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# The O. A. C. Review

Published monthly during the College Year by the Students  
of the Ontario Agricultural College, Guelph.

THE DIGNITY OF A CALLING IS ITS UTILITY.

VOL. XV.

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## THE UNSUCCESSFUL FARMER.

It is so easy to make a living on the farm that too many farmers are content with a mere living only. These are the ones that it is so hard to reach with our present methods of education in agriculture. It is not the shiftless farmer who attends the Farmers' Institute meetings, who visits the Provincial Winter Fair, who subscribes for the best agricultural newspaper, who reads the bulletins and reports of the Experiment Stations, or who sends his sons to the Ontario Agricultural College. You, then, add, Mr. Editor, that "by the same token" he will not be likely to see this article. That is true, but before you get through you will find it is not intended for him. You and your student

associates must make it your business to look after this shiftless chap, for he it is that renders it impossible for our progressive men to build up and maintain the highest standard of excellence for our Canadian farm products.

In these good times the casual observer loses sight of the careless farmer. He becomes buried, as it were, under the bountiful harvest. He even shares in the general prosperity, for, in spite of his lack of improved methods, the good seasons, and a merciful Providence, have helped him beyond his deserts or expectations. He is with us, nevertheless, as every Institute worker can testify. He is heard

of at every meeting, he is called hard names by every cheese-maker, he is "cussed out" by every one who handles his produce, and he is generally in evidence where weeds are thickest, fences are rottenest, animals are poorest, buildings are unsightliest and the general appearance of the place is most unbecoming.

When a graduate of the College meets such a man as this I can imagine the following conversation taking place:

*College Graduate.*—Why don't you fix up your fences?

*Unsuccessful Farmer.*—Because it costs money and I have not made any out of farming yet. Besides, the cows would only break them down again.

*C. G.*—Why don't you put a new floor in your pig pen, and make a dry place for the "porkers" to sleep?

*U. F.*—What! for pigs? Why they do better in dirt. Young man, did you never watch a pig chase all over a ten-acre field to find a mud hole to wallow in?

*C. G.*—Yes, but that's in the summer time when the water is cooler than the air. The mud also prevents the flies from biting. Your pigs seem stiff. Don't you think your damp pens have something to do with it?

*U. F.*—No, it's just my luck. Every winter I lose some of my pigs that way, but there is no use crying about it.

*C. G.*—Why do you put the manure up in little piles in the field out yonder?

*U. F.*—To keep it from all washing away.

*C. G.*—Away where?

*U. F.*—I don't know where. I'm no college professor.

*C. G.*—But it can't wash anywhere on this level land except into the soil, and that's where you want it. What variety of oats do you sow?

*U. F.*—I don't grow oats at all. I used to, but they came up in patches, and between the clumps they were not worth cutting.

*C. G.*—That is because you did not scatter the manure. The spots where the "small piles" were, got more plant food than necessary and the intervening spaces were too poor to grow a full crop. Do you grow much clover?

*U. F.*—No, I used to grow some, but I found it the worst crop of all to start the weeds.

*C. G.*—Where did you get the seed?

*U. F.*—Wherever I could get it the cheapest.

*C. G.*—And you probably got more weed seeds than clover seeds. At the meeting of the Experimental Union, held in Guelph last month, a man said he had counted many samples of clover seeds, and found that in many instances more than half the entire bulk was made up of seeds other than clover.

*U. F.*—Great Scott! But what is the Experimental Union?

*C. G.*—It is an association composed of ex-students of the O. A. C., each of whom is conducting experiments on his own farm, with a view to finding out what crops are best suited to their own locality.

*U. F.*—Do they make any money out of it?

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C. G.—Certainly they do. They try on small plots several varieties of grains, grasses or roots, and when they find out which gives the largest yield of the most desirable kind they stop growing the others and stick to the best.

U. F.—Well, well! But I don't believe I could find time for all that.

C. G.—It does take time, but you don't seem to have found time to even bring in your binder. Surely you do not intend to leave it out all winter.

U. F.—Yes. I used to bring in the implements when I first built the barn, but they litter up the barn floor so, and the calves get mixed up with them when shut off from the cow, that I leave the tools out now.

C. G.—But it must be expensive. How often do you buy a binder?

U. F.—About every four or five years.

C. G.—Why, we couldn't afford that at our place. We have had our binder twelve years. We bring in all our implements and keep them in the shed built for that purpose.

U. F.—But it costs money to build a shed.

C. G.—Of course it does, but our implements last three times as long as yours do, and that more than pays for the cost of the house. We also find our implements in good shape for work when they are kept dry.

U. F.—Well, I will say that your place does look well, but your father always was lucky.

C. G.—It is not luck at all. I know I am a good deal younger than you are, but I have come to the conclusion

that so long as our farmers continue to work by rule of thumb, guessing at everything and then blaming their failures on the weather or the moon, just so long will they be unsuccessful in their business.

And so in Farmers' Institute work, in Orchard Meetings, in the meetings of patrons in the Cheese Factories and Creameries, we must aim to help the *Unsuccessful Farmer*,—the man who through ignorance is hurting Canada's good name at home and abroad. He does not want our help, but we need his co-operation. He scorns our assistance, but we must reach him through his pride or his pocket. He is indifferent to his own shortcomings, but, as a rule, he has been bred right, and we can reach him if we go about it in the right way—Not compulsion but co-operation.

Boys, when you return to the old farm again, do not go away back and sit down, for that is why the heathen rage, but straighten up your own place, keep down the weeds, and apply in a modest way the knowledge it has been your privilege to acquire at college. Having done all this it becomes your further duty to prove the faith that is in you, and go out into the sideline and the concession, and preach the gospel of improved agriculture—not to the men who have attended the Dairy School, or the Short Course in Judging, or the Poultry Course, or the Farmers' Institute, but to *Every Creature*, which being interpreted in the light of the Twentieth Century meaneth, "The Other Fellow."

Yours very truly,

G. C. CREELMAN.

## THE ARGENTINE REPUBLIC AN AGRICULTURAL COUNTRY.

The Argentine students at the Ontario Agricultural College this year number seventeen. When you consider that a distance of seven thousand miles is between Canada and the Argentina, and the shortest time in which this distance can be covered is twenty-four days, you will realize that that number is quite large, and you will be curious to know why they came here and what for. You may also want to know the idea of it, that the majority of you have, is very vague. I have talked of Argentina to many Canadians and they have asked me questions which showed the little they knew about the country, and many times I found it a hard task to convince them that Civilization and Progress in that part of the American continent are quite as far advanced as anywhere else.

When speaking of or writing on one's own country a person is inclined to praise it a little. To prevent me falling into this natural temptation I shall present statistics, and facts based upon them, which may suggest to you that in South America there are countries whose Progress has reached a degree not generally known.

The Argentine Republic, with an area of 1,419,000 square miles, lies at the very south of South America, and has a population of about five million inhabitants. A fifth of these are foreigners, of whom 25,000 are English. As my space is very limited I shall say no more of its geography or people and shall dwell on Argen-

tina only as an agricultural and stock-raising country.

From north to south of Argentina there is a range of 34 degrees of latitude, from the 22d parallel to the 56th, along which is found a great variety of climates. It is due to its exceptional climatic conditions that Argentina can raise within its borders almost any breed of domesticated animals and can grow all kind of agricultural products, from the coffee and sugar cane of the tropics to the pine and apple of the colder zones.

The area best fitted for the different cultivations is the zone contained between the parallels 28° and 40° and the meridian 66° 30'; that is, about 237 million acres. The climatological and soil conditions of this area, irrigated in part by great rivers, have been the object of careful and complete studies. Of this arable area but a comparatively small part is used as yet. In 1901 the plowed land was 17,569,000 acres, distributed among the following crops: Wheat, maize, barley, oats, rye, flax, turnips, alfalfa, canary seed, peanuts, sugar cane, grapes, tobacco, rice, etc.

In 1899 the production of wheat was 2,700,000 tons, of which, after having supplied the home market and saved the seed necessary to sow nearly nine million acres, two-thirds were exported. This export alone represented a value of forty-five million dollars. The exports of all agricultural products in 1901 amounted to nearly two million tons, and repre-

sented a value of seventy-two million dollars.

Argentina is a great pastoral country, with broad prairies and rich pampas, where thousands and thousands of cattle and sheep find abundant and succulent food. The following figures, taken from the statistics of 1901, show the quantities of live stock Argentina possessed at that time:

In quantity of sheep, Argentina holds the first position, followed by Australia, Russia, and the United States, who have 100, 48, and 45 millions respectively. Of our 120 millions, 20 per cent. have Merino blood and 80 per cent. Lincoln, Leicester, etc.

The exports of live stock in 1899 amounted to 360,000 cattle and 570,000 sheep. In 1900 the "foot and



A Group of Argentina Boys on the College Farm.

