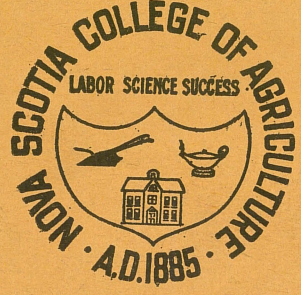
The A. C. "GATEWAY"



VOL. XXIII *NO. 2*

GRADUATION
ISSUE

NOVA SCOTIA
AGRICULTURAL
COLLEGE

AGRICULTURAL COLLEGE

The Nova Scotia Agricultural College located at Truro offers opportunities to young men and women to obtain training in Agriculture and home Economics. Former graduates to whom this magazine may come are urged to do all they can to interest the young people of their acquaintance, who expect to live and work in the country, in the courses offered.

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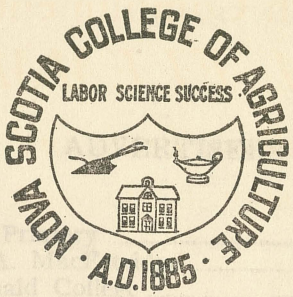

VOL. XXIII *NO. 2*

The A. C. "GATEWAY"

The Staff

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MAGAZINE STAFF

Standing, left to right: H. G. Longley, Asst. Advertising Manager; R. J. Hilton, Alumni and Exchange; J. A. Travis, Business Manager; C. E. Thompson, Asst. Circulation Manager; H. E. Robbins, Advertising Manager.

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Editorial

—o—

Another scene has ended, a scene in which the students of the Nova Scotia Agricultural College have played their part. To those who have had the opportunity of witnessing the humble efforts of the different students during the past six months it is evident that the work accomplished has been up to the standard. To those same persons it is equally visible that the principal factor responsible for the results achieved is the marked cooperation of faculty and students, This is one of the many desirable features that are manifested at the Agricultural College It is most encouraging for the students to feel that the different professors are ever ready to assist them in time of difficulties. One cannot fail to be impressed by the obliging qualities of the professors as they are encircled by groups of inquisitive students after the classes have been dismissed. On the other hand, it is always a source of much pleasure for those same professors to watch the attentive expression of the different students to whom they so willingly impart their experiences and knowledge.

As the curtain, that marks the closing of another scholastic year, is unrolled, we realize that partial separation must follow. This year a large number of highly esteemed students, graduates of both the degree and farm class, move onward and

upward to another stage, where they will continue the work already begun. Best of luck graduates! May success crown your efforts. We who are left to fill your vacant places will not fail to retain pleasant memories of you, nor will we, as followers, fail to do all in our power to play our part as you have yours.

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We Want the Fair

—o—

HOW many of the A. C. do not look forward to the ensuing year with deep regret that there is to be no Maritime Winter Fair held at Amherst? We look upon the trip not only as a holiday but as a means of getting acquainted with Agricultural men who rank high in their profession, as well as an opportunity to look over the results of the work of the energetic farmers of the Maritimes. Students going out in the Dominion on Agricultural work should become personally acquainted with such men.

The day spent at the Fair is never dull. Agricultural students are attracted at once to the great lines of cattle of the various breeds and the highest quality. The owners, or their foremen, are very courteous in answering questions thrown at them from all angles. Here the student, planning farming as his life occupation, has an opportunity to compare the points of the various breeds and

even select foundation stock for his future herd.

From the cattle one may turn his attention to horses, sheep, swine and poultry. These are all well arranged, of very high quality, showing the fruitful efforts of years breeding and are very encouraging to a farmer just starting his occupation. The vegetable exhibit, due to the lateness of the season, is not large but the produce is of very good quality.

No student fails to notice the attractive industrial exhibits that are yearly placed before the public in various booths. In many cases the arrangement of their exhibits truly represents a work of art. Here the exhibit of the Experimental Farms Department usually leads in attractiveness and one may study with interest the achievements of experimental workers and receive valuable information from those in charge.

Last but not least in the educational line, one may enter the open judging of livestock. This is constructive work as well as remunerative, and a large audience watch the placings and listen to the reasons attentively.

Amusements abound. Various opportunities are presented by which one may get rich quick??? Freaks of nature are shown at a small charge and many of our students have not outgrown the day of the "merry-go-round." Let us all then hope that the cancelling of the Winter Fair will only be for this year, and that a bigger and better one will celebrate its re-opening.

—C.E.T. '33

The Fisherman at the Gate

—o—

There was a man of truthful speech,
(A fisherman he was,)
Who measured fists within his reach,
To the nearest pound and ounce.

This paragon, his journey o'er,
Breathed his last words and died,
And met upon the further shore,
A fisherman, who lied.

Anon, they travelled to the Gate,
Where Peter waits to see,
Newcomers and approve their fate,
Before he turns the key.

He bid the liar speed him well,
And enter Zion's Court,
And sent the other down to Hell
For undermining sport.

J.C.H. '33

———o———

It does not take much strength to do things, but it requires great strength to decide on what is best to do.

Charles Darwin's Theories

(Continued from last Issue)

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Criticisms of the Theory of Natural Selection

—o—

WE shall consider in the next few pages of this issue, some of the criticisms of the theory. These might be classified roughly as follows:

(1) Criticisms given by those who condemn the theory as being contrary to their so-called "Orthodox" beliefs.

(2) Criticisms due to scientific difficulties involved in the theory.

The first class of criticisms, namely condemnations by those who consider the theory as unorthodox, we will not consider in this article.

The second class of criticisms, namely, those that are scientifically justifiable, shall require more of our attention.

(1) It has been urged that a large number of specific characters are seemingly useless, and consequently are not capable of explanation by the Darwinian Theory. This certainly seems to be a rather strong objection to the theory, but as Darwin pointed out, we have to be extremely careful in deciding what structures now are, or have formerly been, of use to each species.

(2) Another very serious objection is that Natural Selection cannot possibly explain sterility

between species. If cross - infertility is a useful property, which Darwin claims, and which it seems to be, then it cannot have arisen through Natural Selection. For as Morgan states, "if two varieties were to some extent at the start less fertile than with their own kind, the only way in which they could become more infertile through selection would be by selecting those individuals in each generation that are still more infertile, but the forms of this sort would become less numerous than the descendents of each species itself, which would therefore supplant the less fertile ones." This difficulty was demonstrated by Darwin himself.

(3) A third very evident objection to the theory is that, while Natural Selection might produce a continuously graded adoptive change. it could not produce separate, distinct species. The changes would be linked up into a continuous series, and the question arises as to how the series can be broken up into distinct species. Darwin admitted this difficulty also, and as he says "for a long time it quite confounded him. The explanations he gave were very unsatisfactory, and as Kellog has said, "the theory of Natural Selection must call to its aid some isolation or segregation factor, and as isolation is certainly most commonly effected through migration and geographic means, it is usually this factor of geographical isolation that Natural Selection must be accompanied by to form new species."

There is a general statement that may be

made with regard to these three objections to the Natural Selection theory, namely, that as Romanes pointed out, "none of these facts is entitled to rank as an objection to the theory unless we understand it to claim exclusion prerogatives in the field of organic evolution." Darwin never did this but asserted just the opposite, both in his introduction to the "origin" and in his conclusion of it, as we have already seen. Wallace on the other hand did claim this for Natural Selection, and hence the objections are valid when arrayed against the theory as upheld by him.

(4) A fourth objection which has been advanced by most of Darwin's critics, is that Natural Selection cannot explain the preservation of variations before they have progressed far enough to be of use to the organism. "Structures cannot be selected by utility in the struggle for existence until they have not only been produced, but have been so far perfected as to be actually used." Slight differences in organs or functions are not sufficient to form handles, as it were, for Natural Selection to seize upon and use. Darwin recognized this difficulty, and in the Origin described at considerable length many cases to show that very slight differences may be sufficient to turn the scale in the struggle for existence. Slight differences in the neck of the giraffe, for example might mean the difference between life and death, during time of dearth when food could only be obtained from the very tops of the trees.

(5) ORTHOGENESIS—A fifth objection

to the Natural Selection theory is one closely related with the fourth, namely, the difficulty of explaining the beginnings of useful modifications, and of development along apparently fixed lines, not of evident advantage to the animal; also of over-development of parts, leading to destruction, as has been revealed by the palaeontological record of the Cretaceous reptiles. These and similar instances have led to the formation of a theory called Orthogenesis, or definitely directed evolution, defined by Eimer as "evolution not as Darwin assumed accidentally, and in numerous and even widely diverse directions, but systematically and conformably to law in only a few directions." The translation of definitely directed development into the word "Orthogenesis" was first employed by Wilhelm Haacke in 1893. A number of different types of orthogenetic theories have been developed, and advanced as substitutes for the Natural Selection theory of Darwin. One of these which might be called Vitalistic Orthogenesis was advanced by Nageli, who assumed a so-called "principle of progressive development, something inherent in the organic world which makes each organism in itself a force or factor making toward specialization, or progressive evolution." Nageli was of the opinion that animals and plants would have developed along much the same as they have done, even if there had been no struggle for existence, simply because of this so-called vitalistic force that urges them on.

Eimer, on the other hand, is the exponent of what might be called Mechanistic Orthogenesis, assuming that evolution is driven along certain direct lines by physico-chemical factors. As he himself says "Orthogenesis is a universally valid law . . . . . which shows that organisms develop in definate directions without the least regard for utility, through purely physiological causes as the result of organic growth." In the introduction to his paper on "Orthogenesis" and the Impotence of Natural Selection in Species-formation," delivered before the Leyden Congress of Zoologists, he pointed out the morphological character of species-formation, saying, "In the formation of species we are concerned essentially with characters that have no special biological significance whatever, and which must be without any utility for the animals; we are concerned, in fact, with the definitely directed evolution of the most widely varying exterior morphological characters. It was especially shown long ago by Nageli for plants that precisely the species-forming characters are largely morphological only and are particularly such as can have nothing to do with utility."

Eimer's theory is not the result of speculation alone, but is the conclusion he arrived at after many years of observation and study. He made careful studies of the color-markings of butterflies, lizards, birds and mollusks.

Cases have frequently been cited for Ortho-

genesis from fossil records, where examples are found of dinosaurs with horns first appearing as protuberances that are so slight as to certainly not be useful, and which increase as though driven on according to a certain definite plan.

(6) Mutation theory . . . . . .There is another theory that has be classed as an objection to the theory of Natural Selection, and though we have left it to the last of our list, it is by no means the least important. On the contrary it is the one upon which perhaps most emphasis of all ought to be placed. The theory is so important it should be taken up by itself. Nevertheless only a brief outline shall be given of it here. It is occupying the attention to-day,of many investigators in experimental biology, and doubtless the evidence in its favor will be continually increasing. I refer to the Mutation Theory, which was originally advanced by Hugo DeVries of the University of Amsterdam, and which has been developed also by the Danish botanist, Johannsen, Thomas Hunt Morgan of Columbia University, and others.

The theory makes use of the facts of Mendelian Heredity, and distinguishes between Fluctuations which are non inherited variations, and Mutations, which are inherited variations, apparently due to changes in the Genes. DeVries, working with the Evening Primrose, ENOTHERA LAMARSKIANA, found new types appearing which were the result of mutations and not as Darwin had supposed, of fluctuations extending over many generations.

Morgan, working with the fruit-fly DROSOPHILA, also found that new varieties that bred true were the result of mutations or changes in the genes, and he has worked out a very strong case for the Mutation Theory. He concludes his "Critique of the the Theory of Evolution" by saying that "the evidence shows clearly that the characters of wild animals and plants, as well as those of domesticated races, are inherited according to Mendel's Law . . . . . and that evolution has taken place by the incorporation into the race of those mutations that are beneficial to the life and reproduction of the organism."

The Mutation Theory is not in direct conflict with Darwin's theory, but rather is a modification of it. It explains the way the variations themselves take place, and after they have taken place, then through a process of selection these variations are preserved. As DeVries himself has expressed it, "Darwin discovered the great principle which rules the evolution of organisms. It is the principle of Natural Selection. It is the sifting out of all organisms of minor worth through the struggles for life. It is only a sieve, and not a force in nature . . . . . only a sieve which decides what is to live and what is to die . . . . . It keeps evolution on the main line, killing all, or nearly all, that try to go in other directions. By this means Natural Selection is the one directing cause of the broad lines of evolution."

L. E. S. '32

A Dissertation Upon Roast Pork

—o—

AWAY back in the dark ages, even before the Christian era, states a Chinese manuscript, a Chinese husbandman made a wonderful discovery—that pork was good to eat. No one had ever thought of the possibility of eating pork, for in those days pigs were pets.

This manuscript goes on to say that the art of roasting, or rather broiling was accidentally discovered in the manner following. The swine herd, Ho-ti, having gone out to the woods one morning to collect mast for his hogs, left his cottage in care of his eldest son Bo-ho. This lad was fond of playing with fire, and during his father's absence he let some sparks ignite a bundle of straw which quickly spread the flames, reducing Ho-ti's mansion to ashes. Together with the cottage a fine litter of new-farrowed pigs, no less than nine in number, perished.

Bo-bo was in utter consternation, not so much for the sake of the tenement, which his father and he could build up again in an hour or two, as for the loss of the pigs. While he was thinking what he would say to his father, and wringing his hands over the smoking remnants of one of those untimely sufferers, an odor assailed his nostrils, unlike any scent which he had before experienced.

A premonitory moistening at the same time overflowed his nether lip. He knew not what to think. He next stooped down to feel the pig, if there were any signs of life in it. He burned his fingers, and to cool them he applied them booby fashion to his mouth. Some of the crumbs of the scorched skin had come away with his fingers, and for the first time in his life (in the world's life indeed, for before him no man had known it) he had tasted roast pig. Again he felt and fumbled at the pig. It did not burn him so much now, still he licked his fingers from a sort of habit. The truth at length broke into his low understanding, that it was the pig that smelled so, and the pig that tasted so delicious. Bo-ho surrendering himself to the new-born pleasure, fell to tearing up whole handfulls of the scorched skin with the flesh next it, and was cramming it down his throat when his father entered. His father finding how affairs stood, began to rain blows upon the young rogue's shoulders, which Bo-bo heeded not any more than if they had been flies.

Ho-ti was mad with rage. He cursed his son and he cursed himself that ever he should beget a son that should eat burnt pig. Bo-bo whose scen was wonderfully sharpened since morning, soo raked out another pig and thrust the lesser half by main force into the fists of Ho-ti. Both father and son sat down to the mess, and never left off until they had nnished all that remained of the litter.

Bo-bo was strictly enjoined not to let the secret escape, for the neighbors would have certainly stoned them for a couple of abominable wretches. Nevertheless, strange stories got about. It was observed that Ho-ti's cottage was burnt down more frequently than ever. Nothing but fires from this time forward. Some would break out during the day, others during the night. As often as the sow farrowed, so sure was the house of Ho-ti to be in a blaze. At length they were watched, the terrible mystery discovered, and father and son were summoned to take their trial at Pekin. Evidence was given, the obnoxious food itself produced in court, and verdict about to be pronounced when the foreman of the jury begged that some of the burnt pig be handed into the box. To the surprise of the whole court, townsfolk, strangers, reporters and all present—without leaving the box, or any manner of consultation whatever, they brought in a simultaneous verdict of "not guilty."

The judge, who was a shrewd fellow, winked at the manifest iniquity of the decision. When the court was dismissed, he went and bought up all the pigs that could be had for love or money. In a few days his Lordship's town house was observed to be on fire.

Later, states this manuscript, farmers began to cure their pork by cutting the carcass into small pieces and rubbing salt into each piece, and putting it away in a barrel. Hams and shoulders

were smoked over a fire after they had been in salt for two months.

Some farmers after killing a hog, would render out some of the fat in an iron caldron. Some would even go as far as making their own sausages. Small dealers we are told would kill a few hogs, sell the sausage and lard, cure and smoke the parts, carrying them as far into the summer months as they could, selling them out to their trade.

The foregoing might be considered a short synopsis of the pork-packing industry up to a point which we will call the Modern Era. The advent of refrigeration, however, really marked the beginning of the modern packing era. When men learned the control of temperature it became possible for slaughter houses to assume such proportions as to warrant scientific research for the best possible methods of carrying on the business. The story of the development of these methods would be almost endless, but a trip through an up-to-date packing plant of the present day will show what time has brought about.

As the hogs come in from the farmers and shippers, they are received by the live stock department, where they are carefully sorted and graded and then run into the holding pens. Veterinarians in the employ of the government examine all hogs that come into these pens, and any that seem to be at all sickly, or for any reason un-

fit for food, are held out. The hogs are then driven to the killing floor, where a shackle is attached to one of the hind legs and they are hoisted one by one, by means of a slowly revolving wheel on to a sticking rail. Hogs are suspended from this rail by the hind leg and when stuck they bleed freely. As they pass along this rail they enter a cleaning machine. This machine contains a number of rotating beaters and high pressure streams of scalding water. As soon as the hogs came out of this machine, workmen finish the job of cleaning the carcass. Veterinarians make a thorough inspection of the glands and other organs of the hog. They are so particular that even bruises must be trimmed out before the carcasses are allowed to pass.

Passing from the killing floor to the chill rooms one is impressed by the great number of hogs hanging there at a temperature near the freezing point. After about forty eight hours in these chill rooms, the hogs are run on to the cutting floor where they are made into the various commercial cuts which are seen in the meat market at home.

