

Volume XXV

Number

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O.A.C REVIEW



October 1912



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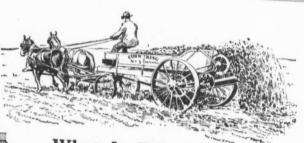
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The O. A. C. Review is published by the "O. A. College Students' Publishing Association," O. A. College, Guelph, Canada, monthly, during the college year.

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

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THE O.A.C. REVIEW

THE DIGNITY OF A CALLING IS ITS UTILITY

VOL. XXV

OCTOBER. 1912

No. 1

Winter Injury to Fruit Trees

PROFESSOR J. W. CROW

HE following is an outline of the conclusions reached so far with regard to the factors which affect winter injury of fruit trees.

A. Factors which affect the general air temperature of fruit plantations.

1. Slope of land-North slope gives more even temperature as the heating effect of sunshine is considererably lessened. Sun-scald may be somewhat lessened on slopes because of the more even temperature, but as a rule sun scald is particularly a local problem, and is concerned only with the exposure of any given portion of the tree to the sun's rays.

2. Presence of large bodies of water. This also regulates temperature, and tends to keep it more uniform. In addition it also furnishes moisture by evaporation and thereby checks evaporation of moisture from the twigs and the surface area of trees. This is especially important during the winter time, as actual injury seems to be due in many cases to the dryout rather than to the actual degree of cold experienced.

3. Windbreaks.—Windbreaks check the force of wind and thereby reduce evaporation, important in summer, but more important during winter conditions. Under normal or dry temperature conditions, windbreaks tend to widen the daily range of temperature, but when trees are

wet, as after rain, windbreaks tend to check evaporation, but equalize the temperature of the twigs themselves. Evaporation of moisture from the surface of the twig under the influence of wind may reduce the temperature of the twig to a point several degrees below that of the actual air temperature.

B. Factors which influence maturity of the tree. It is well known that late growth in autumn greatly increases the danger of winter killing.

 Character of Soil.—Lighter soils appear to give better results in northern districts. This may be because they are warmer, and it is of course true that light soil warms up quicker in spring and cools off earlier in the fall. It is stated by some that vines and trees generally mature earlier on clay land than on sand. It is probable, however, that trees thrive better on lighter soil in the north because of the check of root activity, which occurs when the soil cools in early autumn.

Underdrainage.—A surplus of water in the soil delays cooling in autumn, and by prolonging root activity also prolongs growth.

3. Soil Treatment.—In cultivated orchards cover crops are sown at mid-summer, or somewhat earlier, to extract moisture, and thereby cause earlier ripening of the wood. Trees in sod, if well nourished and not

starved from moisture are, as a rule, less liable to winter killing, although it may be said that these conditions are seldom found. It is quite possible that in sod orchards the disadvantages of grass may outweigh the advantages derived from early maturity. On this particular point I am not yet in a position to speak positively.

4. Fertility.—Excess of nitrogenous fertilizer causes late growth. It seems possible to overdo the use of legumous cover crops, and get too much nitrogen into the soil under certain conditions. Potash, phosphate fertilizers and lime tend to cause earlier maturity of wood.

5. Pruning.—Winter pruning, or rather pruning in the dormant season, stimulates growth, and in northern localities may be easily overdone.

C. Factors which influence directly the vitality of the tree. Any of the previous mentioned factors which stimulate growth also affect vitality, but it is presumed that these factors are being regulated so as to produce normal growth. The tree should not be starved, nor should it be forced beyond a certain point.

1. The Preceding Crop.—A heavy crop of fruit exhausts vitality and renders the tree much more liable to winter killing. No tree should ever be allowed to overbear; if necessary surplus fruit should be removed by hand thinning. A certain amount of thinning may be done by intelligent winter pruning, but hand thinning is a positive necessity in a great many cases.

2. Mechanical Injuries.—To my mind the most important fact I learned in connection with winter killing is that of the weakening effect of borers, unprotected fractures, sunscald, canker and so forth. I think

that fully 90 per cent. of the winter killed or injured trees I have seen this year have had some sort of contributory cause in operation previous to the cold winter itself. All wounds should be carefully protected from drying out and decay. Hope to be able in a short time to give some good information concerning material for covering wounds.

3. Fungous Diseases and Insects. point has been partially covered in the preceding paragraphs. but the fact of a foliage disease, such as apple scab, interfering with the nutrition of the tree is frequently overlooked for form and density of head. Trees should be headed low hanging have low should branches left especially around the trunk. Scaffold should be more or less upright, and should arranged on the trunk to avoid formation of forks. The head of the tree a contributary should have branches of such an arrangement that when properly pruned there is very little danger of their breaking down by weight of snow.

4. Character of Winter Season.-Trees store food material in the forms of starch and sugar. These are utilized for growth and nutrition purposes throughout the entire year. In the chemical process of nutrition one of the products of the breaking down of starch and sugar is water. In the winter season it is probable that this respiration water is very important in preventing serious drying of the twigs and branches. If the cold is very severe and long continued an abundant store of manufactured food material is of very great assistance to the tree. It will be observed, of course, that most of the factors previously mentioned bear on this point. It is probable that the question of stored vitality is at the actual root of all problems in fruit growing. An additional factor which influences vitality is the character of the preceding summer. If this is abundant in sunshine there will also be abundant store of food material. If sunshine is deficient, leaf and twig growth is likely to be excessive and vitality low.

D. Additional factors which exercise considerable influence on winter injury are:

- 1. Variety.
- 2. Latitude.

3. Altitude.—Altitude and Latitude determine, of course, the length of the season and in a general way the character of the climate.

I have not yet come to a conclusion with regard to the color and smoothness of bark. I expect a light colored bark is a prevention against sunscald, at any rate it is well known that a shade whitewash is effectual to a large degree in preventing this form of injury.

Do not know that the rough bark is beneficial or dangerous, but should be inclined to leave it on if there is danger of sun-scald.



FIRST POEM OF ALINE DAVIS— FIVE YEARS OLD

O Goldfish, lovely Robin.

Who teached those birds to stick themselves together?

Who teached them how to put their tails on?

Who gave them hair to stuff their breasts?

Who gave them all their lovely feathers?

"Twas Gord, 'twas Gord that done it!



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HAZING

PROFESSOR W. H. DAY

Y recollections of this ancient, shall I also say barbarous, custom date back to my entrance into the University of Toronto. Barbarous it often is, but manly and helpful, though withal dangerous, it may be if properly conducted.

For years previous to attending the University I read the newspaper reports of "the hustle" with its frequent accidents, often serious, sometimes fatal, and naturally dreaded it. Being a month late entering as a freshman in 1898 I missed the event, but it was a topic of frequent reference throughout the year. In '99, having decided to change from the "General Course" to "Mathematics and Physics" I was again a Freshman, dropping back from the class of '02 to that of '03. The '98 "hustle" had resulted in an accident and an effort was made in '99 to evolve a new type of initiation. The opposing classes lined up on the campus and indulged in a shoving match, in which both sides claimed to have won, but it was held at night, as all previous "hustles" had been, and was from every standpoint unsatisfactory.

In 1900 the class of '03 introduced an innovation: The "hustle" was to be held at 4 o'clock in the afternoon. A flag was planted overlooking the ravine just east of the university. The Freshmen were to defend it, the Sophomores to attack them and capture the flag. A large crowd was present, and "the hustle" was enjoyed by both audience and participants. The night "hustle" was never revived, but for several years the afternoon "hustle" was a prominent and rather refreshing event in the university

year. An accident which occurred some years later led to the abolition of hazing in any form at the University of Toronto.

On coming to the O. A. C. in the autumn of '03 the night hustle, still in vogue, seemed like a relic of barbarism. Sophomores, supposed to be "initiating" freshmen-yet unable in the dark to distinguish friend from foe-initiating them into college life by unfair and cowardly use of their seniority, bombarding them with flour, over-ripe tomatoes, treacle, and lamp-black, etc., according to the ingenuity, or had I rather say meanness, of the Initiation Committee. Do not scenes like these besmirch, perhaps for all time, the freshman's vision of College Life? Can the "College Spirit," the "esprit de corps," reach the highest plane as long as these things persist? An undercurrent of bitterness and a desire for revenge, born of unfair and mean tactics at the initiation, frequently divide two classes throughout their entire course. The very opposite result follows when the freshmen feel that the sophomores have been manly, possibly even chivalrous—the classes are drawn closer together.

After viewing for a few years the initiations at the O. A. C. I expressed myself in the same strain as above, with the result that in the autumn of 1907 the Initiation Committee, of which, I believe, Mr. A. M. Shaw was chairman, consulted me, and at my suggestion introduced the flag idea, and arranged the initiation to take place in the afternoon. The freshmen defended, the sophomores attacked. It so happened that the former that

year outnumbered the latter by three to one, and of course the sophomores were defeated, as they had not captured the flag within the time limit. With such odds against them it is doubtful if they could have won under any circumstances; however, their defeat in daylight was seized upon by succeeding classes as an argument in favor of a return to the after-dark initiation. Sophomores love darkness (for the hustle) rather than light, because their deeds are—questionable, to say the least. Perhaps nowhere does this text apply

with more force than in this connection. After dark, when one's identity is not revealed "stunts" are perpetrated that would not stand the light of day, when the perpetrators would be recognized by their victims.

No sport, not even the hustle under cover of darkness, should countenance any act that savours in the slightest degree of taking unmanly or cowardly advantage of an opponent, especially an unsophisticated freshman. The class of '15 has an opportunity to distinguish itself by placing the initiation on a higher plane than heretofore.



FOR THE NOONDAY FORUM

A group of half a dozen physicists, all eminent; a sheet of paper; a pencil. With the latter one of the group draws a pulley, a cord over the pulley, a tree, a bough from which the pulley hangs. To one end of the cord is attached a stone; to the other end clings a monkey. The stone balances the monkey. If the monkey proceeds to climb up the cord, what will happen? Will the stone rise or fall? Heated discussion; break-up of the party; no result. Can any reader help to settle this question?





Experimental Work at the O. A.C.

In this article a short review is given of the experiments conducted at the college by the various departments, and should be of particular value to the new students

THE man entering the freshman year has many opportunities for acquiring information which will be of practical benefit and use to him in his life and work after he leaves the college. Experiments are being carried on in the different departments of the college which have a direct bearing upon the practical side of farming. These experiments require a large amount of money to carry them on and great care and accuracy on the part of those in charge of them.

In the animal husbandry department investigations are being carried on to determine the value of different foods for fattening purposes and to find what are the best methods of feeding and caring for live stock. Frequently two or three objects are combined in one experiment. For instance, an experiment is being carried on at the present time to find out the value of tankage, a by-product of the packing factory, as a food for fattening hogs. At the same time a test is being made to find out what is the proper quantity of water a hog should have during the fattening period.

In field husbandry the amount of information available to the student is very great. Here he can find out what varieties of grains, grasses and roots have proven to be the best by actual tests extending over a series of years. New and widely advertised varieties of farm crops are tested and their actual worth determined. The student or the farmer who pays attention to the results obtained in the experimental plots will be able to discriminate in the purchase of new

varieties and buy only those which have proven to be better than the older and better known kinds. Much money is spent each year by Ontario farmers in buying widely boomed new varieties of grain, root or forage crops, which might be saved if the experiments conducted at the college were watched and their results carefully digested. Not only this, but the man who is keen and alert finds out earliest what new varieties are proving better than the older kinds, and through the Experimental Union obtains seed of that variety. By sowing it separate and keeping it pure in a few years it has multiplied, and by the time the value of the new variety has become widely known, he has considerable quantities of pure seed to satisfy the demand for it. And this seed usually brings a price considerably in advance of ordinary market prices, as several ex-students of the college found out when they secured samples of O. A. C. No. 21 barlev and kept it pure until they had seed to sell.