Sheep .....	120,000,000
Cattle.....	24,000,000
Horses.....	5,500,000
Goats.....	3,000,000
Swine.....	800,000
Mules and donkeys.....	500,000

In quantity of cattle, Argentina ranks third amongst the nations of the world, being surpassed only by the United States with 53 millions, and Russia with 37 millions. Many of our cattle are natives, but the larger number are crosses and grades of improved breeds, Shorthorns and Herefords especially, and, to a smaller extent, Angus and Devons.

mouth" disease appeared in our country, followed by the closure of the English ports and live stock ceased, almost totally, to be exported. Fortunately we were prepared for this punishment, and instead of sending the cattle and sheep alive we sent them dressed and chilled. The closure of the English ports gave new and vigorous impetus to the chilled beef industry in our country as it is shown in the figures given. They represent the amount of beef quarters and sheep carcasses exported in 1899 and 1901—the years previous to and following

the appearance of the "foot and mouth" disease:

CATTLE QUARTEES.	
1899.....	113,431
1901.....	498,375
SHEEP CARCASSES.	
1899.....	2,485,949
1901.....	2,922,727

Recently Argentina has adopted the English Sanitary Law for live stock importations, which will secure the reopening of English ports to Argentine cattle and sheep.

The production of wool has reached a wonderful degree. The 1901-1902 shearing gave 528 million pounds of wool, of which 440 million pounds were exported—110 million of coarse wool to the United States, and the rest, Merino wool and crosses, to England, France, Germany, and Belgium.

Among the dairy products we export to England butter and cheese chiefly. This trade is quite a new one and is increasing surprisingly. From January to September, 1901, 1,584,572 lbs. of butter were taken into England from Argentina, and during the same period in 1902, 5,837,282 lbs. These figures are taken from the Live Stock Journal of December 26th ultimo.

In connection with the agricultural and animal products, I may mention our Central Market of Produce, situated near the capital, Buenos Ayres, that has a covered area of thirty-two and a half acres. It contained in 1901-1902:

Wool .....	lbs.	241,615,000
Hides.....	"	97,988,000
Cereals .....	"	16,137,000
Other products...	"	22,078,700

A discussion of our ways of farming would take too much space. I may say, however, that in Argentina the "extensive system" is largely followed. In some parts of the country where the population is increasing the "intensive system" is coming into use and has given so far very good results.

Before closing this article I shall touch, though briefly, the question of agricultural education in Argentina. After having read what has been said about the country you would be likely to ask, "How is it that, possessing such an agricultural country, you do not have Agricultural Colleges, that you need to go abroad to learn farm methods and farm doings?" Agricultural education has not been overlooked in Argentina, but all the efforts made in the way of interesting the young men in the study of agriculture have been almost futile.

Several practical schools of agriculture and one college were founded; the former, with two year courses to prepare people for the management of farms and for the direction of small industries; and the latter, with a four years' course, to turn out technical men in agriculture and veterinary. These colleges were put up at considerable expense, and provided with everything necessary to give the best instruction. They failed, however, to give the desired results. Perhaps the systems adopted were not adequate; the result was that they did not attract and did not turn out agricultural men in the proportion to satisfy the wants of the country.

With the view of educating some young men in scientific agriculture, and

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in the methods of agricultural education that could be adopted in our own schools and colleges with satisfaction, the Argentine Government granted a number of scholarships to be used in North America. This enthused our young men and many strove to secure these scholarships. Twenty was the number first distributed, and this was increased soon after. The Government of the Province of Santa-Fe also sent six young men and many came of their own accord. To-day there are about sixty Argentines studying in different col-

leges of Canada and the United States; in the latter country they may be found in the Universities of Cornell, Wisconsin, Colorado, Illinois, California, Ohio, Maryland, etc.; and in Canada they are found in the Ontario Veterinary College of Toronto, and in the Ontario Agricultural College of Guelph. The fact that the largest attendance of Argentine students is to be found at the O. A. C. shows that this College must be all right. We like it very much and we cannot speak of it too highly.

JUAN B. RIVARA.

## Agricultural Department.

EDITED BY A. P. KETCHEN.

### A Chat with the Boys by Richard Gibson.

*To the Editor of the O.A.C. Review.*

You have honored me by asking a contribution from my pen on English tenure rights.

I shall just switch off on a side-track and give you ideas on what is now known as the Agricultural Tenancy Act. I may be wrong in the title, but it expresses the intent.

As I said to your editor, I know no laws regarding newspaper work and he must take me in the rough. I consign orthography, syntax and prosody to Hades. We are just going to have a talk amongst ourselves. I never attended an Agricultural College, more to my loss, and I just want to impress upon your minds the opportunities that you have to-day, compared with what we had. And I may

here say that my opportunities were infinitely greater than the average farmer's son, for I happened to be sent to a school where some practical knowledge of the soil, and the appurtenances thereof, prevails.

Would your readers allow me to digress so much as to explain a little of the school history which pertained to all the sons of tenant farmers? My early school days were spent at Derby Grammar School of Edward VI. foundation, similar to Christ's school. The freemen of the town had their children taught for nothing. I was a boarder and the free scholars were our "bubs," and had a sorry time.

After three years where Latin, Greek, Algebra, and Euclid, were the main factors in the curriculum of a boy, I was moved to Lincoln, and there, under a more congenial climate, my studies were continued. Cricket



and licking-the-other-fellow prevailed in connection with practical farm knowledge; for, if Lincolnshire is not a farming county there is none in England. For instance, our mathematical master (who took snuff, and played an extra strong game of chess) gave us practical lessons in land surveying, and plotting fields. I wonder if they teach you this at the College. An ounce of fact is worth tons of theory. When we started out on a Saturday afternoon (by the way, the Master was a botanist), after searching among the lanes, suddenly he would say, "plot that field and get the dimensions."

While I was a day scholar I had all the privileges of the boarders, and I say this truthfully, that when the day or crease was unpropitious for cricket I was regularly on hand for the scientific part of my teaching. May I here remark that the Head Master's only daughter was a scientist, and she, no doubt, induced a stronger following than the Dominie himself. Without doubt, he hugged himself with the satisfaction that it was his tame discourses that attracted us—we knew otherwise. This romance closes with the knowledge that we know nothing of her ladyship's future, but we do want to put on record that we know more of Oxygen and Hydrogen and Nitrogen than had she not been in evidence.

Just here, a word of seriousness—are you realising all the opportunities you are enjoying? If I had had the same opportunities as you have I feel as though I could dominate a continent. Why? you may ask. I cannot go through the programme that is

before you daily. The spread-Eagleism of the United States is foreign to our nature. Pause and reflect for yourselves. This Ontario is now recognized as the brightest jewel in Britain's Crown. We have proved our manhood in campaign and commerce. India, with her drought and famines, has been displaced by the "Lady of the Snows," and it becomes the duty of each of you, from the proud possessor of her highest honors to the humblest in her ranks, to feel the *esprit de corps*. Carry away this feeling, that though I am unsuccessful at my college I feel that I have the stuff in me that will yet find its work.

Old I am getting; the seventieth mile stone is in view. But whatever I write (often in levity, it is my nature to see things in bright hues) I hope may be construed, not only to while away ten minutes, but there may be conundrums beyond what appear on the surface, to the solution of which I may be able to give some one a clue. So I would suggest to my readers to search for lessons to be learned from the often-trivial remark.

I don't know whom I may be addressing: many perhaps better educated than myself. But whom these lines may reach, I ask to accept my very best wishes for a Happy New Year.

R. GIBSON.

### Provincia' Winter Fair.

The Ontario Provincial Fair, held December 8 to 12, was one of a long succession of steadily improving exhibitions of fat stock. In every de-

partment except, perhaps, cattle, the exhibits were fully up to, and in some cases surpassed, if possible, the very high standard set by the exhibitors of former years. The exhibit of poultry was, to many, a revelation, and was acknowledged by some of the poultrymen present to be the best collection of live and dressed poultry ever got together on the American continent.

The attendance this year was the largest in the history of the Fair, and the interest and enthusiasm manifested in the lecture room was an indication to the most casual observer that the farmers and stockmen of the Province are becoming more and more alive to the possibilities of their profession. This lecture and discussion or Farmers' Institute, if we may so term it, department of the Fair, is, we believe, its most valuable feature from an educational standpoint. The average visitor comes to the Fair, wanders about the building in an aimless sort of way, and returns to his home with a vague, confused memory of having mingled with a large crowd, having met a few of his old time acquaintances, and incidentally of having seen some very good stock. It has been to him a pleasant outing; nothing more. He has carried away with him no permanent mental impression. As to what constituted the superior excellence of the stock on exhibition he has no conception; except, perhaps, the moth-eaten idea that the fattest cattle won, and that degrees of excellence and degrees of fatness are synonymous. Now, this ought not to be so. If the visitor does not carry away with him some well defined addition to his store of information; if he has not caught

something of the spirit of emulation; if he has not been imbued with a deeper love for, and a more abiding faith in his profession, the Winter Fair has failed in its mission,—at least to that man. It was to preclude this failure that the lecture room department of the Fair was instituted. There the auditor is not only instructed, but also encouraged. He feels the impelling force of contact with live, enthusiastic men, and receives an impetus that will help him over many a shallow. After all, we are not sure that the farmer needs information so much as stimulus, especially the struggling farmer; and it is he whom we should most exert ourselves to help. Many men are worrying along in a half-hearted, half-discouraged fashion, carrying only 40 lbs. of steam, when they might be forging ahead under a full head of 120 lbs. What these men need first of all is encouragement; they must be inspired with the belief that better things are possible for them, that other men with difficulties similar to their own, are succeeding; and that, what other men are doing, they can do. When we have done this for a man, we have given him an incentive to effort, and have done more for him, it seems to me, than if we had furnished him merely with information. If we can arouse in a man an enthusiastic belief, first in himself, and next in his profession, we have discharged the greater part of our obligation to him—we have at least assured him ultimate success.

