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The dignity of a calling is its utility.

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Thomas Carlyle.

"Thus was the young man, if all sceptical of demons and angels such as the vulgar had once believed in, nevertheless not unvisited by hosts of true sky-born."

Poetry is based on mystery. The ideal, the unattained and the unattainable, the unknown and the unknowable, find their proper expression in poetry. The distinguishing quality of the highest poetry is its vague and infinite suggestiveness, leading the mind out into

*"That untravelled world whose margin fades
Forever and forever when I move."*

In this respect science may be considered antagonistic to poetry, since science removes the mystery from the phenomena of life, and substitutes therefor definite knowledge. It brings into the light of common day many things which the unenlightened imagination of our forefathers invested with the shadow of supernaturalism. What the barbarian could not understand—and worshipped—the modern regards as of the earth earthy, because to him it presents no mystery. "What you see, yet cannot see over, is as good as infinite." The marvels of the

morning of time shrink by usage and inquiry into the commonplace.

The Victorian Era has been characterized by wonderful discoveries in science, by material progress and increase in material comforts, by the growth of the democratic idea in economics and in politics, and by the widening of the means of education. The tendency of these influences is toward the removal of mystery. The whole world, of nature, of geography, and of society, is brought within our ken. No part of nature or of society is any longer a Druidical enclosure to the inquiring or ambitious mind. There lies the port, and whosoever will sail into these dark, broad seas may find the vessel already puffing her sail to waft him away.

These influences would undoubtedly be the death of poetry, were it not for this fact: science, while removing old mysteries, brings to light new ones; while she settles some problems, she suggests many more, and still the mystery remains. She explores hitherto untravelled worlds, only to find that the farther margin recedes in ever-widening circles. Science, in its widest aspects, overlaps philosophy and religion, and the philosophic and religious mind finds in the discoveries of science ever fresh suggestion for wonder and mystery. So long as God and His infinite world and the human mind remain, the unknown will present itself to man's imagination and reverence, and poetry will continue to be the highest expression of his longings and aspirations. "O, that I knew where I might find Him," was the longing cry of the mystic of old, and it remains the cry to-day :

An infant crying in the night;
An infant crying for the light;
And with no language but a cry.

CARLYLE A MYSTIC.

Eminently scientific though this age is, it is eminently a poetic age. The greatest writer of English prose in this century is Thomas Carlyle, and Carlyle is a mystic and, in a considerable sense, a poet. "With a conceptive imagination," says Lowell, "vigorous beyond any in his generation, with a mastery of language equalled only by the greatest poets." Carlyle's peculiar power as an interpreter of life lay in his deep insight

and penetration beyond the surface into the true meaning and spiritual essence of things. The outward has no value for Carlyle except as it declares the inner. His greatest work, *Sartor Resartus*, is, in brief, an inquiry into the meaning and use of "clothes." "The withered leaf is not dead and lost: there are forces in it and around it, though working in inverse order, else how could it rot? Despise not the rag from which man makes paper, or the litter from which the earth makes corn. Rightly viewed, no meanest object is insignificant; all objects are as windows, through which the philosophic eye looks into infinitude itself." * * * * "So spiritual is our whole daily life: all that we do springs out of mystery, spirit, invisible force."

CARLYLE AS BIOGRAPHER.

This power of spiritual insight, coupled with his determination to come at the truth with whatever cost to himself in labor and research, places Carlyle in the front rank of biographers. As he says of his *Cromwell*, "Here you have the whole veracious man, warts and all. You may take him or leave him, as you will, but you cannot make him different." His biographies of Sterling, Burns, Goethe, and others, are remarkable for their sympathetic penetration through the outward facts of life into the spirit that he saw beneath.

MACAULAY AND CARLYLE.

Nowhere can the contrast between two great writers be seen to better advantage than in considering the respective essays of Macaulay and Carlyle on Crocker's edition of *Boswell's Life of Johnson*, that appeared in the *Edinburgh Review* in 1831. Each of these writers takes occasion in reviewing the new edition to give his own impressions of Boswell and Johnson. Macaulay sees them as the man in the street would see them, and describes what he sees with an exuberance of detail and illustration all his own. But he has no insight.

A primrose by the river's brim
A yellow primrose is to him
And it is nothing more.

Carlyle penetrates the uncouth exterior of the one, and the silly pedantry of the other, and finds for us a soul beneath. It requires no great intimacy with the authors in question to say

which are Macaulay's and which Carlyle's in the following selections. Of Johnson they say: "From nature, he had received an uncouth figure, a diseased constitution, and an irritable temper." "The perverse irregularity of his hours, the slovenliness of his person, his fits of strenuous exertion, interrupted by long intervals of sluggishness, his strange abstinence, and his equally strange voracity * * * " "He could fast; but when he did not fast, he tore his dinner like a famished wolf, with the veins swelling on his forehead, and the perspiration running down his cheeks." "Through all these things the ill-dressed, coarse, ungainly pedant had struggled manfully up to eminence and command." "Nature had given him a high, keen-visioned, almost poetic soul: yet withal imprisoned it in an inert, unsightly body; he that could never rest had not limbs that would move with him, but only roll and waddle; the inward eye, all-penetrating, all-embracing, must look through bodily windows that were half dim, half blinded; he so loved men, and 'never once saw the human face divine!' Not less did he prize the love of men; he was eminently social; the approbation of his fellows was dear to him; yet the first impression he produced on every man was to be one of aversion, almost of disgust. By nature it was further ordered that the imperious Johnson should be born poor; the ruler-soul, strong in its native royalty, generous, uncontrollable, like the lion of the woods, was to be housed, then, in such a dwelling-place: of disfigurement, disease, and, lastly, of a poverty which itself made him the servant of servants."