The boy on the farm knows the fertilizing value of farmyard manure. Of commercial fertilizers, however, he knows very little except that they are high-priced. In the chemical department the different brands of commercial fertilizers are analyzed and the amounts of nitrogen, phosphoric acid and potash, which they contain, determined. Not only this, but tests are made in the experimental plots and their actual value in increasing production determined. In this way definite knowledge concerning various fertilizers is obtained, and it is

found out whether their use will prove profitable or not.

In the dairy experiments are also conducted and data collected regarding the best methods of manufacturing and caring for butter and cheese. In the poultry department natural and artificial incubation is studied. Different methods of feeding and housing growing chickens and laying stock are tested and the results carefully noted.

The man chiefly interested in the garden or orchard will find that these crops are not neglected, but that a large number of facts have been found out by experiment regarding the best and most profitable varieties of garden and orchard crops. Cultivation, pruning and spraying are studied carefully, and the best and most practical methods of performing these operations found.

So that definite knowledge can be obtained in some department of the college concerning practically every crop that is grown on the Ontario farm, or every animal that is kept upon it for profit. The information is here and is available to the man who wants it and is willing to take the trouble to hunt it up. The professors in charge of the work and their assistants are ready and willing to answer any questions asked about their work or explain the experiments which they are conducting. The earnest and serious student will find no difficulty in approaching them. Begin now in your first year to make this knowledge your own. The information is here. Get it.

The question of weed destruction is one which every practical agriculturist has to face. There is a wide field for investigation along this line. Several very bad weeds, such as field bindweed and perennial sow thistle, have established themselves on many

Ontario farms. Opinions differ widely as to the best means of eradicating these weeds. Here is an opportunity for some one to devise and carry out experiments which will show exactly the surest and most practical methods for getting rid of some of our worst weeds.

That sheep are an important factor in the control of weeds nearly every one knows. Two marked instan came under the writer's notice du. the past summer. A farm in Brant County, a few miles from Paris, was at one time badly infested with false flax. No sheep were kept at that time on the farm and all efforts to eradicate the weed seemed fruitless. After some time the farmer began breeding pure bred sheep and keeps quite a large flock at the present time. sheep have helped him to control the weed, and at the present time there is hardly any of it on the farm. The other case happened in Kent County, a few miles east of Kent Centre. A few years ago both sides of the road were lined with sweet clover. The farmers tried to keep them down by mowing, but the following year it came up as thick as ever. During the past three years sheep have been allowed on the road to pasture and at the present time have destroyed nearly every plant of sweet clover.

The Department of Physics has begun an experiment in underdraining, which should result in making some facts more clearly understood. proper depth and distance apart are questions of importance in tile drain-Some information regarding ing. these will be learned from this experiment. The actual cost of putting in tile will be found also. In fact, several things regarding underdraining and the benefits resulting from it will be more accurately known from this experiment. J. L. TENNANT, '13

The Query Editor

AGAZINES picture a newspaper man as reckless, rakish, and riotous—all of which has led many young men to embark on the sea of journalism. By way of reparation I offer the case of Markley.

Markley hit the Times office, looking for a job, just after Hardy, the "Question Box" editor, had resigned in disgust. He had never worked in a newspaper office.

They led him into the room where Hardy had slaved, and showed him the racks of bound volumes.

"Reference books?" asked Markley. They nodded, and Markley peeled off his coat.

"Are they properly indexed?"

Another nod.

"Fire away," cried Markley. "I'll dig out anything you want. I've worked in a railroad information office. I'm the 'human digger.'"

So they hired Markley on the spot—which is rather a vague place in a newspaper office.

Markley started work next day. His job seemed quite important when he came to realize that while the best reporters had desks, only he and the managing editor had rooms to themselves. The managing editor paid him a visit.

"Markley," he announced, "we pride ourselves on your department. We've never failed to answer a question. Remember that."

"Yours truly," said Markley, and reached for the top letter on the pile. He read it slowly:

My little girl is delicate, is 4 years old, has blue eyes, and

wears pink dresses. Kindly give me a diet for her.

"Blue eyes," murmured Markley.
"Pink dresses. Four years old. Deli-

He roamed to the reference racks and pulled down books marked "Optometry," "Medicine," and "Colors and Painting." Two hours later he put the books back on the shelves.

"'We have never failed,'" he said to himself, and wrote at last:

Pork, midnight suppers and pies should be avoided. Under no circumstances should alcoholic liquors or tobacco be used.—Ed.

A day or so later Markley got this: I have \$10,000. Tell me how to double my money.

The question box editor spent the afternoon with his reference books. Finally he took down the volume marked "Banking." As a result he wrote:

Bank your money at compound interest. It will double itself in about 20 years.—Ed.

"We never fail," said Markley, and before he went home he informed a woman how to take ink stains from the right wing of her pet canary.

For a day or so the questions were all along the simple line. Then came this:

An accident in a sawmill has left me with only two thumbs. Kindly tell me how to play the piano. I would like to teach music.

Markley lost two nights' sleep. His mind was in a ferment. Finally, in desperation, he wrote this answer:

There are so few persons with only two thumbs that it would be impossible to earn a living teaching music. Why not study elocution?—Ed.

Back came this:

I can't speak elocution. I'm dumb.

"It isn't a question," raved Markley. "I don't have to answer it."

By this time poor Markley's eyes were taking on a haunted look. He came to dread the morning mail, for that was the mail that brought him the trouble that men and women wrote in their nights of worry. It was from the morning mail this came:

I have one leg. It is knockkneed. I use a crutch. I have relatives out West. How long will it take me to walk out West?

When the last belated reporter went home Markley was still deep in maps, geographical surveys, and a history of the three-legged racing. About midnight he rose wearily and counted his money. After that he wrote:

The Times will buy you a rail-road ticket. Call at once.—Ed.

Two days later the managing editor came in and shook that reply under Markley's nose.

"You, the human digger!" he roared. "I want no more of this. We've got three thousand letters from crutch-and-leg fellows who want to go to China, the north pole, or New Jersey. There's twenty of em' down in the office now. After this give 'em answers."

Markley nodded grimly and grabbed the next envelope of agony. It

How can I become a poet?

The answer came with a burst of speed:

By writing poetry.—Ed.

"Give them answers," said Mark-

ley. "I'll tell them who Cain married when he left his father's habitation. Wonder what this one wants to know. Let's see. A—h!"

Markley read it with bulging eyes:

I am a member of the S. P. C. A. Kindly tell me how to kill flies without causing them undue suffering.

"I must fake it," groaned the answer editor. He wrote:

Hypnotism is excellent, but very slow. Chloroform, used while they sleep is practically painless.—Ed.

Markley drank a lot that night. Next morning he came down to the office with a big head. First crack out of a mail that had no sympathy with throbbing brains he got this:

I am engaged to two men. One plays poker and stays out all night and the other drinks whiskey and comes home drunk. Which shall I marry?

As between the man who strolled home drunk, and the man who came home not at all, the encyclopedias, even under the heading of morals, gave Markley nothing on which to hinge his judgment. He figured it would be a crime to take a chance and hand the girl the wrong man. So at last he wrote:

Mary both. Be a sport.—Ed.

"Advising crime," wailed the managing editor when he read it, but Markley was obdurate.

"Best way out," he insisted. "If she married one she'd pick the wrong one. Always the way. Now she can marry both and chase the one that doesn't suit. Simple."

"You're crazy, Markley."

"I'm not." The question editor brought down a medical volume and ran his figure down the index. "C---,

ca, co, crazy; here it is. It says when a man's crazy—"

But the managing editor had fled. For a few days Markley had no further trouble. Then:

Is Mabel a sweet name to give a baby?

Not having had any babies himself, the question editor was unable to say, for these things must be answered from experience. He played the game safe, and wrote:

Certainly; provided it is a girl.—Ed.

"He's getting worse," wept the managing editor. "Would they want to call it Mabel, if it was a boy?"

The man that got out the funny sheet, though, took it as a great example of humor, and wanted Markley to shift to his department. The question editor did not seem to comprehend the offer.

"Letters, letters," he said. "All kinds of letters," and he broke the seals on three. The cold sweat stood out on his forehead as he read:

Kindly advise as to a good profession for a child that squints.

Would you advise a young girl from the country to take a job on the Bowery?

Can McGraw's Giants come back?

Somehow Markley answered the list.

By this time, though, he was wildeyed and wild-voiced. Every time the office boys carried in his mail he groaned aloud and retreated to a corner of his room.

There came the day, though, when the boy brought in only one letter. Markley seized it eagerly. Only one! Dancing in front of his desk he broke the seal and read:

My late husband had one blue and one gray eye, turned-in toes, and a lisp. Kindly let me know where I can get another just like him.

Markley put on his hat and quietly passed through the long local room. In the street he walked watchfully until he saw a policeman. He caught the officer from behind, threw him, and then started banging his head against the sidewalk.

"Where can I find one?" he roared.
"One with a blue eye and a gray
eve?"

The policeman got one arm free and crashed his club over his assailant's skull.

Two hours later the Times police reporter called the office.

"Say," he said, "that man of ours, Markley, has gone dippy. Assaulted a cop. He's in a cell now singing about the blue and the gray."

The managing editor, suspicious, went to Markley's room. He found the last letter.

"Dog-gone it!" he roared, "why didn't he attend to this before he left? She'll stop buying the paper if she doesn't get an answer."



Softness in Horses

DR. J. HUGO REED

OFTNESS, inability or unwillness to exert himself, a tendency to "throw it up," so to speak, can be accounted for in different ways. It may be partly due to heredity, it may be acquired, or it may be due to injudicious handling or overwork when young. A greater or less tendency to softness is noticed in individuals of all breeds and classes, and doubtless is more noticeable in certain families than in others. Some individuals are of such conformation that the ability to endure severe exertion or to perform more than an ordinary amount of work of any kind cannot be expected. Then, again, others, whose general conformation would indicate strength or speed, are found, when asked to exert themselves, to be quitters. They are "duffers" and will not try, or trying, evidently have not stamina, hence fail to accomplish what is asked of them.

I do not think that "softness" is controlled or governed by the temper of a horse. The necessary nervous force, energy, power of endurance and willingness to give to his driver or rider the very best that is in him, to struggle on under difficulties, are often noticed in vicious horses as well as in those of gentle temperaments, and the reverse, or a tendency to give it up and not try, is also seen in animals of all temperaments. There is, nevertheless, undoubtedly, congenital predisposition in some animals to be quitters, and this predisposition is just as surely transmissible to offspring. Hence, when a man is about to commence breeding operations, he is wise if he considers this point when

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selecting sires and dams. When existing conditions will admit he should study the characteristics of the produce of the sires he thinks of patronizing, and if he finds that they lack energy or nervous or muscular force sufficient to qualify them for extreme exertion, when such is required he should look further before deciding upon the sire of his prospective colts. In many cases he is not in position to select the dams, but is forced to breed those he has, or abandon breeding entirely. It may be that the mares he owns are not as "stout hearted" as he would like; they are inclined to be "soft"; still he wishes to breed them, and if this is their only fault he is quite justified in proceeding to do so, for, while we admit the hereditary tendency to "softness" in some cases, such a predisposition can be largely counteracted by careful and intelligent handling and education.