The cutting room is a light, airy room and everything in it seems a perfect example of cleanliness and men all work with white aprons, jacket and caps. The hogs are conveyed around the room, past the various workmen by means of a moving bench, so that each man's work is put right be,ore him and he does not have to make any un-

necessary moves. The whole department works like one vast machine, and each man is a very necessary cog in the whole scheme of procedure.

The next step is in the by-product building. We have often heard the old story that "everything about a packing house is saved except the squeal." A visitor to one of our large packing plants when told this story asked "how about the smell?" But the laugh was on him, for the guide showed him how the air containing any odor was run through a condenser and into water which absorbed it. The gases which had made the odour in the first place, were then taken out in the form of solids by evaporation.

Other by-products in connection with a packing plant are tankage, fertilizer, lard, grease for soap stock, and hog hair. Each by-product requires skilled workmen and expensive machinery in its manufacture.

When we stop to look at some of the attractive cuts of bacon and hams in our meat markets, and think of the proportion of our food which is a packing-house product, we are glad indeed that conditions such as those described above are becoming available more and more every day.

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Public opinion is the judgment of the incapable Many opposed to that of the Discerning Few.

Elegy Written in a Country Cow Yard

—o—

The cow bell tolls the knell of parting day,
The lowing herd wind slowly o'er the lea,
That milking time will soon be on the way,
Is painfully, alas, brought home to me.

Far from the maddening crowd's ignoble strife,
Their calling gives but little time to stay,
Content to lead the quiet simple life,
And keep upon the straight and narrow way.

The boast of heraldry, the pomp of pow'r,
The victory won on the fields of Marne,
Awaits alike the inevitable hour,
The paths of duty lead but to the barn.

Beneath those rugged elms, that yew-tree's shade,
Where heaves the turf in many a mould'ring heap,
Each in a narrow cell for ever laid,
The rude ancestry of the milk herd sleep.

Over there in that neglected spot is laid,
A cow with qualities an expert might desire.
With more attention, a record might have made,
And pushed the average just a little higher.

Full many a jem of purest ray serene,
The dark unfathom'd caves of ocean bear.
Full many a flower is born to blush unseen
And waste its sweetness on the desert air.

The Epitaph

—o—

Here rests beneath this lap of Earth,
An animal to the Live Stock world unknown.
Fair science frown'd not on her humble birth,
And fell misfortune marked her for her own.

—Anonymous

—o—

Moonlit Eve

—o—

THE man leaned upon a stone pillar and gazed seaward. One felt that he was not a very young man, nor either a very old one. This feeling was accentuated by the black and white of his dress.

Below him stone stairs fell to a little silver-lit beach; but he looked beyond and out to where a group of islets, tiny grass covered meadows, jewelled the evening sea. Often in the years before he had gazed at them—and now he had returned. Further away there stretched a long black breakwater, just inside of which rode a grey ship, so faint her outlines as to be made perceptible only by the moonlight. Often in the days past, the man had looked towards this breakwater through

his glasses, and seen white sails of vessels pass its farthest end. Always the green waves had broken in a white roar on the stones; but to-night he knew the sea lapped softly at their base. From the garden behind there came the scent of lilacs damped by sea air. Turning, the man sank upon a bench beside the gray stone pillar. The ships and the isles of the bay, the green lapping water and the delicate lilac odour, everything about the place brought him memories. His eyes dreamed.

From somewhere back of the garden there floated softly the strains of an old waltz. On a half darkened verandah, festooned with faintly glowing tissue lanterns, slowly glided couples, girls in trailing gowns, men in black and white, and men in gorgeous blue uniform, gold striped. To the man under the pillar they seemed unreal. He watched quietly, through half closed eyes, the night turning to white magic for him. He knew the women were beautiful; but it was unconsciously that he singled out one, tall and wearing a filmy white gown. Now she had come to the railing and was leaning out into the white night, as though looking for something beyond the dim expanse of lawn. The man sighed gently, almost imperceptibly.

Hardly had the sigh passed his lips when there stood before him in the silvery little path, a slim filmy white figure, a tender smile in her eyes and on her lips, red even in the silvering moonlight. She gazed down upon the man on the

beach. He, the night magic filling deeply his being, tightly closed his eyes, as though she were a vision that would escape him. At once he felt two tiny hands gently pressing apart his eyelids: and he knew that he was not sleeping.

The pillared stairway had turned to purest marble and all the night was made of imagery. "Why do you sigh?" she asked. The man stirred as if from the consciousness of a half-dream. The sweetness in her voice and the scent which clung indefinably to her hair, awakened the last hidden corner in his poet's soul. He answered "You—to have you here beside me forever in such a night as this. The light making a pathway to the moon . . . . . ."

Suddenly he felt the warm pressure of her body against his shoulder, and her rose-petal mouth lightly on his own. The earth hung silently in space.

A boat grated harshly on the beach below. Out of it stepped a tall uniformed figure, his cape wrapped loosely around one arm, holding the single gold circle it bore. The girl sprang up and laughed. A short laugh. She stood a moment as she lighted a scented cigarette, the flame outlining the rouged shape of her lips. Then she ran easily down to the boat, singing lightly some popular air.

From somewhere near the road came the dischordant rumble of a street car. The man shivered. Far out in the moonlight path drifted a tiny vessel with two figures in it. One dark-caped, the

other filmy white. The man smiled faintly as he turned once more to the waters—over them the distant strains of her song. That was all. As he looked away he sighed gently, almost imperceptible.

—D. T. '33

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Longevity

—o—

Does the Honey Bee Hold the Secret to Long Life?

—o—

WE wonder, if the lowly, but industrious honey bee, which has contributed to the food of man from prehistoric times, possesses the secret of longevity, which if properly applied may add to the span of man's years, as well as several feet to his stature.

We know that in these days of wars and rumors of wars, some men and women are reaching and going beyond the traditional three score years and ten or four score years as was the promise found in the Psalms. But I am inclined to believe that the Lord meant what he was saying Genesis, Chapter six, verse three "My spirit shall

not always strive with men, for that he also is flesh; yet his days shall be an hundred and twenty years."

Less than a hundred years ago, the average man lived an allotted span of forty years. Men died young. It was thought to be in the nature of things, and the terrible toll of baby lives went on practically unchecked. The pioneer strain was still strong, and men were rugged, and the ruggedness carried them sometimes to old age. In 1840, in Canada the average span of life was forty years. To day with all the increasing hazards of living, the average has increased to forty-eight years. And that is not the end.

"The extent to which life may be prolonged is problematical" says Dr. Gordon Bates, secretary of the Canadian Council of Hygiene, "Certainly seventy is by no means the limit. An average of one hundred may be achieved in a comparatively short time. We need not peer further into the future than that." It is not that the enemies of life have laid down their arms, but that man has fitted himself for battle. These men of science are working steadily in hospital and laboratory, that some particular point in the great battle might be gained. Eighteen years have been added to the average span of human life in Canada, almost half the life time of the man of the eighteen forty's. This achievement has been due to the progress of medical science, and the education of mankind in disease prevention and health standards.

Not content with prevention alone, medical science is now wondering about the chemical content of royal jelly, that predigested semi-liquid upon which queen bees are nutured to maturity and which, apparently produces a life span six to eight times greater than that of the ordinary worker and if the substance would have the same effect on humans.

It was back in 1928 when Dr. F. G. Banting who is joint holder of the Nobel Prize with Dr. J. J. R. MacLeod for their discovery of insulin in 1923, turned his attention to this question. He with Professor H. F. Jackson, of Toronto University, turned his attention to the life-prolonging possibilities of Royal Jelly, although their work was hampered for a time by the scarcity of royal jelly.

The appearance of a freak queen bee in a hive belonging to John I. McArthur, one of the leading apiarists of Ontario, is responsible for the present research movement. It first attracted attention because of its great size. It was much larger than the ordinary queen, and while it possessed the upper body of an ordinary worker bee, it was equipped with the delicate lower structure of a queen. What caused this? For years apiarists have known that in the egg and larva form, there is actually no distinction between those bees destined to be queens and those which are to become workers, the diet after hatching determining the ultimate result. But in maturity the difference in appearance is so marked as to be un-

mistakable.

Undoubtedly the secret of the queen bee's high development and long life lies in the food given her by the bee nursemaids during her period of growth. Young queens are pampered, petted and spoiled like so many royal human princesses. In fact they are kept prisoner within their cells, being fed their daily ration of royal jelly by attendants through a small hole in a wax door made for that purpose.

Francais Huber, a blind Swiss naturalist of a century ago, was perhaps the first to discover the mysterious alchemy of honeybee royal jelly. Since Huber's time, apiarists have conducted more complete experiments, allowing the workers to feed royal jelly until the bee's maturity, and have been surprised to find the young worker grub actually becomes, to all intents and purposes, a genuine queen.

Honey and flower pollen, mixed with dew or other moisture to dampen it, constitutes the "bee-bread" on which worker larvae are fed. Worker bee larvae are at times fed raw pollen, but drones and queen bees never eat it, and since flower nectar is non-nitrogenous, it is obvious this element must be obtained from some other substance, an ingrediant in the rich jelly menu of the choosen few.

It will be Professor Jackson's duty to devise the chemical content of this royal food. We can hardly imagine the importance of this experiment

should the chemical content of royal jelly be successfully analyzed and found to have a like effect upon man.

Fed with this mysterious food, a queen bee's life is in length, three times that of a drone and from five to fifteen times that of a worker. In addition, a queen bee is almost twice the size of a worker and a third again as large as a drone. Transferring that ratio to mankind, we get a vision of men growing to nine or ten feet in height, a third to a half again as strong as they now are and with a life span from two hundred and fifty years upward. After having considered this, it is little wonder that the whole world now awaits this great laboratory development.

—L. E. S. '32

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An A. C's. Temptation

—o—

It was a Normal student,
She looked across the street,
She looked up and down,
Hoping an A. C. to meet,
"A show at the Princess
Do I so want to see.
I'll find an A. C. student
To come and pay the fee."

As this Normal College student
  Was walking by the Strand,
She was aware of an A. C. fair
  Come strolling near at hand.
He was so very handsome,
  And he was clad just so;
"Ah! My Agricultural Student
  I'll soon have you in tow."

"The show that's at the Princess
  I yearn so much to see,
If you also would like to go
  I'll be your company.
Many A. C.'s are asking,
  But I refuse all but thee.
You are the one College student
  Who may come along with me."

That lad was very prudent,
  That A. C. young and bold.
He left the Normal Student,
  He left her in the cold.
"Go weep and mourn proud maiden,
  A. C's. are wise to-day.
They have their moral standards
  From which they will not stray."

—H. A. M. '33

The Beautiful Margaree

—o—

THIS time I write of Margaree, the beautiful Margaree, which yet awaits the pen of authors to sing its praises. Already its fame rests secure in many songs and in the heart of many a man and woman. For, can anyone who has seen Margaree, forget it? To those who have had that pleasure this poor description of mine will seem as cold as the grey dawn compared to the wonderful picture they have concealed in their minds. But I am writing for those who have not yet feasted their eyes on such a sight. If I could but give a glimpse of a picture a thousand times more picturesque than they could imagine, I might perhaps make them understand nature's beauty.

Verily, Margaree has been described as "the prettiest spot on earth." My adjectives are entirely too limited to give you a real impression of its magnificent beauty. Imagine if you can, a long level valley, so level that the eye is only arrested by stupendous mountains on both sides, their wonderful verdure lost in the clear blue of a cloudless summer day! Through the middle of this runs a broad, peaceful river with so many nooks and crannies, which seem to invite one to sit down and watch fishes at play. Here and there throughout this green valley you can see groups of stately

maples and rugged elms standing proudly in the midst of this green expanse seeming to dare anybody to take from them what is theirs. Oh! what could be better than to sit out there beneath those lovely trees and admire nature's wonders ?

To the tourist who sees Margaree for the first time it is indeed an impressive sight. Without warning he is suddenly ushered into a veritable vestibule of beauty. It is like entering for the first time a magnificently decorated palace. You are overwhelmed with awe. It leaves you utterly speechless.

And now for the last scene. The sun sets, casting its fiery glow on the mountainside, lingering as if loathe to depart. Then out comes the pretty little stars twinkling and dancing with fun. And what a sight they must see below! A peaceful river flowing gently, reflecting the pale moonlight so beautifully. It seems that starry nights are born in Margaree, else how could they be so plentiful ?

And now I must end. Do not think for a moment that the purpose of this writing is to boast in the least the country I love and cherish, but rather to give you a picture, very poor indeed, of a truly delightful scene.

T. C. C. '33

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The way for a millionaire to summon his family is to die and have his will read.

How England Has Dealt With Unemployment

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ONE of the great problems that confronts the statesmen of practically every country in the world to-day is that of unemployment.

There are two parts to this problem. The first is to find or else create work for the unemployed; most countries have tried, at any rate, to do this. The second is to provide a means of existence for those who are at present jobless; many countries have virtually ignored or else evaded this issue.

Most people on this side of the Atlantic know that here we have bread-lines, soup-kitchens and relief funds in many big cities and industrial areas. In England there is the dole system. I want to bring out a few facts concerning the latter. It works like this:

As soon as any person, who is working, reaches the age of sixteen he or she immediately applies at the Post Office for a "Health Card" and at the nearest Labour Exchange for what is pessimistically termed an unemployment card. Your name and number go down on the card and from that moment on, whether you like it or not, you are "in the scheme."

Both cards are usually handed in to the employer. The "health card" business is taken over by a recognized Insurance "Friendly Society" and is run on strictly business lines so that we need not discuss that. One can let the government handle this part of it too; but they quite frankly warn everyone that any benefits paid will be decidedly lower than those paid by the Society. The Unemployment card is a more personal affair.

The important thing with both cards is that each half year, come fire, flood, or pestulance, they must be surrendered filled up with stamps paid for, in cash, at the Post Office.

The premiums for this particular type of insurance are quite high. In Canadian money they are: At sixteen years old, 36 cents a week for health, and 30 cents a week for employment. When the person is 18 years old they are raised considerably, and, as a present, on one's 21st birthday, they are again increased.

The employee pays half and the employer the other half. Of late years considerable sums have had to be taken from the Treasury to supplement the Fund.

Usually the employer will deduct half the value of the stamps from his employee's wages and will then buy the stamps and graciously supply free the moisture wherewith to stick them on the cards, which are in his possession.

The net result is that every young person

who is just starting out to work, probably for comparatively small wages, is taxed to the extent of $17.16 per year on this score alone, and the employer pays a like sum. The term "dole" begins to lose some of its significance.

This completes the scheme as far as the great majority of workers is concerned. They work on —grumble and pay—and many of them even forget to grumble.

According to official directions, when a man or woman becomes unemployed they should take their card to the Labour Exchange (If the employer does not surrender it promptly and stamped up to date—he is in for a quick dose of trouble.) The person's name is listed and, until he or she can find suitable employment they receive money each week from the Exchange.

Space does not permit me to describe in detail the varied ritual which one has to go through in order to obtain any money. Suffice it to say that one's credentials are strictly examined and, of course any offer of suitable employment that is made by the Exchange must be accepted or payments cease. The recipient must be over 18.

Such, in brief, is the system which England has followed.

As a system it has been reviled and ridiculed on both sides of the Atlantic. The surprising thing is that so many people are misinformed about it or have very vague and misleading ideas

as to its workings. I have set out a few facts concerning it.

A man may work hard and steadily for years and pay compulsory premiums which, if paid to an ordinary insurance company, would buy a fair sized policy. Why, when he is thrown out of work, should he not receive a just and honorable grant until he can find work again?

Its great weakness lies in the fact that its originators did not foresee then the number of unemployed and the duration of single cases would reach the state which they have to day.

Unemployment has become worse; and the resultant discontent among the jobless has meant that gradually a stigma has become attached to the recipient of the "dole" and to-day the average honest worker and especially those engaged in office work, pay their part, and, when out of a job do not even think of going to draw the "dole."

It is worth while noting that the amounts paid out are not such as to encourage the receiver to live a life of luxurious ease; and stories of people who exclaim that they will not work while they can get so much on the dole are, for the most part, quite untrue. A married man may get about $6.00 a week, and a look at the downcast and pinched faces of men in a district where unemployment is rife, would soon explode the myth of "taking life easy on the dole." One pair of silk stockings would completely take care of a girl's weekly allowance.

There has, of course, been the evil element connected with it. This has been so well aired that I need not enlarge upon it here. As one writer has remarked it was a scheme "humanely conceived and humanely exploited."

With all its faults, it has been an honest attempt to meet this great problem. One thing is certain; that it will be a lot harder to discontinue it than it was to adopt it and the chief difficulty is to find something that is genuinely better and yet within the realm of possibility.

—D. C. '33

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Ode on Horncastle Learning to Milk

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He had one great ambition
One life-long aim I vow
To learn to be a farmer
And milk the noble cow.

He came up to the College
With this his cherished aim
To fill a pail with foaming milk
And thus gain worldly fame.

He journeyed to the cow-barn
One clear, cool, starlit night
Resolved to take the fatal plunge
And try with all his might.

He sat down softly by the cow
With a proud yet timid air
And spoke sweet nothings in her ear
As to his lady fair.

He knew the female nature
In its very fickle state
He knew they liked his line
Thus did Horncastle elate

The cow gazed fondly on him
And listening to his chaff
And thought, can it be possible
That this should be my calf ?

Appearances upheld him
But his milking told the tale
He was propelled swiftly thru the air
Close followed by the pail.