This was apparently an off year with the cattlemen. The entries were not so numerous as last year, nor were the animals shown quite up to

the standard of merit set in former years, although many really good cattle were forward, especially among the grades and crosses.

In the sheep department many of the old veterans were out with large and creditable exhibits. All the leading breeds were strongly represented, and, in many classes, the honors were keenly contested.

The show of hogs excelled that of former years, not only in numbers but also in quality. It would seem as though some of our breeders have the production of the bacon hog reduced to an exact science. One fact that was patent to all is that bacon type is not confined to one or two breeds. It is only a matter of careful selection, and feeding to evolve from

any of the breeds the approved bacon type, and that in a comparatively short time.

The carcasses were judged this year from a quite different, and, we think, much better standard than in former years. The awards were placed by Mr. A. J. White, of Chicago, who based his judgment on the requirements of the best markets of the world, instead of giving the prizes, as was done last year, to those carcasses best suited to the limited trade of our local butchers. The awards, therefore, went to prime, well-finished, but not overdone animals; and the disparity between the judging in the ring and the judging of the carcasses was very considerably lessened.

A. P. K.

## Live Stock Department.

EDITED BY PROF. M. CUMMING.

### Some Comments upon Recent Live Stock Shows.

Since preparing our article for this column in the last issue of the REVIEW we have had the opportunity of visiting three very important live stock shows, the International Live Stock Exposition at Chicago, the Ontario Provincial Winter Fair at Guelph, and the Maritime Provinces Winter Fair at Amherst, Nova Scotia. The most of our readers have read accounts of these shows in our agricultural press, but we take this opportunity of making a few general comments upon outstanding features of each of the shows that may be of interest to our student readers.

The third great live stock exposition held in Chicago, during the first week of December, 1902, was a magnificent success. Not only in the excellence, but also in the magnitude of the exhibit, it eclipsed any previous exhibition in the history of live stock. When we merely chronicle the fact that, from all parts of the United States and Canada, there assembled, at the Union Stock-Yards Auditorium, a grand total of more than 600 draft horses, 1100 cattle, 1050 sheep, and 450 swine, not including the hundreds of animals in the car lot exhibits, we may give some vague idea of the immensity of the show. And when, to this, we add the fact that among the

number were the principal prize winners at the leading State Fairs, and not a few of those at the Canadian and Old Country shows, we may convey some impression of the excellent quality of the exhibit.

Canadians won a very fair share of the prizes, especially in the sheep and Clydesdale horse sections, in which classes a number of the premier laurels fell to their lot. If, to these, were added the prizes won by animals that had previously been owned in the Dominion, the number would have been exceedingly creditable. As examples of such animals we might mention Choice Goods, the champion Shorthorn Bull, and Village Belle II., the champion Shorthorn female of the show, the former of which was imported and owned by W. D. Flatt, of Hamilton, and the latter of which we remember to have been particularly attracted by when we saw her as a calf some two years ago in Messrs. Cargill & Sons stables. How much longer can we Canadians afford to allow American money to take from us these finest specimens of cattledom!

Agricultural Colleges, as a whole, took a very prominent part in the exposition. Not only in their special stock contests and in the judging contest were they given an important place, but to the Iowa State College fell the honor of exhibiting Shanrock, the grade Aberdeen Angus steer that won the grand championship. We were particularly pleased to note that quite a few of our own students, 12 or more, took the opportunity, at considerable personal expense, of visiting this exposition, and we could only wish our College were in closer proximity to Chicago so that every single

student could go and see and learn for himself the possibilities of the live stock interests of America. However, those that were there considered themselves well repaid for their outlay in going, and we hope their account will encourage a still larger number of our students to "save up" for a trip to the International next year.

From Chicago to Guelph was quite a step downwards, so far as the magnitude and even the quality of the exhibit was concerned but, as regards many of the educational features, a considerable step upwards. In another column will be found an account of the show and, therefore, it would be out of our sphere to devote any time to this. We considered the addresses delivered by Mr. McNeilage, of the *Scottish Farmer*, Glasgow, Scotland, to be particularly timely, and especially the one upon Canadian produce in Great Britain. As mentioned in previous issues of this paper, we were particularly struck when visiting some of the English markets last summer, with the need of Canadians as a whole maintaining a higher standard, especially in regard to the live stock products sent to those markets, and, therefore, we sincerely hope that Mr. McNeilage's remarks may be productive of considerable improvement, and that as a result Canadian produce may gradually rise in the estimation of the English and Scotch epicures.

The Fair at Amherst was conducted along very similar lines to the one at Guelph, and, considering the youthfulness of the pure-bred live stock industry in the Maritime Provinces, was

an even greater success than its prototype. This is the second year for this fair, and the magnificent new building, constructed largely by the citizens of Amherst, for its home, augurs well for its permanency and progressiveness. If we may judge anything by the number and character of the exhibits, by the interest manifested in the judging, and by the numbers in attendance at this pioneer fat stock show we are justified in looking for great things along live stock lines from the people of the Maritime Provinces.

In general we think the outlook for live stock interests, the Dominion over, were never better. Education is being disseminated everywhere by means of agricultural papers, institute speakers, live stock shows and other

agencies. The short course in live stock judging at the College has this year an enrolled attendance of over 200 farmers and farmers' sons, all of whom seem bound to learn all they can about the highest types of the domestic animals. At the Fall Fairs and exhibitions generally there is a call for better judging of all classes of stock, and almost wherever one goes he finds some one seeking for information about live stock. In the light of all these facts our judgment is very much at fault if we do not see a gradual improvement in Canadian live stock interests that will culminate in putting her second to none, so far as this line is concerned, among the countries of the world.

M. C.—g.

## Horticultural Department.

EDITED BY A. B. CUTTING.

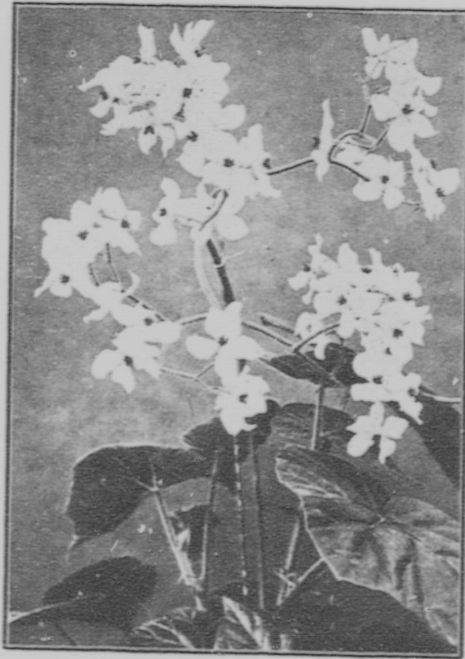
### *Begonia Pictaviensis.*

This is one of the most strikingly beautiful *Begonias* of its class. Its large, dark olive green velvety leaves, shaded and tinged with a rich bronzy hue on the upper surface, the underneath surface as well as the leaf stems and flower stems being more strongly marked with a rich reddish purple color, would of themselves make this an acceptable plant for window and conservatory decoration. But when one or two of its immense cymes of ivory white flowers are seen surmounting its richly tinted, hirsute foliage, they add increased beauty to the plant, the prominent bright yel-

low stamens of each individual flower also adding greatly to the gorgeous effect produced by such a variety of bright color and delicate shadings.

The true type of this *Begonia* is very difficult to secure, as it is so nearly identical with several other varieties of the hirsute or hairy type of shrubby *Begonias*. Indeed, the varieties known and catalogued as *B. Haageana*, *B. Scharffiana*, and *B. Velutina* differ so very little from it that they are often sent out as *Begonia Pictaviensis* by florists without any intention of deceiving the purchaser.

*Begonia Credneri* is another variety of this class of *Begonia*, and is gener-



*Begonia Pictavensis*

ally credited with being identical with *B. Pictaviensis* by nearly all plant growers.

All of the above mentioned Begonias, however, are worthy of a place in any collection of these plants, and it is only by growing them side by side under exactly the same cultural conditions and general treatment, that the slight variations in foliage and flower in most of those I have mentioned can be discerned.

There are several other beautiful and attractive varieties of this type of Begonia that might be mentioned as being both ornamental and easily grown. *Begonia Duchartreii* is a grand variety, being of rather a dwarf habit, and although its foliage is not as massive and imposing, or perhaps as beautifully colored as the varieties before mentioned, its large cymes or clusters of flowers are very attractive both for their size as well as for their clear, waxy, white appearance. *B. Margueritae* and *B. Metallica* are also two well known and desirable varieties; in fact the newer varieties of Begonia that I first mentioned are for the most part hybrids of *B. Metallica* and *B. Scharffiana*.

