Vol. 1. February 1909. No. 2.

THE MARITIME STUDENTS' AGRICULTURIST.

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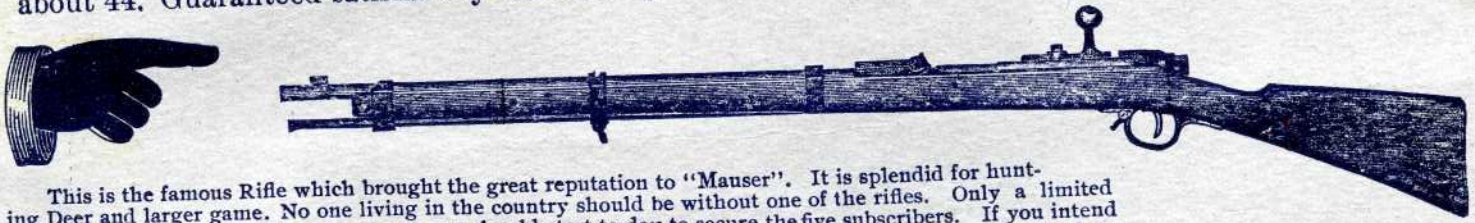

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THE MARITIME FARMER, SUSSEX, N. B.

MORE THAN 20,000 CIRCULATION FOR EACH ISSUE IS OUR AIM.

LOCALS.

PROF. CAMPBELL.—"What do you understand by troop.

RUTHERFORD.—Troupe? Why, a companion atfer the reception."

PROF. SMITH to Juniors—"What subject would you like to specialize on?

DAVIS (absentmindedly)—"Crows."

Normalite at Short Course:—"I consider this hog too near the dairy type for bacon."

PROF. ARCHIBALD.—"How much will this 200 lb. hog weigh?"

GRAY.—"About 500 lbs. for it is carrying me around the pavilion."

Why does Farquahar prefer Ayrshires? They are good b(r)o w s e r s.

One of the Senior Class admits the usefulness of the gooseberry as a medicine when taken Straight.

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VOL. 1. FEBRUARY, 1909. NO. 2.

THE MARITIME STUDENTS' AGRICULTURIST is published by the students of the Nova Scotia Agricultural College, Truro, N. S.

The

Maritime Student's Agriculturist.

VOL. 1. FEBRUARY, 1909. NO. 2.

EDITORIAL.

Weeds.

If you should ask one hundred farmers, "what is a weed?" you would probably get as many answers, and no two alike. In fact, a weed is hard to define.

Some one has said that a weed is a plant out of place and such definition pleases me much. On first thought a weed is a pernicious, unsightly, injurious troublesome thing, "and so it is."

But it is surprising the difference you find in different parts of the country as to what is "pernicious, troublesome, etc." In many parts of these provinces the buckwheat is regarded as a weed, but in New Brunswick it would not be safe to apply "unsightly or injurious" to that plant. Sweet clover, pernicious in some parts of America, is much sought after in others. If we look into the origin of many of our vegetables, we become more and more perplexed. However, the question of weeds is one of tremendous import at the present time, for, although the loss sustained each year through weeds is in a general way acknowledged, yet the personal loss to every farmer, each year, in the all important soil water, and in fertilizing constituents has not been brought home to him. True, there is one here and there who is fully alive to its importance; but the very fact that his neighbor is not, makes it doubly hard for him.

That all are not aware of this fact is evident; for I have found Senecio Jacobea (Stinking Willie) and Anthennis Cotula (Stinking Mayweed) growing much less than one mile from the college farm, and there was no one greatly concerned.

If the farmer could get a conception of what weeds really are doing for him, the problem would speedily be solved.

At the Experimeneal Farm, Ottawa, a careful study has been made of the Porlutaca Oleracea, frequently known as Pusley or Purslane. It delights in rich soil, spreads rapidly and is exceedingly diffieult to eradicate, owing to its intense vitality. Sections, one-half inch in length exposed to the drying atmosphere of the laboratory for three weeks will sprout and grow readily when placed in a damp soil.

To ascertain the extent to which this

troublesome weed might exhaust the land of its plant food, the following investigation was made. The plants from an area of 4 ft. by 10 ft., were collected by Mr. Craig and found to weigh 28 pounds. This would be equivalent to a crop of 15 tons, 492 pounds per acre. Mr. Craig adds that the plants are about half grown (2nd Aug.), but they nevertheless cover the ground with a fairly heavy and close mat of vegetation. On analysis we find the green fresh material to have the following composition :

ANALYSIS OF PURSLANE CUT 2ND AUGUST, 1896.

