of

### THE BUNTIN REID COMPANY

13 Colborne Street,  
TORONTO

We make a specialty of all grades of paper for catalogues and fine printing  
Correspondence solicited.

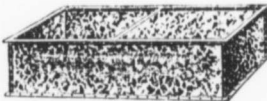


Fig. 3

### Reliable Steel Tanks

You can absolutely rely upon "TORONTO" STEEL TANKS. Their design is perfect. Even good material and good workmanship without proper design will fail.

A steel tank must be built to stand the strain when water-filled. It must be thoroughly braced—that is the secret.

#### "TORONTO" STEEL TANKS

do not bulge out, then start leaking.

They are stiffened up so that they cannot budge an inch. They stand right up to their strain.

The material is the finest Apollo galvanized steel. It won't rust. The workmanship of the best.

You probably need a tank. So get free estimates and full particulars from office nearest you. Address:

The Ontario Wind Engine & Pump Co.  
Limited  
WINNIPEG TORONTO CALGARY

## International Stock Food Preparations

Are made by skilled Chemists, from the purest and best ingredients. Every package, bottle or can is sold with our ironclad guarantee to refund your money if it is not entirely satisfactory. Millions of Stockmen endorse the International Line.

**International Stock Food**—The greatest animal tonic. Three feeds for one cent.

**International Poultry Food**—The wonderful egg producer. Keeps poultry thriving.

**International Heave Remedy**—Cures heaves, asthma, broken wind, coughs, etc.

**International Distemper Remedy**—Quickly cures coughs, colds and distemper.

**International Colic Remedy**—Cures in 10 minutes, without bad after effects.

**Silver Pine Healing Oil**—Keeps wounds clean and heals them quickly.

**International Antiseptic Healing Powder**—Heals cuts, sores, wounds, galls, etc.

**International White Liniment**—The surest and most penetrating ever discovered.

**International Hoof Ointment**—Cures contracted heels, quarter cracks, corns and soreness.

**International Honey Tar Foot Remedy**—A remarkable foot grower and toughener.

**International Pheno-Chloro**—Kills microbes and germs of disease.

**Dan Patch Stable Disinfectant**—Its use insures pure air and hygienic conditions.

**International Sheep Dip**—An economical, non-poisonous Cresul and Sulphur dip.

**International Hog Dip**—Cures mange, scab, lice and all skin diseases.

**International Louse Killer**—A fine powder which destroys lice, ticks, fleas, etc.

**International Louse Paint**—For Roosts, nests and cracks around the hen house.

**International Gape Remedy**—Saves the chicks. Safe and sure.

**International Worm Remedy**—Quickly expels worms from hogs.

**International Worm powder**—For horses, and colts. Absolutely safe.

**International Gopher Poison**—Sure death to gophers, rats, squirrels, etc.

**International Compound Absorbent**—Greatest known cure for curbs, spavins and similar troubles.

**International Gall Heal**—Soothes and cures while horses work or rest.

**International Harness Soap**—Makes old harness look like new. Easy to use.

**International Quick Liquid Blister**—For use where a strong counter-irritant is needed.

Write for a free copy of our \$3,000.00 Stock Book.

INTERNATIONAL STOCK FOOD CO., LIMITED, TORONTO, CANADA.

*The Auto Way*

# The Auto Press

Feeds, Prints, Counts, Checks, Stacks and Delivers Automatically  
Three to Six Thousand Sheets an Hour

*Perfect Register*

*This Means*—Your Work Done Quicker Than Ever,  
Better Than Ever

*And*—What Does This Mean to You?

You Are Invited to CALL AND SEE This Automatic Mechanical Wonder in Action

*Advertiser Job Dept.*

Long Distance Phone 3670

LONDON, CANADA

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

# Stumps Minimize Your Profits



**Stumps Blasting**

How much of your most fertile land is occupied and wasted by stumps? The stumps take three times the space they occupy, because your plow or mower cannot work up close to them. Now you can remove these stumps or boulders in a short time without much trouble, and reap a large profit from the land they occupy. Let us send you our Booklet on "The Use of Explosives for Farmers," which gives full instructions regarding the use of C. X. L. Stumping Powder.

