

THE O. A. C. REVIEW.

The Dignity of a Calling is its Utility.

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THE O. A. C. REVIEW.

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BY THE LITERARY SOCIETY OF THE ONTARIO
AGRICULTURAL COLLEGE, GUELPH.

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Ex-students will confer a great favor on the Editors
of this journal by sending news, particularly experi-
ences of practical value.

EDITORIAL.

We take this opportunity of reminding ex-students of the 12th. annual meeting of the Experimental Union to be held on the 5th. and 6th. of February. Make a point of being present this year and thus make the attendance larger than ever. There is a good programme prepared in which, besides members of the college staff, such eminent men as Prof. Saunders and Prof. Robertson, of Ottawa, Prof. Roberts, of Cornell, and the Hon. John Dryden, M. P. P., will figure.

The social union should attract many: the officers are always glad to see ex-students back again, however short the visit must be, while the commencement of many a friendship can be traced to these meetings between associates and present students. Rest assured, then, of a hearty welcome and a very pleasant and decidedly profitable time.

We feel convinced that there are yet many scattered throughout the Dominion who would be glad to hear news of the old place. Will not our present readers help in increasing the circulation of the REVIEW? When writing to any ex-student, or whenever you come across one, see that at least he knows of the paper, and urge him to subscribe for it. We have no enticing premium list to offer because we believe that all connected with the college will take genuine pleasure in the endeavor to enlarge the area of our usefulness.

There is a great deal of conversation here just now about the Institutes. We wish we had space to record all the funny things and interesting items we have already heard. One thing, we feel, deserves attention at the hands of the ever increasing class of ex-students. While we rejoice that many were taking a prominent part in the meetings, we grieve to hear that in some districts the old boys were conspicuously absent. Has the course here proved of no benefit? Was the Literary Society training of no avail? Is there not a real desire for increased knowledge and enlightenment on the latest phase of scientific and practical agriculture? Does it mean that a whole year with all its experience has slipped away and given nothing worthy of note or question? What screw is loose? Surely we are alive to the fact that Ontario farmers have their eyes upon ex-students and have a right to expect of them great things. Let us wake to a sense of our responsibility in the matter and see to it in future that papers and discussions shall not lack interest on our account.

Be sure and have the essays ready in time.

"Give me a kiss, my darling, do,"
He said, as he looked in her eyes so blue;
"I won't," said she, "you lazy elf,
Screw up your lips and help yourself."



Earthworms.

The work which earthworms perform is much greater than many would at first suppose. They are very numerous in most parts of this country, and so apparently insignificant are they, that we seldom notice them, although in cultivating the soil they are at certain seasons numerous exposed to view by the plow. The amount performed by a single worm appears to us very small, but as they work together in large numbers they are enabled to perform much. On each acre of soil, in one year, from ten to twenty tons of earth are brought to the surface by worms.

In the scale of organism they rank comparatively low. Darwin says:—"Although they cannot see they can distinguish between light and darkness. They are wholly deaf, and have only a feeble power of smell. Their sense of touch alone is well developed." The common earthworm (*Lumbricus terrestris*), breathes by means of pores in its sides, and creeps or burrows by means of setae or bristles, which are situated on the segments of the body. In proportion to their size they possess great muscular power. A spiral muscle runs around the body from the head to the tail; it is owing to this muscle that they have the power of lengthening or contracting their bodies at will. One authority states that an earthworm, when cut in two, in the anterior half, will form a head; in the posterior half a new head.

Earthworms are viviparous animals. The female deposits her eggs in the earth, these are hatched by the warmth of the soil in from twelve to fourteen days. One egg sometimes contains two embryos. When the young first appear they are very small, but fully developed, and do not undergo any change of form during their existence. It is not generally known how long their life lasts, but it certainly lasts for more than two or three years.

The following are some of the ways in which earthworms are beneficial to the agriculturist:

1. In reducing the texture of soil and rock.
2. In enriching the soil.

3. By aiding the draining and aeration of soil.

4. By forming passages for rootlets in search for food.

Scientists tell us that the decomposition of soil and rock is aided both mechanically and chemically by the action of worms. The mechanical action, which is small, consists in the grinding movement of the particles, which are moved by the collapsing of burrows. By consuming and digesting considerable organic matter, which is deposited in the earth, certain organic acids are formed whose tendency is to aid the process of dis-integration.

The soil in which earthworms live is directly enriched by them in two ways. They not only consume leaves and parts of plants, but drag them into the ground; as these partly decayed and digested leaves mix with the soil they form plant food. The large amount of subsoil which is brought to the surface also adds to the richness. We will cite, as an illustration, the result of an experiment by a notable scientist. "Von Hensen placed two worms in a vessel eighteen inches in diameter, which was filled with sand, on which fallen leaves were strewed; and these were soon dragged into their burrows to a depth of about three inches. After about six weeks an almost uniform layer of sand, two-fifths of an inch thick, was converted into humus, by having passed through the alimentary canals of these two worms."

Some believe that worm-burrows, which penetrate the ground perpendicularly to a depth of nearly five or six feet, serve as a good medium to aid drainage. Although the worms check the direct entrance of water by depositing castings over their burrows, still the water may gradually soak through and pass away from the surface, where a surplus interferes with vegetation. By the removal of surplus water the air can penetrate deeply and freely into the ground, by passing down the burrows; it can also fill the interstices formerly occupied by water. The presence of air is beneficial to the soil, as it affects the temperature, and supplies moisture and food to the roots of plants.