Moisture	93.54
Organic Matter	4.82
Ash and Mineral Matter	1.64
	100.00

Fertilizing Constituent Purslane (15 tons per acre.)

Nitrogen	.65
Potash	1.98
Phosphoric Acid	.24

It is evident from these data that purslane extracts from the soil very considerable amounts of soil plant food, especially of potash. Analysis shows that 40% of the ash consists of this valuable element. Besides this robbery of the growing crop, it is evident that this weed uses large quantities of soil water, thus depriving the legitimate crop of its rightful supply at a critical time in its growth.

This is only one of many. New weeds are constantly being brought to us through the medium of grass seed, wind and railroad and the end is not yet.

I have had to deal with Russian Pigweed for only two years. I have given it no rest and yet have much more than at the beginning. It resembles the Hydra, for when cut in pieces, each part makes a new plant; and when turned wrong side out, it is still able to seize and digest food. As for seed—they ripen in a few weeks and this goes on throughout the summer.

In fighting weeds the first thing is to know them. There is no farmer who can afford not to know the common plants around him. Their habit will be his next study, for much depends upon this. Is it an annual, biennial or perennial? Knowing this he can intelligently proceed to overcome them.

After all, there is no royal road to success in eradicating them. Eternal vigilance is the price; but the result is worth the effort, for it pays in hard cash and in the general appearance of the premises.

* * *

Bacteria in Milk.

There has been much said and written concerning bacteria found in milk. Sample after sample has been taken, the number of germs estimated, and hands have been lifted in horror at the truly alarming number. This has gone on, until in many sections, the cow is looked upon as a veritable microbe machine and condemned as such.

The war upon the cow is needless. Ignorance lies at the bottom of it.

Microbes do live and thrive in milk, but they come from somewhere! Where ? Milk as it comes from the cow's udder is, in the most part, pure. but allow it to stand in the stable or in a room at all warm, and the bacterial content increases at a tremendous rate, for the air contains more than the milk Milk taken from a stable at feeding time when the air is filled with dust particles, contains many bacteria as compared with the number when the air is still.

The city complains most, but they furnish the greatest source of contamination. In every congested quarter where spitting on the street is indulged

in; in the unsanitary methods of disposing of sewage; in crowded tenements; these are the breeding places of bacteria, and until radical changes are made in these respects, we shall not be able to supply pure milk to the people.

Let us cease condemning the cow and her product, and place the blame where it belongs. We may offer milk pure but we cannot keep it so, unless the source of the difficulty is removed.

* * *

The Rich Poor and the Poor Rich.

It is a noticeable fact that we prize a thing somewhat in proportion to what we pay for it. In education, as elsewhere, this holds true. The boy who is forced to work his way, is the boy who prizes the knowledge when obtained, and is willing day by day to seek after it.

At every institution we find some who have made great sacrifices to be there. Very often they know how the money came and sometimes a feeling akin to envy creeps in, when they see others who have every want supplied, and no need for takiug thought for the morrow. These boys who have borne the burden in the heat of the day, are the boys who hold their own at the examinations. He, who has hired the money to put him through, is the one who is going to be able to pay the bill.

He may not have the same social standing as the other; he may not have the pleasing manner ot his fellow; but he has character, God's choicest gift, which can be touched only by himself. In the great struggle for existence it counts. I have faith in the world. Lack of genuineness is everywhere apparent, but the foam never can submerge the man of worth. He is bound to win if he only abides his time. The future rests with him, but the present reveals not the part he may perform in the shaping of the Nation.

Greenhouse Pests

THE general health of the plants in a greenhouse is so closely related to the amount of parasites which will attack those plants, that it is impossible to combat the latter successfully without giving careful attentton to the former.

Sulphur is an effectual remedy for mildew but it will appear of little use if your plants are subjected to drafts from the doors, or ventilation, in cold weather. If you attempt to grow carnations or chrysanthemums in a hot, poorly ventilated house, you would no doubt find them infested with red spider as well as funguous or bacterial diseases. When if they were grown in a house better suited to their requirements, there would be small liklihood of any of those pests giving any serious trouble.