*Begonia Pictavensis* is another variety that is often sent out for *B. Pictaviensis* by florists, although they are quite distinct varieties, *B. Pictavensis* more nearly approaching the glabrous or glossy leaved Begonias than *B. Pictaviensis*, the similarity of the specific name being very misleading to many plant growers.

The propagation and culture of any of the Begonias mentioned is not very difficult. Cuttings strike readily in sand in pots if the latter are placed

in a window or greenhouse where a temperature of about 65° to 70° can be given them. Early summer time is probably the best time to take cuttings, especially for window culture.

Begonias delight in a light, porous, and fairly rich soil, with plenty of drainage at the bottom of the pot, as a soddened condition of the soil will not suit Begonias at any period of their growth. Soil composed of about one-half of fairly rich, loamy, potting soil mixed well with about  $\frac{1}{3}$  the quantity of clean, sharp, fine sand suits Begonias very well. One-fourth part of thoroughly well rotted leaf mould will also be a useful addition to the loamy soil and sand. The foliage of these Begonias should not be syringed or sprinkled very frequently, if at all. A very exposed sunny position, either in the window or greenhouse, should not be given them, partial shade as a rule suiting them best. Sufficient water should be given the plants to keep the soil in the pots moist, especially when the plants are in full growth and flower. During the resting period a less quantity of water and a cooler temperature are desirable.

WM. HUNT.

Supt, O. A. C. Greenhouses.

### Packing Apples for Export.

Apple growing has for years been considered one of the chief industries of Ontario. Men have spent much time and put forth every energy to bring the fruit to its highest degree of excellence both in quantity and quality. While great progress has been made in the perfecting of production, the packing and marketing has not

received a proportionate share of attention. It is with the packing of our best fruit for export that I wish to deal in this article.

The apples, without exception, should be removed from the trees in such a manner that no bruises may be found on them. For convenience the fruit may be placed in boxes or barrels, in which to be removed to the packing house. A spring wagon, which is so essential for all purposes connected with fruit culture, should be used for conveying fruit from orchard to packing house.

When ready to begin packing, the apples should be carefully poured upon the packing table. Too great care cannot be exercised to keep each grade free from specimens which are foreign to it.

No. 1 apples include fruits of normal size, color and form, free from worm holes, spot and all blemishes. Owing to the fact that different varieties differ very greatly in size, we can set no hard and fast rule, by which to grade. The packer must be governed by the demands of the trade and his own judgment when sorting the fruit. It is generally well to divide No. 1 apples into two grades differing in size, so that a package may present a more uniform appearance.

In grading fruit, it is well to have a light board with a series of holes ranging from two inches up to three inches. By occasionally trying an apple in these holes the sorter keeps the size of the fruit fresh in his mind.

Owing to the fact that time is money, each sorter should be provided with a number of baskets, so that all grades may be sorted at once. This

saves the necessity of handling the fruit a number of times, and also prevents loss by bruising and careless handling. As fruit is being emptied from the basket to the barrel it should be carefully watched and any apples which are of inferior quality should be removed.

The box package which was introduced into Ontario only a few years ago, is becoming very popular with shippers, and is meeting with great success in the foreign markets. Owing to the fact that it is of very recent origin and came by way of an experiment rather than by force, its size varies from three pecks to a bushel and one-eighth. This lack of uniformity is, to no small extent, responsible for its not meeting with more general popularity.

The barrel, which for years has been the popular package, will continue to be used many years yet. Much might be said in favor of the old barrel, and much to its disadvantage. It maintains its popularity with many shippers owing to old customs, they being slow to change from the old to the new.

The first row of fruit placed in either box or barrel should be placed stem end down and in neat rows. If the variety be long stemmed, it is well to remove a portion of the stem in order to prevent it pressing into the apple when placed on the head of the package. Where barrels are used they should be carefully shaken down after each basketful is emptied, so that the apples may lie as close at possible. In boxes this shaking is not so essential, yet it should be done to a limited extent. The box requires more care-

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ful packing than does the barrel. The best success has been with boxes lined on top and bottom with excelsior and the fruit placed in regular rows, not placed promiscuously as in the barrel. Boxes should never be packed without the use of excelsior or some similar material to prevent them from moving in the box and to form a cushion in case the box is crushed in any way.

A few years ago the barrel was pressed very hard, in fact often juice was pressed from the fruit. This injurious practice has gradually given way to more practical methods, and to-day the barrel is filled very little, if any, above the staves. After the press is placed on the barrel a shake or two seems to have a good effect in settling the fruit before the final screwing down of the head. This shaking down process is of the most vital importance in successful packing. It is, nevertheless, a most difficult thing to explain. The barrels should sit on a solid plank at least ten inches wide. Grip the top of the barrel firmly and draw it towards you until the bottom on the side opposite is raised about two inches, then let it back with a jar so that the fruit is caused to settle; repeat this several times. Great care must be taken so that fruit is settled, not loosened, by this practice.

Too much care cannot be exercised in the final nailing of export packages. The liners should be put on neatly, the nails being driven in such a way that they enter the stave, yet do not come through to the outside. Many buyers consider that if a barrel is carelessly nailed it has been carelessly packed, and are very careful in buying.

Boxes do not require so tight pressing as barrels, owing to the fact that they are carried, not rolled, hence not so much danger of damage by bruising. The box head should be securely nailed, all nail-heads driven down level with the wood, not acting as scratching posts for every person who handles them.

Only No. I fruit should be exported in the box package. No. II may be placed in barrels and exported, but it is preferable not to place them on our best markets at all. No III grade should never be exported until it has been manufactured into jelly, evaporated stock, champagne, etc.

All packages containing No. I apples should be marked XXX to denote the grade. The name of the variety and the shipper's name and address should be branded with a neat stencil on each package. If it is desired to advertise the district in which the fruit was grown, it should be branded on the package in large plain letters. Any private marks should not be more conspicuous than the general marks.

While packing for export we must at all times be studying our markets. Different markets require different styles of package, and different methods of packing. Some markets will accept nothing but red apples, others again will not handle sweet apples. Should a shipper have a number of varieties he must find out for himself where it will best pay him to send each variety, and how that market requires it to be packed. While we are always anxious to make the most out of our fruit, we must not pack inferior fruit for export, as it will eventually ruin the trade.

H. S. PEART.

### Selecting and making Cuttings in Mature Wood.

A cutting is a section of a plant consisting of a piece of stem with one or more buds which, when placed in proper conditions, may be developed into an independent plant. Next to seeds, this is the most common method of propagating plants.

Mature wood cuttings are taken when the plant is in a dormant condition—either in fall, winter or spring. Stored within such cuttings is the necessary material for the formation of callus and roots. The formation of roots is always preceded by the formation of callus.

In the formation of this callus, the cambium tissue plays an active part, but in some plants the adjacent wood tissues and the innermost layers of the bark are the principal active agents. Therefore, the less the area of wood exposed, as compared to the other tissues, the easier will be the healing process.

Though the formation of roots is preceded by the callus, the roots do not always emerge from the callus, but may and do take their origin some distance from it. As a rule the roots appear more often at or near the buds or joints than elsewhere.

Mature wood cuttings, desired for fall planting, may be taken in August, stripped of leaves and stored for a short time to callus, or planted at once and allowed to callus where they are planted.

It is best to take them late in the fall, store in moss or sand over winter, and plant in spring.

Cuttings taken in early spring do not root so readily as those taken in fall or early winter.

The length of the cutting is governed by the distance apart of the buds, as two buds at least are required. Six to ten inches is usual length.

With plants that are "short jointed" more than two buds is preferred. In some cases, however, it is necessary to remove all buds but the upper one to prevent the formation of underground shoots.

When making the cutting, cut off the lower end close to the bud and leave the exposed surface smooth and clean. The upper cut may be a half inch above the bud.

A. B. C.

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### Winds and Wind-breaks.

Strong winds as a rule are injurious to fruit culture. They blow off the fruit and bruise that which remains on the trees; they increase evaporation of moisture from both soil and plants; they injure and break the branches of the trees; and they cause trees to assume unnatural shapes, which greatly interferes with successful pruning. There are times, however, when winds are beneficial. They tend to equalize the temperature, mixing the warm air with the cold, and often prevent injury from approaching frosts. Warm winds, if not violent, are always advantageous.

To prevent the injurious effects of severe wind, it is advisable, when planting an orchard, to locate where some natural obstacle, as a hill, or a forest, will break their force. When

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such obstacles are not to be found, and to protect orchards already planted, it is necessary to furnish some means of defence. This is best brought about by the judicious planting of wind-breaks.

The importance of wind-breaks, in their relation to horticulture, is being recognized more and more as the art of fruit growing advances. While there are a few who directly oppose them, yet it is safe to say that the greatest difference of opinion exists in connection with minor details rather than with the main question of their importance as a whole. In this short article, we shall not attempt to discuss the value of wind-breaks, but shall devote our space to a few remarks upon their construction.

For interior regions, a wind-break that is dense and hedge-like—with trees closely planted—is the most desirable. For districts situated near large bodies of water, one less dense is to be preferred. The relative denseness of wind-breaks depends upon the kind of tree used, the number and distance apart of rows, and the number of trees in each row. When two or more rows are planted it is well to have the trees in one row occurring alternately with those in the next.