Worm-burrows greatly aid the downward passage of delicate rootlets, and fibers, in search of food. By occupying the burrows, rootlets can not only extend freely, but can also feed upon the humus with which the burrow is lined.

The work which earthworms do is carried on, not only in our own and in European countries, but in many other parts of the world as well. The plow, one of the oldest inventions of man, has done much in preparing the soil for the sustenance of vegetable life, but long before its existence the land was, in a measure, tilled by earthworms and this same action is going on to-day under the proper conditions for the existence and action of earthworms.

Thus earthworms, though very insignificant creatures, may possibly have accomplished as much in the grand, old workshop of nature, as many of her more highly and delicately organized artizans.

The study and observation of these small creatures, and their habits, is not only of interest to the scientist, but also of great value to the agriculturist. The coming agriculturist, he who shall combine the scientific with the practical, will not think any object beneath his notice, which bears directly or indirectly upon his calling. The environments of the agriculturist of the present are such that he cannot become a mere theorist, captivated by some startling discovery, which when completed, is to be the greatest boon of the age. He will be intensely practical, owing to the solidity acquired by research and investigation in the microscopic world.

In the grand old economy of nature nothing is ever lost. Hence the relation of cause and effect must ever be one of absorbing interest to him who seeks to penetrate the wondrous harmony of the whole.

RESURGAM, O. A. C.

A Report of the Farmers' Institutes Needed.

During the past month, through the instrumentality of the Farmers' Institutes, the good work of spreading information, relative to Agricultural and Horticultural pursuits, has been going on throughout the Province. If enlarged attendance and increased interest at these meetings is an indication of success, certainly those engaged in the work should feel encouraged. Great, however, as has been the success in the past, let progress ever be the watchword, and let nothing be left undone that will increase success in the future. One step in advance, we think might be made, by publishing an annual re-

port of the meetings held during the year, containing the addresses made, papers read, and the important discussion on these.

Some idea of the valuable contents of such a report may be had, when we consider, that besides the numerous local speakers who took part in the meetings during the last month, there were twenty-five specialists in the different branches of agriculture, who gave their whole time to this work. Each of these had prepared at least three or four different subjects for discussion, and nearly one hundred meetings were held at which these and other subjects were discussed, many new and valuable ideas being brought out. Would not a report containing all these be of no small value to farmers?

As yet there is no record of these, other than the imperfect, occasional account in the newspapers. Some of the local papers have certainly given very good reports of the meetings held in their own locality. But as few farmers take more than their own local paper, it is plainly to be seen, that to the majority, the greater part of these valuable addresses, papers and discussions are lost.

A compiled report distributed to each member of the Institutes, would enable him to reap the benefits, not only of his own local meeting, but of all the other meetings in the Province.

The compilation of such a report would entail, no doubt, some additional expense, but this would be a small item in comparison with the increased benefit derived from the Institutes. That so much has been expended already, to make each meeting beneficial to the farmers of a particular district, seems in itself a reason why a little additional should be expended to carry the benefits of every meeting to all.

This method of widening the work of the Institutes has been adopted already in some of the States with marked success, and we hope before another year arrangements will be completed, whereby the work may thus be made more effective in Ontario.

The Qualities of a Good Dairy Cow.

She's long in her face, she's fine in her horn,
She'll quickly get fat, without cake or corn;
She's clean in her jaws, she's full in her
chine.

She's heavy in flank and wide in her loin,
 She's broad in her ribs and long in her rump,
 She's straight in the back without never a
 hump;

She's wide in her hips and calm in her eye,
 She's fine in her shoulders and thin in her
 thigh;

She's light in her neck and small in her tail,
 She's wide in her breast and good at the pail,
 She's fine in her bone and silky of skin,
 She's a grazer without and a feeder within.

Rural Canadian.

Evergreen Windbreaks.

At no other season of the year, perhaps, can a windbreak be so appreciated as in the winter. When piercing winds sweep the country we begin to realize what a benefit the universal planting of windbreaks would be, but as the time comes when we should profit by such experience, the balmy breezes of spring or peaceful days of autumn divert our thoughts, and their planting is neglected.

Without doubt, however, the judicious planting of evergreens would add very much to the value of our farms. The majority of farmers and fruit growers have not given this subject the attention which its importance demands.

Let us arouse ourselves in this respect and consider some of the benefits of a good windbreak. Probably the greatest direct benefit is the check offered to the violence of winds at all seasons of the year, which, as the country becomes cleared up, are becoming more frequent and violent, and are always detrimental to the growing of fruit or grain, as well as to the comfort of man and beast. One of the most disastrous effects of wind is the sweeping of the surface of the ground, causing excessive evaporation from both soil and plants, and in winter carrying off the snow, thereby exposing the roots and crowns to injurious conditions. Good windbreaks prevent these evils by checking the wind and retaining moisture, and leaving the snow on the level acting as a mulch.