In most cases "softness" is due more to early training or over work than to heredity. One of the chief causes is overwork. A colt of two, three or even four years old has not reached sufficient bone, muscular and respiratory development to perform either the draft or light work of a matured animal. On account of his immaturity at these ages he tires easily and "gives up." If this be frequently repeated he acquires the habit of "giving up" readily, and the repeated or continued overwork prevents development of bone and muscle, and while it may not cause any perceptible want of development in the general appearance of the animal, the absence of normal muscular

power and nervous energy exists, and he is not really able to perform the labor we might reasonably expect from a horse of his appearance.

The unwillingness in horses of the draft class to exert great muscular force to start a heavy load can, in most cases, be traced to injudicious. careless, ignorant or cruel handling when first put to work, even though they may have reached the age of maturity. They have been asked to move heavy loads before they have become accustomed to putting great force upon the collar. They have sufficient strength, but lack the knowledge of the proper manner in which to exert it, and if urged or whipped they pull unsteadily, jerk or rear, and the load still refusing to move they sulk and refuse "to try." They soon associate a heavy load with abuse and a whipping, and become confirmed "balkers" when asked to draw heavily, while to a load that requires only moderate strength they give satisfactory service. Some horses, either from a naturally sulky disposition or lack of nervous energy and courage, inherited from progenitors more or less remote, are naturally balkers. At the same time most "balkers" are made, not born, and even where congenital predisposition exists, it can be largely overcome by careful and judicious handling. Many colts of all classes are practically spoiled by incompetent or hasty tempered drivers, often called "breakers." The latter term is often the proper one to use, as the breaker is liable to practically break the colt's heart when young. The exhibitions of softness we often see in a horse when it is asked to make more than a usual effort, although not really being overtaxed, are due to this fact, and having ac-

quirted the habit of giving up without a struggle it will continue to do so.

While we consider it is wise to handle colts of all classes when young in order to get them handy and thereby avoid troubles when older, this handling should be carefully done by a man who understands the art, who has the necessary knowledge, and who is not too hasty, but has patience to teach the colt, not to "break" it. A colt should not be asked to do the work of a matured horse until he is at least five years old. Of course, after three years of age he is able to do a reasonable amount of moderately hard work, but he should not be asked to draw heavy loads, go long journeys, or perform other work that will unduly tax his energies or make him tired. If any of us who have had considerable experience with horses will consider for a few minutes the horses we have owned or known that have been especially good ones, those in which "softness" has been noticeably absent, those that have performed more than the usual amount of labor. either at draft, in heavy or light harness or under saddle, and have continued to do so at the age when the majority of horses are useless or dead, we will discover that they did little or no work of any kind until they had reached the age of maturity. We will find that certain individuals of all breeds, and of different families of the same breed have distinguished themselves as above, while others of the same breeds and families have been "soft."

There is too great a tendency to work colts when too young, and while, in some cases it may be unavoidable, when possible it will prove profitable to wait until maturity before asking an animal to do a horses work.

Tom Brown's Fight with Slogger Williams

W ILL you fight?"
"Yes, of course."
"Huzza, there's going to be a fight between Slogger Williams and Tom Brown."

The news ran like wild-fire about, and many boys who were on their way to tea at their several houses turned back, and sought the back of the chapel, where the fights come off.

"Just run and tell East to come and back me," said Tom to a small school-house boy, who was off like a rocket to Harrowell's, just stopping for a moment to poke his head into the schoolhouse hall, where the lower boys were already at tea, and sing out, "Fight! Tom Brown and Slogger Williams."

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Up start half the boys at once, leaving bread, eggs, butter, sprats, and all the rest to take care of themselves. The greater part of the remainder follow in a minute, after swallowing their tea, carrying their food in their hands to consume as they go. Three or four only remain, who steal the butter of the more impetuous, and make to themselves an unctuous feast.

In another minute East and Martin tear through the quadrangle carrying a sponge, and arrive at the scene of action just as the combatants are beginning to strip.

Tom felt he had got his work cut one for him, as he stripped off his jacket, waistcoat, and braces. Each tied his handkerchief around his waist, and rolled up his shirt sleeves for him: "Now, old boy, don't you open your mouth to say a word, or try to help yourself a bit, we'll do all that, you keep all your breath and strength for the Slogger." Martin meanwhile folded the clothes and put them under the chapel rails, and now Tom, with East to handle him and Martin to give him a knee, steps on the turf, and is ready for all that may come, and here is the Slogger, too, all stripped and thirsting for the fray.

It doesn't look a fair match at first glance; Williams is nearly two inches taller, and probably a long year older than his opponent, and he is very strongly made about the arms and shoulders; "peels well," as the little knot of fifth-form boys, the amateurs, say, who stand outside the ring of little boys, looking complacently on, but taking no active part in the proceedings. But down below he is not so good by any means, no spring from the loins, and feeblish, not to say shipwrecky, about the knees. Tom, on the contrary, though not half so strong in the arms, is good all over, straight, hard and springy from neck to ankle, better, perhaps, in his legs than anywhere. Besides, you can see by the clear white of his eye and fresh, bright look of his skin, that he is in tip-top training, able to do all he knows; while the Slogger looks rather sodden, as if he didn't take much exercise and ate too much The timekeeper is chosen, a large ring made, and the two stand up opposite one another for a moment, giving us time just to make our little observations.

"If Tom'll only condescend to

fight with his head and heels," as East mutters to Martin, "we shall do."

But seemingly he won't, for there he goes in, making play with both hands. Hard all, is the word; the two stand to one another like men; rally follows rally in quick succession, each fighting as if he thought to finish the whole thing out of hand. "Can't last at this rate," say the knowing ones, while the partisans of each make the air ring with their shouts and counter-shouts, of encouragement, approval and defiance.

"Take it easy, take it easy, keep away, let him come after you," implores East, as he wipes Tom's face after the first round, with wet sponge, while he sits back on Martin's knee, supported by the Madman's long arms, which tremble a little from ex-

citement.

"Time's up," calls the timekeeper.
"There he goes again, hang it all!"
growls East, as his man is at it again
as hard as ever. A very severe round
follows, in which Tom gets out and
out the worst of it, and is at last hit
clean off his legs and deposited on
the grass by a right-hander from the

Slogger.

Loud shouts rise from the boys of Slogger's house, and the school-house are silent and vicious, ready to

pick quarrels anywhere.

"Two to one in half-crowns on the big 'un," says Rattle, one of the amateurs, a tall fellow, in thunderand-lightning waistcoat, and puffy, good-natured face.

"Done!" says Groove, another amateur of quieter look, taking out his notebook to enter it—for our friend Rattle sometimes forgets these little things.

Meantime East is freshing up Tom with the sponges for next round, and has set two other boys to rub his hands.

"Tom, old boy," whispers he, "this may be fun for you, but it's death to me. He'll hit all the fight out of you in another few minutes, and then I shall go and drown myself in the island ditch. Feint him, use your legs! draw him about! He'll lose his wind then in no time, and you can go into him. Hit at his body, too, we'll take care of his frontispiece by and by."

Tom felt the wisdom of the counsel and saw already that he couldn't go in and finish the Slogger off at mere hammer and tongs, so changed his tactics completely in the third round. He now fights cautious, getting a vay from and parrying the Slogger's lunging hits, instead of trying to counter, and leading his enemy a dance all round the ring after him. "He's flunking; go in, Williams," "Catch him up," "Finish him off," scream the small boys of the Slogger party.

"Just what we want," thinks East, chuckling to himself, as he sees Williams, excited by these shouts, and thinking the game in his own hands, blowing himself in his exertions to get close quarters again, while Tom is keeping away with perfect ease.

They quarter over the ground again and again, Tom always on the defensive.

The Slogger pulls up at last for a moment, fairly blown.

"Now then, Tom," sings out East, dancing with delight. Tom goes in in a twinkling, and hits two heavy body blows, and gets away again before the Slogger can catch his wind; which, when he does, he rushes with blind fury at Tom, and being skilfully parried and avoided, overreaches himself and falls on his face,

amidst terrific cheers from the school-house boys.

"Double your two to one?" says Groove to Rattle, notebook in hand.

"Stop a bit," says that hero, looking uncomfortably at Williams, who is puffing away on his second's knee, winded enough, but little the worse in any other way.

After another round the Slogger, too, seems to see that he can't go in and win right off, and has met his match or thereabouts. So he, too, begins to use his head, and tries to make Tom lose patience and come in before his time. And so the fight sways on, now one, and now the other, getting a trifling pull.

Tom's face begins to look very onesided-there are little queer bumps on his forehead, and his mouth is bleeding, but East keeps the wet sponge going so scientifically that he comes up looking as fresh and bright as ever. Williams is only slightly marked in the face, but by the nervous movement of his elbows you can see that Tom's body blows are telling. In fact, half the vice of the Slogger's hitting is neutralized, for he daren't lunge out freely for fear of exposing his sides. It is too interesting by this time for much shouting, and the whole ring is very quiet.

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"All right, Tommy, whispers East; "hold on's the horse that's to win. We've got the last. Keep your head, old boy."

What is this fierce tumult and confusion? The ring is broken and high and angry words are being bandied about; "it's all fair"; "it isn't"; "no hugging"; the fight is stopped. The combatants, however, sit there quietly, tended by their seconds, while their adherents wrangle in the middle. East can't help shouting challenges to two or three of the other

side, though he never leaves Tom for a moment, and plies the sponges as fast as ever.

The fact is that at the end of the last round, Tom seeing a good opening, had closed with his opponent, and after a moment's struggle had thrown him heavily, by the help of the fall he had learnt from his village rival in the vale of White Horse. Williams hadn't the ghost of a chance with Tom at wrestling; and the conviction broke at once on the Slogger faction, that if this were allowed their man must be licked. There was a strong feeling in the school against catching hold and throwing, though it was generally ruled all fair within certain limits; so the ring was broken, and the fight stopped.

The schoolhouse are over-ruled—the fight is on again, but there is to be no throwing; and East in high wrath threatens to take his man away after the next round (which he don't mean to do, by the way), when suddenly young Brooke comes through the small gate at the end of the chapel. The schoolhouse faction rush to him. "Oh, hurrah! Now we shall get fair play."

"Please, Brooke, come up, they won't let Tom Brown throw him."

"Throw whom?" says Brooke, coming up to the ring. "Oh! Williams, I see. Nonsense! Of course he can throw him if he catches him fairly above the waist."

Now, young Brooke, you're in the sixth, you know, and you ought to stop all fights. He looks hard at both boys. "Anything wrong?" says he to East, nodding at Tom.

"Not a bit."

"Not beat at all?"

"Bless you, no! Heaps of fight in him. Ain't there, Tom?"

Tom looks at Brooke and grins.

"How's he?" nodding at Williams.

"So, so; rather done, I think since his last fall. He won't stand about two more."

"Time's up!" The boys rise again and face one another. Brooke can't find it in his heart to stop them just yet, so the round goes on, the Slogger waiting for Tom, and reserving all his strength to get him out should he come in for the wrestling dodge again, for he feels that that must be stopped, or his sponge will soon go up in the air.