Almost any strong growing tree will do to make the wind-break. For heavy wind-breaks and for winter protection the coarser evergreens are best. In Canada and the Northern States, the Norway spruce is the evergreen most frequently employed. Austria, Scotch, and native pines have also proven quite satisfactory. For light wind-breaks, deciduous trees are used. Among the best of these

for the purpose are maples, elms, and Lombardy poplar. In some districts and in fact, as a rule, a wind-break consisting of both coniferous and deciduous trees is the most serviceable.

There is serious objection to the use of red cedar as a wind-break for apple orchards, on account of its being one of the two host plants of a fungous disease, (*Cymnosporangium Macrospus*), which produces what are commonly known as "apple rust" and "cedar apples;" consequently, as the red cedar is required in the life cycle of this fungus, it is not advisable to plant it in the vicinity of apple orchards.

A. B. C.

#### A Valuable Clue.

"Please, Sergeant," exclaimed a lady, as she rushed into the police station, half out of breath. Then she hesitated.

"What is it, ma'am?"

"I don't like to tell you."

"Proceed. Have you been robbed, or —?"

"Robbed, sir; cruelly robbed. Last night someone stole a lot of clothes from off my line."

"Just give me a list of the articles stolen."

"I couldn't do that, for they took two pair of —"

"What?"

"Oh, no; I really couldn't say; but Mr. Policeman, if you see anybody wearing them, arrest them."

With this brief explanation she departed, and now she is telling all the neighbors that the police force of this country are too stupid to detect crime, even when they get a clue at first hand.

## *The O. A. C. Review.*

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JANUARY, 1903.

## Editorial.

During the Short Course in Live Stock and Grain Judging much information of value was given to those who had the privilege of being in attendance. The lectures by experts, and the direct practical application of these lectures to animals in the ring, must have created a lasting impression for good on the minds of all present. Such a course cannot be but of great value in improving the class of live stock raised in our country.

To a remark made by Mr. A. W. Smith, of Maple Lodge, we would like to draw the attention of readers of the REVIEW. In the course of a discussion on the management of sheep, Mr. Smith said he always liked to trim his sheep and remove from the wool all burs and refuse before the butcher came to see them; as he had found he could get an extra price more than sufficient to pay him for the additional labor involved. Some in the audience took objection to the practice, on the ground that the buyer would be deceived, but Mr. Smith quickly satisfied everyone that such

was not the case. The expert buyer of mutton sheep is in nowise influenced, in his opinion, of the carcass itself by the outward appearance of the animals, as they are judged by handling. The two principal reasons why the buyer would give a better price for such sheep are: First, the impression received by the first glance at the flock would make him feel that the animals had been well and carefully tended, and, therefore, worth all he could afford to give for them; and second, the butcher could sell wool free from refuse and ragged ends at a higher price.

Our implement manufacturers paint their products to preserve the wood, but they do not select a dingy-colored paint; some bright hue is applied, and afterwards fancy strippings and varnish are added. All this is not done to deceive, but mostly to create a favorable first impression upon a probable buyer. We can cite numberless instances where such practices are carried on in the business world, and we do not understand why they can-

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not be practiced by the farmer.

This lesson applies not only to the sale of live stock, but to every other branch of farm industry. An early morning visit to one of our city markets would convince us of the need of such a lesson. On a majority of the wagons would be found a promiscuous collection of farm produce without any attempt at attractiveness. Among the potatoes would be small and rough-shaped ones; the oats would contain chaff and bits of straw; and some of the apples would look as though they were just recovering from small-pox. Would it be deceiving the public to remedy these defects? Let us think about it!

\* \* \*

In the December edition of the *Iowa Agriculturist*, a magazine published by the Agricultural Club of the Iowa State College, there appears a paragraph triumphing over the recent success of that college in the annual stock judging contest at Chicago. We quite appreciate the spirit that prompted such an article, for we, too, would have rejoiced had it been our good fortune to have won the Spoor Trophy. However, we very much deprecate the spirit of any writer who, in order to magnify the success of his college, does so at the expense of truth. We refer to that part of the paragraph in which, after enumerating the list of unsuccessful colleges the writer goes on to state that among the number was the Canadian College team, to whom the Ontario Government "had made special appropriations to give them the very best of training." The Ontario Agricultural College team, as a matter of fact, was not granted one cent for this purpose, although their thanks are certainly

due the government for paying a part of their expenses to Chicago. With this comment, we pass the matter by, taking it for granted that the writer of the paragraph referred to did not maliciously prevaricate, but may have heard a rumor to the effect stated; and, in the excitement of victory, gave publication to the statement without verifying it. We call his attention to the foolishness of such a procedure by saying that, did we choose to publish rumor as fact, we could make it appear that, had our government searched the continent over for the very best judges available, and provided them with every means of special training, it would have been absolutely impossible for them to have brought the Spoor Trophy to Canada.

\* \* \*

To G. C. Creelman, B.S.A.' Superintendent of Farmers' Institutes, we are grateful for an interesting and instructive article, which will be found in this issue. Our readers will find many valuable suggestions in the article, which we would advise them to paste in their hats, so they may not be forgotten when the time for spring and fall "farm house-cleaning" comes around.

\* \* \*

We recently wrote Mr. Richard Gibson, the well-known stockman of Delaware, Ont., asking him to favor us with a few letters on English farm practice, wherein it differs from, and wherein it might apply to Canadian agriculture. We publish in this issue an introductory letter to the series; and, judging from what we know of Mr. Gibson's ability as a writer, we promise our readers something entertaining and instructive.

## Personals.

W. Harris, '98, is now in charge of the farm connected with the Regina Industrial School, Assa.

H. V. Deike, '96, of Guelph, Ont., is helping to build up Ontario. It's a boy. The REVIEW offers congratulations.

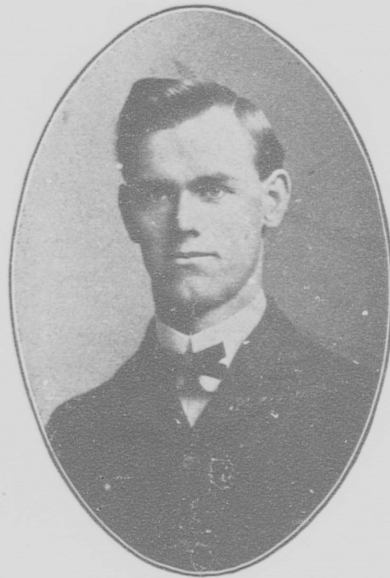


Mr. J. A. McLean.

Mr. W. J. Rutherford, our resident master for the past eighteen months, has recently given up his position in order to again devote himself to his studies. He will take up fourth year work.

His successor, whose portrait we give, is Mr. J. A. McLean, of Ormond, Ont., Mr. McLean, as a lad, attended the Iroquois High School. After spending some time as a teacher in Dundas county, he entered McMaster

University, whence, taking the Arts Course, he graduated last spring. Since graduation his time has been spent at home on the farm, and at the School of Pedagogy, at Hamilton. Under his supervision may tranquility be in our corridors and in the dining-hall and in the portals thereof peace and plenty.



Prof. Carlyle, President American-O. A. C. Old Boys' Union.

Prof. W. L. Carlyle, B. S. A., Professor of Animal Husbandry, Wisconsin; President, American-O. A. C. Union, graduating in '92. Prof. Carlyle engaged for some time in Farmers' Institute and dairy work in Ontario. Leaving this, for four years he superintended the field instruction work in cheese factories and creameries in Minnesota. In the autumn of '97, he was appointed to his present position at the State University, Madison, Wisconsin.

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W. J. Black, B.S.A., '98, is now chief of the Winnipeg branch of the Farmers' Advocate. The REVIEW extends congratulations.

J. A. B. Sleightholm, '90, is farming at Humber, Ont. Dairying, poultry raising and extensive farming are his delight.

W. J. Thompson, B. S. A., '93, spent Christmas with friends in Hamilton. He has been travelling in California of late in the interests of Swift & Co., of Chicago.

Several ex-students are at present attending the short judging course. Messrs. Varcoe, '98; Baker, '99; Stott, '97, and Murray, '97.

A. T. Wiancko, B. S. A., '91, formerly assistant agronomist at Lincoln, Neb., now holds the same position at Pardue, Ind.

A. M. McKay, '00, has returned from the West, whither he went in search of health. He has found it, and will follow the plow in the neighborhood of Ailsa Craig.

J. P. Murphy, '01, for some years on the staff of the Maritime Farmer, has been appointed maritime representative for the Canadian Correspondence College of Toronto.

C. R. Peters, '97, writes from Elmhurst, N.B. He is prospering as a dairy farmer. We learn from another source that he contemplates entering into partnership for life. May all good attend their path.

Among the ex-students present at the meetings of the Experimental Union were Messrs. P. Reed, Woodruff, E. C. Drury, A. Crerar, McIntyre, Semple, A. Stewart, Cowle, Holterman, G. C. Creelman, Pope, Reid, B. Waters, J. B. Spencer, Stauffer, Stott, E. Harris, T. G. Raynor, Vipond, E. Lick, Hodgetts, G. Dick, N. Monteith, G. Clark, J. Murray, E. C. Hallman, Hogeboom, Dixon, Shuh, E. Bain, Mallory, W. Dryden, and Roberts.