In connection with an orchard the benefits of a windbreak are many: By enabling trees to grow more erect and symmetrical; protecting blossoms from severe winds; lessening the liability to breaking of limbs loaded with fruit, or weighted down with ice; reducing the proportion of windfalls, a matter of no small importance. Who has not been disappointed

to find, after a heavy September or October wind, the greater part of his choice fruit bruised upon the ground? Less wind and more fruit would be to the advantage of the orchardist. In many cases an advantage derived is the hastened maturity of fruit exposed to the warmth of the sun and sheltered from cold winds. The greater facility, also, with which labor can be performed in windy weather under the protection of a windbreak is worthy of consideration.

As a matter of economy in cattle feeding or saving in coal bills it pays to have the barns and dwelling sheltered from the prevailing winds of winter.

Perhaps no other farm improvement combines so well the useful and ornamental. In winter, by its very presence, an evergreen windbreak gives a home a look of coziness and comfort.

As to the kind of trees to plant and arrangement of planting, two considerations should guide us utility and beauty. While some other evergreens beside the Norway spruce make good windbreaks, this variety, being perfectly hardy, making rapid growth on almost any kind of soil, and not being easily injured by trimming, is pre-eminently the best for general purposes. If deciduous trees are planted with the evergreens, the light and dark green of their foliage in summer forms a beautiful contrast, for this purpose the maple is one of the best trees to plant in connection with the Norway spruce.

In locating a windbreak so much depends upon the contour of the land that it hardly seems practical to devise any rule to guide us, beyond keeping in mind that the object should be to prevent the direct sweep of strong currents of wind on the land. Usually the greatest need of protection is on the west, and it is here that the strongest and tallest windbreaks are required. Most farms might advantageously have a windbreak on three sides, and, could neighbors agree, it might, with profit to all concerned, take the place of division fences.

The method of setting out the trees gives rise to a variety of opinions. Some prefer a single row of evergreens, others a double row, with trees alternating, while some modify the latter by planting a row of maples alternating with the evergreens. On the farm here we have all three kinds, and each has its advantages. The first takes up least land, the second is most effectual in winter, and the third is most ornamental in summer. If planted in a single row the trees should not be less than

six feet apart, unless the intention is to keep them low. When planted eight feet apart, the windbreak will grow higher, in time just as effectual, and will last longer without becoming dead in the bottom, still the Norway spruce, standing more crowding than any other evergreen, will maintain its beauty in this respect. In the single row of this kind on the west of the College lawn, the trees put out seventeen years ago now average about 25 feet in height, and, although only 3 feet apart, are still quite green in the bottoms. On the south and east sides of the lawn, the same kind of trees put out at the same time, 30 ft. apart, now average about 30 feet in height, and spread about 12 feet at the bottom. In a row 7 feet from the trunks of these, and alternating with them, is a row of maples put out at the same time and now averaging 25 feet high. Although the maples allow the wind more of a sweep in the winter, this in summer is a very effectual as well as most beautiful windbreak. But in our estimation the most practical windbreak would be one similar to the double-rowed one growing here on the north side of the orchard. In it the rows are 8 feet apart, and the trees 10 feet in the row, alternating with each other. Although planted only ten years these trees now average about 20 feet in height and are so dense at the bottom that they form a barrier to all surface winds.

Much care is required in the transplanting of evergreens. Although easily grown they will not stand nearly so much rough handling when out of the ground as deciduous trees, and for this reason should be planted as soon as possible after being taken up; the roots carefully protected when out of the ground, and all the better to have the planting done in cloudy, damp weather, when the roots will not be exposed to the sun or drying winds. The planting may be done in spring or autumn. Many think August the best time.

In selecting the trees choose those that are young and small. Many farmers err in this respect and prefer large trees. Small trees have every advantage over the large ones: At the nursery they cost less; if procured from a distance the freight charges are less; besides they are more easily handled and planted; they are surer to grow; become sooner acclimated and adapted to the soil and make more healthy and vigorous trees.

After the trees are planted they may be mulched, or better, the ground about them should be kept cultivated for two or three years.

It cannot be the high cost that keeps farmers from setting out more windbreaks, for small trees can be bought very cheap; such trees can be cheaply planted in a furrow where the ground has been previously prepared, and the after attention required amounts to very little, while the windbreak will soon pay for itself and increase every year in value.

Some farmers object to parting with arable land for such a purpose and fear the shade and robbing of adjoining crops by the roots of the windbreak. These are real objections, but of two or more evils let us choose the least and willingly devote the land necessary to the growing of a windbreak, which will so materially increase the profits from all other sources.



Correspondence

Some of the Advantages to be Derived from a Preparatory Course of training at the O. A. C.

G. C. Creelman, B. S. A., Agricultural College, Mississippi, U. S. A.

Being personally opposed to any radical change in the course of study at any college or University, it is almost with a feeling of reluctance that I bring before the minds of the students and graduates of the O. A. C. the sentiments conveyed in the title of this article.

"Mind rests by change, not by inaction," and we are able to accomplish a great deal more by resting our minds in this way, than by confining ourselves closely to one set rule. So very often a re-arrangement of work in a College course will enable both instructors and students to do more and better work than was performed under the old schedule.

That excellent work is being done in all departments at the College, and that the professors are diligently laboring in concert to further the aims of the institution, no one will deny, and it is only with the hope that the following suggestions may in a measure help them in their noble work, that I give your readers the benefit of my 10 years experience at an American Agricultural College.