Before building a hothouse, study the requirements of the particular plants you intend to grow, then choose the location, build the house, prepare the soil, heat ventilate and water to bring about those conditions. In short, suit conditions to the requirements of the plants, rather than try to make them grow under certain conditions which we may have in mind, or that the greenhouse already established affords. Those who make a business of growing flowers or vegetables under glass, have each house devoted to one kind of plant, or two kinds requiring about the same treatment and so are able to keep their plants in a healthy condition. Some may wish to grow ten or a dozen different kinds of plants in the same house and although they may be

fairly successful in this yet they would not do as well, with any one as they otherwise would. Usually a gardener will find that one corner of his house is a little cooler than some other part. One bench may have bottom heat and another not, or he may shade one end and shift the plants into the places best suited to them, then choose an average temperature best suited to all the plants.

Keep all the leaves which are in any way affected with disease or are dying, gathered and burned. Do not allow any decaying matter to collect under the benches. Plant diseases are so numerous that it would be impossible to deal with them individually here.

Bordeaux mixture applied to the plants in as fine a spray as possible, is effective to a greater or less extent in controling most diseases, yet we must rely almost entirely on preventative measures by keeping the house clean, the plants healthy and by giving strict attention to details.

There is no insect quite so common in northern greenhouses as the aphid for every house is sure to have it sooner or later. Like most other insect pests they thrive best in a warm, dry atmosphere, consequently they can often be controlled by syringing the foliage with cold water early in the morning before the sun has raised the temperature of the house. Where this is not sufficient or practical, use one of the fumigating preparations containing nicotine, but keep rather under the amount prescribed by the directions than over it, till you find how much your plants will stand without injury.

The black aphid found on chrysanthemums and violets, are only killed by ordinary fumigation when very young. Spraying them with kerosene or soap emulsion is quite effective.

Closely allied to the aphids are the aleyrodes, or white flies, they are most common on pelargoniums, fuchsias, tomatoes and cucumbers. but they will attack a great variety of plants if they are very numerous. You will fiud them on the under side of the leaves associated with small cream-colored scales. These are the larva and pupa, stages of the insect and the winged forms are adults. They do not give much trouble during the dark days of winter, but in the spring as we get more sunlight they often prove to be one of the worst pests of the greenhouse. Nicotine fumigation has no affect here; syringing with cold water will destroy many of the adults, but this is not always best for the plants. Strong soap emulsion used in a spray is quite effective, but must be applied often.

The mealy bug is another closely allied insect, found on the coleus, treeferns and other heat loving plants. They are covered with a white, cottony substance, from which they derive their name. Having very short legs they are not very active in any stage of development. Here again we must use the hose freely with a powerful spray so as to dislodge the insect. Kerosene emulsion where it can be brought in contract with the bng without injury to the plauts, is also a good remedy.

Small scales, varying in size and color from very small white or cream colored, to rather large and dark brown. The smaller scales are the young females, As they grow older their backs become hard and dark in color, under which the eggs are laid and hatched. All of the above mentioned insects live by sucking the sap of the plants, therefore stomach poisons would be useless.

Slugs, snails and sow bugs, often become troublesome by eating seedlings as they come through the ground. They hide under boards and flowerpots during

the day and do their feeding at night. To destroy them remove their hiding places as far as possible, and put sweetened bran, mixed with Paris green and water around on the benches where they will find it.

The red spider under favorable conditions will inhabit a greater variety of plants than any other pest. They are so small one would not see them with the naked eye, unless accustomed to them. They thrive in a warm, dry air and are easily controlled by syringing the plants affected with cold water every fine morning.

Where other methods prove unsufficient all animal life can be destroyed by means of a gas generated by the action of the sulphuric acid on potassium cynide. For a house containing 1000 cu. ft. pour into a vessel 4 oz. of water and 2 oz of commercial sulphuric acid, place the dish in the centre of the house, then take 1 oz. of potassium cynide and put it in a cloth bag, tie up the bag and suspend it over the dish, extend the string to the door, then after the house has been made properly tight loosen the string at the door to let the bag fall in the dish. Close and lock the door to prevent anyone entering as the gas is a deadly poison if inhaled. This should be done after dark with the house cool and dry to prevent injury to the plants. Some plants will stand much stronger fumigation, but tne above is all that can be used with safety in a house of mixed plants.