Many have benefitted by the information contained in this book. One man removed eleven stumps in one hour with C. X. L. Stumping Powder. You can do equally well. Our Stumping Powder is absolutely safe and sure. When properly handled you take no risk in using it.

Send for this Booklet to-day. It is full of valuable information.

## Canadian Explosives Limited

Montreal, P. Que.

Victoria, B. C.

**Farm Engine Sensation**



**GILSON  
"60 SPEED"  
GASOLINE ENGINE**

Complete with line shaft, truck, pump jack, interchangeable pulleys with 60 speeds. A farmer's power house on wheels. Agents Wanted  
GILSON MFG. CO., Ltd., York Street, Guelph, Ontario

**Don't Cut Out A SHOE BOIL, CAPPED HOCK or BURSITIS FOR**

**ABSORBINE**

will remove them and leave no blemishes. Cures any puff or swelling. Does not blister or remove the hair. Horse can be worked. \$5.00 per bottle delivered. **Book 6 F free.**

**ABSORBINE, JR.**, liniment for mankind. For Bala, Bruises, Old Sores, Swellings, Gout, Varicose Veins, Varicosis, Allays Pain. Will tell more if you write. Manufactured only by **W. F. YOUNG, P.D.F.** 177 Lyman Bldg., Montreal, Ca.



Manilla, Ont., Feb. 22, 1908.

Dear Sir,—I have just used one bottle of your ABSORBINE. I had a three-year-old registered mare that brought on a very bad Bog Spavin, so I started with a remedy of my own, and it was no good. I saw ABSORBINE advertised, and got a bottle of it, and in two weeks it took it out clean, and I can sell her for \$300.00 to-day.

Respectfully yours,

WM. WHETON.

## ONTARIO VETERINARY COLLEGE

Affiliated with the University of Toronto, and under the control of the Department of Agriculture of Ontario Infirmary for Sick Animals at the College

E. A. A. GRANGE, V.S., M.S.,  
Principal

N. B.—Calendar on application.

A HIGH GRADE ESTABLISHMENT  
FOR THE

## PRINTING

OF CATALOGS, BOOKS and  
COMMERCIAL JOB WORK

Society and College  
Work a Specialty

**R. G. McLEAN**

26-34 Lombard Street

TORONTO, ONTARIO

Telephone, Main 637, 638.



## Do You Keep Cows, or Do they Keep You?

A few cows should do much toward making your farm a paying proposition. If not, there is something wrong.

Three things are necessary to make the dairy yield a satisfactory profit:—

**FIRST—Good Cows.**

**SECOND—Proper Feeding and Care.**

**THIRD—Proper Disposition of the Milk.**

No matter whether you have half a dozen cows or half a hundred, it will pay you to take steps to see that you secure the proper returns from this source—be sure that your cows are more than self-supporting.

Some helpful hints will be found in

*“PROFITABLE DAIRYING,”*

Which may be had  
from any

**Massey-Harris Agent.**



## LOCALS

◇ ◇

A meeting of the fourth year was held in Massey Hall Seminary room on Friday, November 8th. President Hextall was in the chair. The minutes of the previous meeting were read by Secretary Johnson and approved in the usual way. Mr. Darling delivered a shore effective speech deploring the fact that so few of the Seniors attended the Y. M. C. A. meetings. He drew the attention of the class to the value of these meetings, citing himself as an example, and hoping the class would see fit to follow in his footsteps. It was moved by Dougall, seconded by Campbell, that Messrs. Darling and Gerow be a committee to look into this deplorable condition of affairs and report to the class. Mr. King gave a short speech calling attention to the fact that a meeting of the Lit Society would be held the following Saturday week, and implored the boys to once more be gallant men of old, and every man bring a girl to the Lit. Mr. McElroy called attention to the fact that only ten Seniors were at Chapel the previous Sunday. This, he considered, was not a credit to the Seniors. He said he had been to Chapel once, and that he considered every man should go to Chapel once during the College course. Mr. Bramhill moved that Pat. Keegan be appointed chaplain of the Class, and to see that the boys were in their places on Sunday. Mr. Henry brought in a resolution that an investigation be made into the rumor that certain Seniors were known to take afternoon tea at Macdonald Hall on Sunday afternoon. Mr. Tisdale moved that Mr. Campbell and Mr. Hextall

be a committee to gather data on the case. The meeting then adjourned.  
G. B.