Here the Collegiate work extends over a course of four years. The student on entering the freshman class is introduced to such studies as English Literature, Natural Philosophy, Agriculture, Horticulture, Book-keeping and English History. In his sophomore, or second year, he takes up Chemistry, Geometry, Rhetoric, Drawing, Physiology, Agriculture and Botany. The next year he becomes a junior and is duly instructed in Mechanics, Literature, Geology, Horticulture, Veterinary Science and Entomology. He is also required to prepare and deliver before the student body three addresses on industrial and scientific subjects. During the senior, or final year, such subjects as Political Economy, Zoology, Mechanical Drawing, Chemistry, Physiological Botany, Civil Engineering, Advanced Agriculture and Constitutional Law, are each taken up and studied in turn.

Upon careful examination of the above curriculum of studies, it will be seen that the student must have obtained some little proficiency before entering even the freshman class. It is required that the student obtain at least sixty (60) per cent. in each study through the entire course, before he presents his application for a diploma. It is then to our preparatory department that we turn for a supply of young men, well ground in the primary branches that underlie the theory and practice of Agricultural Science. It is said of the Eiffel tower that its base occupies many acres of land, and if we carry out the simile and compare this structure with man's own life, we find that if we would rise high above our fellow men, by reason of superior mental faculties and sound judgment, we must first thoroughly master the elementary branches of science and art, before attempting to hold a light to our brothers still groping in darkness. To build high, our foundations must be broad and substantial.

Since leaving the College and associating with instructors and graduates of similar institutions, I see some disadvantages in your present course of instruction. On entering the College for the first time all students are thrown into the same line of work. The farmer's son, physically matured and several years out of school; the town or city boy just in his teens, possibly having spent a year or two at a High School or Collegiate Institute, well versed in English Grammar, Arithmetic, Geography, Etymology, English and Canadian History, but unable to distinguish between a

sulky rake and a spring tooth harrow. You have also a few older and more dignified applicants, who have possibly obtained a teachers certificate, and may even have taught school for a year or two in some rural district. In my class we had one man with an arts degree, obtained in an American University. Could anything be more absurd than to throw this heterogeneous mass into one classroom and to expect them all to come out at the end of one or two years scientific and practical farmers, with a thorough knowledge of all the underlying principles of agricultural science? In order for a professor or instructor to get the best possible returns from his imparted knowledge, he must have the members of his class on a relatively equal footing. This can best be accomplished by having the aspirants to a college diploma or degree all educated together before entering the regular college classes.

At the A. & M. College of Mississippi we have a "preparatory department," and I cannot explain its workings better than by quoting from our last Catalogue: "This Department is designed to furnish a thorough elementary education to young men, particularly sons of farmers, who are deprived of the advantages of a good high school near home. Also to prepare for the freshmen class such as desire to take the College Course." *Course of Study*:--The course of study requires only one year for its completion. Those who fail to complete it in that time will not be promoted to the Freshman Class, but may if they choose, renew the course the next session.

The subjects taught are the following: English grammar and composition, penmanship, declamation, arithmetic, book-keeping, algebra to equations of the first degree, geography, United States history and agriculture.

Methods of Instruction: Instruction in all these branches is as thorough and as practical as the subjects will admit. Special attention is paid to composition writing by the students, in order that thereby they may acquire a correct and ready use of the English language."

"The result of such study, it is believed, can hardly be other than the development of an intelligent, patriotic spirit, and proper preparation for the active and responsible duties of citizenship."

During the first half of the fall term, instruction in agriculture is given by means of an elementary text book, supplemented by occasional lectures on the subject by the professors of agriculture and chemistry. Through-

out the greater part of second and third year terms two lectures a week on practical agriculture and the selection, care and common diseases of stock, are delivered before the classes by some professor or instructor especially qualified for that duty.

The teaching force is made up principally of our own graduates who have taken a good stand during their college course and show a special aptitude for imparting instruction. These young men, having their afternoons and evenings to themselves are able to devote a good deal of time to some special line of work. They have the advantage over other graduates of being within reach of chemical and biological laboratories. They also have the professors to assist them in their work. Thus when the President receives an application for a young man to go and take charge of, or assist, in any associated line of work in other colleges, he has always on hand someone whom he can conscientiously recommend to fill the position.

The O. A. C. has now graduates occupying positions in American Colleges, lecturing on biology, chemistry, dairying, animal husbandry and horticulture, and I cannot help thinking that each of them would have been better fitted for his life's work, had he received a thorough primary training before taking up his specialty. Then after graduation if he could remain a short time at his Alma Mater rubbing off rough corners by association with more matured minds, gaining some worthy knowledge and shouldering a little responsibility, he would be eminently better fitted for specific work. In this age a man must be intelligible to be considered intelligent, and the man who can rise and express his views in a straightforward, forcible manner, is worth more to a community than half a dozen book-worms, who sit still and adorn their visage with an all-wise look. Teaching primary students with an able staff watching your every movement, will surely develop such a faculty.

With a preparatory department some of the studies now taught in the college classes might be placed here; for instance arithmetic, book-keeping, composition and English grammar. This would leave a gap in the first year work, which could be filled with second year studies. In the second year again much of the third year work might be accomplished, for there is no doubt that too much work is now being crowded into the final year. This then would be a general relief all around and the President

would no longer have occasion in the circular to warn students of the third year that "it is necessary, above everything else, that the candidate know how to spell correctly and be able to write good English."

To sum up the advantages to be derived from an established Preparatory Department, we find.