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Five hours of manual labour will not only support the student, but it will add to his intellectual vigor and conduce to his better physical, mental and spiritual development.

The Use of Commercial Fertilizers

—o—

IN a short time Spring will be with us again and as we welcome this much loved season we must also accept the problems which are doomed to accompany this particular time of year.

Men of various occupations all have their own matters to take into consideration. This is equally true of the farmer. One of the most common and most important questions which is bound to face every modern farmer of the present day is that of the use of commercial fertilizers. When I refer to the use of commercial fertilizers I mean, of course, economical use, for, just like many other products, fertilizers may easily be wasted, or at least unprofitably used. Such a practice would possibly be less worthy of careful consideration during a period of noted prosperity on the part of the farmer, but under the weight of depression which has been confronting the farmer during the past two or three years the economical use of fertilizers is of extreme importance.

I feel that the time has come when all farmers are fully convinced of the value of commercial fertilizers in the production of crops, so that any exhortation as regards the actual use of the same would be practically useless. In almost all parts of the world today we meet with a unanimous opinion concerning the question as to whe-

ther or not fertilizing pays. Furthermore, it is now a well known fact, that fertilizers not only act as stimulants of the soil, but as plant nutrients as well. It would be rather foolish to apply fertilizers if their sole function was that of acting as soil stimulants. If such were the case all the mineral matter contained in the soil would be exhausted in a very short time, with the result that the soil would become lifeless as far as plant growth is concerned. Fortunately, however, such is not the case. While fertilizers force a crop to a certain extent, we are by no means justified in saying that the mineral matter is forced out of the soil, thus leaving the soil barren. Fertilizers do enliven a soil, so to speak, but the good results shown in crop production is to a greater degree due to the extra mineral matter which has been added to the soil. This matter is in such a condition as to be made available for plant use in a very short time after the application is made. This is particularly true if the amount of rainfall is sufficient to dissolve the fertilizer and thus form what may be called a fertilizer solution which is readily absorbed by plants. Due to the fact that all food must be in solution before it is of value to the plant and that fertilizers dissolve quite rapidly, we may always expect quick returns from fertilizer applications. This is a very decided advantage which has long since been fully realized by successful farmers.

Knowing then that the use of commercial

fertilizers not only increase crop production, but also governs that increase in such a manner as to bring ready returns, the modern farmer should by no means hesitate, on account of present depression, to provide his soil with all such mineral matter as he considers necessary.

F. L. '33

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Golden Guernsey

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TO those who are not familiar with the term "Golden Guernsey" I will explain. It applies to the Guernsey breed of cattle and acquired this name by the richness and golden color of its milk. The milk when bottled is very pleasing to the eye and on a good many markets commands a premium over the milk of other breeds. The body color which is generally fawn with white markings is also another reason for the breed being called "Golden Guernsey."

In starting I would like to give a little of the past history of the breed. Originating on the Channel Islands where they have been bred for many years, especially on the Island of Guernsey. Early in the nineteenth century they were shipped in small numbers to nearly every part of the

civilized world, more of curiosities first than for their agricultural value, but after a time in England they became a fashionable fad among the rich. They were kept chiefly for their cream on the breakfast table. At first their ugliness was their chief beauty, being at that time small bony cattle with steep rumps, ewe necks, and a general humped up appearance. To the practical dairyman they were far from attractive, other than for their richness of milk.

In February, 1824 the breeders on the Island proceeded to adopt a type which would eliminate some of the objectionable features and make the animal much more attractive and at the same time keep up and improve the qualities for giving rich milk. A great varety of colors were found in the breed at this time but the fawn color with white markings appeared to dominate and being very attractive was accepted as the typical color of the breed.

Many factors had to be taken into consideration by the breeder in breeding the Guernsey down to its present uniformity of type and producing abilities.

Animals of good size and rugged constitution had to be selected and used as breeders. The many discouragements and set-backs met with by breeders of this breed would have been enough to kill interest in the Guernseys long ago, had it not been for its characteristic of supplying such rich milk. And for this reason the Guernsey cow has

been very much in demand the past ten years. The demand is increasing and this breed has dominated all other dairy breeds for quality of milk and a close competitor for production.

The first Guernsey cow imported to North America was Signet '99 coming to Boston and was purchased by James M. Codman. In 1878 two Guernsey cows, Rosy of Les Vauxbelets and Rosebud of Les Vauxbelets 2nd, the first to come to Canada, were purchased by J. J. Abbot of Montreal. The Maritime Provinces first imported Guernseys in 1886 and were purchased by E. R. Brow of Charlottetown. P. E. I. Some of this blood may be traced down to the present day Guernseys in the Maritimes.

Among the first breeders in Nova Scotia was Mr. T. D. Blaikie, of Great Village, Colchester County, who purchased his first Guernsey bull in 1898. Mr. D. G. MacKay of Scotsburn, Pictou County, was also an early breeder. His son Mr. Allie MacKay is now carrying on and many fine individuals known as the Spruce Grove strain have been bred on this farm. Many are the respects paid to the late Howard W. Corning for his achievements in furthering the Guernsey breed in Canada and Nova Scotia especially. The blood from this herd can be traced into the finest Guernsey herds in Canada. On the death of Mr. Corning the late F. W. Swindells bought the herd and thus formed the nucleus with the herd of Mr. James Roper, of P. E. I., of the present Beech Hill Farm,

Princeport. Many other breeders in Nova Scotia and through the Dominion have achieved remarkable results in the breeding of Guernseys.

Both the bulls and cows of this breed are of a very quiet and uniform temperament. This even temperament has been very conducive to the adaptibility of the breed to the various climates and conditions of the world at large. The only hindrance to their widespread introduction has been the fact that for the last few years there have not been enough animals to supply the demand. The essential points to be considered in the selection of Guernseys may be summed up as follows:—First look for good dairy type—deep body, large heart girth, firm abdominal wall, indicative of good constitution, a square shaped udder, well forward and up behind, giving good length of attachment to the body, and good, even squarely placed teats. Then look for a rich, yellow coloured skin, which is easily seen at the base of the horns, inside of ears, tip of tail as well as over the body generally, and for the sake of uniformity, choose a fawn color with white underlines and markings, amber hoofs, and cream colored nose. These features attained, and you have an ideal Guernsey, as well as an ideal dairy animal.

J. D. R. '32

To the Graduates

—o—

If you're up against a bruiser and you're getting
knocked about,
Grin.
If you're feeling pretty groggy, and you're licked
beyond a doubt,
Grin.
Don't let him see you're funking, let him know
with every clout
Though your face is battered to a pulp, your
blooming heart is stout.
Just stand upon your pins until the beggar knocks
you out,
And grin

This life's a bally battle, and the same advice
holds true,
Of grin.
If you're up against it badly then its only one on
on you
So grin
If the future's black as thunder, don't let people
see you're blue,
Just cultivate a cast iron smile of joy, the whole
day through.
If they call you "Little Sunshine" wish that they'd
no trouble too
You may grin.

Rise up in the morning with the will, that smooth
or rough
You'll grin.
Sink to sleep at midnight, and although you're
feeling tough.
Grin
There's nothing gained by whining, and you're not
that kind of stuff,
You're a fighter from away back, and you've never
had enough.
If fate should down you, just get up and take
another cuff.
You may bank on it there's no philosophy like
bluff,
And grin.

—C.E.T. '33

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Back to the Land Movement

—o—

WE are passing through a period of chaos. On observation, conditions about us would indeed cause us to believe that there is something rotten in this world of ours—perhaps in the impregnable Denmark. We are today faced with the spectacle of endless bread lines, unemployment relief, bursting granaries and over-production. During the past few years a marvellous productive machine was brought into perfection by

the brains and ingenuity of man. It had far-reaching effects. It raised the standard of living conditions to much greater heights. Heretofore luxuries became necessities and the whole conception of material wealth was changed. Everybody reaped benefits from this development—though very unproportionate. When we glance at the distribution of this material manna we find that it fell in oddly unevened heaps. Much of it went to those, for whom it was created—the owners of capital.

Now a drastic change has come over this machine. After inventing and developing this highly efficient machine, it has turned around and engulfed us. We are victims of our inventions. Markets became saturated, warehouses became filled. There seemed to be too much of everything except money. Such a condition meant slightly less employment. The worst competition of the producer of goods is the feeling of insecurity on the part of the employer—the consumer of goods. When the employees become insecure they stopped buying until conditions would become better. They did not. It was just a pure case of mob psychology. The more they stopped buying, the more cause of unemployment, the less ability to buy, and so on ad infinitum. People need more than money in their pockets in order to buy—they need an assurance that money will continue to come.

The world is sick but who can diagnose its

case. Is it over-production, or under-consumption or both ? We are told that it is a lack of proper adjustment of business methods. However, the most noticeable effect of this critical condition is the great number of unemployed throughout the world. Unemployment has cost billions of dollars and is the biggest social and economical problem confronting the world today. It is the bone of contention in all governmental circles. For the most part, the unemployed are factory workers who are generally concentrated in and about the cities and towns. To cure this state of affairs there are many remedies being tried and many others proposed. The most recent proposal and one which is being given serious thought by governments, labor unions, etc., is to start a "back to the land movement" of the great number of unemployed. It is the purpose of this short article to state some of the arguments, pros and cons, regarding the feasibility of such a scheme.

To begin with it is only city people that require relief during this period of unemployment. The city dweller cannot grow his own foods and has to pay cash to his landlord. Money means everything to him. When money is gone all is gone. On the other hand, the man on the farm although doing his share of grumbling at governments, capitalists, etc., is not so much in need of money. In addition he has, from a city viewpoint at least, an endless supply of food, free shel-

ter, and some means of being clad. The city unemployed naturally think that their troubles would end if they could get possession of a piece of land. This reasoning looks good on the surface. The farmer does not have to pay rent, raises most of his own food and, what is more, enjoys that feeling of security which is denied the city wage earner. Hence it seems wise and feasible that a scheme should be put through to enable the unemployed miner, steel worker, and factory man to get back on the land and there to make a living for themselves. Any man that is willing to work and knows what to do need not starve on a farm. We have no evidence of anybody ever dying from actual starvation on a farm in this country. No better proof of the feasibility of such a scheme is needed than the fact that there is already a strong back to the farm movement. Yes, they are coming back to where potatoes do not grow in bogs nor milk produced in bottles.

Then, again there is the scarcity of land. Anybody viewing this country either through a port hole, train window or windshield, cannot fail to be convinced that there is plenty land. According to returns from the 1931 census there were 3075 vacant farms in Nova Scotia. Many of these were vacated since 1921 which would show that most of them would be in fair state of fertility, and buildings not seriously deteriorated. What foundation for arguments then, one might ask, could there exist against such a scheme?

The unemployed man going back to the farm needs an ample supply of credit and cash. He is obliged to buy or rent his land, construct or repair buildings, purchase a minimum number of live stock, as well as machinery, feed, fertilizer, equipment, etc. In very few cases has he the necessary capital and is therefore handicapped at the beginning to even eke out a bare existence. The majority of those suddenly formed back-to-the-land enthusiasts do not seem to realize that farm products used by the family cost something. Here the old saying also holds—"you cannot get something for nothing." Land is not free—if so, it is not worth having.

The partly unemployed have no assurance that their plight would be improved by living on a farm. There is much poverty in some rural sections of Nova Scotia at the present time. We find it existing even among those who are physically fit, who live on their own farms, and who already own buildings, stock, equipment, everything essential for a going concern.

Through ignorance and inability to cope with the many complexities of country life, the majority of the unemployed would be unable to content themselves on a farm. Some no doubt have previous agricultural experience, but these probably left the farm either because they were too inefficient to make a living or because they had a distaste for the drudgery of farm life. To this class,

returning would simply mean the lesser of two evils.

From a universal point of view the creation of more farmers is not desirable. The prosperity of a country depends not on the quantity but rather on the quality of its farmers. There is over-production in the farming industry as well as in others. A wholesale movement of this kind would only aggravate situations.

A. D. R. '32

—o—

Farming

—o—

Now I'm a hefty farmer
Who never got a chance
The government's agin' me
And also cranky Nance.

Politicians are all crazy
And shove thru a bunch of laws
Which, if simply boiled to English
Could be put in one big clause.

They have us guys bewildered
With their tariff and their tax
We know no more about it
Than the simp who plays the sax.

A man he came to see me
And created quite a ruction
But all I got from him
Was this "Economical Production"

My farm is full of noxious weeds
And my buildings are a wreck
There are so many things I need
That I'll never get—by Heck.

Now it must be the depression
That I hear so much about
We farmers all discuss it
When we are fishing trout.

The cows decline to give their milk
And the calves are on the blink
I tell you what it is almost enough
To make one up and think.

The sow has lost her litter
The dog has drowned her pup
And hoeing time has come and gone
With everything choked up.

My horses have the scratches
And the hens refuse to lay
Altho I've tried most everything
Including nice clean whey.

My sheep are weak and weary
The lambs they grow no wool
And the only beait they'll follow
Is my good old half-scrub bull.

I have mangels in the meadow
And buckwheat in the field,
The fertilizer cost me more to buy
Than I got from total yield.

I had a visit from a rep.
Who shot me quite a line
I said "young man just stop at that
You're wasting your good time."

He hit me twice between the eyes
And around the farm he sped,
He called a halt right after that
And this is what he said:

"You can't make money that way;
As a farmer you're a louse.
If you don't snap out of it somehow
You'll starve like a church mouse."

—A. D. R. '32

———o———

A lazy man is of no more use than a dead one—and takes up more room.

Nooks and Crannies of the A. C.

—o—

MANY are well acquainted with the spacious lawns and stately college buildings, but only a few have discovered the really delightful spots which are tucked away in the most unexpected corners. The ideal time for exploring is in the summer when old Mr. Sun beams in the blue sky above, and as his glance wanders in the direction of the N.S.A.C. his smile expands to an indulgent grin causing us to feel increased warmth coming straight from the jolly old fellow's heart.

Behind the pavilion there is a board missing in the fence, this opening is an excellent short cut to the river. As you pass the yards where the bulls are peacefully basking in the sun, they bellow a pleasant remark about the weather or upon the governments latest enterprise. You race on down the red slope and with a flying jump you land safely among the forget-me-nots on the other side of the spring. This stretch of land extends to the engineers' encampment, and is usually referred to as the flat. There the college herd go quietly about their business, munching thistles or lingering at the river taking long refreshing drinks. No one intrudes in their pleasant pasture, except children who flounder in the water like joyous young trout, or picnic in the green meadow

under the two large trees which make fine sunshades on hot days.

On the steep banks behind are many of nature's treasures. Shy little violets peep at you from behind the skirts of the protecting grasses and red strawberries lie hidden among their leaves waiting for some sharp eyed little seeker to ferret them out. As the season advances the prickly raspberry bushes display, to adventuring youth, their tempting delicious fruit.

Over the fence below the engineer's camp is an inviting little path which meanders along, hugging the river's edge. Scrambling over slippery rocks and desperately clutching the scrub, to avoid an unwanted dip, you follow the path round the bend where you are hidden from even the sharpest eye in a tangle of green foliage. Ahead lie numerous boggy patches, but logs, over which the green moss has grown, form cushioned bridges and close at hand the little fledglings chirp, for the birds have made it their happy nesting ground.

When you emerge from the miniature jungle you are entranced by the scene in front. A large field generously sprinkled with blue and white lupines and gaily coloured butterflies flit hither and thither while the hum of a multitude of bees sounds like a pipe band in the distance. Such places of sheer delight are only known to children whose laughter and merry shouts add enchantment to the little Eden. As we grow older our eyes lose the first sharpness which discerns the hand

work of nature. We look with admiration on the well kept garden walks, forgetting the charms of the knotty tree roots which trail across the woodland paths.

The large college field in winter appears so barren, drab and lifeless, but in summer its a sight for the gods. Among the dark green alfalfa shows the rich bloom of the red clover and the more delicate blossoms of the soft pink and white. The barley, the mangles and turnips beyond, the tall corn and ripening grain all blend in a beautiful color scheme.

Dotted along the road are young chickens, who have rebelled against being confined to their own range, and have either wriggled under the wire netting or flown over the top. You cannot fail to notice the insolent and indifferent attitude which these superior birds assume to the world in general and to cars in particular. The oncoming auto is forced to slow down until they get out of the way, taking their own time in doing so. Many an exasperated driver has lost his last atom of self-control and sent a series of oaths floating on the breeze, but not even a feather is ruffled as the chickens pursue their way, undisturbed by the railings of such an insignificant being. But when an aeroplane is heard overhead there is not a chicken in sight.

The loft above the main pens of the poultry plant is used for storing lumber. It is reached by climbing to the window sill and hoisting yourself

the rest of the way. There is an eerie feeling about the place up among the dusty boards where all is dark as mid-night. As you crouch close to the spider's silk factory, a mouse may run over your hand or even worse, you may hear the weird "meow" which once belonged to Barny, a dearly beloved member and ex-president of the N.S.A.C. "Cats Band of Hope." The loft had been Barny's refuge on all occasions; when he was grieved by the wicked ways of the world there he would mournfully lament or when nearly convulsed with anger, at the base injustice of being reprimanded for *just smelling* a market chicken, he would pace up and down, uttering strange sounds; maybe it was just as well for the parties concerned that they were unable to fathom their meaning. On the afternoon of his last illness, this peculiar lingo had been pouring forth from his retreat but after he descended he never meowed again. [illegible] if you intrude in his old sanctuary you are [illegible] ear the "meow" that Barny left behind, a[illegible] is peacefully sleeping in the river bed where [illegible] water runs soothingly over his head.