◇ ◇

Stanley—"Did you see the first item under the heading 'Joys and Sorrows at the O. A. C.' was the intimation that President Creelman had gone to Georgia?"

King—"What was the sorrow?"

## Notwith-Standing.

"He slipped on the polished floor and killed himself."

"Sort of a hard-wood finish, eh?"

◇ ◇

Agent—"Here you've had that set of books for six months and you haven't paid me a cent for them."

Farncombe—"Well, you said that they would pay for themselves in six months."

## Vial-ent.

◇ ◇

A jolly young chemistry shark,  
When Mixing some stuff on a lark,  
Dropped a match in the vial,  
And after a while,  
They laid him away in the dark.

## Greek Tragedy.

First Student—"Why is our dear professor so sad?"

Second Student—"S-sh! Be quiet! He's teaching a dead language.—Ex.

Continued on Page xxx.

M. J. RUDELL, D.D.S., L.D.S.

Dentist

(On the Corner)

Over Guelph and Ontario Investment  
and Savings Society Bank

PHONE 16



### THE HERALD PRESS PRINTS IT BETTER

THE GUELPH HERALD has every facility for turning out the best class of printing—real classy work—and with the one idea of giving the customer entire satisfaction. It will be a pleasure to show you samples of

BANQUET PROGRAMMES,  
DANCE PROGRAMMES, MENU  
CARDS, INVITATIONS,  
WINDOW CARDS, TICKETS,  
LETTER HEADS, ETC.

Your order will be appreciated.

THE GUELPH WEEKLY HERALD, containing authentic news of O. A. C. happenings, mailed to any address in Canada for \$1.00 per year; U. S., \$1.50.

### THE GUELPH HERALD

Phone 17. - 92 Quebec St. E.

# College Athletic Outfitter

TENNIS BALLS  
TENNIS RACKETS  
O. A. C. SEAL  
PENDANTS



RUGBY OUTFITS  
GYMNASIUM  
OUTFITS  
SWEATERS  
SWEATER COATS

SEND FOR CATALOGUE

## J. BROTHERTON, 550 Yonge St. Toronto, Ont.

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



# The Guelph Mercury

Daily and Weekly

J. I. McINTOSH, PUBLISHER

Sworn circulation—Daily, 2,700; Weekly, 5,700; combined, 8,400

DAILY, \$1.00 A YEAR

WEEKLY, \$1.00 A YEAR

The Weekly Mercury is noted for its Agricultural News and Auction Sale Advertisements

It is Read by Nearly Every Farmer in the County

All Classes of Job Work Neatly Done at Reasonable Prices  
Advertisers Should Take Advantage of Both These Mediums

## D. H. BARLOW & COMPANY

GUELPH AND ONTARIO REAL ESTATE, CITY  
AND FARM PROPERTY

CONVEYANCING, DEEDS, MORTGAGES, WILLS, ETC.

Fire Insurance—Best Companies

PATENTS procured in all countries

FINANCING—Money to Loan on First Mortgages

D. H. BARLOW & COMPANY,

Phone 411.

29 Douglas St.

GUELPH, ONT.

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

# Lest You Forget

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As an evidence of your good taste, select and take home with you a dainty box of

## CHOCOLATES

of unquestionable quality. Always appropriate. Always acceptable. Our stock is always replete with the latest product of the confectioner's art. Visitors to the Winter Fair have made KANDY KITCHEN a household word.

Come in and renew old acquaintances while waiting for a car.

HOT - AND - COLD - DRINKS - AND - ICE - CREAM

---

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# Kandy Kitchen

LOWER WYNDHAM STREET, GUELPH

# Barretts Dairy Co., Ltd.

F. L. BARRETT  
P. A. B. CHERRY, B. S. A.  
A. G. FLEMING, M. B.  
C. ROSS

President  
Treasurer  
Secretary  
Vice-President

Besides handling Milk, Cream and Butter we manufacture and deliver to all parts of the city

## Devonshire Clotted Cream and Lactic Cream Cheese

Delicacies Hitherto Unobtainable in Canada.

Give us a trial and if satisfied patronize an establishment which was organized and is run by ex-O. A. C. students.