Prof. Ferguson, Secretary American-O. A. C. Old Boys' Union.

Prof. J. J. Ferguson, B. S. A., Secretary, American-O. A. C. Union, is a graduate of '94. For several years Prof. Ferguson conducted, at his home in Leeds County, a highly successful dairy and live stock business. Elected in '99 to a professorship at Lansing, Mich., he held this position till September last, when he entered the employ of Swift & Co., Chicago. He is also Secretary-Treasurer of the International Inter-Collegiate Live Stock Association.

A very pleasant feature of the trip to the International Fat Stock Show at Chicago, was the banquet of the American-O. A. C. Old Boys' Union, held in the Sherman House, on Thursday evening, December 4th.

This was the Third Annual Banquet of the Union, and was the largest yet held.

An excellent spread was provided, due to the splendid arrangements made by Prof. Carlyle, the President of the Union, and Prof. J. J. Ferguson, its Secretary.

After doing justice to the menu speeches were the order. Prof. Shaw gave an address on the importance of Canadians keeping up their reputation for integrity and honesty.

Many reminiscences of O. A. C. life were brought up by the old boys in their speeches.

The invited guests were Mr. W. E. Skinner, General Manager of the Stock Yards Association, and a former Canadian; Mr. Cheeseman, Superintendent Chicago City Milk Supply; and Mr. John Gosling.

Those present were Profs. Shaw, Kennedy, Carlyle, Ferguson, Cumming, Messrs. Cheeseman, Skinner, Gosling, Greig, Hubbard, Jas. Atkinson, G. I. Christie, A. C. Wilson, W. J. Black, G. A. Hunt, A. Atkinson, W. J. Rutherford, A. P. Ketchen, L. S. Klinck, D. T. Elderkin, F. M. Logan, and W. H. Gunn.

It was decided to fix Thursday evening of the Fat Stock Show week as the evening for the Annual Banquet.

The old officers of the Union were re-elected by acclamation.

Hon.-President—Prof. Shaw.

President—Prof. Carlyle.

Secretary—Prof. J. J. Ferguson.

## Athletics.

### MARSHALL-HARRIS CUP SERIES.

#### FIRST YEAR VS. THIRD YEAR.

The third game of the Marshall-Harris Cup series was played on Friday afternoon, December 5th, between the first and third year teams. The ground was frozen hard and the weather was cold, so that the playing was slow and ragged throughout. The first score was made for the Freshmen by Tufford, who succeeded in getting the ball over the line for a try. The first year team showed themselves to be much the stronger, and won out easily. The final score was: First Year, 22; Third Year, 3.

#### The teams lined up as follows:

FIRST YEAR.			THIRD YEAR.
Hutchison	Back		Barber
Buchanan	} Half-Backs	{	Carpenter
Bracken			Baker
Logsdail			Dewar
Van Buskirk			Williams
Monroe	Quarter		Thom
Atkins	} Centre	{	Johnston
Tufford			Readey
Irving			Guy
Stayner			Rothwell
Elderkin			Fansher
Nancekivall	Wings		Buchanan

Referee—Mace.

Umpire—McKillican.

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FRESHMEN VS. SOPHOMORES.

The final game of the series was played between the Freshmen and Sophomore teams and resulted in a decisive victory for the Sophomores. The Sophomores played a clean, fast game from the minute the whistle blew, and at no time did the Freshmen have a chance to score. By hard, aggressive playing the Sophomores ran up a large score, and forced the Freshmen to play a defensive game from the start. The final score was Sophomores 43, Freshmen 0.

The teams lined up as follows:

FRESHMEN.		SOPHOMORES.	
Hutchison ✓	Back	Murray	
Logsdail ✓	} Half-Backs	McFayden	}
Buchanan ✓		McCready	
Tufford ✓		Cooper	
Van Buskirk ✓	Quarter	Linklater	
Munroe ✓	Centre	McDiarmid	
Stayner ✓	} Wings	Warner	}
McKenzie ✓		Cameron	
Nancekivall ✓		Ferguson	
Elderkin ✓		McKillican	
Irving ✓		Wade	
Atkin ✓		Yeo	

Referee—Mace. ✓

Umpire—Baker.

By winning this game the Second Year also wins the much coveted honor of having its name engraved on the Marshall-Harris Cup. Throughout the season the Second Year team has shown itself much stronger than any of the other year teams. In the cup games the Second Year team scored a total of 98 points as against 28 points scored by the First and Third Year teams.

HOCKEY.

BERLIN VS. VICTORIA-O. A. C.

The first game of the Senior Series of the W. O. H. A. was played in

Guelph on Wednesday evening, Jan. 7th. Berlin won easily by a score of 7 to 3. During the first half, and for a part of the second, the honors were about evenly divided, but after that the Guelph forwards became winded and Berlin had things pretty nearly their own way. The Vics. showed a lack of practice and of good combination work.

W. O. H. A. SCHEDULES.

SENIOR SERIES.

- Jan. 5—Berlin at Guelph.
- Jan. 9—Waterloo at Georgetown.
- Jan. 14—Georgetown at Guelph, Berlin at Waterloo.
- Jan. 21—Waterloo at Guelph, Georgetown at Berlin.
- Jan. 30—Guelph at Georgetown, Waterloo at Berlin.
- Feb. 10—Guelph at Berlin, Georgetown at Waterloo.
- Feb. 20—Guelph at Waterloo, Berlin at Georgetown.

INTERMEDIATE SERIES.

GROUP 1.

- Jan. 6—Guelph at Elora, Waterloo at Berlin.
- Jan. 15—Berlin at Elora.
- Jan. 17—Waterloo at Guelph.
- Jan. 23—Elora at Waterloo.
- Jan. 26—Guelph at Berlin, Waterloo at Elora.
- Feb. 3—Berlin at Waterloo, Elora at Guelph.
- Feb. 10—Berlin at Guelph.
- Feb. 16—Guelph at Waterloo, Berlin at Elora.

GROUP 2.

- Jan. 6—Ayr at Galt, Milton at Preston.
- Jan. 12—Galt at Hespeler, Preston at Ayr.

Jan. 17—Preston at Galt, Hespeler at Milton.

Jan. 20—Hespeler at Preston, Milton at Ayr.

Jan. 26—Ayr at Hespeler, Galt at Milton.

Jan. 31—Galt at Ayr, Preston at Milton.

Feb. 4—Hespeler at Galt, Ayr at Preston.

Feb. 10—Milton at Hespeler, Galt at Preston.

Feb. 16—Preston at Hespeler, Ayr at Milton.

Feb. 23—Hespeler at Ayr, Milton at Galt.

The above dates are subject to revision by mutual consent. The winners of Groups 1 and 2 will play home-and-home games on dates to be fixed by the executive. President Wettlaufer has donated a Silver Cup, 22 inches high, valued at \$65, to be competed for annually by the intermediate teams of the W. O. H. A.

The following official referees were appointed:—Seagram and Forrest, Waterloo; Cassey, Berlin; Irving, Guelph; Barber, Hespeler; Bradley, Georgetown; Dewar, Milton.

At a general meeting of the Athletic Association held on Friday evening, January 9th, Messrs. Bracken and Weir were elected to represent the First Year on the Executive Committee.

The College outdoor rink has been again put in shape for another season's sport. A good thickness of ice was made during the holidays, and now hockey is the order of the day. The Marshall-Harris Cup will be contested for in hockey as well as in Rugby, and from the number of players who are out practicing at the present, it appears as though the contest will be a very close one between the different year teams.

## Locals.

"Doc," looking over old exam. papers previous to writing on "Surveying." How would you proceed to survey a stream? "H'm, that's easy. You would just take *off-shoots* from it.

Those who have charge of the chemicals report to us that there was a great demand for the 95 per cent. solution of alcohol the day before the referendum vote. Maybe the poor fellow who tried to get it thought it was his last chance.

Evans, as he sees Deachman getting a tomato can full of water—"What are you going to do with that water?"

"Going to water my plants," says Bob.

Evans—"Oh, have you got them growing in earth?"

Bob, in tones of thunder—"Well, you don't suppose I'd have them growing in heaven, do you?"

We do not know whether that was the place Bob mentioned or not.

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## HAVE A LOOK.

Who is our electrician now,  
Who scorched the hair upon his brow,  
And paid three dollars to learn how?

Our Efty.

Who thought the river had run dry,  
And thought that in the milk supply  
He'd found apparent reason why?

Our Efty.

Who said the milk was none too thick,  
And wrote a note both sharp and  
    slick,

And got it in the neck right quick?

Our Efty.

Who with a jealous eye did see,  
The girls receiving with great glee  
From another lad, a gift quite free?

Our Efty.

Who swore he would not thus be  
    beat,  
And soon meandered down the street,  
And bought each one of them a treat?

Our Efty.

Who wonders who the turkey took,  
That on his door hung by a hook,  
When he came out to "have a look?"

Our Efty.

Who thought he knew from whence it  
    came,  
And silently returned the same,  
But kept the note with that dear  
    name?

Our Efty.

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 Class in chemistry.