Short Course

THE period for this year has passed and was gratifying to all concerned, the staff consisted of the able and enthusiastic Principal M. Cumming, B. A., B. S. A. and his assistant's, who include the permanent staff and others who were secured from other institutions because of their well known superiority along their special lines. The services of such men as Profestor Grisdale, Klink, McDougall and Macoun, and Dr. Standish were obtained. The appreciation of the students was inspiring to the instructors and was evidenced by their prompt attendance at the several classes, which were so arranged by the Principal that no one subject would be of a tiresome length.

The subjects for discussion were so arranged, that the lectures were kept up from morning until between nine and ten at night without tiring the students, as was evident by their promptness at class, showing that they desired to gain all possible information. Their many pertinent questions and earnest discussions coupled with the yearly increasing numbers and the fact that many return year after year and bring others along from this and other provinces ; and not only that, but the many students from the Old Country is, as I have already said, inspiring to the teachers and causes them to put forth their best efforts. As to the increase from year to year : on the opening in 1904 there were enrolled 40 students : in 1905—68 ; 1906—83 ; 1907—104 ; 1908—140 ; 1909—226. These figures include only the regular enrolled students for the period, but many more came to the lectures in which they were most interested. For instance when the Dairy Cattle were being demonstrated nearly four hundred people were present in the pavilion. This must be gratifying to Legislators, Agriculturists and others of these provinces, showing as it does the increasing desire of the people to take

advantage of the Agricultural opportunities existing in these provinces, which only requires the application of scientific knowledge to increase materially the revenue derived from this important industry ; and it is generally conceded that a short course term at this College is the cheapest as well as the quickest way to acquire some of the knowledge so much needed.

BEEF AND DAIRY CATTLE.

Lectures upon Beef Cattle were deliverby Prof. Cummings. He in his opening address stated "that it seems surprising that so large a number of farmers of these Maritime Provinces have a very poor opinion as to the requirements of the beef or dairy animal, especially when decidirg the kind of sire to purchase."

During the lectures animals representing the two different types were brought into the ring and the differences between them distinctly pointed out. The beef animal is essentially required to convert the majority of its food into flesh and fat and to deposit the same at the parts which are the most valuable in the market. For this reason the greatest development in the animal is wanted on the upper portion of the body and the least development on the lower portion of the body. In form the animal should be low set and have a blocky and thick appearance. The back must be straight and broad, the ribs long and well arched giving room for a large stomach and a broad deep chest. When the animal is ready for the block all parts should be evenly covered with firm flesh, the thickest covering being where the cuts are the most valuable. In selecting an animal the head should always be noticed because a broad short head is invariably accompanied with a thick wide low set body and the long slim face is generally associated with a greater length of body and more narrowness in all parts.

In contradistinction to the above type of animal, the animal that is wanted for dairy purposes is required to have the least development at the upper parts of the body anto have the greatest development at the lower parts of the body. This is so because the animal being a milk producind mechanism, the greatest develop ment will take place in the organs producing the milk. As these organs are situated at the rear, the animal should be much wider at this part than at the shoulders. The animal should have long well arched ribs giving a large feeding capacity and a broad deep ches'. The back should be straight and strong, narrow at the withers and widening out to the hips. The forehead thould be broad with the face long and clean cut and it is essential that it should have a feminine appearance. The most vital part of course is the udder, this should be long and plastic, contracting well when empty. The udder should be evenly divided into quarters with the teat centrally placed on each quarter. The milk veins are also an important factor and these should be long and well developed and should enter the body through large milk wells.

When selecting a bull care shouid be taken that it has the desired qualities. For instance, if required for raising beef stock, the animal should have the characteristics of the beef animal and if required for dairying purposes it should have the dairy characteristics. Many cases have been known where farmers have used bulls essentially of the beef breeds or as is sometimes called the general purpose animal and then have wondered at the poor results obtained. Much greater care must in the future be taken when selecting a bull if good results are to be looked for.

Prof. Grisdale of Ottawa delivered the lectures on Dairy Cattle, synopsis of which is contained above.

SEEDS.

The lectures upon this subject were delivered by Prof. Klinc of St. Anne de Bellevue, Que. These lectures dealt with all seeds that are in common use upon our farms.

WHEAT.

The varieties Medeah Kharkoo and Red Fi e were examined and discussed. Medeah although a good yielding variety is not suitable for milling but is very suitable for feeding live stock.

The varieties Karkoo and Red-Fife, the first of which is a fall wheat and the second a spring wheat are fairly good yielders and are very suitable for milling.