Of Boswell they say: "Nay, sometimes a strange enough hypothesis has been started of him: as if it were in virtue of these same bad qualities that he did his good work; as if it were the very fact of his being among the worst men in the world that had enabled him to write some of the best books therein! Falsely hypothesis, we may venture to say, never rose in human soul. * * * * *Bad* is by nature negative, and can do *nothing*; whatsoever enables us to *do* anything is by its very nature *good*. Alas that there should be teachers in Israel, or even learners, to whom this world-ancient fact is still problematical, or even deniable. Boswell wrote a good book because he had a heart and eye to discern wisdom. * * * * "His sneaking sycophancies, his greediness and forwardness, whatever was bestial and earthy in

him, are so many blemishes in his book, wholly hindrances, not helps." "But these men (*e. g.* Goldsmith) attained literary eminence in spite of their weaknesses, Boswell attained it by reason of his weaknesses. If he had not been a great fool he would never have been a great writer. Without all the qualities which made him the jest and the torment of those among whom he lived, without the officiousness, the inquisitiveness, the effrontery, the toad-eating, the insensibility to all reproof, he never could have produced so excellent a book."

STYLE.

In style of writing, Carlyle is certainly original. No other writer, before or since, has written like him. His style is abrupt, disjointed, chaotic, turbulent as a mountain torrent. He was evidently describing his own style when he said, in *Sartor Resartus*, "Of his sentences perhaps not more than nine-tenths stand straight on their legs; the remainder are in quite angular attitudes, buttressed up by props (of parentheses and dashes)." Yet in all qualities except smoothness and rhythmic order, he has a highly poetic style, excelling in vividness of imagery, in picturesqueness, in abundance and felicity of metaphor and apt, telling phrases. For felicity of phrase he stands unrivalled. With a few bold, rapid strokes, the character he is depicting stands full-length before us, or the scene is presented in ideal beauty and clearness to the imagination of the reader.

HUMOR.

Carlyle cannot be understood, either in his life or his writings, apart from his quality of humor. His pages are saturated with it, sometimes of a genial, mirth-provoking kind, sometimes ridiculing, sometimes bitter and sardonic; not always delicate, but always apt and luminous. It is an indispensable part of the man. He does not try to be humorous, but is inevitably so, this quality being found in his most serious passages. At the conclusion of his "Cromwell," in his final prophetic message, England of to-day "No longer soars sunward, world-defiant, like an eagle through the storm; much liker a greedy ostrich, intent on provender and a whole skin mainly, stands with its other extremity sunward; with its ostrich head stuck into the radiest bush."

Within the limit allotted to this paper it is impossible to do justice to the greatness of Carlyle's genius. He is the prophet of this century, a veritable Elijah, uttering denunciations against Mammonism, Materialism, against idleness, insincerity and infidelity. And his own life, properly understood, is his best gospel, his own self his best gift to us.

J. B. REYNOLDS.

South African Colonies.

The British-Boer war has led to a general interest being taken in South African affairs, and although much is said in the daily press about it, the readers of the "Review" may not consider it amiss if such an article as this appears within its pages.

When travelling in Cape Colony there are two very different sections of the country which attract considerable notice because of the superiority of the one over the other. The land to the east of Cape Town is well cultivated, while the higher lands are almost entirely given over to pasturing cattle and sheep. The first hundred miles of country from Cape Town north is very similar to that which may be seen in the south-west corner of Ontario, around the Niagara Peninsula. Well-cultivated grain fields, large vineyards, pineapple groves, and orchards of apples, pears and peaches, are seen all along the line, and many are the pleasant retreats among the hills where all is so calm and beautiful. Small villages dot the country over with their little whitewashed stone houses, while their shady trees and thrifty flower and vegetable gardens, give an air of comfort and coziness that seems to be wanting in the higher lands. Springs and streams abound in this part making the irrigation of field and orchard a very easy matter. The fruit industry was begun by Cecil Rhodes, who imported many varieties of trees and vines; this proved such a success that now it may be counted one of the staple industries of the colony. While speaking to a fruit grower I learned that to bring a single fruit tree to a bearing age requires an expenditure of almost £5 (five pounds), a sum much greater than that required in Canada. Jam factories, which turn out a product equal in quality to that of any British establishment, are also numerous here.

As we get on to higher land the scenery changes very quickly and almost before we can realize it, the broad grassy veldt lies before us. Some spots are covered with rocks and stones, but the greater portion with grass and mimosa, a short, scrubby plant on which sheep fatten very quickly. The farms here are very large, containing from one to five thousand morgen, two of which are equal to one acre. There is no sign of a fence on these farms, except where, around the farm house, a plot for the growing of vegetables is enclosed. The industrious farmer of the lower country is replaced by a much slower and more slovenly being, whose sole ambition seems to be to smoke a long black pipe and to ride on a pony to see that his natives do their work, this generally amounting to herding the cattle and sheep on his own ground. The Cape sheep is much inferior to the Canadian, being small, and not at all pleasant to look at. Water is scarce here, and large dams are to be found on each farm; these reservoirs being filled in the rainy season, last until the next rain comes. Each night the animals are brought to large kraals and kept there over night to prevent straying. These kraals are generally built of stone, this making a very substantial dyke.

Occasionally, near a village, an enterprising farmer is found who brings butter, milk and eggs to a few customers. The first product is a somewhat inferior article when compared with Canadian goods, but sells at from 35 to 60 cents per lb. The milk is bottled, not in regulation pints or quarts, but in many cases black gin and whiskey bottles, with the labels still on, are used. From De Aar northward another class of stock, the ostrich, is kept. These are well looked after, and it is amusing to watch the great birds grazing; and then at the approach of strangers or trains, run off at a swift though ungainly gait.

As we travel farther north the land becomes much more hilly until Norval Pont, on the Orange River, is reached. This is a very wild-looking place, there being great black hills and cliffs, rising almost from the river bank. The river was formerly spanned by a fine steel bridge of seven spans, but the Boers blew it up at the beginning of hostilities. On either side were pontoons used by the troops while the bridge was being repaired.