BARRETTS DAIRY CO., LIMITED

Phone 799

2 Carden Street (Market Square)

### CANADIAN PACIFIC

## Unexcelled Train Service

FAST TIME AND ATTENTION

—TO—

WINNIPEG  
EDMONTON  
BRANDON  
BANFF  
NELSON

SPOKANE  
VICTORIA  
TACOMA  
SASKATOON  
REGINA  
CALGARY

LAGGAN  
ROSSLAND  
VANCOUVER  
SEATTLE  
PORTLAND

*Standard and Tourist Sleeping Cars*

Via Canada's Greatest Highway

J. HEFFERMAN, CITY AGENT

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

◇ ◇  
**LOCALS**

◇ ◇  
**A Pastoral.**

He met her in the meadow,  
 As the sun was sinking low;  
 They walked along together  
 In the twilight afterglow;  
 She waited until gallantly  
 He lowered all the bars,  
 Her soft eyes bent upon him,  
 As radiant as the stars;  
 She neither smiled nor thanked him,  
 In truth she knew not how,  
 For he was but a farmer's lad  
 And she—a Jersey cow.  
 —Exchange.

◇ ◇  
**No Chance.**

Cory—"Hart, I think I just skinned through that exam."  
 Hart—"Yes, I know it. I was watching you."

**\$20 BLUE SERGE**

Suits guaranteed not to fade for two years are our great trade-winners. See them! They look, feel and will wear like \$25 suits. Our

**SUITS TO ORDER**

at \$15 to \$30 comprise a range of nearly 300 strikingly handsome patterns in the new browns and greys, blue serges, etc. Best fitting clothes and best values in Guelph.



*Lyons Tailoring Company*

Tailors to Men Who "Know"  
 47 WYNDHAM STREET



**CHRISTMAS SUGGESTIONS**

Decide the Gift Question.

Kodak, Premo and Brownie Cameras, from \$1.00 to \$100.00

Parker and Waterman Fountain Pens, both guaranteed, \$1.50 to \$10.00

Huyler's World-Famed Chocolates and Bon Bons, at

**Alex. Stewart's**

DRUG STORE.

"The Drug Store of Quality."

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

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

**ERNST M. SHILDRICK,**  
 Teacher of Singing.

Pupil of Van De Linde of New York  
 Studio, Opera House Block.  
 Phone, Studio, 625K. Phone, Res., 623L

First Class Work Guaranteed.

**FOUR CHAIRS**

70 Macdonnell St., just east of Spa.

**L. T. SUNLEY, Prop.**

**Elite Shaving Parlor**

HEADQUARTERS FOR  
**Students' Supplies**

ASK FOR CATALOGUE

**WATERS BROS.**

PHONE 350

GUELPH

**LOOKEE HERE!**

Lee Wing calls for your laundry on Monday and Wednesday and returns it Wednesday and Friday.

WORK GUARANTEED

**NOTICE TO STUDENTS**

You are invited to make our store your meeting place when down town.

**SHERIDAN & O'CONNOR,**  
 Tobacconists,

45 Wyndham Street.

**R. H. McPHERSON**

Barber

Get your hair cut at 145 Wyndham street. An extra barber employed at the highest wages for your sake.

**THE OLD TOBACCO SHOP**

A full line of imported cigars, cigarettes and tobaccos always in stock. First store on Quebec Street, opposite Montreal Bank. BBB pipes a speciality.

**E. H. JOHNS, Proprietor**

Successor to R. Hackney.

Phone 312K

Regal Shoes  
 For Men.

Sorosis Shoes  
 For Women.

**W. J. THURSTON,**

Sole Agent

**THE NEW SHOE STORE,**

39 Wyndham Street

**MIDNIGHT SUPPERS**

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

**J. A. McCrea & Son**

**COLLEGE STORE**

CANDIES, CIGARETTES,  
 TOBACCO, Etc., Etc., Etc.

**CORNER OF CAMPUS.**

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

**JAMES H. SMITH**

Next to Barrett's Dairy

Molasses Taffy, Walnut Cream and Maple Cream. Best in the city.  
 Fresh Every Day.

**LUNCHESES SERVED**

**LEE LEE & CO.**

Best hand laundry in Guelph. Goods called for on Monday and Wednesday and delivered Wednesday and Friday.