And now another newcomer appears on the field, to wit, the underporter, with his long brush and great wooden receptacle for dust under his arm. He has been sweeping out the schools.

"You'd better stop, gentlemen," he says; "the Doctor knows that Brown's fighting—he'll be out in a minute."

"You go to Bath, Bill," is all that that excellent servitor gets by his advice. And being a man of his hands and a staunch upholder of the schoolhouse, can't help stopping to look on for a bit, and see Tom Brown, their pet craftsman, fight a round.

It is grim earnest now, and no mistake. Both boys feel this, and summon every power of head, hand and eye to their aid. A piece of luck on either side, a foot slipping, a blow getting well home, or another fall, may decide it. Tom works slowly round for an opening; he has all the legs, and can choose his own time; the Slogger waits for the attack, and

hopes to finish it by some heavy right-handed blow. As they quarter slowly over the ground, the evening sun comes out from behind a cloud and falls full on William's face. Tom darts in; the heavy right hand is delivered, but only grazes his head. A short rally at close quarters, and they close; in another moment the Slogger is thrown again heavily for the third time.

"I'll give you three to two on the little one in half-crowns," said Groove to Rattle.

"No, thank'ee," answers the other, diving his hands further into his coat-tails.

Just at this stage of the proceedings, the door of the turret, which leads to the Doctor's library, suddenly opens, and he steps into the close, and makes straight for the ring, in which Brown and the Slogger are both seated on their seconds' knees for the last time.

"The Doctor! the Doctor!" shouts some small boy who catches sight of him, and the ring melts away in a few seconds, the small boys tearing off, Tom collaring his jacket and waistcoat, and slipping through the little gate by the chapel, and round the corner of Harrowell's with his backers as lively as need be; Williams and his backers making off not quite so fast across the close; Groove, Rattle, and the other big fellows trying to combine dignity and prudence in a comical manner, and walking off fast enough, they hope, not to be recognized, and not fast enough to look like running away.

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Selection of Breeding Stock in Poultry

H. B. WEBSTER, B.S.A.

O BE successful in any business one must have a great deal of foresight. "Lock ahead" is a good maxim for the poultry man, Around a poultry yard there are always so many details pressing for immediate attention that one is apt to forget for the time about the larger and more important branches of the work. Now that the time is almost at hand when the stock, both old and young, will be brought in from the ranges and installed in their winter quarters, there is afforded a splendid opportunity for the primary selection of breeding stock for another year.

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Young stock, to be most profitable, should be fairly well matured by the first of October. Pullets should begin laying at any time after that date. Of course, to do this, they must be hatched early and fed well. Cockerels also should be well developed by this time. Late hatched chicks should be forced to maturity as early as possible, for a week gained now may mean a month earlier in laying. In any case, however, the forcing process must not be overdone, as it is likely to cause premature moulting, which is disastrous to both development and production.

The question is often asked, "Which make the better breeders, young stock or old stock?" The only safe answer to the question is "That depends on the stock." It is always considered best practice to use only proven stock as breeders, in which case, stock at least two years old must be used. Immature or poorly developed stock, or unthrifty stock of

any age should never be used. Pullets which are being forced for a high egg production, and especially with meat foods and wet mashes, do not prove satisfactory breeders the first season. They are forced for a record the first year, and used as breeders the next year, and later.

Ordinary laying hens should not be kept after they are two years old, excepting individuals that are of particular merit. All old stock should be disposed of before the young stock is . brought in from the ranges.

Breeding, in poultry keeping, is very important. According to the amount of care used in the selection of breeders, is progress made. Standards vary, but general principles apply to all.

To be a good breeder the individual fowl must not only be good, but must have a good pedigree. The first part is comparatively easy to secure, but to secure the latter entails an endless amount of labor, as it requires the use of trap nests and leg bands for generations. With females, the pedigree must include not only the egg production of the individual, but also the hatchability of the eggs. Pullets are usually forced for high egg production, and then tested for hatchability during the second year.

A common basis of selection is a 200 egg production, combined with a 90 per cent. hatchability. Selection without pedigrees is never sure, as there are no characters or group of characters which form an infallible guide as to the productiveness or breeding power of an individual. The

wedge shape, long breast bone, bright red color of the head, and an active disposition are good signs in breed-

ing females.

With young stock, not fully matured, it is impossible to practice rigid selection. Early maturity is of paramount importance. Pullets that will not lay, at least early in the new year, should be consigned to the fattening crates, unless they are specially required for summer laying. All culls should be discarded at once. Breedtype must be considered. It goes without saying that now when excellent pure bred stock is so plentiful it is

utter folly to breed from scrub stock, chicks must show conformity to breed type. All others must be consigned to the crates, too.

Constitutional vigor and stamina are particularly necessary, as, lacking these qualities, individuals are worthless as breeders.

It is now much too early to mate up pens permanently for breeding purposes, but it is well that one should plan for the future, and it is extremely advisable that the poultryman should always be on the alert to secure desirable breeding stock.



GO AFTER THE BUSINESS.



Have a plan. The man who is satisfied with what comes to him unsolicited answers few knocks at the door. The stay-at-home misses daily opportunities that pass at the next corner. Get away from the desk—get out of the chair-tilting class. Lay out a plan, a campaign for new business—then go after it. Don't be satisfied with the business that you have—get more.



A Few Essentials of Successful Egg Production C. A. WEBSTER, '13

I N the choice of a breed of fowls it is first necessary to ascertain the chief end in view. Whether economic egg production alone is desired, or purely meat with good table qualities, or a combination of the two, giving what is generally known as a general purpose breed.

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To produce eggs there is no breed that will surpass the White Leghorn. They are active, hardy and good layers. Their chief fault is they do not commonly lay well in the winter. For both meat and eggs, Barred Rocks, Rhode Island Reds, White Wyandottes and Buff Orpingtons are the most popular. Whatever breed is kept improvement only results from continuous selection for vigor and egg production.

Use no laying hens after their second season.

That hens are not profitable after their second year is evinced by some experiments conducted by Maryland Experiment Station, U. S. In a study of the egg production of 60 White Leghorn hens in three successive years, the average number of eggs per bird was 171.3 the first year, 149.1 the second year, and 151.1 the third year. Cost of maintenance was \$90 per year for the flock. Profit per ben was \$2.07 the first year, \$1.61 the second year, and 90 cents the third year. The best layers commenced laying in November.

Ability to hatch and rear the young stock is important with the armer with not more than 100 to 200 hens. For him the natural method of hatching and brooding is the best. For the commercial poul-

tryman the artificial methods are necessary.

Good housing is essential for the well-being of the birds, and consequently their profit to the owner. Dryness inside, combined with plenty of ventilation and sunlight is necessary. The open-front house is one of the best. A description of this house may be read by applying for Bulletin 189 to the Ontario Department of Agriculture, Toronto. The cost need not be excessive and should not amount to more than \$1 per hen.

Care should be given to the feeding. Use a mixture of grains, throwing it in the litter to give the hens exercise. A good winter ration is equal parts of yellow corn and whole wheat. A dry mash of rolled oats is splendid for egg laying. To supply both drink and animal food buttermilk is unequalled. Skim milk is nearly as good, but is difficult to keep either sweet or sour all the time. This should be the case, otherwise the fowls will have stomach troubles. Provide plenty of lime in the form of oyster shells, plaster, etc. Grit may be supplied by sand, gravel or a commercial grit.

Provide plenty of green feed. In the summer a free run over grass land is best. If not convenient, alfalfa or rape should be cut and given to the fowls. Rape will supply green food until cold weather sets in. During the winter clover leaves, turnips, mangles, pumpkins, etc., provide abundance of green food.

Drinking water should always be fresh. In the winter, when water will freeze, use snow instead.

THE O. A. C. REVIEW

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- W. F. STRONG, ASSISTANT BUSINESS MANAGER.

Editorials

It is with deep regret that we chronicle the illness of our editor-inchief, Justus Miller. Mr. Miller was in Ottawa during the early part of the summer and became infected with typhoid, but it was not until his return to Guelph and commencement of work upon The Review that the disease made itself apparent. Miller had a hard struggle for life, but his splendid constitution and the excellent care he received brought him through. At the time of writing he is slowly recovering his strength, and it is our earnest hope that he will be enabled to enter school with us this fall.

This has necessarily upset somewhat the plans which he had laid for the issuing of a September sporting number, and it was found that, owing to the difficulty in reaching the staff, scattered over Canada, as they were, it would not be possible to carry out the scheme. Therefore, such material as was available has been collected and an endeavor made to have it com-

piled into an October number, to be ready for the students as they arrive on opening day. It is expected that everything will be running smoothly again with the publication of the November issue.

VALUES

Dear Editor: There are three questions every man entering college should put to himself. The first is, "Have I An Ideal?" the second, "What Is It?" and the third, "Am I Living Up to It?" When a man is preparing himself for his life work, is the time he should consider well what manner of man he will be.

Many men are failures in college because they put wrong values upon things. Let us think of some of the failures we have known. There are several types.

There is the "Grind." He measures his success by the examination list and gives himself up completely to the getting of marks. He has no time for social or literary or athletic or other activities. He never gets acquainted with his fellows and many of them do not want to know him. Thus he misses the benefit of their society. He is a pathetic failure.

Then everyone recalls the "Sport." He is a common, often a vulgar figure in the life of every college. He disdains work and secures the necessary marks with the minimum of effort. He has no use for law and order and makes himself conspicuous on all occasions. He is often an ass.

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The "Commercialist" is the fellow who has come to college to fit himself primarily to be a better moneymaker. This is his aim. About the college halls he's called a "tight-wad." And his disposition grows closer and meaner each year. Perhaps he is the most detestable man of the three.

Then, this catalog of failures would be incomplete without some mention of the "Society Nuisance," the chap who is a stickler for formality on all occasions. He spells society with a capital "S." I need not describe him. Elbert Hubbard says, "Society: An erratic clique that reads "Vogue," "Smart Set" and "Town Topics." A congregation of people who are not persons"—and you find them in college as elsewhere.

But enough of the "failures." There are also the fellows who have come to the college to make of themselves, Men. What are their characteristics? Well, they have the capacity to work, habitually, efficiently and faithfully, and they are the happy men. They can do the work that has to be done, whether they feel like it or not. They have a very genius for friendship. They are binding to themselves in the bonds of comradeship the men they meet from day to day. You are glad to know them and you will never forget them.

The secret of their power is their faith in their fellows. According as we reverence the people we meet we will find friends.

Further comment is unnecessary. It is for the college to place correct values upon the things that are not seen. That is, college men must choose between what is worth while and what does not count. All of us know the types we have mentioned. In a large measure it is for each of us to choose to which we shall belong in the college years that remain to us. Let us see the glory of our opportunity ere it passes.

Sincerely yours, ROY S. VINING.

Only with the greatest diffidence do we venture to bring this old and

College Societies

battered s u b j e ct before the attention of our readers. The fact that we

have some hundred and sixty new students amongst us who are entirely, or almost entirely, ignorant of the function and purpose of these five major societies is our excuse. And to the newcomers these words are more chiefly addressed. To them the initial outlay for society fees may seem large and out of proportion to the benefits received, but in later years they will assuredly not regret any time or expense involved in their connection with college societies.