1. A better comprehension of elementary branches.
2. Students on a more equal footing on entering the Collegiate departments.
3. A higher standard of Matriculation.
4. Students have become accustomed to taking notes; have become familiar with dormitory life and have learned something of the objects and aims of the institution.
5. The careless and indifferent students are sifted out and prevented from entering the College classes.
6. Employment is afforded for a limited number of graduates.
7. Boys who had never done practical farm work, would have a better opportunity for learning field work.
8. The whole system of College work would be toned up and the instruction be rendered more thorough and uniform.

Is Phrenology a Science?

(Miss L. Henderson, Guelph.)

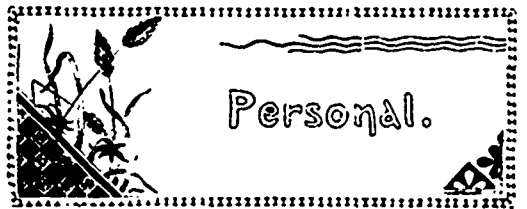
"You know I do not consider phrenology a science at all," said a teacher, a graduate in arts, to me the other day. "Yes," I replied, "what have you read about it?" "Oh I have read one or two papers on the subject," he replied in a lordly tone. One or two papers on the science of Physiology, Botany, etc., would make very small figuring. Yet this Solon thought it sufficient to decide the most difficult subject we have to deal with in the whole realm of thought, viz., Mental Science, Human Character, Mind and Brain. Prof. Silliman, the learned Naturalist, Geologist, Scientific Writer and Professor of Chemistry at Yale College, New Haven, said of phrenology after a careful study of its principles: "Phrenology, then, stands exactly like the other sciences of observation upon the basis of phenomena and their observed correspondence with a theory which is deduced from them." Prof. Alexander Bain, in his book, "Study of Character," makes the following acknowledgment of phrenology. "All theorists previous to phren-

ology could not prove their principles by appeals to observed facts. They could not show a relationship existing between cerebral organs and the functions of the elementary powers they had analyzed in their own consciousness." Phrenology not only showed herself capable of doing this but she became the first and only science of character. Thus doctors differ and always will so long as brain fibre in quality, quantity and developments differ.

Now, Mr. Editor, I wish to state briefly in a series of papers in the REVIEW what phrenology is, what are its practical uses, and its claims to be called a science. Strictly speaking phrenology is a science of brain, because brain is the material organ and instrument of mind. To us who are in the flesh mind must have a material medium, brain is that medium. We think through brain matter, hence we can only study mind through bodily manifestations. This is just where phrenology differs from the older systems of metaphysics and philosophy. They consider mind in the abstract - deductions from personal consciousness where each mind taught its own method of thought, its own individuality hence the difference in the systems of philosophy and the opinions of philosophers. For instance Mr. Stewart, Scottish School, says "The moral sentiments are inate original faculties." So we carry our conscience with us. Mr. Paley says per contra: "Utility or the happiness of mankind is the basis of the sense of right and wrong." Each one reasons from his own standpoint and having differently constituted mental organs, or brain, does not agree.

Now phrenological philosophy is inductive and founds its principles on physiology, tracing through the brain how the mind is related to the body, and how mind works through its tangible medium the brain. Phrenology demonstrates that as one has organs for hearing, seeing, smelling, etc., he also has organs for loving, hating, hoping, fearing, reasoning, acquiring, etc., and in accordance with the degree of development of the cerebral organ, the brain, is the strength of mental power, "a sound mind in a sound body." Metaphysics declares, after you have laughed, talked, disputed, acted in your different capacities of business man, society man, domestic man, etc. I may obtain the data which will enable me to judge what sort of person you are. Phrenology says: Let me have a good look at your head and your general physique and I can on the spot describe your character and also predict your intellectual, moral and social

power. "The science of phrenology is based upon observation," says Dr. Jacques. Its principles are simply the recital of truths which lie open before every man's eye. It is therefore as capable of demonstration as chemistry or natural philosophy. "While unacquainted with it I scoffed at the new philosophy of the mind by Dr. Galt, known as phrenology, but have become a zealous student of what I now conceive to be the truth, and have lived to see the true philosophy of the mind establishing itself wherever talent is found capable of estimating its great value," says Sir G. T. MacKenzie, President Royal Society, Edinburgh.



W. G. Birdsall, A. O. A. C., '88, is taking a course at the Toronto Veterinary College.

S. R. Bayne, A. O. A. C., '88, is working on the South Forks Ranch, near Pincher Creek, N. W. T. Mr. Bayne intends investing in a Ranch of his own this year.

We are pleased to hear that our former local editor, Mr. J. C. Harris, has arrived safely in British Columbia. He is now working with Mr. P. B. Johnson, '90, of Somenos.

W. H. Pethick, '83, is practising veterinary at Cape Traverse, Prince Edward Island. Mr. Pethick took unto himself a wife some time ago. He is doing a good business around his district.

Already one of the leading students of the '90 class, recognizing the fact that a single life is not without its drawbacks, has embarked on the sea of matrimonial bliss. On the 24th of December, Mr. John Harcourt, of St. Ann's, Ont., was united in marriage to Miss Kennedy of the same place. The marriage took place in the afternoon, after which the happy couple left for London, Ont., where they spent their honeymoon. We wish Mr. and Mrs. Harcourt a long life of happiness and prosperity and we would strongly advise all ex-students who are in a state of single blessedness to follow the same course and marry if possible. The Editors gratefully acknowledge the receipt of some very superior wedding cake.