In the horse barn a small section has been partitioned off from the stalls, making a cosy residence for two or three calves. The horse barn calves are always different from the ordinary run of calves, being of a more friendly disposition. Often a little ginger kitten will stroll along the fence within reach of the calves, and as sure as fate, out goes a long pink tongue licking the dirty

kitten. As the kitten would tell you, such a cleansing is the exact opposite to dry cleaning.

Folks who do not peer into the nooks and crannies miss the best parts, for all over the A. C. are those delightful spots which more than reward the explorer for his little bit of extra trouble.

—D. N. '33

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Heredity and Religion

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HEREDITY is the transmission of the mental and physical characteristics of parents to their offspring.

In this article we will endeavor to prove to ourselves that if we believe in heredity we must believe in religion or vice versa. I am sure that, if I asked one hundred people, if they believed in the bible, at least ninety would say that they believed in it—in part at least. While if I asked these same hundred people if they believed in heredity I would think myself very fortunate if fifty of them believed in it. While many of them that said that they believed in both, would say that God was unjust in making His law of heredity and compelling innocent children to bear the sins of their guilty parents. To the occasional observer of the subject of heredity and religion, it might

seem as though this were the case; but God is a God of justice and also of mercy, and His laws were made for our welfare. Many persons who say "I believe" really mean "I suppose it is true." To such persons I suggest the law as disclosed in John 5:39, "Search the Scriptures."

Study them carefully,
Think of them prayerfully,
Deep in thy heart let their pure precepts dwell;
Slight not their history,
Ponder their mystery,
None can e'er prize them too fondly or well.
Accept the glad tidings,
The warnings and chidings,
Found in the bible of heavenly lore;
With faith that's unfailing
And love all-prevailing,
Trust in its promise of life evermore.

In the first written biblical record of the law, where the statement has been made that the sins of the fathers are visited on the children to the third and fourth generation, we have also the statement of the good gospel of heredity in that the Lord sheweth mercy to thousands of them that love Him and keep His commandments; and that presumably means not thousands of individuals, but thousands of generations of individuals. From the above text we would gather that justice is portioned out to the third and fourth generation, but mercy to thousands of generations. At one

time I had the opportunity of reading about a man who, on his death bed made a singular will. He had no houses or land to bequeath his children but he had noticed that they had inherited much from him, so he made a formal bequest to them of that which they already possessed. He stated: "I bequeath to my son John, my big bony frame and the slouching gait, which I acquired by carelessness; also my inherited tendency to consumption. To my daughter Mary, I bequeath my sallow complexion and torpid liver, which are the result of my gross living; also my melancholy disposition and my tendency to look on the dark side of life. To my son Henry, I give my love for alcoholic liquors and my irritable disposition; and to my daughter Louise, my coarseness of thought and my unwillingness to be restrained in my desires, and also my tendency to commit suicide." To be sure, this was a very strange will and yet having been probated long before the testator's death, it gave perfect satisfaction. It was never contested and paid no lawyer's fees because it was the law of heredity.

The first written record of this law appears in the first chapter of Genesis: "Every plant and animal shall bring forth after its kind." This law stands firm through all circumstances, and the very fact that human beings beget human beings instead of lower animals, that we receive due portions of organs and faculties, that we are not monstrosities or imbeciles, are all heredity condi-

tions. Therefore we see that the law of heredity insures us of our full supply of organs and capabilities, as well as the most pronounced characteristics which we readily recognize as inheritances.

"Little faults unheeded, which I now despise,
For my baby took them with her hair and eyes."

One is almost inclined to think that heredity grips one's life as an iron hand of fate, but as we shall see this is not always the case. There is also another hand in the matter, a supreme power governing our thoughts and movements, which is always willing to help us throw off the bonds with which we are bound, and lead better, freer lives.

Maybe some of us have inherited no special talents, and we are likely to think that there is no hope for us. But to us may be said, "heredity is not a fatal influence." We, through environment, training and perseverance, are able to break the bonds and to free ourselves. It may be difficult, but it can be done, and a great stirring up of one's efforts is found in the fact that by success we not only improve ourselves, but we are able to pass on a better inheritance to our offsprings. There is much encouragement in the poem of Ella Wheeler Wilcox on heredity.

"There is no trait you cannot overcome
Say not thy evil instinct is inherited,
Or that some trait inborn makes thy whole life
forlorn,
And calls for punishment that is no merited.

Back of thy parents and grandparents lies
The great Eternal Will that, too, is thine;
Inheritance—strong, beautiful, divine;
Sure lever of success for one who tries.

Pry up thy faults with this great lever—will;
However deeply bedded in propensity;
However firmly set, I tell thee firmer yet,
Is that great power that comes from truth's
immensity.

There is no noble height thou canst not climb;
All triumphs may be thine in times futurity,
If, whatsoe'er thy fault, thou dost not faint or halt,
But lean upon the staff of God's security.

Earth has no claim the soul cannot contest;
Know thyself part of the supernal source
And naught can stand before thy spirit's force;
The soul's divine inheritance is best."

It is no doubt true that we are all carrying in our bodies, in our moral characters, in our temperaments, in our personalities, elements which have come to us from the past. There is much erroneous thinking about heredity. The majority of physicians claim that the actual disease is not transmitted, but only the tendency towards the disease. The tendency to tuberculosis, or insanity or cancer; only under certain conditions, by no means invariably, does the actual disease manifest itself. It is just as true that bad habits are not transmitted. There may be handed down a weakened will, or an immoral tendency, but the actual evil habit is not transmitted. That the tendency, rather than the thing itself, is transmitted, seems to be the general theory of Heredity, accepted by modern scholars. Within the past much has been blamed on heredity, which should have been blamed on other things. A man looks back and says "My father died of tuberculosis" or "My mother died of cancer," or "There is insanity in my family." The mental worry of this dreaded disease is in his mind and furnishes the suggestion, and if he is in a low state of vitality, or when in a depressed mood, the suggestion is likely to become so strong that it actually will produce conditions that will bring about the disease. This statement shows us that by our thoughts we are able to limit and control our will power and our actions whether volitionary or otherwise. The maxims which state that "Thoughts are things," and "that you have to think high to rise" are certainly true.

A few months ago I was talking with a friend and he was telling me what a hard time he was having to get along and how everybody seemed to be getting ahead of him, although they didn't seem to work any harder than he did. Even though he came from a good family, he seemed to think that he hadn't received, at birth, the amount of brain power that should have been bestowed upon him, and that he must go through life just a little inferior to those people around him. To such a man I would suggest that he had an inferior complex and the sooner he takes his mind off himself and starts to concentrate on his work the better it will be for himself and those who are interested in him. He shouldn't have to be told that the reason he is failing and coming short of the highest is that he hasn't confidence in himself, or in his own abilities or powers.

John Herman Randall in his book, "A New Philosophy of Life" makes the statement that "Human Nature is the same the world over." All men have like faculties, like powers, differing only in degree, not in kind. In every soul there is the germ, the inborn capacity, the latent ability, that might, if opportunity and time were afforded, unfold into the philosopher, the poet, the artist or the musician. He goes on to state that every man, in embryo, is a possible hero or prophet or seer, or saint; all that is needed is the opportunity and the time for development. What

one man can do, or has done, reveals an open door that all other men may enter. Study the lives of the great geniuses, follow them from the cradle to their heights of success, and then take to yourself the lesson. Most of the great ones of earth have come out of poverty, through hardship, trials and privations of every kind. The greatness they attained was not won easily, or suddenly, but by hard labours, through the greatest sacrifice, by most persistent efforts, centered in one direction. Few of the geniuses were born with the traditional silver spoon in their mouths, or with some great faculty already developed. It is not the precocious child that turns out the man of genius; usually he is forgotten before he emerges from his teens. We should thank the Supreme Power that these great lives are of the same mould as ours; and if they attain heights and develop powers that we know nothing about, it is not because the same powers do not exist in us; it is rather that they have worked as we have not, they have come to understand themselves and learned how to call forth their powers, while we have only skimmed life's surface. The old Greek philosopher was right when he said that the most important knowledge was the knowledge of oneself, and yet it seems as if this is the branch of knowledge of which we are most deficient.

In an article entitled, "The Energies of Man" published recently in the Philosophical Review, Professor James used these words: "Most of us

feel as if we lived habitually with a sort of cloud weighing upon us, below our highest notch of clearness in discernment, sureness in reasoning and firmness in deciding. Further on in the article, he describes how men from time to time, through various experiences, and chiefly by the aid of suggestion, are enabled to "tap new levels of energy" and thus disclose in themselves forces of which they had been hitherto ignorant.

There are three men in history who are noted for their remarkable powers of mental control. Napoleon was one of the greatest men intellectually, of whom history speaks. His biographers tell us that naturally he was of a very sympathetic, humane and generous nature, and yet, if that be true, there were many times when he could absolutely exclude every such thought, and become as cold and hard as steel. "Gladstone" says Mr. Smalley, one of his most recent biographers, "had the ability to exclude from his mind everything but the subject immediately at hand." President Roosevelt says Jacob Rus secret of success or greatness as a man lies in his power to shut everything out of his mind except the one thing he is considering.

When we turn to man's achievement in special fields of human activity, we find in the realm of music such names as Beethoven, Wagner and Paderewski; in art Raphael, Angelo, Rembrandt and Millet; in invention, Watt, Morse, Stephenson and Edison; in the realms of poetry, Homer,

Dante, Tennyson and Browning; in the realms of discovery, Columbus, Cook and Livingston; in science, Newton. Galileo, Copernicus, Humboldt, and Darwin; in oratory, Demosthenes, Cicero, Burke and Gladstone, In considering the prophets and philosophers, think of the wisdom of Plato, Isaiah, Kant, Hegel, and Emerson; of the leaders of mankind, Moses, Luther, Cromwell, Washington, Lincoln. How powerful these lives have been and how glorious their achievements. It ought to inspire us and lift our hearts and minds to the highest pitch of enthusiastic gratitude, just to think what men have accomplished in the world.

I must say that if a man desires to develop himself along any line whatsoever, the secret of his ultimate success will be found in that he has the determination and persistency to live constantly in the presence of his Supreme Ambition. I have read that people excuse themselves for all manner of faults on the plea that they were inherited and therefore could not be overcome. This is to declare that they are slaves, with no chance to acquire freedom and I know that they are not willing to admit this. "Whereas in Adam all die, in Christ may all be made alive." That is, that while under the Law of Heredity we are fettered, while under the Law of Religion our chains may be broken and we become free.

"Religion" says Webster, "is the act of form

by which men indicate their recognition of the existence of a God having power over their destiny, to whom obedience, service and honor are due."

—L. E. S. '32

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Farm Life

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PROBABLY never before in the history of agriculture has the folly of the prevailing idea that John should be kept home on the farm because his supply of grey matter proved rather deficient being more fully realized than at the present time. Now, instead of picking out the dullest member of the family, if such a choice is possible, the brainiest men find when they choose farming as an occupation, they have a task on their hands that taxes their intellect to the utmost. With the onward march of civilization bringing with it different modes of living, machinization, specialization and round about production, farming as a profession has taken on an entirely different aspect.

Farming has been the base of all other industries and in face of the advances made by science the humble farmer still retains his important position. In fact, science and invention has only magnified and increased the importance of the so called lowly farmer. The first people in

the world were farmers and history has proven that farming and civilization are inseparable.

The farmer may wear plain clothes and have to indulge in various tasks which are distasteful to one who has had no experience on a farm, but with all due respect to his profession, however high, he is dependent on the farmer indirectly for a living. Of course, in our modern age when the town and rural districts are more or less linked up due to radios, cars and other modern inventions, this bridge which formerly existed between the city and country is gradually becoming extinct.

There should be no antagonism between the rural districts and the town, each is indispensible to the other and each should work to the best interest of the other.

In the past the town has had some advantages, especially from the standpoint of education and in many respects this is true today, but in spite of this disadvantage, in book learning and culture, the youth who is brought up on a farm and enters fully into farm life has received a foundation for life, an understanding and appreciation for the things of nature that are of an immense value to him in later life. No other occupation offers such real opportunities for the average boy or girl as the everyday contact with the animals and things that go with farm life, and the earlier the youth is encouraged to take an active part in some branch of the farm the more fortunate he is. The

father, who realizes the value of early training and responsibility and gives the boy something to look after for himself along with assistance and reward for faithful work, has done more for him than all the colleges ever built. And this is not overlooking the fact that a college education is something well worth striving for, and the young man who endeavors to increase his knowledge of Agriculture and be in a position to get real value out of his farm is making a wise choice in attending an Agricultural College. Here is where the boy brought up on a farm, fully appreciates the value of an Agricultural course. He is in a position to link up his former experience with his newly acquired knowledge and ideas of farming.

The benefit any youth gets out of the course, depends on what he puts into it. If he attends with an open mind determined to obtain the best value possible for his time and money, he is spending time that will enrich and make life more interesting, no matter whether he goes back to the farm or takes up professional Agriculture.

Often a youth grows up with the erroneous idea that farming is nothing but drudgery and counted as an unimportant occupation in the eyes of the world. Should such a youth attend an Agricultural College, he would receive a wide awakening. In fact a great many students who like farming would return and take up farm life if it held a bigger name and shorter hours.

Now every one can't be a farmer, and all are

not adapted for farming. Those who do take up farming should be the very best farmers possible, and it is unfortunate that one who naturally likes farming should take up another profession or trade he is not adapted for, just because it offers him more money or gives him a bigger name. There is no fortune in farming, but if plenty of elbow grease is diluted with system and attention given to details there is a comfortable living in it, and one who likes farming has a life work which offers him a variety, an opportunity to enjoy a hearty meal and a sound sleep that no other occupation can equal. The sense of security, the pride of ownership, the satisfaction of looking at a beautiful field of clover, or thrifty flock of poultry, is enough to make one forget the labour involved.

Farm life means plenty of hard work, but a successful individual in any profession or business has to work hard and as long as he likes his chosen profession, it is a pleasure to him to work. To get the most out of your work one must have an intelligent understanding of the work, and probably no occupation demands a greater knowledge of its many branches than farming.

A farmer to be successful, has to be an all round man. He must know how to produce a large quantity of good quality produce with the least expenditure of labor and energy possible. He has to be a laborer, a tradesman, a merchant, and manufacturer all combined. It is necessary

he should keep abreast of world conditions, be familiar with the complicated marketing systems and international affairs, so that he can dispose of his produce in an intelligent manner. No other calling presents a greater variety of problems, and not only is it necessary for a farmer to be skillful with material farm problems, but he should be well educated and qualified to take an active part in the social affairs of his community.

A student who goes back to his community without grasping the full meaning of a community spirit, is bound to make a failure more or less, at least his influence and opportunity of helping those with whom he comes in contact is negligible. A student should be educated to live and not merely to make money. Too many farms have been places of drudgery with money held up as a god. Farmers should have more time to develop the social side of their lives. No doubt a real farmer enjoys himself during his working hours, but just the same he could quit work early enough to enjoy his evenings. Recreation would go a long way towards making more happy homes. Man is by nature a social being, and he should endeavor to cultivate this side of his life. When people take time for reflection and recreation they really live. Many individuals have made farm life monotonous by being so absorbed in making money that all the beautiful and interesting things of nature shout to them in vain.

An Agricultural College aims to fit a young

man for a successful farmer or agriculturist, and any one so fortunate as to have the opportunity of attending such a college should not value his privilege lightly, but should go out with a spirit of service, realizing his responsibility. He should endeavor to be a credit to his college, and those who patiently instructed him. Such students, whether going back to the farm or taking up professional Agriculture, especially those going to other respective communities, have wonderful opportunities. They should get busy, be leaders if possible, and aim to improve their communities. If you can't be a leader, fall in line and co-operate with the thrifty members and do your part.

A really wide-awake thrifty community with high moral and intellectual standards is something that cannot be measured in terms of money. It is an inspiration to the citizen and an attraction to the tourist, and cannot be excelled as an ideal environment or atmosphere for the proper development of a boy or girl.

Now the building up or helping along of such a community is a worthy aim for any agricultural student, and such a student who has come in contact with his fellow students from his neighbor provinces, looks on these sister provinces in a new light. They have become clearer and dearer to him. If we are to make real worth while citizens we must consider the welfare of our neighbor provinces, as well as our neighbors across the line fence.

—R. S. M. '32

Can You Imagine

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Thompson carrying his own skates ?
Hilton coming to class on time?
Trevors not talking to the girls?
Brown not studying chemistry?
Horncastle plowing?
Boyd killing chickens?
Taper awake a whole period?
Warnock short and fat ?
Cook dancing?
Hill quiet in Math. class ?
McNab not asking questions?
Anderson out with a girl?
Crosby without red hair?
Ryan getting 100 in Physics?

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AN INSIGHT INTO THE VITAMINS

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The name vitamins was applied to this group of substances, differing so widely from each other in chemical nature, chiefly through accident of their having been discovered and their significances in nutrition established in too rapid suc-

cession for chemical identification to take place.

The molecular constitution of none of the vitamins is known accurately, but enough is known to justify the statement that they belong to different chemical types of substances.

Vitamin A seems to be closely related to the hydrocarbon carotene, C_{40} H_{56}, a view which is consistent with the possibility that it may be formed by hydrolysis or by a slight oxidation process to account for the fact that the molecule of vitamin A may possibly contain oxygen; also consistent with the view (developed through diffusionrate experiments) that the molecular weight of vitamin A is only about three fifths that of carotene.