The Athletic Society probably appeals more to the average student than do the others, and the benefits derived are great. The "all round" man must develop morally, physically and intellectually. By means of the efficient organization of the Athletic Society the physical needs of the student are largely attended to. Football, track events, field day

sports, baseball, basketball, swimhockey, indeed the whole category of sport is opened to the man who cares to interest himself, and only the united support of the whole student body renders this possible. The Literary Society affords opportunity for the budding Demosthenes to exercise his talent upon an appreciative audience. And while we cannot all hope to attain more than a usual degree of ability upon the platform, yet we can at least share in the social events arranged by the executive of the "Lit." The Y. M. C. A. exerts a helpful influence upon the student in so far as his spiritual and moral self is concerned, and no society deserves encouragement more. Every student should have in his possession a Y. M. C. A. handbook, in which is given the rules and constitutions of all the societies, the events and records in the field day sports and other valuable and necessary information. The Philharmonic Society has under its control the College Choir, the band, the Rooters' Club and the Choral Club and membership in it entitles one to membership in any of these smaller organizations. Lastly, The Review, owned and controlled, as it is, entirely by the Students' Publishing Association, it ranks high among the college magazines of America, and its success in the future will be measured exactly by the support it receives from each successive class.

We would urge, therefore, not only the freshmen, but the older classmen, to look upon these college society fees as much a matter of course as tuition fees, and by paying them promptly on opening day, save the secretaries much worry and trouble in collecting afterwards. It is up to the fellow himself to deter-

mine how much benefit he will receive from his membership. The possibilities are unlimited.

There is no day so opportune to pay fees as opening day.

Last spring, at the conclusion of the college year, it was rumored that a training table would be established at the college in the fall. So we went to our respective summer destinations, already anticipating the victories our boys would gain on the gridiron, and of the records our track team would shatter at the Varsity meet.

But now, our air castles, like those we built on having German removed from the third year curriculum, and all night lights have fallen. The "powers that be" have passed judgment to the effect that for this year at least, our athletes will have to subsist upon the same "vittles" as do the ordinary student, or else go to the "Chink's."

One great fundamental teaching of this college is "to observe." That is why the agronomy department is able to say which variety of a certain kind of grain does best at the college. They have observed the different varieties growing and know that this particular one is best. So it is with the Athletic Association. They know from seeing other colleges establish and maintain training tables that they must be good. If not good why do they maintain them? If they maintain them why should not we?

The trips that our athletes take to compete with other teams are taken by some members of the teams in the light of a holiday, and that is the trouble. It is too much of a holiday.

The following day it is a case of "the morning after the night before." It does not all come from the strenuousness of the sport, either. In short, the boys seem to sometimes forget that they have been sent to represent the rest of the students and partially at their expense.

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Now, if the student body was helping to pay the extra cost necessitated by the advent of a training table there would not be so many men break training. Moreover, if they did break training they should not, and would not, be given the privilege of any longer dieting at the expense of the student body.

It is to be hoped that by next year the new dining hall will be completed, and with it, increased accommodation for the boys, then perhaps our hopes may be realized and a training table be established.

G. C. D.



CHEER UP; YOU HAVE A CHANCE

Tell us not in mournful numbers
Life is but an empty dream;
That we blokes get all the skim milk
And the trusts get all the cream.

Life is earnest, so get busy; Swing your uppercut and jab; When good things are flying by you, Just reach out and take a grab.





ALUMNI

"Whether where equinoctial fervors

Or winter wraps the polar world in

Where'er they roam whatever realms to see.

Their heart untravell'd fondly turns to thee."

The above lines fittingly express the sentiment of a letter of an exIn 1891 when West Australia came into notice as the "Land of Promise," Mr. Ash went west as manager of the Great Southern Railway and land companies, farming and orchard propositions. Three years later he took the management of the Harvey River Estate. This estate comprised 12,840 acres freehold, and 22,000 acres leasehold, nearly all of which was virgin country. Involved in the







Best Grazing Land (Natural Bush), Harvey River Estate, West Australia.

The tall timber is W. A. Red Gum (Encalyptus Calophylla).

The bushy top on black stem is the black boy on grass tree (Zanthorea) of this State.

student in renewing his subscription to The Review.

"May their tribe increase."

After leaving the O. A. C. in the autumn of '81 and travelling for a Sydney firm in Australia for four years, Mr. W. E. Ash, '80, was appointed superintendent of the farm and teacher of Agriculture and Farm Veterinary Practice at Roseworthy Agricultural College, Southern Australia.

management of this estate was a scheme for the cutting up of the richest land into small farms and selling it at the rate of from \$15.00 to \$50.00 per acre. While managing this Mr. Ash selected a choice farm of 80 acres for future use.

The above illustration shows the natural bush on what is termed the "best grazing land" of West Australia.

On both of these large estates and his own farm Mr. Ash has introduced the modern methods of Orchard Husbandry, which are now generally adopted throughout the state. The climate and soil of parts of West Australia are particularly well adapted for the growing of citrous fruits during the winter. Over 1,000 acres of this land sold there has been devoted entirely to growing oranges and apples, and oranges grown in that section have brought the highest prices in the London market.

In 1902 Mr. Ash resigned as manager and is now working his own farm, where, besides his 18 acres of first prizes and championship prize at the West Australia Royal Agricultural Societies shows.

The judging pavilion has been the scene of many amusing instances, but that some of its more serious and instructive thoughts have taken deep root in the minds of at least some of the graduates is amply proven by the fact that Mr. Ash has carried off two Silver Medals in a judging competition held by Royal Agricultural Societies shows for judging Clydesdales and Short Horns, and a bronze medal for judging Merino sheep surely a splendid record even from one of those from whom we expect as much



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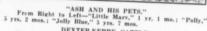
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The bull is from pure Irish stock and has won four first and champion prizes at the W. A. Royal Agricultural Society's shows.

Shows,

The cow held by W. E. A. has won five first and champion prizes at the same shows. She was giving over 3 gal. milk daily and 9 lbs. of butter per week.

oranges and lemons, he is growing grain, excelling anything formerly produced here, from seed sent out by the Experimental Union. Alfalfa is also grown here for summer feed for the Dexter Kerry Herd.

Another specialty in Mr. Ash's farming operations is a successful prize winning herd of Dexter Kerry cattle, of which the above illustration shows some excellent specimens. The cow held by Mr. Ash has won five

as we do from the graduates of the O. A. C.

We note that Mr. A. J. Logsdail, B.S.A., 1908, who has been for the past four years in charge of the work in hybridizing, carried on at the Horticultural Experimental Station, Jordan Harbor, has received the appointment of Dominion Hybridist, and is now stationed at the Central Experimental Farm, Ottawa. We rest as-



sured that "Loggie" will be as successful in his new field of work as he has been in the past, but it remains to be seen whether or no he will continue to ward off the arrows of the winged god as he has heretofore succeeded in doing.

Mr. and Mrs. Wallace French announce the marriage of their daughter, Lulu Blanche Miller, to Mr. Frederick Arthur Clowes, on Friday, the fifth day of July, one thousand nine hundred and twelve, Hilo, Hawaii.

At home after August first, Glenwood, Hawaii.

Clowes graduated in 1908 from the O. A. C. and went to Hawaii as a missionary. The Review wishes he and his bride all happiness and prosperity in their future.

ACROSS ALBERTA'S PLAINS

Broad as the sky, wide as the sea
The plains their boundless reaches send
To fields unknown, without an end
They stretch o'er vast immensity,
And to the utmost verge extend
What distant boundaries may be drawn,
And roll them on, and on, and on.

The moon with calm majestic mien Through yonder cloud begins to ride, While o'er the Northern summits glide The bright Aurora's shifting scene. The Midnight sleeps, as o'er the wide Unending plains—resistless drawn We're rolling on, and on, and on.

The stars the moonlit skies adorn, Faint glimmering in the brilliant night, The snow reflects the twinkling light, While in the East the gleams of morn High reaching through the star-lit height Herald the near approach of dawn, And still we're rolling on, and on.

Still onward o'er the plains we go, The browzing herds of cattle rear Their shaggy heads and disappear; The light transforms the frozen snow Into a star-lit atmosphere. Yet, o'er this vast unbounded lawn We're rolling on, and on, and on.

And now the sun has waned to rest; With sanguinolent gleams, the sky Is bidding it a last good-bye. And then resumes its twinkling vest The moon once more is riding high, As when it sunk at early dawn, We're rolling on, and on, and on.

College Life

Changes in the Staff

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Each returning autumn sees a number of changes that have taken place in the college staff during the previous summer and this year has been no exception.

The Chemistry Department has



A. L. Gibson, B.S.A., '12,

lost two valuable assistants, Messrs. G. E. Smith and G. P. McKay, both of whom came to the college in 1910.

Mr. Smith departed last April to take up a position as chemist at the Agricultural Experiment Station at Bozeman, Montana, where he is engaged in research work, while Mr. McKay remained until the end of August. The Review wishes them

continued success in their new work and we feel sure that for one, in particular, the future will be a happy one.

A. L. Gibson, B.S.A., a graduate of Class '12, likeness of whom appears in this issue, has been appointed demonstrator in chemistry. The Torontonensis, 1912, has the following in reference to Mr. Gibson:

"A son of Lancashire, England; educated at the Manchester Grammar School and later at the Cheshire, Lancashire, and West of Scotland Agricultural Colleges; acted as Itinerant Instructor in Counties Tipperary and Kildare, Ireland, and instructor at the Hampshire Farm School, England; arrived at the O. A. C. in 1910."

In Mr. Gibson, the Chemical Department has a man of experience and he should prove a valuable addition to the staff.

H. B. Webster, B.S.A., after graduating with the 1911 Class from this college, was appointed demonstrator in poultry, which position he held from last fall to the close of the college year. He left in April for his home in St. Mary's, where he will put to practical use the knowledge he has acquired here. The Review wishes Mr. Webster all prosperity in his work and we are certain that he will fulfill our hopes.

An addition to the staff is the appointment of W. H. Wright, B.S.A.,

as demonstrator in Botany. Mr. Wright hails from Devonshire, England, and was educated first at Dover College and later at Highgate College. Moving to Canada in 1903 he remained for a few years at Delaware, Ontario, coming to the O. A. College in 1908 and graduating this summer a specialist in Biology. We wish Mr. Wright all success in the position he now occupies.

ology, it being filled by T. H. Lund, B.S.A., Mr. Lund was born in Lancashire, England, and coming to Canada in 1902 he took the first two years at the O. A. C. with Class '06, also the dairy course the following winter. In 1905 Mr. Lund crossed the line to the United States, where he spent five years in various kinds of dairy work in Iowa, Wisconsin, South Dakota, and Virginia, after which he



A. C. McCulloch, B.S.A., '12.

A. C. McCulloch, B.S.A., also a graduate of 1912, has been appointed to fill the position vacated by Mr. Webster. Mr. McCulloch is an Ontario man, having been born at Epsom, where he soon won fame as an expert and a competent judge of poultry, the Anconas being his specialty. During his college course he has lived up to his reputation, and there is every expectation that he will in future.

Another addition to the staff is the position of demonstrator in Bacteri-



T. H. Lund B.S.A.

returned to Guelph and the O. A. College, graduating with the class of 1912. Mr. Lund's wide experience in connection with dairy work should prove to be of great value to the Bacteriological Laboratory.