The friends of E. Sturge, V. S., '86, will be glad to hear that he has been appointed Professor of Veterinary Science in the Dakota Agricultural College, at Fargo, Dakota. Mr. Sturge has been very successful as a practitioner in the States and will, no doubt, be equally successful as a professor.

C. Elton, A. O. A. C., '88, is Ranching with his brother near Pincher Creek, N. W. T. They breed chiefly horses, cattle and pigs, and recently imported three Herefords from F. A. Fleming, Weston, Ont., and a Holstein bull from Smith Bros., Churchill, Ont. Mr. Elton asks to be remembered to the '88 class, and wishes the REVIEW success.

G. C. Creelman, B. S. A., of the Agricultural College, Mississippi, spent his Xmas this year with Prof. H. A. Morgan, B. S. A., '89, in Baton Rouge, La. He reports that Mr. Morgan looks well and is discharging with dignity and ability the many duties connected with the Departments of Entomology and Horticulture at the Experimental Station. Mr. Morgan has recently issued a well written bulletin on the "Screw-worm," which will be thankfully received by all who are troubled with this pest.

We regret that our esteemed friend, F. C. Webster, A. O. A. C., '90, of Creemore, Ont., who took a special course last term, left us at Xmas never more to return. We miss Mr. Webster in more ways than one, he was a leading man in all sports, inside and outside the college, while he took an active interest in the Literary Society and in all matters appertaining to the college course. He intends starting farming on his own account in the spring and by combining theory with practice we feel sure he will carry on his business successfully.

We are pleased to note that J. A. Craig, B. S. A., '88, who has been editing the *Live Stock Journal* for the last two years, has been appointed professor of animal husbandry at the Wisconsin Agricultural College. The *Journal* has been wonderfully successful under Mr. Craig's able management. Although we feel that his departure from Ontario will be widely felt by the farming community, we cannot but congratulate the Americans on getting such a thoroughly practical as well as scientific man.

Many of our ex-students have taken a leading part at the Farmers' Institutes this year.

Prof. Dean, C. A. Zavitz, G. Harcourt, F. J. Sleightholm, and T. Raynor read papers at many of the Institutes and all of them were favourably mentioned in the papers, having handled their subjects in a way highly creditable to themselves and also to their *Alma Mater*. We also notice that A. Shantz, B. S. A., '90, and P. S. McLaren, A. O. A. C., '89, read papers at their respective Institutes. We congratulate these gentlemen on having done so well, also other ex-students who made themselves heard at the various Institutes. We hope the time is not far distant when the ex-students of the O. A. C. will take these Institutes entirely in hand and then the farmers of Ontario will see what sort of men the College can turn out.



Local News.

HOT buttered toast during the holidays.

WHERE'S Job? Job, why milking of course.

R. J. PHIN, silver medallist of '81, spent an afternoon at the College recently.

STRANGE, isn't it, that the want of gas should cause a ghastly darkness?

THE skating was good about Xmas time, ask Palmer and Wilkin if the water was cold then: they know.

WHY can a certain 1st. year student be heard a long way? Because he is a loud 'un (Lowden) of course.

ALTHOUGH a certain 1st. year man has persistently over-eaten himself, ever since his arrival here, he gets no fatter.

THIS year, as well as last, Buscarlet carries off the palm for the neatest room in the College. Bealey makes a close second, however.

PROF.—"The bird that gets the worm should not mind getting up early, but how about the early bird that gets left?"

THE following notice is to be seen on Mr. Grey's door:

DUNS AT OTHER DOOR.
 PRESENCE OF TAILORS NOT REQUESTED.
 MR. F. W. GREY.
 VISITORS' ENTRANCE.
 TETOTAL SMOKING ALLOWED.

A GREAT improvement in the dining hall is neat wooden shutters in place of those dilapidated and untidy looking structures, which up till now have adorned (?) the windows.

MR. MURPHY wishes us to announce that his skating rink in the bull-shed is now ready. We expect to see a large attendance as the ice is kept in first-class order by being flooded every night.

THE 3rd. year have been straggling back ever since New Year's day, looking strangely dissipated and tired, for men who are just returning from a quiet holiday.

REMY reports that our old friend Faithfull, alias "Boots," was seen in Guelph on New Year's eve. As of old, he contemplated the world with his head on one side. His eyes have not yet lost their love-sick expression.

THE local editor begs to apologize for any imperfections which may appear in his department this month owing to an unhealed wound from cupid's dart. His heart and nearly all his thoughts are in the "Ambitious City."

A GREAT and necessary addition to the College, namely a hospital is now in course of construction. About half of upper Hunt st. has been set apart, and really comfortable sickrooms provided with bath, elevator, etc., is the result.

THE following conversation was overheard at the telephone recently. "Hello, are you there doctor?" Apparently the reply was satisfactory, for we next heard. "Well, put a blanket on your horse and stay there." And then the connection was rung off with unnecessary violence.

PROF. HUNT has left us for three months. We were all very sorry to see him go, for he has always taken a great interest in our football, Y. M. C. A., and other College institutions. However he has left an admirable substitute, and this, with the thought that his absence is to be of short duration somewhat consoles us.