The country assumes a more level aspect in the Orange River Colony, and is very like the rolling plain in the North-west of Canada, though the soil is not nearly so rich. At intervals a small field of grain or a few fruit trees around a house serve to relieve the monotonous landscape, though the farmer is still the same unambitious being as in the northern part of Cape Colony. In no part of the country have I seen a large field of grain all together, but the rule seems to be to have little half-acre patches here and there at all angles to one another.

Bloemfontein is the first large town we came to since leaving Cape Town. Before the war started the city could lay claims to cleanliness and beauty, but now everything seems to be dirty. Streets, gardens and squares have been occupied for months by thousands of horses and mules, and in other open spaces large quantities of stores have been piled, which makes walking very unpleasant. The public buildings are very fine, and every private dwelling has a garden, so that the city has all the appearance of a large county town. The native village, or Kaffirfontein, as it is officially called, is situated about four hundred yards south of the town. It is built chiefly of sun-dried brick, and, compared with other native villages, is quite a superior place. The streets here are well laid out, and regularity, a thing almost totally wanting in the smaller Boer towns, is at least attempted.

The country continues nearly the same until the Vaal River is reached, where we enter the gold-bearing district. Fine, white sand is its chief characteristic. At Elandsfontein, quite a number of gold mines are to be seen, the intricacies of whose works I had not an opportunity to examine. Hills can be seen at a distance from here, and as the capitol of the Transvaal is reached, the railway crosses over numerous small rivers and turns some very sharp curves. The approaches to Pretoria are guarded by a number of forts situated on the tops of hills which overlook the city and command a view of the outside country for miles. When one sees the natural strength of the place it is hard to imagine why the Boers did not make an effort to save the city, as much damage could have been done to the British while forcing the entrance. Having only ridden through the city once, I saw little of it, but it is very similar to Bloemfontein in the matter of buildings and streets. Wood is more plentiful

here, and outside the city limits are to be seen several well-planted forests which, from all appearances, will prove a handsome investment to their owners.

From Pretoria, running almost due east, we have the Delagoa Bay railway, a substantial, narrow gauge, single track, built by the late Boer Government. At Belfast, one hundred and fifty miles from Pretoria, it rises to an elevation of seven thousand feet above sea level. It descends very quickly to the level of the Crocodile Valley, and follows the course of the river of the same name. All along this route the scenery is splendid. High hills covered with cacti and other tropical plants, ravines, cliffs and curves innumerable, hold the attention of an interested spectator.

A unique piece of engineering work is to be seen between two small villages, Waterval Boven and Waterval Onder. The grade on the railway is very heavy between these two points, and ratchets and cog-wheel engines are used to move the trains from the one place to the other. Owing to the Boers having taken the cog-wheel engines away with them at the approach of the British, our train had to be taken up by the ordinary engines in sections of six trucks each. The valley is a most unhealthy one in summer, though nowhere in South Africa have we got better water. Springs do not issue from the rocks and sandy places as in Canada, but invariably are found in a soft, black soil, though what is beneath that may be very different. As a preventative to catching malarial fever, many Australian Blue Gum trees have been planted, though I am ignorant of their effect. They are set out in groves of various sizes, and though under twelve years old, have attained a height of about fifty feet and a diameter of eight inches at the base, a few feet from the ground.

Nooitgedacht is a station on this line, and is of some interest to the British from the fact that a large number of our men were kept there for several months. When we passed through it, the place was in rather a dilapidated condition. Shacks of wood, stone and corrugated iron were in heaps, while some blankets were flying about with the wind. Barbed wire entanglements surrounded the place down to the river where the men washed, and long electric poles were placed at intervals around the enclosure to make sure that none escaped by night.

A description of one road over which our troops have passed will serve to give an idea of the difficulties with which the British army transports have to contend. Devil's Contour is the name of the place, and is approached by a hill which took our horses five hours to climb. This is followed by a dip over very rocky ground, across a spruit, and then a climb around another copje. The road is about thirty feet wide; on the right a cliff rises about 200 feet, and on the left is a ravine three hundred feet down; the road here being very steep, required the use of drag shoes for fully half a mile.

In such a time as this there are always some queer incidents which serve to keep up the spirits of the soldiers, one of which may not be out of place here. All the property of the railway is marked G. A. S. M., which stands for *Guid Afrikaansche Spoorweg Maatschappig*, translated, South African Railway Company. One man, Green by name, whose curiosity got the better of his discretion, remarked, "What a lot of things that man Gasm must make; you see his name at every station we come to. I wonder where he works."

While coming from Nelspruit by train we were detained at Waterval Boven for two days, but were liable to be ordered off at any moment. There being a fine club-house a short distance from the station containing a piano and fitted with a good stage, an impromptu concert was got up, and there, as happy as could be, Tommy and his comrades spent an enjoyable evening, until the Sergeant-Major of the Argyles came and announced that the train was to leave at nine p.m. Proceedings came to a speedy close by singing *Auld Lang Syne* and the National Anthem.

When writing this paper and beginning a dinner of hot soup, a mounted orderly came with orders to have two guns and ammunition wagons ready in half an hour to go out after a party of Boers who had been sniping at our patrol. Everything was bustle immediately, and the hot soup was disposed of rather too rapidly for comfort. However, we had the satisfaction of firing about twenty rounds of shrapnel at the enemy, who cleared over the hills, leaving us to camp by moonlight.

J. MCA. RUSSELL.

Farm Rotation.