Vitamin B, on the other hand is probably a nitrogenous base; but not a typical amine, for its stability towards nitrous acid is too great.

Vitamin C appears to be quite different in chemical nature from either A or B. At the present time there is active research on this particular vitamin. They have so far classed vitamin C as, or showing close resemblance to a ketonic or phenolic substance.

Vitamin D is evidently of still a fourth type since it is known to be formed from ergosterol by irradiation and there is strong physico-chemical evidence that the transformation is fairly direct, so that the vitamin bears undoubtedly a close resemblance to the substance it is developed from, as far as chemical nature is concerned.

Chemically and nutritionally, each vitamin must be treated without any presumption of relationship to any other vitamin. There are, however, certain limited resemblances among the fat soluble as contrasted with the water soluble vitamins. The fat soluble vitamins A, D and E will be discussed first, followed by the water soluble ones B, C and G.

Vitamin A

Vitamin A is a normal nutrient with nutritional functions throughout the body, at all ages, and in all conditions. It is a regularly and constantly essential participant in the normal nutritional processes of health, probably playing both a structural and humoral role. Its functions in the body prevents infections of the eyes and respiratory system; promotes growth and longevity; promotes appetite and digestion; and is essential for normal reproduction, lactation and rearing of young. Through researches in which it was found that experimental rats would grow and thrive or stop growing, loose their vigor and finally die, according as the sole fat in their diet was butter fat or lard. It was further discovered that egg fat and cod liver oil were like the milk fat in this respect, while most vegetable fats were like the lard.

Quantitative testing has shown that milk, egg-yolks and green and yellow vegetables are usually the chief sources of vitamin A in the normal diet. The amounts in meat may or may not

be significant, depending upon the organ, the species of the animal and the manner in which it has been fed. The liver contains any excess of the vitamin that the body has not used ready for use when needed.

Vitamin D

The discovery that vitamin D is the main factor in the prevention of rickets and that it also could be produced by irradiation, have had the effect of giving this vitamin a great deal of extraordinary publicity. The fact that vitamin D like A can be stored in the body to an important extent, has complicated experimental differentiation of the two, and tends to obscure the relative responsibilities of vitamins A and D in respect to such functions as the development of the teeth and the promotion of general health. Vitamin D has the ability to regulate the absorption and metabolism of the bone forming elements—calcium and phosphorus. It also determines the mineral metabolism of the bones and teeth. We find the vitamin D available to the greatest extent in the nonsaponifiable fraction of cod liver oil, foods and ergosterol irradiated with ultra-violet light.

Vitamin E

Vitamin E has not been shown to be needed by humans. It is so widely distributed among foods of both plant and animal origin, and is apparently needed in such very small amounts, that it seems unnecessary to feature vitamin E in practical considerations of food values. However,

small amounts are needed for normal germ all maturation on males and normal placental function in female.

The water soluble vitamins B, C, and G will now be taken up in the above order.

Vitamin B

Vitamin B is essential to growth and is in some way specifically related to the maintenance of appetite, and to the normal functioning of the nerves—the prevention of polyneuritis of beriberi. Beyond this little is definitely known, for much of what has hither been attributed to vitamin B may be at least equally attributable to the recently differentiated vitamin G. Vitamin B is widely distributed among foods of both animal and vegetable origin which have not been too highly refined. Hence there seems little danger of a deficiency of vitamin B except in those cases in which the diet consists too largely of artifically refined foods.

Vitamin C

Vitamin C not only prevents scurvy but also plays an important part in normal nutrition and in the promotion of vigorous health and resistance to disease in the body tissues generally, even including the teeth. This anti-scorbutic vitamin C not only prevents scurvy, but is required for the proper metabolism of the bones and normal tooth formation and their maintenance. Citrus fruits and most vegetables have an abundance of available vitamin C.

Vitamin G

Vitamin G is essential to growth, and to normal nutrition at all ages. When the food is poor in vitamin G there are apt to be digestive disturbances, nervous depression, general weakening and lowering of tone and sometimes skin trouble; life is shortened and the prime of life is either forfeited or very greatly curtailed.

The condition which results from a deprivation or severe shortage of vitamin G has been described by several investigators as pellagra-like; and some have called vitamin G pellagra-preventive.

Just as the present vitamins B and G (the British B and B_2) were both covered formerly by the term vitamin B, so the present term vitamin G probably covers more than one substance. Further developments in this direction may add to the importance already demonstrated as belonging to the nutritional factor to which the term vitamin G is applied.

C. H. '32.

HOW MANY OF YOU

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Have heard the swishing water as it rushes madly down the age-old gulch? How many of you have stood at the top of that perpendicular wall of rock, and looked down at the black waters below? And how many have heard the long-

drawn cry of the river-driver, when the jam begins? Hark! There it is! "Plu--g--go-ooo."

A Plug! The most spectacular thing in river driving is taking place. Hear the next driver further up the river, take up the cry! Again and again it resounds against the surrounding hills, echoing and re-echoing. Finally it stops and we know that the sheer-boom men at the head of the river have heard the signal.

What is happening up there at the head of the "run?" Just where the lake becomes a "run" or a "falls," there is a sheer-boom. It is composed of logs chained together and with one or two men on either side of it, it is guarded so that the logs may be allowed to go down the river at the desired rate.

Just now, however, the sheer-boom is rapidly being closed until the gap is filled and the logs in the boom above are forced to remain there instead of going on down the river and making the jam larger still.

But we must get back to the plug or jam. What a strategic place for such a jam! Or is it? The old gulch at this point is possibly 40 ft. deep and the rock walls rise sheer on either side. The water looks black and cold down there and the jam looks utterly impregnable.

The men from the other sections of the run (for each man is allotted a certain section to guard and watch) are congregating at this point of in-

terest, and the best methods of breaking the jam are being discussed.

The "boss," however, is not long in making a decision and sets about the work immediately. There are two general methods of breaking it up. Firstly, by cutting in two the "key log" and secondly, by the use of dynamite or other high explosive.

There are grave objections to the first method. In the first place, it is doubtful if the key log can readily be located in that jumble and, what is more important, there is no easy way of getting safely to shore when the jam has started to move. And I can assure that when once started, such a jam moves very rapidly.

So the boss decides on dynamite and the men look relieved. For each was wondering who would be chosen to cut the key log, or work it out of its place with a "peavy."

At any rate, several sticks of high explosive are secured and a long fuse capable of burning under water was attached. Two nimble fellows, with their many corked river-driver's boots, climb dexterously down the rocky cliff with the aid of ropes attached to a tree above, and place the dynamite under the end of the big log against which the others appear to be resting. Then, after lighting the fuse, they clamber back to safety.

We all make sure to be a good distance back from the river bank, as we wait with almost bated breath for the explosion. Boo-o-o-m! What a

reverberation in those mighty hardwood hills! The explosion took place, just as we were beginning to wander what was wrong.

Splinters flew in all directions and from where we stood, away back from the rocky cliff, we saw a sight which I shall remember to my dying day. A huge beech log, 30 feet long and weighing possibly two tons, was hurled vertically upward, as one would flick a matchwood. High and above the cliffs on which we stood, it was thrown to fall with a mighty splash into the river. We rushed to the bank but it had vanished out of sight around the bend of the river.

The jam was broken! The pile of logs seemed almost to be melting away as they slid down the river. On a promontory above us a red flag was hoisted on a limbed sapling to show the sheer-boom men that they could again allow the logs to slip through the gap in the boom, on their adventurous journey to the saw mill.

This was but one incident in the daily routine of the river driver. It may happen a dozen times on the river in the course of a day—particularly if the water is low.

Four, and sometimes five, meals a day are eaten by the drivers during the "drive" and the work is certainly strenuous enough to warrant it. For there is another, than the picturesque side, to river-driving. Often times in the spring the men will be in the icy, black water from dawn to dark. Up to the waists they work furiously to

keep the logs clear, for another jam means more delay, and delay is money lost. So they toil on with their clothes freezing to them, the moment they come out of the water. This is when they fully appreciate the roaring camp fire at "noontimes."

But against this truly dreary outlook there may be another phase to river-driving. It is May! The sun is bright and warm. The air is spring-like and sweet. The logs may be rolling smoothly down the "run" with a slight, muffled-sounding bump now and then, which seems more like a companionable elbow-poke than anything else. The driver then sits in the sun on some high, mossy hummock, from which he can overlook the whole of his section of river, and he smokes his pipeful of "Master Mason" and looks about him.

For while he is ever on the alert, nevertheless, the ears of all true woodsmen are attune to the beauties of nature. So the driver sits on his hummock and glories in the beautiful blending of the moosewood blossoms with the smaller ones of the painted trillium. The frail dog-tooth violet is blossoming at his feet and the air is sweet with the perfume of the False Solomon's Seal and the thorn blossoms. A! Life is certainly worth living on such a day, and five minutes of this makes up for as many days of cold winds and rain.

But let us follow the drive down the run to the lake below. A beautiful lake it is, as one suddenly comes out of the gulch into a placid pool,

which narrows again and widens into a glassy lake, dotted with willow-covered islets.

It is across this lake that the huge boom of logs must be taken, and the work is immediately set about. A large raft of soft-wood logs is pinned together with wooden pins and a windlass soon rigged on board. This windlass is equipped with two great cranks and with two or three men to man each crank. The boss of the outfit sits on an alder-twig and figures the dimensions on a mayflower blossom. By not knowing the moments of force in all directions, it is therefore a simple matter to calculate the mechanical advantage of the rope attached. Once having this figured out, it is a simple matter for these woodsmen to put the windlass together and then they are ready for work.

The logs are enclosed in one great boom, or if there are too many, two or even three booms may be used. The windlass raft, or "headworks" as it is called, is poled on ahead as far as the length of the rope on it will permit, then it is anchored solidly. Then the cranking begins, and the ponderous boom is moved slowly through the water. This process is repeated all the way down the lake and is usually aided by a "tail wind" or at least a calm day.

I am reminded of one instance when a huge boom was being brought across a lake when a strong wind sprang up. The boom was pulled in to shore and moored solidly to a large maple tree, and left there for the night. When the

drivers arrived on the scene the next morning, the logs were nowhere in sight. The force of the wind during the night had been so great that the tree had been uprooted and the whole boom, together with the tree, had drifted away. And to make matters worse, one of the chains holding the outer logs of the boom together had broken, and the logs had scattered all along the opposite shore of the lake. Many of them had passed through a narrows and into another large lake beyond. The prospect was certainly discouraging, and as a matter of fact, exactly nine days had passed before the boom was reassembled again.

Working under such conditions, is it any wonder that the few habitual river-drivers who live to be past middle age, are practically all subject to rheumatic ailments? Yet the name of being a "good driver" is one of the most coveted honors to the true woodsman, and he will never give up driving while he is able to roll a log.

The feats of skill among these log rollers are truly remarkable, and for them to ride for hours about a pond, on a single small log which will hardly bear their weight, is a common achievement and a necessary one, in a good driver.

Let us watch this old Indian log-driver, as he prepares to ride a log through the sluice. This is part of the program for the afternoon and the occasion of "sluicing" is quite a "fete" in the community. The sluice, through which the logs are passed to the mill below the dam, is barely six

feet wide and the water has a drop of about two feet after it leaves the foot of the Sluice. But look at the driver. He selects his log—a light-floating beech, which looks to be fairly stable in the water. Then he calmly lies down on it and the men nearby guide it with their pike poles straight into the maw of the roaring sluiceway.

The mouth of the sluice is a mass of white spray and foam. Surely he can never stay on in that melee of rushing waters. But he does! He, and the log, reappear in the calmer waters below, apparently quite unperturbed. The watchers are spell bound and can hardly believe what their own eyes have told them. Then the spell is broken and a great cheering begins.

Ah! It suddenly stops, as all eyes are turned on the performer of this remarkable feat. What *is* he doing now?

Well, I hope their curiosity was satisfied, for he was only lighting his pipe!

R. H. '33

BROAD CAST

—o—

Ladies and Gentlemen of the radio world, you are now listening to radio station N. S. A. C., Bible Hill, Nova Scotia, which will also feature a network of programs from the neighboring stations C. C. A., P. N. C. and W. I. N. S.

The first number of tonight's program will be

a sweetened melody by our api-cultured baritone, Weary Willy Wilson, entitled "Honey Boy." The next number on our program is a selection by our super-saturated soloist Swaby Drakes entitled, "Here's to You Professor, My Goose is Hanging High".....Mr. Graham Longley, big butter an' yeggs ham, will now give his usual Monday night lecture. Tonight his subject is, "Desk versus Dirt Farming.".....Mr. Duncanson now follows with his high blood pressure song:

"Is my face red? Is my face red?
If it ain't, then it ought to be."

Arny Travis, member of local Calf Club, will now treat us with a little talk on "How I Raised My Guernsey Calf.".....Do you wish to hear a new song? Our local altoist, Monsieur Martin, will now present to you for the first time, the French padlock song, entitled, "I Keys Your Hand, Madame."

The following conversation, said to have taken place in the College gym is reproduced word for word.

Referee: "Blob, blob, blob."
Local player: "Close your mouth, Rob, its the only ball we've got."

The next song is somewhat sentimental but we hope you'll like it. It is by our famed soprano, Mr. Scott Clarkson, and is entitled, "I'm Alone Because I Love You.".....Mr. MacKenzie, our staff expert will now deliver another of his educational lectures. The subject he has chosen for tonight is "How to Raise Beardless

Poultry." Although perfectly aware that many of our listeners-in are interested in the adorned and fully matured variety of chick, we must take the liberty of leaving the Henologist with his hens and switch over to station P. E. I. Here we find an "Abbiewit Hangout" in full swing and Capt. Ayers is wildly gesticulating at the head table. The hither-to-fore Abie has finished his speech, however, so we get only his last remark. "Boys you gotta hand it to me in Basketball, otherwise I can't catch it." Coach Mortimer Harlow now has the floor and is congratulating the boys on their punkness, punctuality, punch, etc. etc. He seems pleased with their performance and also that they are not like the College team he coached that stayed away on an extended tour without his official sanction.

The next contribution from that quarter is from their one and only Frank Lacey, President of Soupson Advertising Agencies, Ltd. Mr. Lacey will relate his rapid rise from salesboy upward and compare his life to one Tom Edison..... This station being the home of good fiddlers, we take great pleasure in presenting to our friends of the radio world their static specialist, Stuart MacGregor. This volatile violinist will now play for you his favorite tune, "Road to the Isle." Asking our Secretary, Daigle, if he can play as well as that he replies, "I can't say, I never tried."

We shall now switch back to N. S. A. C. where we find our genial friend, Dr. Smallwood, the here-

ditary expert, humming his familiar lab. work song, "Oh C-c-c-caty, how I love to c-c-c-cut up with you." Dr. Smallwood has made many contributions to science and stands as a living proof of his latest theory, "Marshpialia to Man."

We are interrupted here, my radio friends, by the Studio Engineer, Copinger-Hill, the Devonshire Demon, who is now 'phoning an associate in the Science Hall.

Cope: "'ello, there, I want 'arry 'arrison."

Central: "Whom?"

Cope: "'arry 'arrison, 'urry hup please."

Central: "Say, how do you spell it?"

Cope: "An aitch, a hay, two hars, a hie, a hoe and a hen."

Central: "An what the 'ell!! (Click)

The Senior Dairy Class have prepared a 'keen song which they now present to you. It is labelled, "Every day, from every whey, we're getting butter and butter." Did you like it? I now have the honor of presenting to you Prof. Moore, who will speak to you on "Indian Civilization and how it hinges on the Mathematical Safety Pin." Folks, Prof. Moore..... Now radio fans, after such a shroudy discussion we shall give you something less serious. The Social Committee will now present their Saturday night reception song, of their own creation.

"Oh, the Normalites, the Normalites,
Our Co-eds of A. C.
They mean so much to all of us

To all of you and me,
We invite them to our socials,
In our gymnasium.
They come all dressed up flowery,
Like a geranium.
The Aggs approach them gingerly,
And these words to them sing,
'Say girl, if you like chicken,
Why, here then, take a wing.' "

Ladies and Gentlemen, I have a special announcement to make. Due to the absence of our regular Monday night preacher, who was unavoidably detained at the Bible Hill Bridge Club, Mr. Armstrong has consented to go on with the already prepared lesson. His eyesight is none too good, so please excuse any slight errors which he may make. Friends, Mr. Armstrong. "A-hem—my dear Christians, I am now about to give to you the sermon of St. Paul to the Electricians, second Sunday after pay day. I - - ." Biff! Bang! Slump!

To cheer you up while the entertainers are preparing their next act the announcer will now sing that old Spanish melody, "O Solo Meuw, Infallible Mio," or in the English translation, "How I Hate Myself."

Folks, the Sanderson Sexette are now on the air. It is composed of Moore, Travis, Ayers, MacMillan and Rankin and led by Prof. Herr Zinck, noted expressionalist and a music graduate of the far famed European University of Bologna.

They now render from the original, "How I etta, golly, how I etta." ..... Mr. Neary, who hails from Crab-apple Centre, and Mr. LeBlanc, the Pop Corn King from Pocohontus, will entertain you for the next hour or two with the interesting debate, "Should College Widows be Abolished from the A. C. Socials?" ..... In the meantime the announcer wishes to withdraw.