PROF. DAVENPORT, of the Michigan Agricultural College, who was here on January 9th, expressed himself greatly pleased with this institution. He was loud in the praise of the stock, which he said were superior to those kept at his own College. As the Michigan College of Agriculture is said to be the best in the States, we cannot but feel highly flattered by his words.

Up till now every O. A. C. graduate has of necessity been skilled in the ways of sewing on buttons and darning socks. But now, through the thoughtfulness of Mrs. Craig, the students of this institution will no longer have to wield the darning needle nor don the thimble.

OUR old friend, Harris, is still alive. He reports that the agricultural problem he is now endeavouring to solve, is to find the most effectual way of preventing the pigs from upsetting the milk cooler in the creek. The equation is as follows: X pig 2 x milk-cooler = 1120 x pig 2 = milk. Who will be the first to solve it?

CALLING upon our dear friend "Picador" the other day, we found him busily engaged in sorting his most valued treasures. Oh, ye gods and little fishes! but they were a heterogeneous collection, prominent amongst them were some 30 or 40 handkerchiefs, which, we were informed, had been filched from his fair charmers in various parts of this world. A tiny pair of gloves, such as very few ladies could wear, seemed to occupy the place of honour in poor "Picador's" heart.

A NEW and larger boiler has been put in place of the old one. That is very nice; but was it nice in consequence to be kept without hot water for three weeks? During the hot water famine a clever youth (2nd. year of course) discovered that by simply causing the steam from the radiators to pass into a jug of cold water, it was rapidly heated. This discovery is thought by the College students to be the most important one since the time of Columbus, for by means of it we were enabled to wash and shave in comfort, yea even to have a warm bath, in spite of the evident determination of the Government to the contrary.

DURING the holidays the dining hall was the scene of a lively steeple-chase, all the members of the 3rd. year taking part in it. It originated, we believe, in a challenge of Mr. S — 's to race anyone around the room. This challenge was promptly accepted, and the result was a general stampede. Job, who was gazing on the scene with astonished eyes, being fully convinced that the place was on fire, added his lusty voice to the unearthly din. Some members of the 2nd. year took the opportunity to improve their marksmanship and seizing buns, doughnuts, etc., took flying shots at the figures as they rapidly sped by.

ONE of our students of especially attractive appearance (at least he thinks so himself) was driving a pair tandem in the city the other day. The lead animal, however, was so violently smitten by the attractions of her driver that she absolutely refused to go on, but turning around in her traces contemplated long and ardently the young man's classic features. Exasperated at last, our friend shouted out "You go on," but the animal replied, "Nonsense, You come on," (Newcomon) see?

THROUGH some unaccountable oversight the names of the 3rd. year students have not been published. We apologize to them for our neglect and append them as follows: Buchanan, Cowan, J. H. Field, Holliday, Hewgill, Hutt, Linfield, Palmer, Sharman, Sleightholm and Whitley. We are tempted to print a short description of each of these heroes for the guidance of strangers, but forbear, only saying that if any of you are visiting this institution and should see a particularly dignified personage to whom the others pay great respect then know him for a 3rd. year man.

AS WE stumbled along the dark corridors at night during the holidays, our craniums came into violent contact with radiators, etc., which caused multitudes of constellations to sparkle in the heavens, which enlightened our pathways and quite took the place of any artificial means of illumination. Although this system of lighting is economical, there are two serious objections to it. 1st. It is to be doubted whether we are fulfilling our mission in life when we serve merely as fire flies. 2nd. The light thus obtained is not sufficient to enable us to make use of the reading room in the evenings, and, therefore, it is to be hoped that the same beneficent power that supplies the College reading room with papers will, before another winter, provide light enough to enable us to read them and thus be benefited.

It was for the purpose of interviewing one of our numerous local celebrities that our special reporter strolled over to the "castle" the other day, where he was fortunate enough to meet Mr. Grey in the passage. Mr. Grey hospitably invited him into his room where the first object that caught his eyes, was a gracefully arranged array of femurs, tibiae, patellas, etc., on the wall. "Why, Mr. Grey," exclaimed our representative, "you must be an old and experienced veterinarian, did you ever have much practical work?" "Well,"

said Mr. Grey, yielding to the flattery, and becoming confidential, "quite a bit; when I was stationed in Umbala I had 100 cavalry horses to look after, and would often have half a dozen broken bones to set in one day, responsible work you know." "Of course, then, Mr. Grey, since you are such an old hand, there is no truth in that vile slander which accuses you of pointing to the shoulder joint as the seat of spavin in the class the other day." But here Mr. Grey hastily pleading an engagement disappeared, promising as he went to call and explain his peculiar views in the near future.

WHAT takes one of our undergraduates to Norfolk St. Church every Sunday evening? We notice that he is always down town excuse me, Arntown, I should have said the rest of the week.

MR. J. K. S. "No, I am not in love with a single girl in Guelph."

FRUSTRATED "What? none at all?"

J. K. S. "None, none, no e, at least only one."

1ST STUDENT "Do you believe in Phrenology?"

2ND STUDENT "Yes, to some extent."

3RD STUDENT "What is Phrenology anyhow?"

1ST STUDENT "A new kind of wheat," (and No. 3 believed him.)

STUDENTS at card party playing Whist.

1ST STUDENT (Apologising to partner after atrocious play) "Awfully sorry, but that's what comes from trying to think you know."