**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.

**KING EDWARD BARBER SHOP**

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

**CHAS. BOLLEN - Proprietor**

**ERNEST A. HALES, 68 St. George's  
 Square**

Sells the Best Meats  
 and Poultry

Phone 191. - - Open all Day

Students' Special In

**PHOTOS**

\$1.50 Per Dozen  
 Students Only

**THE BURGESS STUDIO**

**FREDERICK SMITH,**

PLUMBER, STEAM  
 AND GAS FITTER

Sanitary Appliances Estimates Furnished.  
 GUELPH.

"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 today. We also handle cylinder, engine and machine oils. Tri-sodium phosphate, engine supplies, etc. Specialty departments, Crystal Separator Oil, Waxine Floor Oil. Correspondence invited.

The Electric Boiler Compound Co., Limited  
Guelph - Ontario

## Football Boots

Boys, see our Sporting Shoes before buying. We have a special line of Football Boots at \$2.25.

Send us your repairing.

**J. D. McARTHUR**

"THE HOME OF GOOD SHOES."

16 Wyndham St.

## BOYS, BUY YOUR SUITS AND FURNISHINGS HERE.

We carry only the best makes of clothing in correct styles for men who care. Our stocks of fine shirts, ties, collars, gloves, underwear, etc., are complete, and marked at prices that will convince you of this store's value-giving powers.

Pay Us a Visit.

**D. E. MACDONALD & BROS.**  
LIMITED.

## FLOWERS

We carry the best selection of Cut Flowers in the city. When you want something choice call on us or phone 866. Prompt delivery and careful attention to all orders.

**McPHEE, FLORIST,**  
Wellington Block.

## NOTICE

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

**H. H. WORDEN, ST. GEORGE'S SQUARE,**  
Street Cars every 15 minutes. Three chairs.

No waiting.

We are agents for the House of Hobberlin.

## The Yellow Front MEN'S CLOTHING

We make a specialty of young men's clothing, furnishings and hats at the right price.

THE YELLOW FRONT.  
GARNET K. CUMMING

## Pringle THE JEWELER

Entomological Supplies,  
Magnifying Glasses, all qualities  
Fountain Pens Rubber Stamps

O. A. C. and Macdonald Institute  
College Pins.

## Fine Job Printing

We execute the finest grades of printing, plain or in colors, promptly. Put us to the test.

## Kelso Printing Company

St. George's Square.  
Phone 218 Opp. Post Office

## 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.

**Look! Look!!**

Suits Pressed	-	50c
Suits Cleaned and Pressed	-	75c
Pants Pressed	-	15c
Velvet Collars	-	75c to \$1.25
Dry Cleaning	-	\$1.25

**MONTHLY CONTRACTS**

Work Done by Practical Tailors.

**C. E. HEWER,**

49 QUEBEC ST. - PHONE 808

**The College Book Shop**

4 Doors Above Post Office	The only shop in Guelph with all the Text Books and requisites in use.	Wyndham Street Upper
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\$1.00 FOUNTAIN PENS.  
SWAN FOUNTAIN PENS  
EMBOSSED O. A. C. NOTE PAPER  
AND PADS.

Special prices to clients on all lines.

The Recommended Shop. **The College Book Shop,**  
C. L. NELLES.

**Central Book Store**

Opposite where the Street Cars Cross.

Dealers in

BOOKS, STATIONERY,  
FANCY GOODS,  
CHOICE CHINA.

C. ANDERSON & CO.

**LADIES' SUITS**

OF  
THE BETTER CLASS

GLOVES, HOSIERY, WAISTS  
DAINTY EVENING DRESSES

HEWER'S FASHION HALL  
St. George's Square.

**BROADFOOT'S  
Red Cross Pharmacy**

**DRUGS AND SUNDRIES**

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44 CORK ST.

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Successor to Chas. A. Kutt

Ladies' and Gentlemen's Clothes  
Cleaned, Pressed and Repaired

Goods Called for and  
Delivered. GUELPH. French Dry  
Cleaner.

HEADQUARTERS FOR  
**HARDWARE**

AND SPORTING GOODS  
AT LOWEST PRICES

**G. A. RICHARDSON**

Upper Wyndham St., GUELPH.