Wedding Bells

Cupid, that over-worked individual, having prowled around College Heights for some time, has firmly lodged a dart in the heart of Mr. T. D. Jarvis, Associate Professor of Entomology and Zoology. On September 4th Mr. Jarvis was married to Miss

Edna M. Jones, of London, the ceremony being held in the Memorial Church. After the marriage all repaired to the home of the bride at 459 King Street, where a reception was given.

The happy couple left immediately for Quebec, where they set sail on the "Empress of Ireland" for Liverpool. On arriving they will spend a few weeks on the sea shore of Northern Wales, after which Mr. Jarvis intends taking a six months' course at Oxford in Advanced Zoology and Philosophy. They will then tour the continent for a few months, coming back finally to Guelph.

The Sophomore Banquet

The last hurdle, in the guise of the Forestry examination, over which a luckless Sophomore might trip, was past, the last yell was given and Class "14" looked forward, with all the joys of anticipation to the evening. For on that night was to be held the annual Sophomore banquet, that event looked forward to by the Second Year and Freshmen alike. To the latter it only means a "big feed," but to the former it marks the end of a long and wearied strain of difficult examinations.

Evening came quickly enough and a hundred and five boys with their guests where at last seated at the tables in the banquet room of the Kandy Kitchen. Mr. Neelands, President of the class, occupied the head of the table and near him were seated the guests of honor, W. B. Roadhouse, Deputy Minister of Agriculture; Rev. W. G. Arnold, Geo. Chapman, Esq., with the Faculty and the representatives from the other years: J. E. McRostie, '12; S. J. Jenkins, '13, and T. W. Morse, '15.

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The menu was full and varied, re-

ceiving justice from the hands—not to mention mouths—of the happy gathering. Particular attention must be called to the Menu Card, for which the banquet committee needs the highest commendation.

All things have an end, even hearty meals, and at last the chairs were pushed back, "smokes" were produced, and the toasts were in order. Mr. C. F. Neelands, acting as toastmaster, proposed "The King," being responded to by Prof. G. E. Day. "Canada" was the subject of the next toast by H. Maxwell-Scott, and heartily responded to by all. P. E. Culverhouse spoke for a short time on "Our Alma Mater," Prof. Reynolds replying in behalf of the noble institution. F. Waterhouse proposed the "Faculty" and humorously dealt with the class's past connection with the members of the staff, Prof. Harcourt responding by putting in a good word for them. The feelings of class "14" towards "The Other Years" were voiced by S. G. Freeborn, to which the year representatives, Messrs. Mc-Rostie, Jenkins, and Morse responded. The toast of the evening, "Class, 1914," received justice at the hands of J. B. Lund, Prof. Wade, the class' Honorary President, replying. J. E. Lattimer next had the floor and proposed "Our Profession," to which W. B. Roadhouse responded for some time.

The "Mac, Girls" followed. Although a hard subject, and one which only a few know anything about, it was ably dealt with by H. D. Leppan, and Dr. Reed, in replying, kept the house in fits of laughter.

The end came all too soon, however, and as all joined hands to sing "Auld Lang Syne," there was not one but sadly reflected that this was the last gathering of the old class, and that tomorrow meant the separation of old friends and comrades.

The boys returned to the heights, some to go to bed, others to pack up, while the rest proceeded to—? At about three o'clock in the morning College Heights and the family were rudely awakened from their dreams by a loud roar from the old cannon, but remembering that this was the night of the Sophomore banquet they only smiled and reflected thankfully that now peace would reign over the campus for five summer months to come.

Note: This report, through a misunderstanding, had been neglected to be put in any of the previous numbers of The Review.

A Correction

Through a printer's error the name of Kelleher was omitted from the results of the Second Year Spring Examinations, published in our July number. Kelleher takes eighth place with a total of 2,197 marks. We regret this error.

Mrs Cunningham joins with The Review in welcoming both old and new students to the joys of residence life.



Mrs. Cunningham.

Athletics



The O. A. College team, 1906, champions of the W. I. A. U., the one bright spot in the Rugby career of O. A. College. You will recognize some old stars amongst them: Billie Squirrell, Fuzzy Zavitz, Cog, Ben. Hoy, Murray, Sirrett and Treherne. Can we create any stars in 1912?

The Olympic Games

With her little band of 21 athletes Canada accumulated 13 points at the Olympic games, recently held in Sweden. While this total seems small compared to that of other countries, we must remember that Canada is still in her infancy, and her citizens should have no cause for regret at the showing of the team.

The United States carried off practically all the field and track events. Undoubtedly our cousins to the south are, taken on the whole, the best athletes in the world to-day, and by their showing we can take a lesson. They have taught us the value of a good scientific course of training, and of the importance of a man specializing in one event only.

We must congratulate our sister colonies, South Africa, and Australia, on the showing of their respective teams. South Africa captured both first and second places in the banner event of the whole meet—the Marathon. Australia, on the other hand, established for herself an enviable reputation in swimming.

Athletic Fees

The Athletic Association is possibly the most active association at the college. There is more business management required in its connection than in all the other associations combined, with the exception of the Publishing Association. It receives from the students four times as much fees as the associations and then has

to "sit up nights" devising means to make ends meet. Each year the balance in the athletic treasury is only a drop in the bucket, and each year the executive worries itself gray to maintain that balance. Last year, at least, this state of affairs was unnecessary. Over ninety students last year did not pay fees to the association, and I have it on good authority that a good many of that number were prominent in various branches of sport. This is a shameful state of affairs, reflecting upon the students involved, also upon the persons whose business it was to collect athletic



J. H. Tisdale, President Athletic Society.

dues. A little more business management this year please, and boys, don't give the association any more trouble than is necessary. It has enough to do to keep athletics moving properly without being called upon to chase down dead-heads.

FOOTBALL

By the Manager.

For a number of years the victories of O. A. College on the football field have been unrealized prophesies, the compositions of advance reporters, the productions of chronic optimists. Optimism is usually a fine thing, but it invariably requires substantial backing in order to realize its ambitions. With regard to football at O. A. College we have had oceans of optimism, but football will not thrive and produce on optimism alone.

A winning team is a beautiful pieca of machinery with usually some points of individual brilliancy of skill. Thus the spectator sees it; he does not see back of it all, a vigorous. often wearisome period of preparation, stories of hard physical training which saps the courage and ambition of weaker competitors, of obedience to a leadership which incessantly demands greater effort, of perseverance towards perfection in the most minute details of the game, of grindings and scoldings and correction, of failures who must make way for stronger men, of rooting clubs who do so much to instil courage against a stubborn enemy, of honest training, determined fighting and loyal supporta winning team is not a haphazard organization, it stands for days and weeks of building and constructing and perfecting; and when complete, it must be maintained at that state of perfection.

But dominating the whole machine is leadership. Toronto University and Ottawa Colleges play a wonderful game because they have wonderful coaches who get out of their men every ounce of usefulness. Under a proper coach there is a minimum of grand stand work and a maximum of

team play; the aggressiveness, determination, originality and coolness of the coach are reflected in the team when it performs on the field. A coach has been a minus quantity at this college, and since rugby methods have developed greatly during the last five years at the universities, we are "out of date" and modern football has become too fast for us. We have learned our lesson by bitter experience and if we wish to remedy our mistakes it is almost necessary to engage a coach; but a competent coach is like the proverbial "needle in a hay stack," at least the management finds it so. However, we will do our utmost to have a competent man "on the job" when the boys assemble on September 18th.

When college ovens, our season's campaign will be fairly well outlined. At time of writing the management has certain plans in the course of construction which will be perfected or at least partially defined by opening day. Both first and second teams will receive attention in the matter of games and we can safely promise you something to work for throughout the season. There are other things which exert a great influence in creating a winning team. Toronto University has the winning team in the Intercollegiate. She also has the biggest and best organized Rooters'

Club in Canada. All you boys who cannot or will not play the game, get busy and do your little share towards building up the team. We have never had a properly organized Rooters' Club at this college. A spirit of indifference has flourished and the team has not had the solid backing which it deserves. No sport will thrive with such rotten support. Bill Hunter and a few more of the upper class men will have an opportunity to exercise their ingenuity in getting the student body whipped into line for organized efforts on the side lines at the "big games."

Some Things Which Kill Rugby at O. A. College

The man who "knows it all."

The man who played last year for his O. A. C. and doesn't care whether he plays this year or not.

The man with a football reputation who won't train consistently. He needs it as bad as the greenhorn.

The sulky man who won't take a scolding. Get off the field and give somebody a chance who is willing to learn.

Too much class clanishness. College first.

A bunch of students who plug Saturday p. m. instead of going to the game. Members of the staff who are indifferent to the fortunes of the rugby team.









The Evolution of a Football

MACDONALD

Society at Macdonald

Toward the close of last term there was a great deal of discussion as to the benefits and disadvantages of the social life of the hall. When a hundred and sixteen girls are gathered together, there must of course be some form of social intercourse among them, but the extent to which some of the girls had entered into the society of the college to the probable detriment of their class work has been censured. In considering this question we must remember that the Institute was intended in the first place as a school for farmers' daughters to improve their methods of work at home, and to broaden their outlook, and that therefore in comparison with other girls' schools and colleges it is peculiarly situated.

Mixed dancing has been permitted in the college for two years, and it is the question of the advisability of the continuation of this that we would discuss. The advantages are many and important, and so, too, are the disadvantages.

In the first place it is a well-known maxim of the Institute that "These girls must be kept busy or they'll be into mischief," and a dance every couple of weeks is a decided aid to the desired state of busy-ness. For a Macdonaldite would never appear in mussy finery, and much cleaning and sewing is necessary to make a good appearance. Secondly, some girls

would take very little recreation at all if it were not for these little dances. They have not time nor energy to make their own pleasures, and they get the all-important "change of scene" in this way and find the stimulation of anticipation a great help to those tired nerves which seem so often to be perilously near the breaking point.

Then we must remember that the education we receive here is supposed to fit us to be home managers in any station of life and that while a graduate homemaker must be able to keep house for a poor man on a dollar per day, she must also be competent to manage a larger establishment. The entertainments at Macdonald Hall give a practical idea of the running of such large affairs to girls who could gain the experience in no other way.

We must not forget also that the mixing of girls from all over the kingdom tends, as Kipling says, "To improve the manners and carriage," and that those who have had few opportunities of meeting many people learn more of dress and deportment from observation than from class room lectures. This applies equally well on the other side of the campus. The girls become much better acquainted with each other, for in "feathers and war-paint" each presents herself in an entirely new aspect, psychologically, as well as physically, that shows those about

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her much more of her real character than she imagines.

And the boys, bless them! are early to show the beneficial effects of the scrutiny of a hundred and sixteen pair of feminine eyes. Shoes and ties assume an importance hitherto unimagined, while the change from carelessness or, worse, indifference in costume and manner, to care and consideration of the important trifles, is its own reward.

The disadvantages of dances are chiefly matters of individual conscience. For instance, those who have a natural taste for society find that at the hall so delightful that they are apt to neglect their studies, but that is for each to decide for herself. Certain it is that a girl cannot head her class, take a leading part in social life, and keep her health, unless she is an unusually clever and robust girl, but that she can take a fair class standing, have as much fun as is good for her, and not contract neurasthenia, is equally certain.