Prof.—What is alcohol, Mr. Ferguson? "I mean, you know, considered as a chemical," he added hastily, as he saw that Fergie was about to breath wisdom of an enlightening character.

Fawcett, as he sees Yankee Gunn playing with the electric light wire.

"That's bad enough for babies, Gunn."

Gunn, aside to the spectators, "And after I had joined Freddie's Sunday School class, too."

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 Review on physics:

Prof. R.—What are soil grains?

Mayberry—Why, of course,—er— they are the smallest particles of the earth crust.

What is surface soil?

Westover—Soil which is on the surface.

Evans— That part of the earth which is good, although sometimes it is bad.

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Keep to your New Year's resolutions, boys. Some of our worthy Seniors have drawn up imposing notices and put them on their room doors, indicating the hours during which they have sworn to study assiduously. But when you see some of them strolling about in the reading room, reading the "Moon" and the "Ladies' Home Journal," you would think they ought to find time to let a man in when he is after coal oil, "lamp juice," to pay for what they borrowed last term.

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Student to Fairman.

"You're wanted at the phone right away, quick, No. 92."

Fairman "gets there," and after a little difficulty succeeds in getting that Number, but derives little satisfaction from the results.

"Are you sure it wasn't some other Number, like 92 x x, for example?"

"Don't know but what it was!" is the reply, and while F—calls it up,

Student slyly looks up the Number in the phone directory and finds it to be from a "rubber factory."

It was next morning when Fairman found out that 92 is the O. A. C. Number, and that he had been conversing with himself all evening.

Uncle Silas Wabash, from Wayback, called in at the chemical building about four weeks ago and asked for one of the professors. He carried one of those large bottles with wicker work around them, which might be taken to contain anything in the line of liquid, from whiskey to machine oil.

"Say, boss," he said, as one of our chemists approached, "can you analyze this stuff for me?"

"Why, of course," was the reply, "anything to help the Ontario farmer; what is it, Uncle? Getting statistics for the temperance campaign?"

"Pshaw! no. What are you getting at? This aint spirits, it's vinegar. Mary Ann bought it from N. O. Credit & Co., at the corners; this new-fangled firm that ran old Cod Fish out of business. Found out that they had put drugs in it."

Professor, after a careful analysis—"No. Uncle Si, you must be mistaken; this is perfectly pure vinegar."

"Wall, nauw; that beats all Sam Hill. Why, my darter, Hepsey heard old Mrs. Brown telling Jeremiah Taylor that Theodore Hanes, the sewing machine agent, told somebody else that old Smiffkin's son, who took specials up here for two weeks, said he knew there was asetic acid in it."

The professor took the full count.

HEMLOCK JONES, THE SUCCESSFUL  
SLEUTH,

Or, When Rogues Dispute Wise Men  
Get their Own.

A farce in three acts.

ACT I.

Scene 1—A room at the end of Lower Panton. Congregation of Soph crooks, busily engaged in planning a daring (?) burglary. After discussing the evidence given by a certain "whyte" man they decide that, since the place is entirely unoccupied, it is a crib worth cracking.

Since they can get no one else to say as much for them; they, regardless of the proverbial consequences of self-praise, revive their fainting spirits by a verse or two of "There are no flies on us," and exeunt all.

Scene 2—They appear before the bank, open the window, enter, and reappear with the swag, otherwise apples, close the window and scatter in the direction of more congenial shelter.

Fifteen minutes later Hemlock Jones, who, in private life, is known as A. B. C., arrives on the scene, totally unaware of the recent robbery. Well Bill, who keeps the tea kettle boiling in the greenhouse throughout the midnight hours, informs him that he heard a noise, but did not know what it was.

Hemlock immediately puts on a slouch hat, a pair of felt slippers, and a mysterious look and rapidly looked over the premises.

"Why!" he whispered, as the spoor met his eye. "This is a case for me. I recognize those foot-prints. They are still fresh. Quick action may result in the triumph of justice. He hastily dons a disguise and makes

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ACT III—S

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tracks for No. 1 class-room, where he finds a second gang, also Sophs, of the upper ten variety, who are shadowing the crooks with an eye to plundering the plunderers. He hides behind a desk while they air their plans.

## ACT II.

Hemlock Jones, from his post of observation on the lawn, keeps a watchful eye on the lights, which disappear and are again relit in a manner suggesting mysterious actions within; until he is satisfied as to the headquarters of the bold robbers.

He then steals silently to the head of the stairs on L. Panton, from whence he watches the doors of the suspected rooms.

"Little Bob," member of gang No. 1, appears with an armful of apples which he carries across the hall to the headquarters of the "toffs," as "hush money." Three of the "toffs" are, by the way, the secretaries of state, highly esteemed, no, highly extended gentlemen, who, in more serious moods, loudly lament the number of recent midnight pranks which they fondly believe have been committed by the other classes. The door is partly closed. The next moment the door opens again and in walks the limb of the law.

"Hands up, stand and deliver. Make a complete restoration or tomorrow you die.

Curtain drops.

## ACT III—SCENE, DETECTIVE'S OFFICE.

Hemlock Jones, in his arm chair complacently smoking a pipe. Enter the crest-fallen Ichabods bearing half the boodle.

"Your honor, this is all; we have eaten the rest."

The crafty sleuth scanned them closely.

"H'm. I perceive by your gaunt and hungry appearance that you have not done so. The appointed time is almost up. Bring the rest immediately." Exit Crooks.

Enter Crooks bearing the other half of the booty, which they quickly drop and then exeunt sans apples, sans glory, sans everything.

## MORALS.

1. Those who live in glass houses should never throw stones—on ordinary occasions, but they might keep a few stored up in case of emergencies.

2. Too many cooks spoil the apple-sauce.

3. An apple eaten is worth a dozen in the basket when it comes to a show down.

It's reported that Mr. A. S. Ferguson has joined the benedicts.

Later on we hear that Mr. Ferguson and Mr. F. E. Young have returned to the O. A. C. Two and two make four. Where was he.

The students, on returning after the holidays, were astonished to find that the Saturday morning lectures were to be from 1.30 o'clock to 4.30. Although the attendance, for these hours at least, was two small to be seen with a microscope, there has been no one fined, not even the unsuspecting men who have not yet honored us with their presence.

## College Reporter.

Christmas holidays have come and gone, and are thus now but a sweet remembrance of the past. Happy periods like these fly quickly away, and one often wonders where the time has gone. But, although it is gone, still all is not lost. Rest was gained thereby, and we as students feel that we can enter upon the new term with greatly increased energy and pursue our studies with greater success than if there were but one long period of application.

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One of the most successful sessions of the Experimental Union was held here on the 8th and 9th of last month. There was on the programme a long array of well-known and excellent speakers, and the weather was all that could be wished to bring out large and appreciative audiences.

On Monday, the 8th, Mr. C. A. Zavitz, the experimentalist at the college, gave his report on the co-operative experiments carried on throughout the Province of Ontario in testing different varieties of grain. From this talk much valuable and important information was obtained. Mr. Brown, principal of the Canadian Correspondence College, Toronto, gave a talk on the work and course given by the institution under his supervision. Then short talks were given by G. H. Clark, Prof. Macoun and others on interesting and live topics. In the evening a large audience gathered in the gymnasium, was favored with a lengthy and comprehensive address, illustrated by views, by Dr. Fernow of Ithaca, N. Y., on the "Evolution of the Forest." On

Tuesday the same gentleman gave another valuable address on "The Farmer's Wood Lot," following upon the report given by Mr. R. D. Craig on co-operative experiments carried on in forestry throughout the province. The wood subject is becoming an important and serious one. After this, reports on experiments were given by Prof. Lochhead, Prof. Hutt, Mr. C. A. Zavitz and Mr. W. R. Graham, poultry manager. From each report much good was derived. Prof. Robertson, Commissioner of Agriculture, also gave an excellent and instructive address on "Education in our Rural Schools."

Tuesday evening the students gave their annual Union Dinner in honor of the ex-students present. The repast was put up in Mrs. Craig's usual bountiful and excellent way, and all present enjoyed themselves to the full. Toasts were passed, interspersed by selections from Thain's Orchestra. In this happy manner closed the Experimental Union of 1902.

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In the inter-collegiate stock judging contest, held at the Chicago International during the first week of December last, the class sent by our college succeeded in capturing fourth place among the list of contestants. The Spoor Trophy again fell into the hands of the team sent by Iowa College, containing several Canadians and trained by an ex-student of this institution. The members of the O. A. C. team obtained honors in the following order: J. M. McCallum, F. H. Reed, A. P. Ketchen, S. M. Pearce and D. H. Galbraith.

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During the Christmas holidays a number of the boys remained at the college. They report a very enjoyable time. Some of them obtained work in the various departments, but these were few, as the excellent management of the farm had the work so well in hand that there was little to do, and most of the boys availed themselves of the opportunity to take a good rest. For the benefit of those who were working, consent was obtained from the President to have the library closed during the afternoons and open from seven o'clock to ten in the evening. Mr. Milligan, our highly respected and very obliging librarian, readily agreed to act in accordance.