**R. S. Cull & Co.**

THE LEADING

*Clothiers and  
Furnishers* ::

35 Wyndham Street

GUELPH - - ONTARIO

THE BRITISH UNIVERSITY OF GUELPH

**HELP**

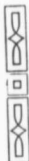
Yourselves by buying any furniture you may need at

**J. M. STRUTHERS,**

120 Wyndham Street - - - Guelph

He will use you right.

Phone 253.

**WANTED!**

500 O. A. C. Students to Get Their Hair Cut at the

**New Imperial Barber Shop**

48 Cork St. East, Guelph

CORRIGAN BROS., Proprietors.

GET OFF CAR AT CORK STREET

3 Chairs No Waiting 3 Chairs

**THE GUELPH OIL CLOTHING COMPANY, Limited**

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

**Guelph and Ontario Investment and Savings Society**

(Incorporated A. D., 1876)

Debentures issued for \$100.00 and over for five years at four and one-half per cent., and for shorter periods at four per cent.

Deposits received and interest paid or compounded half yearly at highest current rate

Executors, Trustees, etc., are authorized by Special Order-in-Council (Ontario Government) to invest trust funds in the Debentures of this Society, and to deposit trust funds in our Savings Department.

Office Hours: 10 a.m. to 4 p.m.

**J. E. McELDERRY, Managing Director**

Office, Society's Building,  
Corner Wyndham and Cork Streets,  
GUELPH.

**T. & D. CLOTHES**

MADE FOR YOUNG MEN.

"T. & D." Clothes are specially made for Young Men, by Young Men, in a hundred fresh, crisp styles of marked attractiveness. You cannot find their superior under any other name; you'll quickly see it's so when you examine the new Fall Models.

"T. & D." Suits, \$10 to \$25.

"T. & D." Overcoats, \$8.50 to \$25.

Our Hat and Furnishing Departments are complete with the newest things in men's wear.

"O. A. C." Pennants, 25c and 50c.

**THORNTON & DOUGLAS, Limited**

Lower Wyndham. Edwin E. Bell, Mgr.

You could enjoy yourself for a nice meal and a cup of real American Coffee.

Call at the

**DOMINION CAFE**

104 WYNDHAM STREET.

Phone No. 688

**CUT FLOWERS**

Choice Cut Flowers always on hand. Roses, Carnations, Valley, Violets and all Flowers in season.

**GILCHRIST'S**

Phone 436. St. Georges Square.

**JOHN IRVING**

"MY TAILOR"

Clothing Made to Order

Pressing, Cleaning and Repairing

49 Cork St. Phone 739L. Guelph.

WHOLESALE AND RETAIL. PHONE 197

**THE M. AXLER COMPANY**

(M. AXLER)

IMPORTERS AND DEALERS IN Staple and Fancy Dry Goods, Ladies' and Gentlemen's Ready to Wear Clothing,

Carpets, House Furnishings, etc.

SPECIAL ORDER CLOTHING

107 Wyndham Street Guelph, Ont.

**CITY CAFE**

We make a specialty of catering to the wants of the college students



71 QUEBEC STREET



# BOND'S

GUELPH'S  
BIG  
BRIGHT  
HARDWARE  
STORE  
HAS  
WHAT  
YOU  
WANT.



FOOTBALLS  
TOBOGGANS  
SNOW SHOES  
SKATES  
HOCKEY GOODS  
BOB SLEIGHS  
AND  
SUMMER GOODS  
IN SEASON  
DAILY DELIVERY  
TO COLLEGE.

HARDWARE - SPORTING GOODS

THE BOND HARDWARE CO., LTD.

COLLEGE BOYS ARE AT HOME IN

## Kelly's Music Store

because we keep a full line of

Violins, Guitars, Mandolins, Banjos and Strings, Edison and Victor  
Machines and Records. Popular, Operatic and  
Standard Sheet Music. Also

### The Famous "Bell" Piano

a piano of prestige

Not only is the tone rich and full, touch sensitive, case beautiful, but it has many  
individual features which mark "The Bell" Canada's Leading Piano.

Pianos tuned and rented.

All musical instruments repaired.