ROTATION of crops, in agriculture or horticulture, is the system or practice of growing a recurring series of different annual crops upon the same piece of land. The system is based on the fact that the various crops not only require but absorb different quantities of the inorganic constituents of the soil. Some plants are surface feeders, while others send their roots deeply into the soil. The growth of a variety of plants with different capacities prolongs the period of profitable culture or in other words, retards exhaustion. The same crop grown upon a certain field for a number of years, consecutively, will tend to exhaust the ingredients required by this particular crop. The cereal crops derive their nitrogen almost exclusively from nitrates, and are dependent on the quantity of these salts occurring in the soil. On the other hand, leguminous crops collect a large amount of their nitrogen from the air, thus leaving the soil richer, so far as this element is concerned. These facts, with many others which might be mentioned, go to prove that a rotation of crops may be beneficial from more than one point of view.

Up to the present but little attention has been given to the subject of rotation and the economizing of fertility. It is the purpose of this article to advance a few points in favor of a well-planned rotation. In the first place, it distributes labor more evenly throughout the greater part of the year, thus giving continuous work to the men employed on the farm. Again, a variety of crops marketed at different periods of the year gives a steady and regular income to the farmer. He will thus be able to carry on farming with a smaller capital. The work of the farm is in this way carried on in a business-like manner. Success in commercial life depends to a great extent on the business management, and this is also true in regard to agricultural pursuits. There must be some method in our work if we expect to attain any measure of success.

The fertility of the soil can be maintained to a large degree by following a well-planned method. In this the different fields receive a regular application of manure and frequent tillage. One field does not receive manure and cultivation at the expense of another, but all receive equal treatment in this respect. Tillage is manure to a certain extent. Cultivating a hard, compact

soil permits the roots of plants to penetrate to a greater distance and thus increase their absorbing surface. Cultivation, manuring and drainage can be carried out to better advantage under a well-planned system of work.

Some plants send down large, branching roots, while others feed comparatively close to the surface. Roots that penetrate the soil to any depth aid materially in working the ground and in opening it up to the action of the air. Plant roots are invaluable as tillers of the soil. An English gardener, who is practically acquainted with the great importance of soil-tilling by the agency of roots, says, that if he trenches land a foot deep and takes from it a crop of parsnips, he finds, on lifting the crop that the soil immediately below the part dug is in a finer physical condition than the cultivated land above, and this, of course, comes from the roots penetrating and finely subdividing the hard sub-soil. The action of these roots would enable the roots of other plants, not only to supply themselves with moisture from greater depths, but also to retrieve and bring to the surface nitrates and ash constituents which are at present far beyond the reach of plants that are surface feeders. In a well-planned rotation these crops are regularly changed from one field to another.

Sir John Lawes, in summing up some of his work, says: "All our experiments tend to show that it is the physical condition of the soil, its capacity for absorbing and radiating heat, its permeability to roots, its capacity for absorbing and retaining water, that is of more importance than its, strictly speaking, chemical composition." Humus will aid to a large extent in bringing the soil to the foregoing condition. Let us look at the soil in its virgin state. It is penetrated with grass roots, and contains the decayed portions of forest trees. The physical condition is at the best attainable point, and no decline of fertility is apparent for a number of years. Then, as the vegetable matter is exhausted, the soil becomes more compact, and a decline in fertility is the result. The application of manure and a systematic rotation, in which clover forms an important part, will not only tend to keep up the supply of humus, but will materially increase it.

Another important point which should not be overlooked in discussing this subject, is the fact that various crops differ as to the opportunities they offer for keeping down weeds. A great many farms are infested with noxious weeds, and many methods and plans are being adopted for their eradication. Weeds growing among grain or other crops, are the medium through which a large quantity of water is evaporated, thus diminishing the reserve supply that will, in the majority of cases, be required by the growing plants. They not only use up surplus moisture, but they crowd and shade useful plants, thus retarding proper development. Shallow cultivation is an effective remedy, and with proper planning this practice can be carried out at regular intervals over the whole farm. It is quite evident that a rotation may be an important factor in cleaning the land, and also in keeping the same tolerably free from weeds.

A systematic rotation not only gives opportunity to make economical use of the land, but it can also be used in preventing the increase of insect enemies and fungus diseases. If one crop be grown continuously on the same ground, its insect enemies are likely to multiply rapidly. Fields kept long in grass are likely to be infested with wire-worms, and with the white grub, but if a rotation is practiced the number will be materially decreased.

The rotation may be arranged in courses of any number of successive crops. The farm could be divided into three, four, or more plots, and the form or plan best suited to the particular branch of agriculture in which we are engaged could be adopted.

In summing up the advantages to be derived by following a well-planned system these few points have been briefly considered: The work of the farm is carried on more economically; plants differ in their composition and requirements; plant roots are valuable as tillers of the soil, but differ in their habits, form, and development. Humus is an important factor in soil improvement, and the supply should not be allowed to decrease. System gives a better opportunity to eradicate weeds and to keep down injurious insects and fungus diseases.

L. A. M.

The O. A. C. Review.

Business Managers.

D. T. ELDERKIN, Secretary. L. S. KLINCK, Treasurer.

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Ex-students are requested to contribute to our columns.

NOVEMBER, 1900.

Editorial.

IN another column it will be noticed that Dr. and Mrs. Mills have returned from their summer vacation to Europe, and it is gratifying to know that they are now enjoying nature's greatest blessing—good health. Not until it was sadly needed did Dr. Mills consent to take a rest from work, and only those who know him and his connection with the College, can realize to what an extent this change was deserved. For over twenty years our President has labored on behalf of this institution, sparing no amount of time and energy to bring the College to the enviable position which it now holds. No matter how strong the constitution, there is a limit to its endurance, and in this case the limit was almost reached last winter, when the need of a complete change became apparent. Accordingly, a trip to Europe was suggested by his friends, and during July, August and September he had the pleasure of visiting Ireland, Scotland, England, France and Switzerland, and he now gives a very interesting account of his experiences there. We hope that he may be permanently benefited by his trip, and long be able to enjoy its benefits.