The program just concluded Ladies and Gentlemen of Radio Land, came to you direct from N. S. A. C., Bible Hill, Nova Scotia. Associated with us in the transmission of the program were stations P. E. I. and P. N. C. We will return again next year at the same time and in the meantime we extend to one and all a pleasant—Good Bye.

A. D. R. '32

FARM COURSE GRADUATION

—o—

The closing exercises for the Farm Course were held on March 31st. Certificates were given to the following men who had finished the two year farm course:

Name	Address
Chas. J. Campbell	Campbell's Cove, P.E I.
Alexander Coombs	St. John's, Newfoundland
Eldon McCullough	Mouth of Keswick, N. B.
George MacMillan	North River, P. E. I.
Philip L. MacQueen	Ross Ferry, Boularderie,


E. A. McCullough
G. W. Stockford
Class Pres.
P. L. MacQueen
J. D. Rose
G. A. McMillan
C. J. Campbell
A. Coombs
D. B. Snide
Spence Photo

David J. Rose	R. R. 3, Yarmouth, N.S
Douglas Snide	Shubenacadie, N. S.
George W. Stockford	Carpenter, N. B.

Certificates were also given to the men who had taken the three months Farm Course as follows:

R. M. Butcher	R. R. 5, Truro, N. S.
Edwin C. Bain	Groves Point, C. B.
Desmond Clark	36 Red Lion St., London, England
F. C. Curtis	Edinburgh, Scotland
V. Clouston	Charlottetown, P. E. I.
D. Davidson	Portaupique Mt., N. S.
A. Davidson	Portaupique Mt., N. S.
Gerald Finley	Head of Amherst, N. S.
H. Hamilton	Tusket, N. S.
Thornton Hergett	Falmouth, N. S.
A. L. Northrup	Kingston, N. B.
Louis Rees	Bell Island, Newfoundland
J. R. Thompson	Dunstaffnage, P. E. I.
H. M. Wright, Jr.	Bedeque, P. E. I.

Two prizes were given to those obtaining the highest standing in the two year course.

First—George MacMillan, Book "Genetics in Relation to Agriculture" by Babcock & Claussen.

Second—Philip L. MacQueen, Book "Animal Breeding" by Laurence M. Winters.

One prize was given for the three months'

course and was obtained by Edwin C. Bain—Book, "Feeds and Feeding" by Henry & Morrison.

The speaker representing the Alumni and the Department of Agriculture was R. J. MacSween, N. S. A. C. '23, Agricultural Representative for Antigonish and Guysboro. Mr. MacSween gave an excellent address, stressing the importance of training for leadership. He pointed out that there never had been a time in the history of the world when wiser leadership was needed in agricultural matters and urged the graduating class to do everything in their power to help in their communities and to promote the welfare of agriculture.

BIOGRAPHIES OF GRADUATING CLASS

1932

In the following few pages we shall endeavor to introduce the graduates and to give you some idea of the lives they lived while here. It was Shakespeare who said, "The evil that men do lives after them; the good is oft interred with their bones." Therefore these biographies are not written to inform us of the evil points of their lives, but to remind us of some of their good points which perhaps might be forgotten long before their evil ones.

J. Melvin Armstrong

"He believes in his work. He believes in humanity
He believes in himself."

Melvin hails from the town of Apohaqui, N. B. Born and brought up there, he spent his early life on a farm. In 1926 he graduated from the Provincial Normal School in New Brunswick. From then, until he entered N. S. A. C. in the fall of 1930, he taught school. Evidently his teaching did him a lot of good for he can certainly digest chemistry, physics and math.

He takes a great interest in both social and athletic activities of the College. Strange to say, he does not fall for the Normalities as do most of the boys. As a student he is a steady, industrious worker and distinguishes himself in all his studies. He is an exceptionally keen debater, presenting a stonewall argument on every occasion.

Melvin intends to continue his studies at Macdonald and we can be quite sure that whatever he undertakes he will accomplish. We wish him the best of luck in the years to come and hope he will often recall the good times and his many friends made at the A. C.

George W. Ayers

"I'll chide no breather in the world but myself,
'gainst whom I know most faults."

George, or Lank, as he is better known on the College campus, is the envy of every student that attends the A. C.

Charlottetown is the home of this lad and should be proud of him.

Before coming here he attended Prince of Wales College, Charlottetown, for two years. Since coming here he has proved himself a good student and in every class he is one of the cleverest students.

Lank has one weakness, however, and that is for the fair sex. He is hard to please but when he finds one that suits all is O. K. Needless to say he has found several that are O. K. and now finds it hard to keep his dates straight.

He is a great force in the sports branch of college life. He is captain of the Basket Ball team and second to no centre in Canada; he is also star defence man on the College Hockey team and the way he bumps his opponents is nobody's business. He won the Senior Maritime Broad jump at Moncton last summer.

We feel sure that whatever he does in the future will be done well; anyway we certainly wish him success.

Cheerio and good luck, Lank!

Scott F. Clarkson

"He is teaching the value of intelligent effort. May he long continue to do so."

During his early life Scott claimed Stanley, N. B. as his home village. Moving to Fredericton when a small boy he received his early educational training there, graduating from Fredericton

High in 1929 and the Provincial Normal School in 1930. He has always been particularly popular in sport circles of his home town and was a star football player. Unfortunately, he met with an accident that has forced him to give up sports indefinitely. During his senior year in High he was President of the Athletic Council and was Secretary-Treasurer for the two years preceding. He was President of the graduation class of F. H. S. '29 and valedictorian of the class of '30 of the Provincial Normal School. While at A. C. Scott has been very popular with students and professors alike and has made many real friends.

This diligent fellow plans to complete his course at Macdonald and expects to study Plant Pathology. With his perseverance and ability we look forward to his graduation with honors.

The best of luck Scott.

Pea Daigle

"Quick of despatch, discreet in every trust;
Rigidly honest, and severely just."

From Baker Brook comes Monsieur Daigle, one of our highly honored and most esteemed New Brunswickers. He was raised on a farm, in that much heard of wild country of Madawaska in Northern New Brunswick.

His earlier education was received at Baker Brook Grammar School, but not being content with this, he started for St. Anne's College, Church Point, and after staying there but a short time, he

went to Bathurst, where he graduated in 1928 with a B. A. degree. But Daigle being a very progressive type was not satisfied with the extent of his education, and having theology in mind, he went to the Seminary in Halifax for one year, but at the end of that time he had to withdraw on account if illness. After his recovery he worked for a time, and last year he found his way down to Truro and the old A. C. After his arrival here, he made many acquaintances and he was chosen to give classes of instruction in French for the remainder of his first year. He has proved himself to be a good student and sport, and his piano playing has won him many friends.

May we wish him luck in his new fields of endeavor.

Basil R. Drakes

"Your qualities surpass your charms."

For those who do not know him by this name, let us make it clear we are referring to Blighty. This very popular fellow hails from Lincolnshire, England, but decided a very few years ago to cross the waters and study Canadian methods of farming. Coming to Nova Scotia in the spring of 1929, he worked on a fruit farm in the Annapolis Valley and feeling that further education would not be out of place he came to the A. C.

Blighty has many friends in Truro, with whom he is a particular favorite. He is popular in both sport and social circles. For two years he

has played on the college basket ball team.

We understand Blighty is considering the purchase of a farm in N. S. and that leads us to wonder who will keep house for him.

Good luck, old fellow, your many friends wish you every success.

Bedford M. Duncanson

"A mighty man is he,
With broad and sinewy hands;
The muscles of his brawny arms,
Are strong as iron bands."

It was at Gaspereau, Kings County, N. S. that this rugged youth learned to talk and say his A. B. C's. He graduated from Wolfville High in '30 and that fall found him enrolled with the Degree students at N. S. A. C.

Dunk. has a barrel of reserve and is usually very quiet. But he breaks loose occasionally and then his humor is the delight of all about. We hesitate to record his one weakness but at least we are of the opinion that this weakness may account for his keeping late hours on the south side of the bridge Saturday nights—when the Normals spend a social evening at the A. C. Dunk is an excellent student, this year being a runner-up for honors. His practical nature, combined with the knowledge gleaned while at the A. C. lead us to trust in his future and we hope he may decide to continue his studies at Macdonald in the near future.

Good luck old boy.

Chas. M. Harlow

"I am a man, nothing that is human
do I think unbecoming in me."

Charles was born and bred in the town of Truro, but we really shouldn't hold that against him, as he didn't have any say in the matter.

He received his early education in the common school here and then went on to the Academy where he graduated with his A in 1927. He then went to Acadia University in Wolfville, and after four years of toil, struggle and hard chips, he received the degree of B. Sc. with honors in Chemistry. While at Acadia, he proved to be a star in basketball, and with the opposite sex, more than a star. So great is his athletic ability that during the past year he has been coach of the two basket ball teams in the town, as well as the one at the A. C.

He hopes to do post graduate work at McGill University next year. In fact, he has the promise of an instructorship in chemistry. He was laboratory assistant in organic chemistry at Acadia and this year assistant in the chemistry department here.

Alfred LeBlanc

"A pendulum, I there am made
To move the leaden wheels of trade."

Memramcook knew him first, then Moncton, and it may be said that he also spent some time in

the States. But after having him with us for the past few years, we feel sure that wherever he has gone, and whoever he has met, his smiling face and cheerful countenance must have surely made its mark and left its impression. The girls seem lost when he is not around, and I am sure that a College dance would not be a success if he were not present. But Fred never takes these girls seriously, he always thinks of the one up there in N. B. who is waiting for his return.

His education started in Memramcook and then he furthered his studies at St. Joseph's University where in 1928 he obtained his B. L. degree.

He is interested in all kinds of college sports and only too willing to help in any of the college activities when called upon to do so.

He is a good student and should be congratulated upon the way he handles the English language, as his previous training has been done in French. Our best wishes go with him and we are confident that we will hear good reports of him.

Alpha Martin

"Man is his own star, and that soul that can
Be honest, is the only perfect man."

Bon Jour! Another New Brunswickan, from the wild north, he hails from Claire, and to Martin, the north is the only place. He received his earlier education in Claire, and then went to St. Anne de Pocatiere. While there he was taught the finer points of the studying game. He then went

to Rimouski to study agriculture for a time, and then came to the N. S. A. C.

Le petit garcon has made his mark in the graduation class, and is very popular. Always willing to help out where possible, whoever needed help.

Hockey is his favorite sport, and during his stay here he has proved from the beginning to have been a star, and on more than one occasion to have saved and won a game for his Alma Mater.

Although he doesn't seem to care very much for the girls, he likes to dance, and in this way many of the young ladies have gained his acquaintance and learned to love him.

Whether he specializes in Animal Husbandry or Plant Pathology we feel confident that he will make a name for himself.

Melvin B. Moore

"An eye that can see nature: A heart that can feel nature:
And the courage to follow nature."

Melvin first saw the light of day in Hawkshaw, N. B., where he attended the public school before entering Fredericton High School. He graduated in '27 and then proceeded to the Provincial Normal School; he held the principalship of the Millville Graded School for two years. The fall of 1930 found him in Truro attending the A. C.

Since coming to Truro, Melvin has distinguished himself in all college activities. During

his junior year he was president of his class and this year president of the Student's Council; in this important position he has proved himself an able leader. As for class studies, he led his class last year and we expect the same this year. At debating he is unexcelled as anyone who has debated against him will tell you. A great deal of his time this year has been spent in making the A. C. Gateway, of which he is Editor, the success it has been.

Mel. has always been a terror with the Normal College girls, but this year saw him settle down and now he has turned Irish, having become an ardent follower of "St. Pat."

Melvin has decided definitely in taking a course in General Biology at Macdonald College and we know that he will keep up the fine record which he left at N. S. A. C. Adieu and lots of luck, Melvin.

R. Stuart MacGregor

"My mind to me a kingdom is."

Stuart is from East Baltic, P. E. I. and is one of the fossils of the college. He graduated from N. S. A. C. in 1929, receiving the Farm Class diploma, but being particularly anxious to further his studies in agriculture, he returned the next fall to take up the Degree work. Unavoidable circumstances forced him to abandon this course in the middle of the second year, but this year found

him back. He intends to go to Macdonald and study agronomy.

It is a well known fact that Stuart has interests in Acadia University as well as N. S. A. C. Perhaps that is why he keeps away from the fairer sex of Truro. He is noted for his whistle and is known to have excellent vocal talent in spite of the fact he refuses to exhibit it.

This steady, determined fellow, is sure to surmout all difficulties and we look to his future with assurance of his doing excellent work.

Alan D. MacKenzie

"Every fault is forgiven in the man of perfect candor."

Mac came to Bridgewater, N. S. from Johannesburg, South Africa, in 1925. He received his high school certificate from Halifax Academy and being desirous of furthering his education and having the interests of the poultry industry at heart, he came to the A. C.

While at College he has proven himself efficient in all lines of work, being especially capable of taking down notes. Mac has always shown a greater interest in social events than in sports, and is rarely absent from a dance. However, he does not permit his interests to extend to the fair sex. His favorite pass-time is making sketches of types of hens he hopes to raise after completing his course at Macdonald. Here's wishing him all success in his chosen work.


M.E. NEARY.
G.W. AYERS
B.R. DRAKES.
L.E. SMALLWOOD.
H.E. ROBBINS
S.F. CLARKSON
J.A. TRAVIS.
A.A. LeBLANC.
J.M.A. ARMSTRONG.
M.B. MOORE.
CLASS. PRES.
C.M. ZINCK.
A.D.F. McKENZIE
C.M. HARLOW.
A. MARTIN.
A.D. RANKIN.
D.M. DUNCANSON
R.S. McGREGOR
W.H. WILSON.
P.A. DAIGLE.

Malcolm E. Neary

"Some people seem to be very intent upon leaving their mark, and knowing no other way, they raise hell."

Greenwich, Kings County, N. S. is the home of this sturdy lad. After graduating from Wolfville High in 1930, he came to the A. C. the following autumn. "Mac" as he is known, is a very active sort always, particularly so on the basketball floor. He has proven himself a good student, and his head, where red is dominant, is without doubt, the brightest in the class.

Mac's weak point is bugs and we predict that he will make them lead a miserable existence, when he is prepared to wage war against them. We wish him the best of luck in his future work and shall remember him as a large chip in our woodbox of memories of the old A. C.

H. Ellis Robbins

"He talks with a queer combination of 'horse-sense' and the 'moving of the spirit'."

The rugged county of Yarmouth has turned out many worthy sons, but few that surpass our breezy young friend, Robbins. Following his graduation from Yarmouth Academy in '30, he proceeded to the Agricultural College. Here he has proven himself a very capable and industrious student. His motto is, "Never more than an hour late for class." Ellis has been chairman of the

social committee and has always taken an active part in social affairs. However, in spite of the many duties, involved, he has always found time to entertain the ladies, with whom he is a particular favorite.

This energetic youth has always provided the class with lively entertainment and kept the professors at their wits end to cope with his perplexing arguments. He plans to continue his studies at Macdonald where he hopes to make Horticulture his major option. Ellis is very enthusiastic about this and we feel sure he will accomplish much in that line. He has our sincere wishes for success.

Angus Daniel Rankin

"The man with the smile
Is the man worth while."

From Judique, Inverness County, Cape Breton, comes Angus, a graduate of St. F. X. University, where he completed his Arts Course in 1930. Although well advanced in experience and knowledge, Angus does not exceed in years many of his class mates, among whom he was a favorite.

His love for Agriculture led him to enrol as a student of the N. S. A. C. in the Autumn of 1931. Having taken the regular two years' work in one, he is now numbered among the graduates. For a man of his physique, personality and intelligence, the future has much in store. We have every

reason to expect his name to appear among those of the leaders of Canadian agricultural work.

While Angus is famed as a track man and football player, his athletic activities have been confined to basketball at the A. C. Due to his clever checking and his ability of keeping down scores he is well named the bad man of the basketball team.

Angus possesses those qualities that enable one to feel at home under all circumstances, even when engaged in public speaking, for he has proved to be a keen and ready debater. His pleasing personality won for him many friends and acquaintances while in Truro. His associations with the young ladies have been very limited during his term here, but we have good reasons for maintaining that this could not be said of him when in his home town. Regardless of all we do not know concerning his ability, we may well say that he is a man of whom the N. S. A. C. may feel proud.

Lawrence E. Smallwood

"Mankind by various arts ascend
The paths to eminence that tend."

Lawrence first saw the light of day in Moncton, N. B., and to him Moncton is the hub of the universe. He started his educational career in the public schools of his home town, and a short time afterwards, while yet a mere child he graduated from Aberdeen High School. He first

thought of Theology, and then of Medicine, and at the age of sixteen he went to Dalhousie University in Halifax to begin what would have been a long and strenuous course, but fate has a part to play in all things, whether great or small, and fate seemed for a time to have cast her lot against him, for after four years study he found himself having to withdraw for a time on account of poor health. And perhaps this is the reason that we find him coming into our midst. He has been specializing in Biology and perhaps will go on to further his studies in this subject. Although he has been with us only a short time, he has proved himself very popular, and has made many acquaintances, but not with the opposite sex, as he is a real woman disliker. He is a good student, and enjoys writing, as we have seen by the articles signed L. E. S., in the recent Gateways.

J. Arnold Travis

"In poetry illustrous and consummate; in friendship, noble and sincere."