Another disadvantage that has been urged repeatedly is that the very girls who need the benefits of society, are the ones who will not come out to the parties. This, too, seems to be another case for individual decision. If the girls prefer to stagnate, why, let them. No one will thank you for reforming her if you do it against her will, though she will take all the credit of the reformation to herself when it is appreciable.

However, we must acknowledge that society does emphasize class distinctions. These distinctions are natural and unavoidable in any crowd. There are always those who, with the advantages of training and experience, will lead wherever they are, and ordinary mortals are apt to be only too willing to "follow the

leader," forgetting that nothing succeeds like determination, and that their place in a strange crowd is exactly where they choose to take it. The danger is not in the emphasis of class, but in the ensuing growth of snobbery and the formation cliques, leading to much unnecessary ill-feeling in the school. These cliques are the greatest source of trials and tribulations, both for the staff and for the students themselves, and the day which sees their abolition, by whatever means it may be accomplished, will mark a wonderful advance in the real education of woman.

In conclusion, we would remind the patient reader that dances do not form the whole social life of the hall any more than the innocuous Proms do. There are gatherings of which the other side of the campus never dreams, gathering where familiar figures come forth in strange guise. and intercourse with much more joy than mere dancing affords, and with none of its disadvantages present. These happy occasions do much to counteract the ill-effects of the more formal ones, and to make school more of a frolic for the eternal child that is in the heart of all of us unless work and dignity make us old before our time.

We have gone just far enough. Let us guard against making our society any more elaborate or strenuous than it now is, but never let us forget how to relax and enjoy ourselves.

Since the establishment of Macdonald Institute, one of the pioneer schools of Canada and an experiment in its way, popular opinion in regard to Home Economics has undergone a marvellous change. The progress of civilization, the advance of women, the influence of physicians, nurses, charitable workers, the press, have all contributed to this change-possibly even the Militant Suffragettes by some ironical twist in events have helped it along, since by directing the eyes of the world to their performances their antagonists have come to ask "Why are these women not at home?" "Is there nothing there for them to do?" And gradually the limelight has been turned on the home, its conditions, its needs, its possibilities. The conditions have been found on the whole to be unsatisfactory when compared, from the standpoint of scientific advancement, with other departments of the world's work. It's needs, such institutions as Macdonald are trying to fathom and provide for, aided by the investigations and reports of scientists, philanthropists and humanitarians everywhere. Its possibilities-who can tell? Is the day coming when the home will be held responsible by the state for turning out none but normal men and women, with healthy, well-developed bodies, clear, active brains, capable of earnest, intelligent effort, satisfied with simple, wholesome amusements, sane, healthy sport and unfamiliar with "nerves" and "brain storms?" If so, surely woman's sphere is not far to seek. Whether in her own home or in the homes of others, at the head of institutions, as teacher, nurse, producer or consumer, there is ample scope for her highest powers, greater scope than the majority of women realize at the present time, whether she be suffragette or the woman in the country home. With the latter the wheels of change move slowly and in some cases she is still plodding along in the methods of her mother or grandmother, dimly conscious that she is being left behind in the world's march of progress, but ignorant of how to keep pace with her fellows. She still sends out into life children handicapped in the struggle for existence by weakened powers due to improper food, poorly ventilated rooms, irregular hours. looks upon Domestic Science something quite apart from herself or her household. Even among many of the more up-to-date rural housewives scientific methods are looked at askance, as being "extravagant," "fussy," "slow," or "insufficient," for what scientific housekeeper for instance would be able to do as one farmer's wife recently did when guests arrived unexpectedly to tea-place seven kinds of cake on the table in addition to tarts, pies and other edibles! Truly there is room for improvement both from the point of view of health and economy and the Macdonald graduate needs only to stand to her guns and fight for the dissemination of better and more scientific knowledge in regard to the home, to win renown more lasting and far-reaching than can be obtained by breaking the windows of Parliament buildings or the head of a Prime Minister. So Macites, old and new, practice your home nursing, learn your basic recipes, study your house practice cards, and above all keep your head level and your heart true. Some day the country will "arise and call you blessed."

MUSIC

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Gentlier than fairy's tread,

Or showers at dawn upon the grass, Lighter than blown petals fall,

When o'er the rose soft breezes pass.

Borne on every sentient wave,

Till earth and air o'erflow with sound. A myriad quivering chords awake And thrill with ecstasy profound.

What magic doth the zephyr charge That o'er my soul such rapture flings?

Joy unbeckoned seeks my breast. Hope again like flowers springs.

Grief, grim spectre, fades from view.
Peace resumes her ancient throne.
By music's wondrous power renewed
My heart has welcomed back its
own.

AGRICULTURAL COURTSHIP

A potato went out on a mash And sought an onion bed.

"That's pie for me," observed the squash,

And all the beets turned red.
"Go away," the onion, weeping, cried.
"Your love I cannot be.
The numbrin he would be the beat to be the state of the beat the state of the stat

The pumpkin be your lawful bride, You cantaloupe with me!"

But onward still the tuber came

And laid down at her feet;
"You cauliflower by any name,
And it will smell as wheat;
And I, too, am an early rose,
And you I've come to see.
So don't turn up your lovely nose,
But spinachat with me!"

"I do not carrot all to wed,
So go, sir, if you please,"
The modest onion meekly said,
"And lettuce, pray, have peas;
Go, think that you have never seen
Or smelled my sigh.
Too long a maiden I have been
For favors in your rye!"

"Ah, spare a cuss," the tuber prayed,
"My cherryshed bride you'll be;
You are the only weeping maid
That's currant now with me!"
And as the wily tuber spoke
He caught her by surprise
And giving her an artichoke
Devoured her with his eyes.
From O. A. C. Review, Nov., 1903.

Much Ado About Nothing

Miss Watson (addressing a Homemaker, found in the laundry at an unseemly hour)—"What are you doing here?"

The Culprit—"C-Curling my hair."
Miss Watson—"Don't you know
you must not use the government gas
for your own ends?"

It was the crucial moment when sponge cakes were being removed from the oven:

First Housekeeper—"Oh, mine's as light as a puffball, and risen like a balloon."

Second Housekeeper (resignedly)
—"Mine's not, it's as flat as one o'
them stylish new graves."

At Roll Call—"No girl will leave the college to go away for the holidays until four-thirty on Friday afternoon, or she must make up double time. We will now sing hymn 458, "O Love That Will Not Let Me Go."

In the Meat Demonstration

Mr. Hales—"This cut is much used by hotels and large boarding houses." D. V.—"How much would it take for a small family?"

In Study Hour

Voice in the Ventilator—"What will you girls take to keep quiet?" The Noisy Girls—"A dumb fastener."

LOCALS

Perhaps you think these jokes are

And should be "on the shelf,"
But if you know some better ones,
Hand in a few yourself.

First Freshman: Say, who is your favorite poet?

Second Freshman: Dad, to be sure. First Freshman: What did he ever write?

Second Freshman: Checks.

Harry: Pardon me for bowing to that shabby old codger, but I feel obliged to do it.

Dolly: Who is he?

Harry: He is the head of our firm.

First Soph.: What is the difference between capital and labor.

Second Soph.: Well, if I loaned you 25 cents it would be capital, and when I tried to get it back it would be labor.

No, dear, the baker in a college town doesn't have to be a college-bred man.

To the boy who talks too much
This proverb may appeal:
The steam that blows the whistle
Will never turn the wheel.

"What!" exclaimed the orator, "what two things are helping man-kind to get up in the world?"

"The alarm clock and the step ladder," answered the dense person in the rear.

"Are you ill? Let me see your tongue, please."

"It's no use. No tongue can tell how bad I feel."

On the road to success it isn't every man who knows when to change cars.

WELL, THEY HAVE TO LIVE

Stranger: What kind of a town is Guelph.

Native: A college town.

Stranger: What do the people do who do not attend college.

Native: They do the students.

"Well, old man, how's the world

treating you?"
"Oh, about as often as I could expect."

Prof.: I hope that you will have a very pleasant vacation and come back knowing more than you do now.

Fresh (attempting to be polite): The same to you, sir.

Mary: He sings with much feeling.
Will: Right! He feels for every

Bible Student (preaching his first sermon)—Yes, friends, I am trying to follow the divine injunction to cast out the sick, heal the dead and raise the devil.

Pay as you go-but don't go too often.

THE LIBRARY, UNIVERSITY OF SUCTOR

the standpoint of the standpoint Telephone Company, Limited, of Toronto, was the pioneer in this up-to-date method of abipping telephone Company and the stand of the company and the stand the standpoint the standpoint of the sta

From the standpoint of high quality and most excellent product, The Canadian Independent Telephone Company, Limited, of Toronto, has achieved a notable success. This Canadian Company has been a pioneer in developing both rural and automatic telephony.

The Canadian Independent Telephone Company, Limited, associate companies and have expended during the past fifteen years in development and experimental work, several hundred thousand dollars. At times the results have been discouraging, and only within the past five years has success seemed assured. For years the interested partics worked on, hoping for success where success seemed far off.

During the year 1905 this Company, owing to extensive patent litigation, sold its United States patents covering the Lorimer System of automatic telephony to a Chicago company, and this Chicago company, after winning the litigation, sold its patents last December to the Western Electric Company, of Chicago (Bell Telephone Manufacturing Co), for the sum of \$850,000

Canadian Independent Telephone Company, Limited, has financed the installation of the Lorimer Automatic Telephone Systems (Canadian machine) at Brantford, Lindmachine)

The above cut shows a telephone being placed in the corrustated case in which it is snipped. Note that the transmitter, receiver and shelf are all attached. In fact, the transmitter, and the control of the control of the control of the control of the time saver.

say and Peterboro, and the success of these local exchanges has attracted the attention of telephone users and operators the world over. They have been visited and studied by telephone engineers from the United States, practically all of the leading countries of Europe and from both Australia and New Zealand. This year the Company is manufacturing an Automatic Telephone Exchange for the British Government to be installed at Hereford, England. Canadian Independent Telephone Company, Limited, owns the patents for the Lorimer System of Automatic Telephones for Canada and nineteen other countries.

In the rural (magneto) telephone field the Company has made a still more notable success. It took up this line of work in a small way in the year 1907, and since that time has steadily increased its output until now it is selling a large majority of the telephones and telephone supplies used by the locally owned and operated product and efficient service of the Company is gaining in popular favor, and wherever known and introduced becomes at once a favorite. Literature of the Company solutions of the Company has practically doubled in volume each year since 1908.

volume each year since 1908.

It goes without saying that the Company which developed automatic telephony is equipped with perince telephone engineers. It is the policy of the Company to place these engineers with their expansive and the service of any and all customers to assist them in organizing and operating local or municipal telephone system without cost to the local company, for the Canadian Independent Telephone Company is directly interested in the success of every local telephone system of Canada.

—From Canadian Agriculturists Annual.

Sporting Goods for O. A. C. Students

RUGBY

For years we have supplied O. A. C. students with the best sporting and athletic goods obtainable in Canada. For the Rugby season we are showing an extra fine line of Clothing, Pads and Boots.

Our 1911 RUGBY Boot at \$3.50 is the greatest value ever offered. "Yale" cleats, solid toe—toe will not spread over sole—extra light.

Send for special Rugby Catalog.

O. A. C. PENNANTS AND CUSHIONS

Every student needs College Pennants and Cushions. We have the largest assortment in Canada.