We publish this month a very interesting article on "The South African Colonies," by J. McA. Russell, who is at present on active service in South Africa. This article touches on many points not noticed in the ordinary reports coming from that part, and treats incidentally of some of the experiences of a soldier's life. It will be doubly interesting to many of us who know Mr. Russell so thoroughly, and who well remember his great interest

in College affairs. With several other O.A.C. boys he left for the front after Christmas, and has since been fighting on the veldt. According to the latest reports we may expect them all home about the opening of the New Year.

It is not unusual during an Academic Year for the students of any institution to allow the college spirit to become, as it were, dead for a time. Such would doubtless have been our sad experience during the present time had not the enthusiasm and excitement common to youthful minds during a general election been awakened. Now, however, the turmoil of the election is over, and any excitement on account of it has vanished, so that we are in a better position to realize the comparatively small amount of interest taken in College affairs generally. It is quite apparent that the student body does not realize to what an extent the success of the various student enterprises depends upon their co-operation. To make the most of our time here, advantage must be taken of every opportunity afforded for our progress, not only in the class room and private study, but also on the athletic field and on the platform. After leaving college, every student is anxious that he be able to look back with pleasure and a sense of profit to the time spent at his *alma mater*, and one means to these ends is to assist, as ability and time permits, in building up student enterprise.

College Reporter.

ON November 1st the College boys made their first excursion in a body, to the city. On that evening about eighty of the students formed in line and marched to the town, disturbing the domestic peace of the citizens with their yells and songs. The object of the trip was to attend the Speed Canoe Club concert. During the evening they impressed the people of Guelph with the fact that there is yet life in the boys who live at "College Heights," and that the excellent programme provided was thoroughly enjoyed.

The first trip made by the students in a body being satisfactory, they decided to turn out *en masse* on Wednesday evening,

Nov. 7th. As soon as it was dark, about one hundred and twenty students, carrying torches and horns, left the College and paraded the streets, their torches making a very pretty sight. Not long after reaching the city the student body was attacked with mud and stones by a crowd of ruffians belonging to the town. The consequence was considerable unpleasantness, but the College boys carried their point, and for some time watched the reports of the elections at the bulletin of the "Herald." The boys returned in good time, more or less covered with mud but feeling in good spirits.

As it is now two years since a full photo of the College boys was taken, it becomes our duty as students of the '00 class to see that custom is followed and a full group obtained this year. We are pleased to say that the work is proceeding satisfactorily, more than seventy of the boys having been already to the studio of Mr. Hurndall, who is doing the work for us. In 1898 the group included ninety out of the hundred and fifteen students present. The proportion for 1900 should be at least as great, and we should have not fewer than one hundred and twenty-five faces in the picture. The price is very reasonable, the workmanship is excellent, and everyone should avail himself of this opportunity to obtain a handsome memento of his class-mates.

Dr. Mills' Trip.

Dr. Mills returned from Europe on October 26th, after three and a half months touring in Ireland, Scotland, England, France and Switzerland. A few words on his trip may not be out of place in this number of the Review.

On arriving at Londonderry the Doctor directed his attention to Ireland, where he visited the home of his father and other relatives. He had the pleasure of visiting Glasnevin School of Agriculture, near Dublin. This is the leading Agricultural College in Ireland, is well equipped, and is doing work along much the same lines as the O. A. C.

In describing the agricultural condition of Ireland, Dr. Mills said: "One could not find a more desirable class of agricultural lands than is here, but the only hope of prosperity is in

a thinning out of the population, and the inducing of many of these energetic young Irish farmers to come to Canada or elsewhere, where larger opportunities are to be found."

The Dr. says the idea is a wrong one which pictures Ireland with a depleted population. If every farmer there had twice or three times the ground to till the people would be much more prosperous.

From Ireland the Dr. journeyed to Scotland, where he was received with much hospitality. Many farms were visited on which large herds of cattle are kept. On inspecting these animals, Dr. Mills was much impressed with the uniformity and set types that existed throughout.

London, England, was visited, and a special study of the markets was made. One thing that struck Dr. Mills forcibly was the price of their beef. Animals worth sixty dollars here were selling there for as high as one hundred to one hundred and ten dollars.

While in Scotland and England he visited most of the leading educational institutions, and made a special study of the various agricultural schools and colleges.

Paris was next to receive his attention. The Doctor attended the exhibition, and he states that the Canadian exhibit there was a very creditable one. While in France the Agricultural College at Grigus was visited, but it was found to cater solely to the sons of the upper classes of land owners.

From Paris Dr. Mills found his way to Switzerland. In that country the agricultural population is a happy and prosperous people, though they are rather behind the times in methods of work.

On returning, Dr. Mills stated that he found everywhere a keen interest in Canada and Canadians, a friendly feeling towards us, and a desire to increase the trade between the Dominion and the old country; the people were willing to use Canadian goods in preference to all others, provided that they were equally good, and were delivered in satisfactory condition.

The ex-students will be pleased to hear that prunes have again been placed on the regular College ration, the first of the

season being served on October 29th. The change from apple sauce to prunes was too sudden for the Freshmen, and the quantity of this nutritious food consumed that evening was a thing to be wondered at.

Experimental Union.

The next annual meeting of the Experimental Union is to be held at the Ontario Agricultural College on Monday and Tuesday, the 10th and 11th of December next, commencing at 1.30 p.m. on the 10th.

The number of ex-students who attend the annual meeting of the Union is increasing from year to year. Each season brings some of the "old boys" back who had not been to the College since separating from their class-mates several years previous. We are pleased to notice that when they once again return to the College halls that they are apt to get back each succeeding year to attend the Union meeting, and to have a good time with their former class-mates.

The Union meeting this year promises to be very attractive and a good attendance is anticipated. The summary reports of co-operative experiments conducted by upwards of three thousand farmers, fruit-growers, and poultrymen will be presented and discussed. Addresses will be delivered by Prof. I. A. Roberts, Cornell University, Ithaca, N. Y., and Mrs. E. H. Richards, Boston, Mass., U.S.A., as well as by some of the best Canadian authorities on Agriculture.