This tall, romantic youth was born in Kemptville, Yarmouth County, N. S. among the Guernseys and rocks! On reaching the age of six he was able to see over the smallest rock and get a glimpse of the outside world. He graduated from the High School in Kemptville in 1930 and the following fall he came to N. S. A. C. where he has been very popular both with his fellow students and more so with the fair sex. His knowledge about

women and what women know about him is infinite. His one great weakness is that he likes a "steady," much to the chagrin of all other girls.

Not only does this lad succeed in his studies but he takes an active part in the various activities carried on at the College. He has been a member of the magazine staff for two years and this year was mascot of the hockey team.

Animal Husbandry is the option this ambitious fellow plans to take up when he goes on to Guelph.

We extend to him the best of wishes for success in all his undertakings. Adios, Joseph!

Wilford Wilson

"For e'en though vanquished, he could argue still."

Moncton is the home town of this sturdy blond. Upon his graduation from High School in '28 he was given a trip to the Canadian West as a reward for his efforts. Not satisfied with that part of Canada he returned and accepted a position on a dairy farm near his home. After a year of labor he decided to further his studies in agriculture and the fall of '30 saw him at the A. C. While here, Will has taken an active part in all phases of college life—an exceptional debater, a member of the social committee for two years, member of both the basketball and hockey teams and a runner up for first place in class work.

Although he came from Moncton nineteen, unbroken, and unkissed, he goes away crippled

with love but not Normal. The fact that the Normal College is in Truro has been just too bad for Will.

The ambition of this lad is to own a herd of raw-boned Holsteins and operate an adulterated two hundred quart milk route. After graduating from the Ontario Agricultural College, as he hopes to do, we feel sure he will be able to acquire the herd and that he may be most successful is our wish.

See you on the farm Will!

Cyril M. Zinck

"I believe in the Now and Here. I believe in You and I believe in a Power that is in Ourselves that makes for Righteousness."

This short, blue-eyed lad comes from Halifax (the home of men). He is a graduate of Halifax Academy and spent one year at Dalhousie University before coming to Truro. Cyril is an ardent worker both in the classroom and out. He has played on the basketball team for two years and this year was goal-tender for the hockey team.

Although a hard worker he enjoys considerable recreation. Cyril never misses a dance nor does he fail to take a walk down town after the dance "to get the air." We know him to be a Baptist, but why does he attend St. Andrews United Church? We wonder!

Since coming to Truro, Cyril has made many friends and we feel sure he will long be remembered at "The Hub." He can be depended upon to "make good" wherever he goes and we wish him

luck, even in trying to win a minister's daughter.

Adieu, kind friend, adieu.

Alexander Coombs

"Newfy," as he is familiarly known to us, hails from foggy Newfoundland.

This remarkable lad has had many stirring episodes during his College career, including his murder at the subway.

Holding a hockey stick as one handles a broom he has filled a regular place on the A.C. team.

Alex. is a boy full of ambition from top to toe and when his smile is brought into play it is something to remember. It is achieved by a gradual upheaval of the entire facial regions and arrangements of the parts into an expression which only he could consummate.

Newfie's long walks Saturday nights have been the means of keeping the shoe stores in Truro prosperous, "nuff said."

We know that he is destined to greater things such as promoting the Agricultural Industry in Newfoundland.

John Charles Campbell

This romantic islander was born at Campbell's Cove. After exhausting his practical knowledge in growing potatoes, decided to increase his production by the application of theory, so 1931 found him at the A. C. He is a very practical young

man when not thinking about the ladies.

Charlie is always at class on time and refrains from getting himself into places from which it is difficult to free one's self. On the whole he is one of the most satisfied persons we have ever seen and will hold a special niche in the pleasant memory of his classmates.

His favorite topic is Agronomy and there is no doubt but that he will make good. We all wish him success in his future career.

George A. MacMillan

He comes running at the name of "Mac" and hails from that little Island known as the Garden of the Gulf.

"Mac" is a great little lad. "A smile for everybody" is his slogan. He is very popular among the students and Profs. alike. As captain of A. C. hockey team he has filled this position very efficiently. Speaking of efficiency when it comes to debating you should hear that boy talk. He was a member of the Senior Farm debating team which so successfully vanquished the Juniors.

A great favourite with the Normal girls at the Saturday night dances, he can always be found after the dance at the "Palliser" with one of the Fair Sex.

"Mac" showed his true colors in 1931 at the Maritime Winter Fair, where as a member of the club judging team from the Island, his mate and himself won the T. Eaton Trophy for judging dairy cattle. In Animal Husbandry, especially Gene-

tics class, "Mac's" questions sometimes cause Dr. Trueman to scratch his head in perplexity.

A great student at all classes and the thorough knowledge he obtained—well, time will tell as he goes back to North River on the farm.

Best of luck, Mac.

Philip E. MacQueen

"Daddy" comes to us from the beautiful island of Boularderie, Cape Breton. He first came to the A. C. in 1930, but was unable to return in 1931. However, 1932 found him, bag and baggage at College again.

It is suspected that he could not keep away from the young ladies of Truro, as he has often been observed leaving the rink with two pairs of skates on one arm and a young lady on the other.

That Philip is a real leader is shown by his success while at the A. C.; his quiet disposition, strong will and unconquerable determination attract attention from all his classmates and associates. Before coming to the Agricultural College he taught school for a year. That he will be successful in his future occupations is taken for granted and best wishes are extended from all his classmates.

Eldon A. McCullough

Eldon, as he is familiarly known to his class mates, hails from Keswick Ridge, N. B.

He is a member of our Social Committee and also a star on our dance floor.

Blondie, as he is known by the fair sex, is very popular with them and will leave many broken hearts behind him. He was a successful member of the calf club judging team representing his Province at the Royal Winter Fair in 1928. His ambitions while at home are in the interests of the Jersey breed and no doubt in time to come his achievements will be known the wild world over.

David Rose

Studious Dave, as he is called, hails from stony Yarmouth, the Country of big blueberries and oxen.

Dave first came into the limelight in 1928 when he won the J. A. Steele cup for the highest scoring calf club member in the Maritime Provinces.

This lad in deciding to further his education in agriculture arrived at the A. C. in 1931.

He has been a valuable member of our hockey team for the past two years and has handed out some heavy bumps to his opponents.

Dave has won a name for himself in all student activities being a member of our class debating team.

We know that he will be missed at a certain boarding house, when he leaves Truro. Dave is a fine chap and has our best wishes for success.

His favorite pastime—talking about Guernseys.

Douglas B. Snide

Doug. hails from Shubenacadie, a rich farming district of Hants County. His chemistry and agronomy occupy most of his spare time and his studious and attentive appearance in the classroom has won for him the respect of the professors.

There is one thing we can neither understand nor forgive in this lad and that is his persistent refusal to dance. For one that is so popular with the "weaker vessels" such an attitude is both strange and phenomenal; nevertheless, we expect it will be remedied in the near future. When pleased, Doug's laugh can be heard all over the campus, so beware, fair sex.

He leaves us with our best wishes for success in the future.

George Stockford

George hails from Carpenter, N. B. He attended the course at the Dominion Experimental Station, Fredericton, in the fall of 1930. While there he conceived the idea of further studies in Agriculture, hence his arrival at N. S. A. C.

That he is an excellent student is clearly shown by his standing; but he finds plenty of time for pleasure also. He is very popular with the students generally, is president of his class, and was leader of the debating team which so successfully defeated the Juniors. His superiority in this

line may one day lead to his appearance on the political platform.

It would be unfair to George not to mention his failing for card-parties and nurses, with whom he is so much at home.

Good luck George! We feel sure you will master all obstacles and that your efforts may be crowned with success is the wish of each of your friends and classmates.

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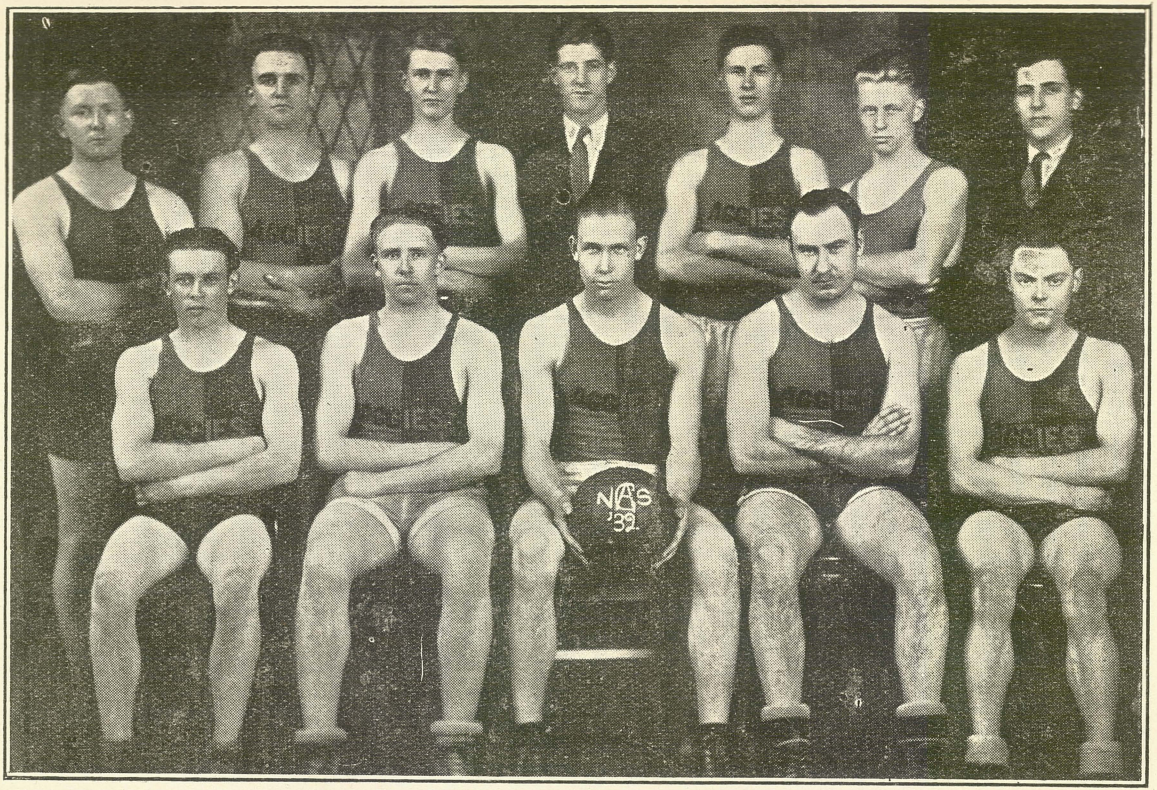
The Sport Column

BASKETBALL

Basketball at the College this year was a huge success. I don't believe I have ever seen two classes work together so well in the common interests of the College team than was the case this year. The juniors in particular showed the best of spirit in all the conflicts carried on between the two classes and although they lost out in the end they put up a brand of basketball that was remarkable for fellows who had never seen or handled a basketball before coming here. The seniors ought to feel proud of themselves in defeating such an aggregation and carrying off the Harlow trophy emblematic of interclass championship. This cup so kindly donated by that gentleman, Professor L. C. Harlow, has awakened interest in basketball within the College; it also shows that the faculty



BASKET BALL TEAM

Standing: M. E. Neary, F; H. G Longley, G; F. B. Warnock, C; C. M. Harlow, Coach; J. Copingerhill, G; L. R. Burrell, F; H. E. Robbins.

is interested in sport among the students.

All the interclass games were refereed by Ellis Robbins and I would like to thank him here for the hard work and time he has given us. Refereeing basketball games is no easy job and although his decisions were often disputed, I think that all will join in congratulating him on his excellent work.

Charles Harlow, our coach, is another man who is worthy of mention. Having played on the Acadia University team while he was attending that institution, he had an excellent knowledge of the game and the results he obtained showed far more combination and team play than was exhibited the previous year.

This year the basketball team made two trips, one to Mount Allison the other to Acadia. Needless to say all the boys enjoyed these trips and although we deported from the general rule by making two such excursions, I believe that it was worth while from many standpoints. In the first place it brings our college into the athletic limelight and shows that we are not completely out of it as far as sport goes.
In the second place, it gives advertisement to the college, a factor that should be considered of very great importance to an institution of this kind.

At Mount A. we were defeated to the tune of 27-16. On this occasion the A. C. boys could not seem to get along and the plays were broken up for the most part, the result being that the Theolo-

gues had the game on ice pretty well all the way through. But on the return game played in our gym. wonderful improvement was shown, particularly in close guarding, accurate shooting, and tireless work by the forwards. The game as a whole was good to look at and the score was so close that it kept the fans on their feet most of the time. At the end of the last period the score read 18-18 and a five minute overtime period was necessary. In this session our boys got hold of the ball from the tip off and had the game pretty well in hand till the final whistle, the score reading 22-18 in favor of the A. C.

The Acadia Games

On the 22nd of March we embarked for Acadia on the D. A. R. but we had only just got under way when we found that our star guard Angus Rankin was missing. Realizing that it would be foolhardy to make the trip without him we called a halt and brought the much exhausted Angus aboard after he had been trailing us for about half a mile. We afterwards found out that he had been in conversation with some fair Normalites and had completely forgotten about the train.

The same evening we met the fast travelling Acadia Intermediates in their gym and lost the game 64-28. Although the score was rather one-sided it does not mean that we were completely outclassed. Inaccurate passing by our team and the great shooting ability shown by the Acadians accounted for the high score to a great extent.

On the following morning we succeeded in

defeating the theologues by the score of 32-25. On this occasion the A. C's. showed a wonderful improvement in style of play, and if it had not been for such hard luck in shooting, the A. C's. would have piled up an overwhelming score.

Juniors vs. Seniors

As space will not allow a detailed description of every game in the series only the best game will be chosen. The third game proved to be the best game, the score reading 19-18 in favor of the seniors. In this game fifteen minutes of overtime play was necessary before a winner could be decided.

The game started off with a rush and it was easy to see that the juniors were out for blood. However, the seniors sunk a few long shots at the beginning to take an early lead. This lead was short lived for the juniors put on a spurt to tie the game. From then on it was anybody's game with the score see-sawing back and forth. The first period ended with the score reading 12-10 for the seniors.

The second period started out with the juniors fouling excessively. In the first ten minutes no less than 12 fouls were called on the juniors. The seniors took advantage of this break and this probably saved them from defeat. The juniors recovered to take a short lead but the seniors tied the score in a desperate rally. The players were beginning to show the effects of the terrific pace. The period ended 18-18.

The first five minute overtime resulted in no score for either team. Both sides were playing hard but could not make their shots count. A second overtime period was played with the same result. The game had slowed up considerably but neither would give in. It was not until the last overtime period that the seniors capitalized on a free throw to take the game. It was a great game to win and a harder one to lose. The juniors deserve credit for the splendid fight they put up and it is no disgrace to be beaten by a foul shot. The seniors were full value for their win and it was only their fighting spirit that won the game for they certainly did not outplay the juniors.

Our basketball year is now over and our team will break up not likely to assemble together again. As a team the boys showed both individual and cooperative ability and it is chiefly due to this that we have gone through a season with a fair number of victories to our credit.

Of the Juniors, special mention might be made of Hill, Longley, Warnock, and Burrell. Hill and Longley, although they had never played basketball before they came here, turned out to be an impregnable pair of guards as the Seniors found out soon enough. Warnock and Burrell, second string forward men, have no peers when it comes to tricky plays and they are a pair much to be feared when working together. Taking everything into consideration I think that with these boys as the backbone of the team, we have nothing

to fear for next year and we as outgoing seniors wish them every success.

GEORGE W. AYERS, Captain.

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HOCKEY 1932

One of the questions considered at the second meeting of the Students' Council was that of a hockey team for this year. A meeting of hockey fans was called to discuss matters and it was decided to hold a practice before any further steps were taken, to determine if any material was available. At the first practice twenty players turned out.

In addition to four of last year's men there were two stars among the first-year students. These men were: Nelson, from Halifax, star player for St. Mary's Champions of Nova Scotia prior to his coming to the A. C., Clouston, a "Spud Islander," Anderson and Byers.

The first game was played at Flemmings Arena on January 27th against those "so much talked about" Agricultural Representatives, nearly all former graduates of the A. C. The game resulted in a win for the College boys.

The first period started off with a bang, for when the period was young, Nelson, right winger for A. C., received the puck at his own blue line, skated through the whole team, and the light flickered behind "McKenzie," good-looking goalie

for the Reps. The A. C. soon added another goal, Martin receiving a pass from MacMillan, and slipping the disc behind the goalie for the second play. Zinck, goalie for A. C., had very little to do in this period.

In the second period the "Reps" came out like mad men, and smothered Zinck with rubber, yet could not get by the "Zinck." With a few seconds to go MacIntyre made a solo rush. split the A. C. defence. coasted in on "Zinck," faked a shot, which the goalie came out to save, and flipped the disc past him for the lone tally of "Reps." The period ended 2-1 in favor of A. C.

The third period was full of thrills and kept the people in hot water all the time. The A. C. broke loose and caught the "Reps" flat-footed and notched three counters to put the game away safe in the Old Crow's Nest. At the fifteen minute mark a wheel barrow was necessary to convey one of the Reps to the aid room after colliding with Ayres, husky defence player for A. C. No more scoring was done and the game ended 5-1 in favor of A. C. boys. Leo Sergeant of Truro Bearcats handled the whistle.

The second game was played against the post office and resulted in a win for the A. C., for the boys used the white wash brush by blanking the P. O. 2-0. The snappy forwards for A. C. were too much for the older men.