C. W. KELLY & SON

133 Upper Wyndham St

GUELPH

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

## *Fancy Biscuits*

A large assortment of Carr's and Christie's dainty and delicious Fancy Biscuits. They're unvarying in goodness—the kind to serve.

### *Benson Bros.*

GROCERIES.

## Diamond and Shield

O. A. C. PINS

LEATHER FOBS

Twenty-five Cents Each



SAVAGE & CO.

JEWELLERS

PETRIE'S

## Confectionery Store



*"The Spa"*

CHOCOLATES and CANDY  
"The place to buy yours."

LUNCHEONETTE  
Served at all hours

We can supply you with a lunch to take to your room

Corner Wyndham and McDonald Streets.

## The Royal City SHOE STORE

Opposite Winter Fair Building.

52 Market Square. Phone 589

Dealer in

HIGH GRADE BOOTS, SHOES,  
RUBBERS, Etc.

Our display of Footwear is now at its best. Shoe Goodness at moderate prices, and Shoe Elegance and Luxury are both in evidence.

The High Knob Toe, Short Vamp, High Heels and Arches, the New Tips and Perforations, and other New Features are here for the College Students.

This is the store for the young people.

See our Window Display.

W. J. HENRY,  
Manager.

J. E. SCHMIDT,  
Proprietor.

Get your Text Books and all your supplies at the

*Students'*  
**Cosmopolitan Club  
Book Department**

This is managed by students and conducted in the best interests of the student body

We know what college men want and keep everything in stock.

**ALWAYS OPEN**

Ex-Students' Correspondence  
Invited.

**Rexall**  
TRADE MARK

**Shaving Lotion**

25c and 50c

Delightful to use. Allays all irritation caused by shaving. Also a full line of needs for gentlemen who shave—Razors, Strops, Brushes, Mugs, Soap, Etc.

QUALITY IS ECONOMY

**John D. McKee, Phm. B.**

*The Rexall Store*

18 WYNDHAM ST., GUELPH  
Phone 66.

*The*  
**Kennedy  
STUDIO**



Is equipped to produce the best in Groups or Individual Portraits.

A Students' Special in Photos  
at \$1.50 a Dozen.



**The Kennedy Studio**  
23 WYNDHAM ST., GUELPH  
Phone 498



TRY

*Petrie's*  
**Drug Store**

FOR YOUR

Drugs and Toilet Articles. Kodaks  
and Photographic Supplies. De-  
veloping and Printing

THE BEST IN THE CITY  
GIVE US YOUR WORK TO DO

LOWER WYNDHAM STREET.



"OURS IS SANITARY"

## GUELPH S T E A M L A U N D R Y

We have made special arrangements for this year to the college students, in which we intend doing any ordinary repairing. Our drivers are at the O. A. C. Monday, Wednesday and Friday mornings. A fair share of patronage solicited.

80 NORFOLK ST.

PHONE 95.

G. F. McARTHUR, Manager.



### THE BASIS UPON WHICH

we ask your patronage is years of experience in correcting eye troubles.

Scientific instruments for testing the eyes, and our own Lens Grinding Plant for grinding just the Lenses your eyes need.

You get RELIABLE GLASSES if we make them.

### A. D. SAVAGE

Guelph's Only Exclusive Optician

"Right at the Post Office."

Phone 627.

HIGH GRADE MEN'S  
FURNISHINGS

# O. A. C.

HIGH GRADE FURS,  
Men's and Women's

## Clothes That Distinguish

the wearer above the common must be made for the individual. They must not be made to fit some ideal physique, of which not one man in a million could be a model. Have us make you a suit that will embody all the latest ideas as to style and smartness and will fit you just as you are built. Don't worry about the price. That will be right, too.

### Keleher & Hendley

Fine English Neckwear.

Model Merchant Tailors

Hawes Hats—The Latest Style.

Ladies' Golf Sweater Coats.

De Jaegers and Other Makes

The  
**Royal Bank of Canada**

With which is amalgamated **THE TRADERS BANK OF CANADA**

Authorized Capital	\$25,000,000 00
Paid-up Capital	11,500,000 00
Reserve Fund	12,500,000 00
Total Assets	180,000,000 00

Branches throughout all the Canadian Provinces, the West Indies and Cuba, also at London, England, and New York.