The Union banquet this year will be held in the Convocation Hall, at the College, and a programme of special interest to ex-students is being prepared.

As the Provincial Winter Show is to be held in Guelph on December 11th to 14th, inclusive, those who attend the Union will have an opportunity of attending the Winter Show at the same time.

The railway companies will give excursion rates to Guelph from December 10th to 14th, inclusive. For programmes and full particulars about the excursion rates write to C. A. Zavitz, Secretary, Agricultural College, Guelph, Ont.

Personals.

Reports are coming to the Review from ex-students at every corner of the earth. In another column will be found a letter from J. McA. Russell, '98, now serving in South Africa with the second contingent, Royal Canadian Artillery. G. S. Harris, of the same year, reports from the opposite direction. He, in company with a partner, is engaged in gold mining at Pine City, B. C. During the summer they were successful in taking out a considerable quantity of the yellow metal. They will spend the winter prospecting in that district.

F. B. Linfield, B.S.A., '87, now Professor of Dairying and Animal Husbandry at the Utah State College, visited his home in Ontario during the summer. Mr. Linfield is doing good work for the dairying industry in the West, in giving lectures in many of the different States.

J. Cote, '98, is at present managing a fruit farm near Detroit, and is meeting with considerable success in his enterprise.

A. Kennedy, '94, the sweet singer of his class, has, since leaving College, taken up his residence in Dryden, New Ont. He at first worked on the pioneer farm, but seeing a prosperous future in store for farmers of that country, he secured a half-section on a favorable location. At present his farm compares favorably with any in the older portion of the Province. So far large fruits have not succeeded in Dryden, but smaller varieties give remarkably good yields. Lake Waubegoon furnishes excellent fishing, while the river provides splendid water power for the new town.

A. Gardiner, '98, is still engaged in the management of the poultry department at the Montana Agricultural Station. Mr. Gardiner is one of the young men to whom the agricultural interests of America have been committed, and it is safe to say they will not suffer from lack of attention on the part of such men.

J. J. Ferguson, '91, who for the past year has filled the position of Instructor in Dairying in the Michigan Agricultural College, has lately been promoted to the position of Professor of Animal Husbandry in the same College. This change opens to

Mr. Ferguson a broader sphere of usefulness and affords him an opportunity to develop his many sterling qualities.

On Nov. 7th, Mr. Putnam left for a few days' sport in the woods of Muskoka. Mr. Putnam well deserves a period of rest and recreation. In his absence he will combine pleasure with profit, and we can confidently predict that any game coming within range of Mr. Putnam's gun will never again furnish a mark for the huntsman.

A short time ago a very pleasant meeting occurred in the far east. Mr. G. Grange, '89, now with an ambulance corps in Japan, overheard the expression "O. A. C.," and following up the clue, was agreeably surprised to find another ex-student in the person of Wicks, of '98 class. Many delightful hours were spent in discussing matters pertaining to Guelph, and especially to the O. A. C.

Among the students visiting their homes on Thanksgiving Day was one of the seniors, who, because his home was far from the station, and the night was dark, lost his way. Consequently he had to spend most of the night in the undergrowth and *reeds* of one of Dufferin's many swamps.

A short time ago the College was visited by one of its older ex-students in the person of E. H. Carpenter, '76. Needless to say Mr. Carpenter found many changes about his *Alma Mater*. The only remaining member of the staff of his undergraduate years being Mr. W. Squirrell, of the Horticultural Department. Mr. Carpenter is now travelling in Western Ontario for a Toronto firm.

If Germany produces germs, and Paris parasites, what does Ireland produce? Mike-robos.

The wind, before it woos the harp
Is but the wild and tuneless air,
But as it passes through the chords,
Changes to music soft and rare.
And so the poet's soul converts
The common things that round him lie
Into a voice of lovely song—
Divinest melody.

—McMaster University Monthly.

The young man who has to get up with the sun should not sit up too late with the daughter.—Ex.

Athletic Notes.

The last month has been marked by many successful athletic enterprises. This shows that the interest of the students in athletics has not terminated with the annual Field Day contests.

In the line of foot-ball the inter-year games for the College Championship were a prominent feature—First Year *versus* Second Year. The players were as follows :

SECOND YEAR.	GOAL	FIRST YEAR.
Sharpe		Kitley
S. Galbraith, Everest	FULL BACKS	Smith, McNaughton
Sutton, Weir, (Capt.) } DeLong	HALF BACKS	Doherty, Yerex, Baker
H. Galbraith, Klinck } Dryden, Sloan and } Weekes		
	FORWARDS {	Carpenter, Lewis, Gunn, Doyle (Capt.) and De- [war

In the two games the Sophomores scored a total of seven goals and completely blanked the Freshmen. By this they claim the honor of recording their victory on the Marshall-Harris challenge cup as champions in Association football for the year 1900-01.

On Saturday, Nov. 3rd, the O. A. C. Football team played a match with the G. C. I. team. The College team consisted of the following players :

Goal—Sharp.

Full Backs—S. Galbraith, R. Smith.

Half Backs—Sutton, Yerex, Everest.

Forwards—H. Galbraith, Dewar, Weir (Capt.), Dryden, Hallman.

It was an easy victory for the College, resulting as it did in a score of 3-0 in favor of the O. A. C. A large crowd of students, together with many city friends, showed their interest in a practical manner by enthusiastically cheering the players. Among the star players for the College were H. Galbraith, Everest and Dryden.

The Hockey department of the O. A. C. Athletic Association is again amalgamated with the Victorias, of the city. The club is called the Victoria-O. A. C. Hockey Club, for which Club we anticipate great success during the approaching season. They have joined the Western Ontario Hockey Association and hence will have the strongest class of competitors.