The A. C. line-up was as follows:
Goal—C. Zinck
Defence—W. Wilson, G. Ayres, M. Neary.
Centre—MacMillan (Capt.), Clouston.
Right Wing—Nelson, Byers, Rose.
Left Wing—Martin, Anderson.

W. H. WILSON, Manager.

TRACK

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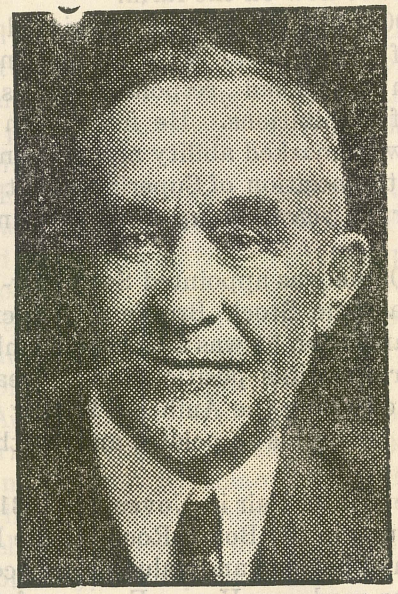
There has been some talk about the college about sending a track team to the Maritime Intercollegiate Track and Field championships to be held in Fredericton during the latter part of May and as a matter of fact the Agricultural College has been allowed in if they wish to compete. If any of the boys should decide to go I think it will be at their own expense. I know from my own experience that it is not much use to enter a track meet unless you intend to go through a rigorous course of training. It is advisable for a track man to quit smoking, keep early hours and leave the women alone. This last restriction seems to be the stumbling block of most athletes.

G. W. A.

WHO'S WHO

Name	Nick-Name	Weakness	Chief Ambition	Favorite Saying
Alex. MacNab	Curly	Blushing	To tell jokes	Oh, yeah!
George Cook	Cookie	Women	To be a J. P. (Landry)	Jimminy Crily
Basil Drakes	Blighty	Georgie	To play basket-ball	Let me tell you one
Arnold Travis	Travis	Eyes	To work at Stanfields	I wonder
Hazen Trevors	Goofy	Women and more women	To know all the women in Truro	Hit me will ya?
Thos. Chiasson	Tommy	French	To dance	How is you?
Robt. Hilton	Bob	Women	To be a leader	No, No, Listen to me
Clyde Brown	Clyde	Chemistry	To follow in Harlow's footsteps	Holy mackerel!
Stanley Wilmshurst	Pat	Elsie	To keep us with the Jones'	You bet
Albert Anderson	Andy	Hesitation	To tease	I don't quite grab the meaning of it myself
Hazen Horncastle	Horny	Cattle Judging	To be an economist, agronomist, etc. etc.	Correct
Joseph Ryan	Joe	Moustache	To reduce	I don't care



FRED L. FULLER

The Nova Scotia Department of Agirculture suffered a great loss in the death of F. L. Fuller on March 9th. Mr. Fuller had been continuously connected with the Department since 1892. In that year he was appointed Manager of the Government Farm at Truro and held that position until 1907. During that time he greatly improved the farm by clearing brush land, putting

in underdrains and building most of the barns and sheds that are now on the farm.

In 1907 Mr. Fuller was appointed Superintendent of Agricultural Societies and in 1909 he was given additional responsibility as Superintendent of Exhibitions. He filled both of these positions with marked ability and efficiency for 18 years and the position of Superintendent of Exhibitions for 23 years, or up until the time of his death.

In 1908 he was appointed Secretary-Manager of the Maritime Stock Breeders' Association of which organization he was a charter member. He held this responsible position for 20 years. His success in directing the Amherst Winter Fair was recognized by all his associates and by the public in general.

At the Winter Fair in November 1931 his portrait was hung in the Board Room at the Fair as a recognition of his long and valuable service.

He was made an Honor Farmer of the Province of Nova Scotia and given a diploma at the Annual Convention of the Nova Scotia Farmers' Association held in Truro in January, 1932.

ALUMNI NOTES

It will be of interest to some of the older graduates to know that Illsley Brothers of Somerset are enlarging their creamery business and building a new plant at Berwick. Earl S. Illsley '07 is the guiding spirit.

F. E. Ellis '08 was a visitor to Truro last summer. He was for many years editor of "Farm and Dairy" and is now specializing in poultry, privately at Woodstock, Ont. Since his trip to Nova Scotia several interesting articles from his pen have appeared in the "Family Herald" descriptive of poultry work in his home province.

The Acadia Dairy, Wolfville, was purchased by the Yarmouth Creamery, last fall. Don Chipman '09 and Wilfred Kinsman '18 are the active forces in this thriving business.

A. Kelsall, '10, Officer in Charge, Entomological Laboratory, Annapolis Royal, has saved a lot of money for the town of Annapolis. They don't have to run an election for mayor, just elect him by acclamation, a job he has held for several years. The town prides itself on its cheap light and power, generated by a local hydro plant owned by the town. Rumor has it that Arthur has saved the town a large amount of money on this business too.

John A. Black, '11 is farming at Villagedale, Shel. Co. He is one of the leading farmers of his district.

E. S. Leonard, '11, is breeding purebred Guernseys in that growing dairy district near Paradise.

C. A. Crooker, '12, is manager of the North Queens Fruit Company at Caledonia.

W. G. Graves, '13,who is farming at Aylesford, was elected President of the Kings County Farmers' Association for the present year. Under his leadership a Sow Thistle campaign is being organized this winter.

C. M. Dickie, '13, is head agent for the International Harvester Company in Prince Edward Island. His address is Summerside.

R. R. Hurst, '18, Dominion Laboratory of Plant Pathology, Charlottetown, recently published an excellent bulletin on Late Blight and Rot of Potatoes.

D. J. Robicheau,'18, is operating an extensive fox ranch at Meteghan, Digby County.

James Clark, '19, is raising foxes and Jerseys at Bayhead, Colchester Co. He is secretary of the Pictou-North Colchester Farmers' Association.

Cecil Selfridge, '20, has forsaken agriculture for harmony and is Professor of Music at Mt. Allison Univeristy.

Malcolm D. MacCharles, '13, Agricultural Representative for Pictou—North Colchester Counties, is being sincerely congratulated for the excellence of his work among the farmers in his district. Articles in the "Truro News" and "Ontario Farmer" will bear out this statement and

we are glad indeed that Malcolm is receiving his just deserts for his outstanding ability and work.

Ken Harrison '22, Assistant Plant Pathologist at Kentville, was married last summer to Miss Margaret Outhit of Kentville.

Henry Harding, '28, is engaged in plant breeding in the Horticultural Division of the Central Experimental Farm, Ottawa.

C. F. Taylor, '25 is doing post-graduate work at Cornell University.

Collyer Chisholm '28, is at Macdonald this year taking a diploma course.

Sandy MacLeod '28 is farming at his home in Cape Breton.

D. A. Burrell '28, is studiously engaged in studying a Radio Course, at his home in Carleton, N. S.

Gordon Warren, '24 was in charge of green houses until going to the Experimental Farm at Charlottetown, where he is now employed.

Avalon Johnson, '26 is doing well in the dairy business with his father near Halifax, N. S.

A. B. Banks '24, is Agricultural Representative for Cumberland County.

Bob Smith '26 is Assistant Provincial Horticulturist in New Brunswick.

Frank Woodworth '28, of Port Williams was married last summer to Miss Edithe Palmeter of Evangeline Beach. They are residing at Grand Pre.

H. S. Cunningham, '12, has his Ph. D. degree

from Cornell. He was Plant Pathologist for Bermuda in 1931, but is now engaged in Plant Pathological work on Long Island, New York. Dr. Cunningham was Assistant Agriculturist and Botanist for some years on the staff of N. S. A. C.

Gordon Dustan '25 has his M. S. degree from Minnesota University in 1931 and is now employed at Vineland Station Laboratories under the Provincial Entomological Department of Ontario. He is working on the Oriental Peach Moth.

J. Lorne Howatt '21, obtained his M. Sc. at McGill last spring, and is now Assistant Plant Pathologist at Fredericton, New Brunswick.

D. F. Patterson '25 is working for M. A. degree at the University of Western Ontario, at London. He is Junior Entomologist with the Federal Entomological Branch at Vineland Station Laboratory.

N. A. Patterson '23, is employed with the Federal Entomological Laboratory at Annapolis, N. S.

George McLeod '25 is farming near Sydney, N. S. He is interested chiefly in the poultry and dairy business.

Lawrence Sharpe '25 graduated from McGill in 1930 is now engaged in building golf courses in U. S. A.

Allison Marshall '25 is on the farm at Spa Springs, Annapolis County, N. S.

C. E. Attwood '29 has a scholarship from the University of Toronto, and is taking post-graduate work in Entomology at Macdonald.

R. B. McCormick '26 is studying towards his

Ph. D. at Cornell specializing in Plant Pathology.

Art Harrison '26 is studying towards his Ph. D at Cornell in Plant Fathology.

Dr. W. V. Longley '09 was re-appointed Vice-President of Canadian Council for Boys and Girls Club Work for 1932.

D. E. MacPhee '29 is being transferred to Canso. His duties begin there the first of April.

Norman Clark '25 has resigned his position as one of the Agricultural Representatives in Kings County, and has gone back to poultry farming at his home in Berwick. He is expanding his business in this line and is operating one of the six approved hatcheries in Nova Scotia, with a possible hatch of 9,200 chicks.

The many friends and acquaintances of Don Blair '29, will be pleased to hear that he is much improved in health, after his recent serious illness.

A. D. Pickett, '25 is welcomed back to his position on the staff of the College as Provincial Entomologist. He has been studying post-graduate work at Macdonald College during the winter.

Ken Cox '21, was re-appointed Chairman of the N. S. Seed Board at the annual meeting held in Truro in March.

At MacDonald College

Besides those mentioned in the last issue we hear of:—

Charlie Maxwell '25—expecting his B. Sc., this spring.

Jokes

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Thompson: "How do spores get in our skin?"
Robbins: "The Referee."

Horncastle (Being shown through the Eastern Hosiery Dept.)
Manager: "We use girls as models for fitting stockings."
Horncastle: "May I apply for position as fitter?"

Horncastle: "Miss Nairn, don't you think one of these jockey caps would look ridiculous on me?"
Miss Nairn: "I can't see that it would look worse than anything else on you."

Prof. Landry: "The estimated poultry population of N. S. is 1,100,000."
Chamberlain: "Was that before or after Christmas?"

Hill: "Is it an actual fact that rabbits have been put in beer in order to hasten fermentation?"
Prof. Prince: "I presume, to get the kick."

March 1—College Holiday. Why? Hill went through one period without an argument."

Travis: "Mackenzie, go lay an egg, will you!"
Mackenzie: "Will you eat it?"

Prof. Harlow had just completed an experiment for the preparation of soap and was exhibiting the final product.
Bright Senior: "If that is soap, it is Surprise."

Trevors was selling a book on the life of Edison
Mrs. Brown: "Too bad Edison died?"
Trevors, astonished: "Why, is Edison dead?

Prof. Barteaux: "Where do you get steel wool?"
Hill: "By shearing an hydraulic ram."

Mac: "What are the four kinds of replacement; there's single replacement and what else?"
Trevors: "Oh! Metamorphous and Igneous."

McN: "My landlady's teeth are like stars."
Hill: "Oh, yeah."
McN: "Yeah, they come out at night."

McFee, studying algae: "Shall I tease this female?"
Prof. Prince: "Not too much."

Barteaux: "What's the trouble with your thinking today Longley?"

Longley: "The dazzling reflection of McNab's hair has me stunned."

Hilton: "I didn't know that Daigle lived by writing."

Jackson: "Oh yes, he writes home."

Smallwood: "Colchester County Hospital is the most pessimestic place in the world."

LeBlanc: "Why?"

Smallwood: "On one side is the poor house, on the other the cemetery."

LeBlanc (working at meat market met with an accident).

Motorist: "Are you hurt boy?"

LeBlanc: "I don't know, my ribs are here, my heart over there, but I can't say where my kidneys are."

Smallwood: "To me Willow Street is symbolical of a lifetime."

Bud: "Why?"

Smallwood: "Well, it extends from the maternity ward of the hospital to Mt. Pleasant cemetery."

THINGS WE WANT TO KNOW

Why does Bud spend so much time on the second floor of the Science Building???

What does Smallwood do with the cats—has he a zoo or an an anatomy lab.????

If Wilson is going with girls as much in Truro as in Mocton???

Who was the married woman who accompanied Rankin from Sackville to Truro????

If Trevors and Longley were around Hopewell, N. J. the night the cradle was robbed???

Why Hill had new soles put on his shoes???

Why McNab is going to Lunenburg for the summer???

Why Crosby broke the test tube-containing the fungi preserved in alcohol???

If Trevors is still tied to his mamma's apron strings???

Why the junior basketball team arrived at the Y gym an hour and a half too early on Saturday afternoon???

What Thompson is going to do with the insect powder???

Why McNab intends to study brownalgae???

If Hill is really innoculated with gramophone needles???

What Thompson does to get his brown algae to grow???

If McGregor will recognize his woman after Ayers spent two days at Acadia University.

Where Zinck and Ayers slept while at Acadia??

What happened when Zinck and Ayers forgot to leave at eleven o'clock???

Why Travis collected votes for the most popular girl at the Jollies???

Does George S. like nurses???

Who Thompson's secretary during the summer is going to be??

Why Reid and Warnock look down on the rest of the class??

Why Travis is bashful??

Why Rankin has a suit case??

If Zinck is really interested in the Ministry??

What the Truro girls are going to do when Trevors goes home??

If Taper really has a stenographer??

If Horncastle has learned to milk yet??

EXCHANGES

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The A. C. Library has been in receipt of some excellent reading material, through its Exchange Department. Therefore, the Gateway takes this means to gratefully acknowledge the following Exchanges:

Kings College "Record"

This splendid monthly from Kings College seems worthy of special note, had we but the space. However, we must mention how much we enjoyed the February number, particularly the "Editorial" and also the "Reminiscences of Kings College" by Archdeacon Vroom. Also everyone is pleased to note the reappearance of our old friend—Freddie Bassingworth-Bassingworth.

The "Acadia Athenaeum"

This monthly magazine from Acadia University has been much appreciated by our students and special note has been taken of articles written by Havey '33 and "Perry" '34. The Alumni personals are also worthy of note.

The Dalhousie Gazette
and
The Mt. Allison Argosy

Being both weekly magazines, we cannot review the numbers in the short space allowed, but we would like to take off our hats (those of us who wear them) to that respective staff of these two magazines and to compliment them on the excellence of their publications, mentioning particularly the "Editorials" and the "Alumni Departments" which have been kept up splendidly—no easy task.

The "Voice of Y. C. A."

The Exchange notes would be incomplete if we A. C. students did not mention how very much we appreciate the little paper from the Yarmouth County Academy. Considering that a comparatively large percentage of the students here are from Yarmouth County, it will easily be seen how we look forward to the paper. It is a shining example of what energy and cooperation among the students of an Academy can accomplish.

Nova Scotia Poultry Association

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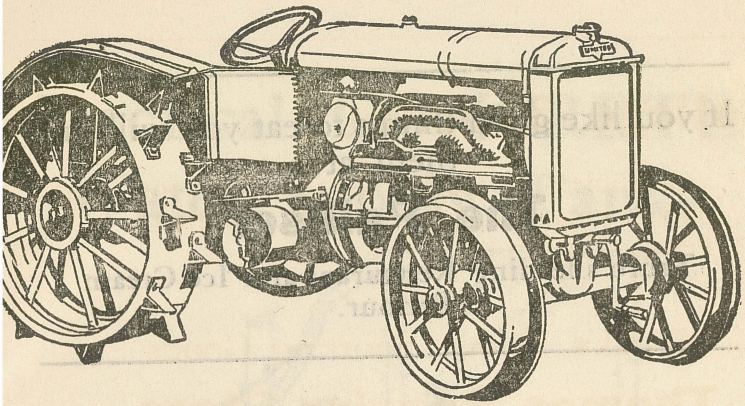

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Visitors in Truro are invited to call at the Frost & Wood salesroom on the Esplanade to inspect samples of farm operating equipment.

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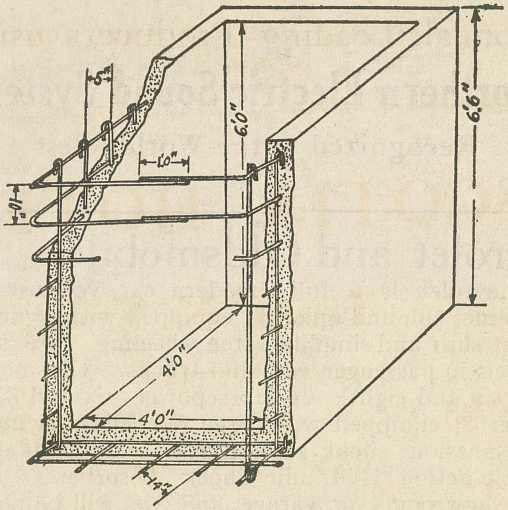

The average daily consumption of water on the farm runs into hundreds of gallons. No more practical improvement could be made than a concrete supply tank which will give you this water at the turn of a tap.

Capacaties of rectangular tanks in gallons per foot up to 6' in height.

4 feet x 4 feet	100 gallons per foot in height
4 feet x 6 feet	150 gallons per foot in height
6 feet x 6 feet	225 gallons per foot in height
6 feet x 8 feet	300 gallons per foot in height
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