Travellers' Letters of Credit and Money Orders or Drafts issued payable in any part of the world. Remittance Drafts cashed at ruling rates. Savings Bank Accounts carried for Students and Staff (interest allowed).

R. L. TORRANCE, Manager

GUELPH

## Simple Truths Plainly Told

Is our method of soliciting your business. We never resort to exaggerations of any form in our advertising. We sell good goods only, charge fair prices only and seek the trade of those men who appreciate good values and considerate treatment.

Once we have induced you to give us a trial we have no fear about keeping you as a permanent customer. : :

Our New Fall Goods Are GREAT  
—YOU SHOULD SEE THEM

**R. E. NELSON**

Men's Furnisher and Fine Tailoring  
93 Wyndham St., Guelph

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

**G. B. Ryan & Co.**  
GUELPH, ONT.

## Correct Clothes FOR MEN

Ready-to-Wear and Special Order.

Smartly tailored by the best  
men's clothing establishments  
in Canada.



A complete stock of Neckwear, Shirts,  
Hats, and all furnishings for men.

Our Advertisement, Our Aim and Our  
Accomplishment—A Square Deal.

THE UNIVERSITY OF GUELPH

## THE MERIT OF THE FIXED PREMIUM

Recent events in the domain of life insurance afford another illustration of the superiority of the Fixed Premium System, under which the regular legal reserve companies operate.

In the evening of life, when earning power is declining, a man's monetary obligations should grow less, rather than greater.

That is just what happens in regard to premium payments for life insurance through the application of dividends in reduction of premiums, under the participating policies of

### The Mutual Life Assurance Company of Canada

HEAD OFFICE - WATERLOO, ONT.

MOORE & ARMSTRONG

### Guelph's Ladies' Store

Women's and Children's Garments

Dress Goods and Silks

Exclusive Millinery

Perrin's Kid Gloves

Northway Coats and Suits

Crompton's C-C a la Grace and  
Parisienne Corsets

THE WHITE HOUSE

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

GUELPH

Radial Railway Co.

TIME TABLE

Cars Leave St. George's Square for Elora Road, Suffolk, Waterloo Avenue and O. A. College as follows:

a.m.	a.m.	a.m.	p.m.	p.m.	p.m.
6.15	8.25	10.35	12.25	4.05	7.55
6.35	8.45	10.55	12.45	4.25	8.15
6.55	9.10	11.20	1.05	4.50	8.35
7.20	9.30	11.40	1.30	5.15	9.00
7.40	9.50	12.05	1.50	5.40	9.20
8.00	10.15		2.10	6.05	9.40
			2.35	6.30	10.05
			2.55	6.50	10.25
			3.20	7.10	*10.45
			3.40	7.35	

Returning, cars leave Terminals ten minutes later.

\*Saturday night only.

Cars run to Power House only after last trip.

# Young Men Stay in Canada

Advise Your Friends to Come to  
CANADA

Nowhere in the world are to be found so many and such  
good openings for a career in

## Agriculture

**FRUIT-GROWING, DAIRYING—WHAT YOU WILL!**

The cry now-a-days is "BACK TO THE LAND," and  
CANADA has got the LAND

The day of CANADA'S PROSPERITY is the day of

## Your Opportunity

Do not neglect it. Think this over.  
You can never do as well anywhere else.

Tell your friends to apply for further information  
To

W. D. SCOTT, Superintendent of Immigration, Ottawa  
Or to

J. OBED SMITH, 11-12 Charing Cross, London, S. W., Eng.

# DE LAVAL CREAM SEPARATORS

## Are In A Class By Themselves

They cost but a little more than the cheapest, while they save twice as much and last five times as long as other separators.



They save their cost every six months over gravity setting systems and every year over other separators, while they may be bought for cash or on such liberal terms that they will actually pay for themselves.

Every assertion thus briefly made is subject to demonstrative proof to your own satisfaction by the nearest DE LAVAL local agent, or by your writing to the Company direct.

Why then, in the name of simple common sense, should anyone who has use for a Cream Separator go without one, buy other than a DE LAVAL, or continue the use of an inferior separator?

DE LAVAL DAIRY SUPPLY CO., LIMITED

173 William St., Montreal.

14 Princess St., Winnipeg.