It is apparent that the importance of physical exercise is realized more and more among the students of the College, and it is gratifying to see so many of our youth developing into strong, healthy, physical manhood. The gymnasium is being used to greater advantage this year than it has in former years, this being an encouraging fact to those who have the interest of athletics at heart. Every student will do well to remember that the best mental culture goes with good physical development, and nowhere may this manly activity be better cultivated than in the various exercises of the gymnasium.

Burrah for the O. A. C.

Our genuine College man is always ready to uphold the honor of his *Alma Mater* whenever called upon to do so in any manly contest, and too much credit cannot be awarded to the plucky men who represented our Athletic Association in the O. A. A. A. cross country race run off in Toronto on November 17th. E. C. Hallman, the winner of the cross country race in Guelph on Thanksgiving day, after some hesitation, consented to run for the "red and blue" again, while J. Weir and J. Stephens also accepted the gage of the O. A. A. A.

The result of the race must be remembered in the history of the O. A. C. as one of the most notable of its athletic triumphs. Among the eighteen competitors were some of the best amateurs of the Province. Sherring, the noted Hamilton runner, was picked to win, but very evidently his supporters had not taken into consideration the speed of the O. A. C. boys. The first half of the race saw Hallman and Sherring fighting it out at the head of the bunch, but in the last two miles Hallman made the running with ease, gaining distance at every step. He finished at the Rosedale track forty-nine seconds ahead, making the whole course in 36 minutes, 27½ seconds.

Jno. Weir ran an exceedingly plucky race, finishing in fifth place, while J. Stephens was ninth to cross the line.

The Athletic Association is to be congratulated upon its representatives in this race, and the whole College has reason to feel proud that in her halls are found the class of men who are able not only to finish a five-mile race, but to distance all competitors in such a contest.

In the evening the students manifested the old College spirit in the old hearty style, showing by meeting the successful runners with a rousing welcome that they appreciated the victory both for the sake of the winners, and as a victory for their *Alma Mater*.

B. S. P.

Local.

It is not good to eat much honey.—Prov. 25.—27. Solomon was certainly a man of great wisdom and understanding.

A Guelph lady recently remarked that during the last few weeks O. A. C. students have been appearing in the city better dressed than formerly. Possibly Mr. Hurndall could account for the fact.

It was a nice moonlight night; Oct. 31st to Nov. 1st. Suddenly, from out the stillness of the night, came a call—"G.C.I., G.C.I., Ra ra, ra ra, G.C.I." It was followed almost immediately by calls from within—"Everybody out! Everybody out! The G.C.I. fellows are up!" This, of course, brought forth a crowd, some dressed, and some not dressed at all. Even Mr. Putnam could not stay in. He, too, rushed out to take part in the expected *sport*, but alas! it was only a "rubber."

The College circular has been revised recently by Mr. W. R. Carroll, and is published in the Norwich Gazette.

The First Year fellows do not play football. It is not their game. Perhaps they prefer hockey.

Question.—If you have no skim milk for the young pigs, what is the best substitute?

Cowan.—Whole milk.

Mr. B., discussing alfalfa.—“My own opinion is that it certainly deserves a place on the farm; not in the regular rotation, but on hills, and on land like ours, that is fit for little else.”

Ex-Student.—“When is the Experimental Union to be, Hunt?”

Hunt.—“Well, er, I can't just say. You see, she has not set the date yet.”

During the game with the G. C. I.:

“How did the G. C. I. captain get hurt, do you know?”

H. Galbraith.—“Guess he must have run against *me*.”

Would Mr. Graham kindly remove his chickens from Upper and Lower Pantan.

McLean.—Don't you think Klinck should be put out of the College?

What for?

McLean.—Why, for keeping fire-arms in his room. I'm afraid my Partridge will be shot.

Class in Agriculture:

“What is desirable in the shoulder of an animal of this kind, Mr. Smith?”

E. Smith.—“It should be evenly covered with skin.”

The cones of the spruces and pines are flowers as truly as the garden rose. It is not advisable, however, to take them to your lady friends in the city and endeavor to convince them of the fact.—M. W. D.

The Second Year will do well to WAKE UP in the Veterinary class.

Dr. H., speaking of leprosy.—“In the later stages the hands and feet drop off, and may be seen walking along the road. It seems almost incredible, gentlemen, but I've seen it myself.”

It is reported of one of the tower Freshmen that in order to sleep till twenty-nine minutes past eight, he has his breakfast biscuits chewed the night before.

Mr. Squirrel.—“Where did you get that sand?”

Teamster.—“At Bishop's.”

Mr. S.—“Just like the men. Now a student would have got what he was sent for.”

The Third Year men still make their own beds on Sundays. Even Yerex will not help them out.

Do not be afraid, Klugh, the castor oil is all gone except a little on Mill street, which Carroll has reserved for smallpox and for the removal of warts. It was not castor oil that McKay took; it was only ginger tea.

Mr. P., discussing winter wheat.—“I think it is best to sow it in the fall. What do you think about that, Mr. Black?”

To what plant might E. Smith have been compared as he walked down town after the party?

Answer—The Ribes Grossularia.

Dr. Reed, the morning after the election.—“Now, gentlemen, we should be as conservative as possible—”

Very good advice, perhaps, but too late for this election.

Students should be careful to observe the valuable hints on letter-writing given them recently at the Lit. They are the result of much thought and great experience.

De Long, discussing art and nature at the literary meeting.—“I think we should appreciate Mr. Klugh's music more than we do the roar of the Rocky Mountains.”

Lower Hunt is said to have a special calendar. At present it is leap year over there.

LaPierre's method of seeding: Sow the grass seed thinly with the grain, then sow more after harvest and have cattle tramp it in.

Possibly you did not hold the horn right, Mr. Kitchen. It would have been better had you plugged the small end.

How did Galbraith's pitcher get broken?

What became of LaPierre and Wilson after they got to Toronto?

Did Judge get his pipe?