The new stock judging pavillion is about completed. It is a large brick building, circular in form, with a cone shaped roof, the apex being surmounted by a fine large dome. The inside diameter is seventy feet, and capacity upwards of three hundred persons. The seats are arranged in three circular rows next the wall, leaving a fine large judging circle in the centre. During the day the building is well lighted through many windows, and at night will be brilliantly illuminated with electric light. This new building will meet one of the most urgent needs of the institution, in that, it will afford ample accomodation for the class attending the short course in stock and grain judging. This short course was just added to the curriculum last year, but the favor with which it is looked upon by the farmers and farmers' sons of Ontario is shown by the large numbers who take advantage of this excellent op-

portunity, there being nearly two hundred and fifty in the class this year.

Our College Y. M. C. A. has been reorganized for the coming year.

The following are the officers:

Hon.-President—Prof. Reynolds.

President—W. Hamilton.

Vice-President—F. H. Reed.

Corresponding - Secretary — H. G. Bell.

Recording - Secretary — H. H. Le Drew.

Chairman of Missionary Committee — J. C. Readey.

Under the excellent management of such earnest Christian young men we are confident of one of the most successful years in the history of the Association.

#### THE OCTOPUS OR DEVIL FISH.

This cephalopod is so called on account of the eight long tapering arms which surround the mouth. Lydekker tells us that there are more than ninety species of octopus known. They are distinguished by differences in color, length of the arms, the size and number of rows of suckers on the arms, and the absence or presence of lateral fins.

The octopus sent the Biological Department by Mr. T. F. Patterson, B. S. A., formerly Fellow in biology to the late Prof. Panton, from New Westminster, B. C., is, to the ordinary observer, a most forbidding and unpleasant creature. The two rows of suckers on each of the eight arms, and the two staring eyes which seem ever on the watch, give it, to say the least, an uncanny look, and we

would rather forego the pleasure of his embrace.

Octopi live in the fissures of rocks, or beneath large boulders along the shores of the ocean. When they walk or creep they elevate the sac-like body above the head and progress slowly upon the extremities of the arms. Their swimming movements are very rapid. Body foremost, with the arms stretched beyond the head, they dart backward with great rapidity, being propelled by the successive expulsions of water through the funnel.

Mr. Patterson's specimen is medium sized, but is remarkably well preserved. The arms of this octopus are not more than eighteen inches in length, but specimens have been caught on the Vancouver coast which had arms nearly five feet in length.

When the student has studied the shape and structure of this creature he should read Victor Hugo's "Toilers of the Sea," in which is described a most realistic combat with a giant devil fish.

Following is a clipping from the Vancouver *World* describing how Mr. Patterson obtained the monster:

"I want that Ceratopterus Vampirus," said T. F. Paterson, to A. M. Tyson, this morning as he paused in front of his fish store.

"Ay mon, I'll be glad tae sarve ye wi' onything in the shop, but ye maun put it in the Doric. I'm Scotch, ye ken, but I dinna speak the twa talks. When ye speir in Gaelic I canna' follow ye."

Mr. Paterson explained that he was not speaking Gaelic, he was referring to the cartilaginous fish of the ray family, shaped like an isosceles triangle that he was exposing presumably for sale.

"I ken verra weel what ye're sayin', Frank, but I dinna ken what ye're talkin' about."

"I mean the one with the large cavernous mouth, the protruding eyes, auricular opening at the rear of the mouth, with large cartilaginous protuberances at the side of the mouth, and a tail like a sword. One of the cephalopteridae, don't you understand?"

"Oh ay, mon, I understand, ma certie, its a whole halibut ye're wantin'."

"Halibut nothing, I want, what the, the—well I believe in the vulgar parlance of those who have not studied biology, it is called a devil fish."

"Hoot, mon, why did ye no say so; but it's no good eatin' it'll make I'm thinkin', but every mon tae his taste, an' where'll I send it tae?"

Then Mr. Paterson explained that he wanted it carefully packed in ice and shipped to the biological department of the Guelph Agricultural College forthwith before it had a chance to deteriorate, and Mr. Devil Fish, accordingly, departed by express today.

The specimen will be very useful for illustration purposes to the biological class at the College, which had no good specimen when Mr. Paterson was a student there. The octopus was captured by some fishermen just outside the Narrows. They are common enough in these parts and a *World* reporter met one once when trying to find out what it was like to be down in a diving suit in the Narrows. He immediately decided that he had urgent business at the surface and signalled accordingly.

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The Literary Society has been organized and is under the following management for the term:

- Hon.-President.....Prof. Day
- President.....A. P. Ketchen
- Secretary .....C. W. Esmond
- Treasurer .....W. Hamilton

The officers for the Sub-Societies are as follows:

ALPHA.

- President .....J. C. Readey
- Vice-President.....L. D. Hankinson
- Sec.-Treasurer.....E. D. Eddy

DELPHI.

- President .....J. Johnston
- Vice-President ..... H. L. Fulmer
- Sec.-Treasurer.....C. I. Bray

SR. MAPLE LEAF.

- President.....B. M. Eftyhithes
- Vice-President .....R. E. Everest
- Sec.-Treasurer.....R. W. Wade

JR. MAPLE LEAF.

- President.....F. C. Hart.
- Vice-President .....J. R. Dickson.
- Sec.-Treasurer .....J. F. Munroe.

**List of Books added to the Library during Oct. and Nov., 1902.**

Roosevelt, The Deer Family; Gifford, Practical Forestry; Johnson, Lives of the Poets; Guenon, Working Principles of Rhetoric; Penn, History of Tobacco; Cookes, Wheat Problem; Shaylor, Domesticated Animals; Baldwin, Specimens of Prose Description; Lamont, Specimens of Exposition; Brewster, Specimens of Narration; Ware, Cattle Feeding with Sugar Beets and their Products; Wallace, Refrigeration, Cold Storage and Ice Making; Keiser,

Laboratory Work in Chemistry; Thompson, Wild Animals I have Known; Bailey, Talks Afield about Plants; Coulter and Chamberlain, Morphology of the Spermatophytes; Codrington, Maintenance of Macadamised Roads; Smith, Life of Jane Austin; Earle, Old Time Gardens; Ringwalt, Modern American Oratory; Richardson, Foundations of Stereo Chemistry; Thomson, Handbook of Petroleum; Prescott and Johnson, Qualitative Chemical Analysis; Coblenz, Manual of Volumetric Analysis; Barwise, Bacterial Purification of Sewage; Thompson, Lives of the Hunted; Thompson, Biography of a Grizzly; Thompson, Trail of Sandhiell Stag; Fletcher and Poole, Poole's Index to Periodic Literature; Woll, Book on Silage; Hayes, Handbook of Horticulture; Berkeley, Laboratory Work with Mosquitoes; Goff, Lessons in Commercial Fruit Growing; Lewis, Prescriptions for Treatment of Feet and Legs of Horses; Sewell and Tilson, Poultry Manual; Dymond, Experimental Course of Chemistry; Rice, National Standard Squab Book; Simons, American Farmer; Charpentier, Timber; Grout, Mosses with a Hand Lens; Comstock and Kellogg, Elements of Insect Anatomy; Knight, Breeding and Rearing of Jacks, Jennets and Mules; Bach, How to Judge a Horse; Ogilvy, The Elements of Darwinism; Fletcher and Bowker, Annual Literary Index 1901; Biggle, Sheep Book; Baskett, Story of the Birds; Schwarz, Forest Trees and Forest Scenery; Fiske, Prize Gardening; Hexamet, Asparagus; Waugh, Fruit Harvesting, Storing and Marketing; Johnson, Fumigation Methods, Weed and Murtfeldt, Stories of Insect Life.

2nd Series; Weed, Stories of Insect Life; Sanders, Insects Injurious to Fruits; Dennis, Laboratory Manual of Elementary Chemistry; Shaw, Animal Breeding; Jones, Outlines of Electro Chemistry; Biggle, Pet Book; Biggle, Health Book; Jordan and Kellog, Animal Life; Rockwell, Roads and Pavements in France; Budd, American Horticultural Manual Pt. 1; Gill, Gas and Fuel Analysis for Engineers; De Candolle, Origin of Cultivated Plants; Lowell, American Gardens; Craig, Judging Live Stock; Long, Wilderness Ways; Hunn and Bailey, Practical Garden Book; Huxley, Origin of Species; Cohn, Indicators and Test Papers; Johnston, Chemistry of Common Life; Hardin, Rise and Development of the Liquefaction of Gases; Cragin, Our Insect Friends and Foes; Wolf, Windmill as a Prime Mover;

McCarthy, Familiar Fish; Underwood, Moulds, Mildews and Mushrooms; Marshall, Mushroom Book; Weichmann, Sugar Analysis; Stockbridge, Rocks and Soils; Byrne, Treatise on Highway Construction; Turneure and Russell, Public Water Supplies; Hammarsten and Mandel, Text Book of Physiological Chemistry.

"Do you appreciate poetry?" asked the serious young woman.

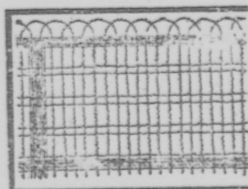
"Yes, indeed," answered Mr. Cumrox. "There's one piece of poetry that has done me the world of good. Old as I am, there are times when I couldn't tell how to figure without saying 'Thirty days hath September, April, June and November.'"

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Proprietor.