2ND STUDENT (Angry) "Think, you idiot, don't think at whist, but watch the game instead."

The following are the results of the Christmas examinations:

First year ranked according to standing in general proficiency: 1 R. S. Shaw, O. A. C., Guelph; 2 L. G. Bell, Qu'Appelle, Assa., N. W. T.; 3 H. L. Beckett, Hamilton, Ont.; 4 A. McE. Soule, South End, Ont.; 5 J. E. Crealy, Strathroy, Ont.; 6 L. W. Eaton, Dartmouth, N. S.; 7 T. J. Hurley, Belleville, Ont.; 8 S. R. Curzon, Kingston, England; 9 H. Story, Picton, Ont.; 10 W. H. Harvey, Exeter, Ont.; 11 D. Aylsworth, Bath, Ont.; 12 W. A. Ruthven, West Essa, Ont.; 13 C. Silverthorn, Summerville, Ont.; 14 C. S. Aylwin, Port Elgin, Ont.; 15 N. Gies, St. Jacobs, Ont., and T. B. Harvey, Charing Cross, Ont.; 17 H. A. Hunter, Orange-

ville, Ont.; 18 F. C. S. Carpenter, Rat Portage, Ont.; 19 R. M. Copeland, Hespeler, Ont.; 20 B. C. Thomas, Toronto, Ont.; 21 W. W. Cooper, Kippen, Ont.; 22 A. Curzon, Kingston, England, and A. L. Kent, Toronto, Ont.; 23 J. Conn, Heathcote, Ont.; 24 W. R. Graham Belleville, Ont.; 25 H. B. Bealey, Toronto, Ont.; 27 J. D. Honsberger, Jordan Station, Ont.; 28 W. Carlaw, Warkworth, Ont.; 29 A. R. Youill, Carleton Place, Ont.

Second year (ranked according to standing in general proficiency) 1 F. A. Wilkin, Calgary, N. W. T.; 2 R. N. Morgan, Kerwood, Ont.; 3 D. Z. Gibson, Willow Grove, Ont.; 4 W. F. Newcomen, Epping, England; 5 W. L. Carlyle, Chesterville, Ont.; 6 G. F. Marsh, Thornbury, Ont.; 7 E. T. White, Clarksburg, Ont.; 8 F. C. Harrison, Ronda, Spain; 9 A. G. McKenzie, Fairview, Ont.; 10 E. C. Perry, Smithville, Ont.

The wrongs and privations of our mad poet who has just emerged from a stygian darkness of a month's duration have found expression in the following composition:

Light in the darkness, student, gas is at hand,
See through the college halls fair Vesta's land.
Drear was the darkness, student, now its quite
o'er.

Safe within the lighted halls, bark your nose
no more.

Chorus - Gas in the halls, student, gas in the
halls.

Hed not the holidays but lustily roar.

Safe in the lightness, student, stumble around
no more.

Leave those poor old coal oil lamps, and let
the gas roar.

Trust in the boiler, student, it will not fail.

Deeper the snowdrifts are and fiercer the gale;
Hed not the stormy winds, though loudly
they roar;

Our guardian Angel's got up steam, so now
he'll give us more.

Gas in the halls, etc.

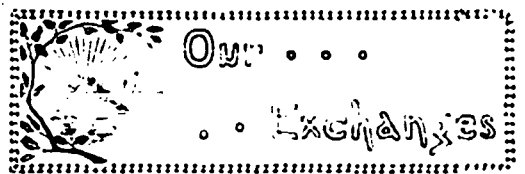
Hot comes the water, student, thankful we
cry;

Cold and Shivers disappearing, shaving is
nigh;

Safe in the bathroom, student, sing evermore,
La la la la la li ce hoo, cold water's
o'er.

Gas in the halls, etc.

At the University of Pennsylvania a \$75,000 theatre is being erected for the use of the students.



The Argentine Republic has two Governmental Universities which rank with Yale and Harvard

The *Oz* comes once more in all its gay and gorgeous plumage; the article which strikes us as being excellent is "Cowper in the Task."

We are pleased to have placed on our exchange list the *Gazette*, published by the scholars of the Brampton High School.

One of our new exchanges is the *Business*, from Peterborough, a monthly journal devoted to the interests of practical education and finance.

Resolutions protesting against the admission of women to Membership and Degree in the Cambridge University have been signed by 1,360 members.

To our "Printer's Devil:" Go tell your master to take good care that I be not mistaken for *n*, because that would be most unnatural and injurious."

O. A. C. OYSTER SOUP.

My busy days have now begun,
I hardly rest a minute;

But when School dinner soup is served
As usual, I'm not in it.

Again the *Kansas Central Lumina* comes to hand. It contains a great fund of interesting and instructive articles, which no doubt indicates the great interest taken by the students in the welfare of their paper.

A paper which we have not been in receipt of till very recently, emanates from the summit of Woodstock College. Perhaps the fault lies here. We think "distance lends enchantment to the view," and always try to get our exchanges from the utmost limit. While we should cultivate this acquaintance with those who are far away, we should at the same time cultivate even more assiduously a nearer connection and establish a closer bond of union between the colleges of our own land. We therefore hope that from this time forth we may be in receipt of a regular, continuous stream of journals, not having an intermittent pause.

"But whose numbers with increase of ages grow,
As stream's roll down, enlarging as they flow."