What causes the unpleasant odor on Lower Hunt?

Henceforth, Second Year children in the botanical class will be supplied with rubber apples instead of the variety used this year.

Pres. of the Literary Society.—“The next item on the programme is an instrumental from Mr. Klugh. There has been some trouble with the programme to-night, but I think we have the *Klugh* to it now.”

G. I. C. at the Lit.—“You see, gentlemen, I have arranged for a reduction in the price of the photos; the former rate of 3.25 will now be three and a quarter.”

Local Market.

Fish has taken a drop (*too much*).

Tin has risen fifty per cent.

Vinegar and mustard, steady.

Butter is rather scarce.

Apples, very few on offer; the demand is good.

Milk is very changeable.

Corn meal—the supply, though small, exceeds the demand.

Sugar is very cheap but may rise soon.

Beef remains firm.

Acta Victoriana is always one of our best exchanges and the first issue of this college year is as good as ever. It contains a short article entitled “Reminiscences of Camp and Field,” written by one of the students who is now serving in South Africa. There are photographs of the graduates in arts 1900, the Athletic Union Executive, the Acta Board, the Y.M.C.A. and Y.W.C.A. Executives. Among some of the leading articles from other college journals we find: “Books and their Influences.”—*McGill Outlook*; “National Patriotism”—*Versity*; “Holiday Experiences”—*University Monthly*.

Exchanges.

Among our exchanges we are pleased to acknowledge *Acta Victoriana*, *Queen's Journal*, *McGill Outlook*, *Dalhousie Gazette*, *Varsity*, and numerous others.

In the Evening.

When shades of night begin to fall,
And day's last murmur dies,
I love to linger by yon grove
And watch the fair moon rise,
And flood the hills and far-off vales
With soft and silvery light.
'Tis then my soul comes 'neath the spell
Of its sweet mystic might.

For while I linger in that light
My youthful past takes form;
Forgotten are the long, long years,
So full of stress and storm;
My youthful haunts I seem to see
Stretch out beneath the haze,
And, filled with joy's sweet overflow,
I dream of other days—
The days of happy childhood, spent
In dreaming splendid dreams,
While wandering o'er the homeland hills,
Or wandering by her streams.

Ah moon, how kindly dost thou smile!
Down through the evening haze,
And touch with glory all the joys
Of those sweet other days.

Backward, turn backward, O Time, in your flight!
Make me a boy again, just for to-night;
Give me a club, and a pocket of stones,
And the country we'll strew with white, bleaching bones.—Ex.

In an Ontario town, during the last summer, a lady and her family attended the service of a denomination other than the one with which they were connected. At the close of the sermon the preacher began a vigorous attack upon what he was pleased to term the nonsensical peculiarities of doctrine of the denomination with which, it so happened, the lady and her family were connected. Since she occupied a prominent seat in the chapel she became somewhat vexed at the length and origin of the uncalled for and unjust denunciation of the preacher. Being in doubt whether she should retire from the chapel or remain, she opened her Bible at random, often a custom of hers, and her eyes fell upon these words, uttered by Abraham: "Abide ye here with the ass." Obeying the injunction she remained.—Ex.

Provincial Winter Fair.

A Combined Exhibition of Fat Stock, Dairy Cattle,
Live and Dressed Poultry.

Will be held at

**GUELPH, ONTARIO,
December 11th to 14th. 1900**

NEW BUILDINGS.

NEW EQUIPMENT.

Every provision made for the convenience and comfort of Exhibitors and their Exhibits.

Entries should be made before Nov. 24th. After that date an extra fee will be charged. Positively no entries will be received after Dec. 1st.

Special R. R. rates from Kingston, Sharbot Lake, and points west, good going from 10th to 14th, returning until the 15th. Judges and exhibitors, on presentation of certificate, single fare, Dec. 7th to 14th, returning good until 18th.

All applications should be made to the Secretary.

A. P. WESTERVELT,

Parliament Buildings, Toronto.

Prize List Now Ready.

Hoard's Creameries' Paris Exposition Butter.

Among the prize-winning exhibits of American-made butter at the Paris Exposition, which were almost exclusively the product of the "Alpha De Laval" Separators, was that of the Hoard Creameries, Fort Atkinson, Wis.

Few Creameries are more widely known than those of the Hoard concern, both by reason of the pre-eminence of "Hoard's Dairyman" as the leading dairy publication of America, if not the world, as well as of the magnitude, splendid equipment and superior merit of the output of the Hoard factories. Hence, while every big and successful creamery enterprise is to-day using De Laval Separators, what the Hoard Creameries may be doing in that regard is of interest to others with less experience. The following letter speaks for itself:

HOARD'S CREAMERIES,

(Copy) Fort Atkinson, Wis. Oct., 23, 1900.
The De Laval Separator Co., 31-45 W. Randolph St., Chicago.

Gentlemen: Yours of Oct. 20th in regard to our Paris medal received. In addition to the medal awarded our butter our Superintendent, Mr. C. L. Fitch, received a silver medal for original processes in buttermaking and apparatus and tests therefor.

The cream from which the Prize butter was made came from two "Alpha" No. 1 Belt power machines, and from one 20th Century Turbine "Alpha" No. 1. We are running ten "Alpha" No. 1 Belt machines, one "Alpha" No. 1 Turbine, one "Alpha" No. 2 Belt, and own only one other separator— which we wish was an "Alpha" Turbine.

Respectfully yours,

HOARD'S CREAMERIES.

While the separator does not make the butter, practically all prize-winning butter is today made from De Laval separated cream, and there is no question in the mind of any well informed person that under like circumstances and equal conditions any buttermaker will make better butter from an "Alpha-Disc" machine than is possible from the product of any other separator. A De Laval catalogue will make plain the reasons for this to anyone who may not already understand them. General Agents for Canada:

CANADIAN DAIRY SUPPLY CO., 327 Commissioners' St., Montreal.