SEAL PENNANT, size 15x34 inches, with the official college seal. Price, \$1.00. SEAL CUSHION, size 24x24 inches, with the official college seal. Price, \$2.00. PLAIN PENNANTS, in official college colors, size 11x32 inches. Price, 50c. size 7x18 inches. Price, 25c.

Special Monogram Pennant, size 11x30 inches. Price, 75c. Send for our complete Catalog of Athletic and Sporting Goods.

HAROLD A. WILSON CO., Limited

297-299 Yonge St., Toronto.

A PAINFUL BLUNDER

There was a determined look in the Freshette's eye as she marched into the optician's shop.

"I want a pair of glasses immediately," she said. "Good strong ones."

"Good strong ones?"

"Yes, I was out in the country yesterday and I made a very painful blunder."

"Indeed! Mistook a stranger for a friend?"

"No; a bumblebee for a blackberry."

HE HEARD IT IN GLASGOW

Prof. Graham: Say, F-zz, why is a hen immortal."

F-zz-Z-v-tz-"Tell me, Dick."

Prof. G.—"Because her son never sets!"

Nature Student (innocently)—
"Could you please tell me where
Chumpy's Lane is?"

Workman on Macdonald Campus— "Well, I really couldn't say as I have only been here a short time, but if you enquire of Mr. Moore, who lives in that big, rough-cast house on the corner he would be able to tell you as he has lived here for some time."

Two of the track runners passed a learned and preoccupied professor showing a young lady visitor through the college grounds.

~

With a dainty shiver the girl remarked: "It's dreadfully cold, isn't it, to be without stockings."

The professor's mind turned for a moment from contemplation of a balanced ration.

"Then why did you leave them off?" he asked.

On the Opening Day

the old boys meet at the

Kandy Kitchen

always the popular rendezvous for the college boys and girls.

Hot drinks for cool days.

Gool drinks for hot days.

The choicest confections made on the premises. Time passes pleasantly here, while you are waiting for a car.

"GET THE HABIT"

The Kandy Kitchen

Lower Wyndham Street - Guelph, Ontario

Barretts Dairy Co., Ltd.

F. L. BARRETT President Treasurer
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C. ROSS 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)

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.

Five Roses Flour

Not Bleached---Not Blended-



Put in more water---Take out more bread

FIVE ROSES, be it known, is an awfully thirsty flour.

So, when YOU use it on bakedays, put more water in your dough, or less flour (which means the same thing).

FIVE ROSES will greedily absorb this extra water.

Because it contains the thirtiest gluten to be found in pure Manitoba wheat.

Therefore you get more loaves without using more flour-in fact, you use less.

And water, you know, is much cheaper than flour.

In this way, FIVE ROSES is saving flour money to thousands of Canadian housewives. Now, if YOU should ask your dealer for FIVE ROSES, wouldn't you likewise save on YOUR flour money?

LAKE OF THE WOODS MILLING CO., LTD., MONTREAL.

Artistic Tailoring

AT MODERATE PRICES

There's a Style and Elegance about our Tailoring that has won us an envied

Men who know and who wear good Clothes are free to say that there is no better combination of quality, price and workmanship, than a Suit, Overcoat, or pair of Trousers made to order in this establishment. It is to your decided advantage, Sir, if you appreciate good Tailoring, to

HAVE YOUR CLOTHES MADE HERE

There's always that "something" about our Tailoring that gives it an individuality, both in cut and fabric. We're not fancy priced Tailors-

NO ONE SAYS THAT

Come in for a consultation before you decide the Clothes proposition. We make a specialty of Dress Suits for Young Men. Ask about our Clothes.

W. WATERHOUSE

Tailors to men who know

Ingersoll, Ontario.

Drop a card stating what you want and I will call and see you.

Safe Investments

Careful and profitable investments are a prime requisite in the successful conduct of a Life Insurance Company

The Mutual Life of Canada

has had a unique career of over 42 years in this respect, in that not a dollar of its assets has been lost by mismanagement.

ITS INVESTMENTS CONSIST OF:

ITS INVESTMENTS	\$ 9,718,099	53.5%
Mortgages	4,967,664	27.4%
Debentures and Bonds Loans on Policies		12.6% 6.5%
Other Assets	1,199,601	
Other same	218.161.847	100%

.....\$18,161,847 Total Assets

WATERLOO, ONT. HEAD OFFICE George Chapman, District Manager. Guelph, Ont. Office, 8 Douglas Street

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



SPIRAL BEATER

Massey-Harris Manure Spreader

Insures Even Spreading.

Teeth are arranged spirally, thus working the manure evenly over the entire width of the machine.

Beater has positive drive and works in self-aligning bearings, which prevent binding and excessive wear on the working parts.

Adjustable Rake above Beater assists in levelling and pulverizing large pieces of manure before Beater deposits it on the ground.

MASSEY-HARRIS CO.

Toronto, Montreal, Moncton, Winnipeg, Regina,
Saskatoon, Calgary, Edmonton.

Illustrated Booklet upon application.

We have a very complete stock of

Entomological and Botanical Supplies

For students. At student's Prices

Alex. Stewart

CHEMIST

NEXT TO POST OFFICE

Fall Woolens

A rare and fascinating array of over 300 of the newest and most attractive Fall Suitings and Overcoatings awaits your inspection here. Let us show you them soon, and the many exclusive features which makes our Suits and Overcoats to order at

\$15.00 to \$30.00

the most profitable clothes investment in all Canada. Perfect-fitting shoulders and unbreakable fronts our specialty.

Lyons Tailoring @mpany

Tailors to men who "know"

47 WYNDHAM ST.





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.

Little Billy Freshmen's come to our house to stay.

Left his daddy on the farm, gettin' in the hav.

Bid adoo to all the folks and fellers back to hum

Came to the city on the train-by gum!

"My uncle Nehemiah always said:

'If ye ain't eddicated, might as well be dead':

So I come down to college, and I expec'

You will think I'm mighty greenbut I ain't, by Heck!"

(Continued on Page xx.)

ERNST M. SHILDRICK. Teacher of Singing,

Telephone 14. Over Dominion Bank.

Pupil of Van De Linde of New York Studio, Opera House Block. Phone, Studio, 625k. Phone, Residence, 625

First Class Work Guaranteed.

FOUR CHAIRS

70 Macdonnell St., just east of Spa.

T. J. SUNLEY, Prop.

Elite Shaving Parlor

Unexcelled Train Service

FAST TIME AND ATTENTION

-TO-

WINNIPEG SPOKANE **EDMONTON** VICTORIA BRANDON TACOMA BANFF SASKATOON NELSON REGINA CALGARY

LAGGAN ROSSLAND VANCOUVER SEATTLE

PORTLAND

Standard and Tourist Sleeping Cars Via Canada's Greatest Highway

J. HEFFERMAN, CITY AGENT

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



What's The Matter With Your Butter?

Does it lose its flavor quickly? Does it acquire a bitter taste in a few days?

Are you receiving any complaints about the butter not keeping well?

Use the salt that does make good butter every time and all the time-

INDSOR DAIRY SALT

It is always the same in purity and strength. It won't cakedissolves evenly-and makes the most delicious butter you ever tasted.

The prize-winners at all the fairs, used Windsor Dairy Saltthat's why they won all the prizes.

CITY CAFE

We make a specialty of catering to the wants of the college students



71 QUEBEC STREET

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

Phone 739L. Guelph. 49 Cork St.

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

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 Guelph, Ont.

Guelph and Ontario Investment and Savings Society

107 Wyndham Street

(Incorporated A. D., 1876)

Re

CA

Debentures issued for \$100.00 and over for five years at four and onehalf per cent., and for shorter periods at four per cent.

Deposits received and interest paid or compounded half yearly at highest current rate

Trustees, etc., Executors, 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.

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 specialty.

E. H. JOHNS, Proprietor
Successor to R. Hackney. Phone 312K

Regal Shoes For Men. Sorosis Shoes For Women.

W. J. THURSTON,

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.

JAMES H. SMITH

Next to Barrett's Dairy
Molasses Taffy, Walnut Cream and Maple
Cream. Best in the city.
Fresh Every Day.
LUNCHES 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

THE BURGESS STUDIO

FREDERICK SMITH,

PLUMBER, STEAM AND GAS FITTER

Sanitary Appliances Estimates Furnished. GUELPH.

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

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 loster compound on the market today. We also less that to the state of the state o

The Electric Boiler Compound Co., Limited Ontario Guelph

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. 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. ACDONALD & BROS. LIMITED.

FLOWERS

We carry the best selection of Cut Flow-ers 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 convenint Barber Shop for O. A. C. Students.

H. H. WORDEN, ST. GEORGE'S SQUARE, Street Cars every 15 minutes. Three chairs. No waiting.



Pringle

THE JEWELER

Entomological Supplies, Magnifying Glasses, all qualities Rubber Stamps Fountain Pens 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.

Printing Company Kelso

St. George's Square. Opp. Post Office Phone 218

SNOWDRIFT, PEOPLES' MAPLE LEAF

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

The James Goldie Go.

LIMITED

GUELPH, ONTARIO.

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Telephone 99.

THE LIBRARY

Work Done by Practical Tailors.

C. E. HEWER. 49 QUEBEC ST.

PHONE 808

The College Book Shop

4 Doors Above

The only shop in Guelph with all Upper Text Books the Wyndham Post Office and requisites in Street use.

\$1.00 FOUNTAIN PENS. SWAN FOUNTAIN PENS EMBOSSED O. A. C. NOTE PAPER AND PADS.

Special prices to students on all lines.

Recommended The College Book Shop, 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 Squarc.

Red Cross Pharmacy

DRUGS AND SUNDRIES

Fountain Pens, Toilet Articles Nyal's Family Remedies Paterson's Chocolates

ST. GEORGE'S SQ., COR. QUEBEC PHONE 381.

PHONE 719

44 CORK ST.

Jas. K. Readwin

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

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

(Continued from Page xv.)

Little Billy Freshman, better go slow,

Just one word to the wise, you know;

Be a trifle ladylike and mind what you're about,

Or the Sophomores will git you if you don't

watch

P. C. S.

THE GUELPH OIL CLOTHING COMPANY, Limited

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

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



AGRICULTURAL COLLEGES References

At Guelph, Truro, St. Anne de Bellevue Winnipeg, and the trade generally

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 Stu-

dents.

This is the store for the young people.

See our Window Display.
W. J. HENRY,
Manager.
J. E. SCHMIDT,
Proprietor.

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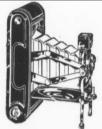
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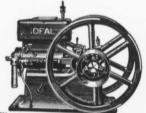
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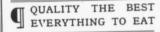
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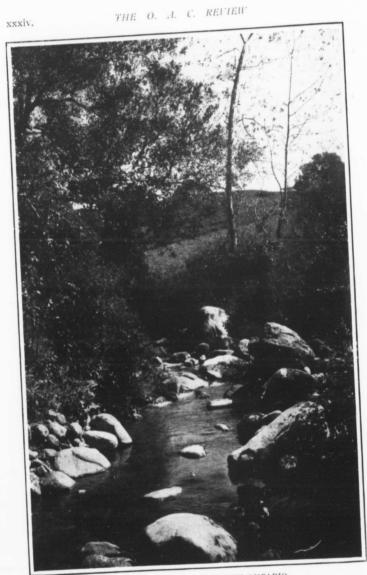
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