Great stress was placed upon selecting the seed for sowing purposes. Such improved results have been obtained by the use of selected seed that the best results cannot be obtained unless the seed used is selected. The seeds may be selected directly from the field, in which case a number of the best heads are selected and threshed apart from the rest of the crop or the seeds may be selected from the bin. In this latter case the operation is rather lengthy but if undertaken only the plumpest and best colored grain, should be selected in sufficient number to produce enough seed for the following year. This seed should be sown in a special part of the field and kept apart from the rest of the crop.

Oats was the next grain dealt with and two kinds came under discussion, the spreading oat and the side oat.

The spreading oat is considered to be the most suitable for all round purposes as it is an excellent yielder and has a stronger straw than the side oat. The straw of the side oat becomes brittle when ripened and the heads often break off.

The Banner a variety of spreading oat has given excellent returns and when sown at the rate of two bushels per acre upon land in good tilth, give the best results year in and year out. Of the early oats the Daubeney gives very good results but the yield is lower than that of the later oats.

The Joanette, a variety of black oat, is of very high quality and a very fair yielder. On the whole, black oats are slightly poorer yielders than white oats but in favorable seasons are better yielders.

The percentage of hull to kernel ought to be considered when selecting a variety of oat

	Hull.	Kernel.
Joanette	23 lbs.	77 lbs.
Fifty Pound Black	35 "	65 "
Banner	27 "	73 "

The above figures represent the proportions of hull to kernel in 100 lbs. of grain.

Barley come next for consideration and the Duckhill, a two rowed variety, was considered to give the best results and to be most suitable for all round purposes.

A discussion upon roots finished the series of lectures. It was recommended for turnips and mangels to sow the seed as early in June as possible. Manure should be sown broadcast and the fertilizer, preferably consisting of a mixture of nitrate of soda and acid phosphate, sown along the drills. The seed should be sown thin and to the depth of from ½ to 1 inch, not more than two pounds to the acre being required.

The following table illustrates the profit and loss occurred by growing 15½ acres of turnips and mangles. Any farmer can in a similar manner figure out for himself the results of his own crops and thus ascertain whether his crop is a profitable one or not.

COST AND YIELD OE 15½ ACRES OF TURNIPS AND MANGLES.

Rent of Land @ $3 per acre..$46.50
Manure (¼ rotation)$5 " 77.5o

Ploughing after hay	$1.50 "	....23.25
Cultivating and harrowing		....24.00
Ploughing in autumn	$2.00 "	....31.00
Cultivating (spring)	2 days	.... 6.00
Harrowing (spring)	1 day	.... 3.00
Ribbing	3½ days	....13.50
Rolling	1 day	.... 3.00
Seed		....13.60
Sowing		.... 9.30
Hand hoeing		....18.00
Thinning		....93.00
Hoeing		....51.00
Pulling, loading, unloading		...168.00
Man and Team		....73.50
	Total Cost	$651.15
Total wt. of crop 359 tons 1685 lbs.		
Total wt. at $2·5 per ton		889.07
	Profit.	$247.92

HORSES.

Dr. Standish had charge of this subject and delivered the lectures upon the same of which the following is a synopsis.

For demonstration animals were brought before the class and score cards given to the students. Every part of the animal was considered and credited with whatever marks the students considered it should have as compared with an ideal animal. When differences existed between the class and the instructor, other animals were brought in and a satisfactory understanding was arrived at.

Draft horses were considered apart from characteristics and their differences in breed character.

Then the agricultural class was considered and good specimens were exhibited. A class of seven horses were then brought into the ring and were placed by the students. Dr. Stannish, ably assisted by R. Starr and R. Robertson, two recognized judges, then placed the animals and the differences in judgment distinctly pointed out and discussed.

The Thoroughbred stallion, Lucifer II, was then brought in and being very near perfection no fault was found in him.

The differences between a sadd horse and some other classes were th considered after which the Hackne were exhibited and demonstrated. T splendid performance of Cliff Rosado who was very skilfully exhibited by h talented trainer, Tom Hooper, much d lighted the audience.

Next on the programme came t Standard breeds, who were exhibited a their action and form demonstrated. this class as in the previous one, t audience was very enthusiastic over th beautiful form and action.

An effort was made to find out wh the different classes were most useful f and which of them each man shou possess for his particular requirement a also which would most aid the ordina agriculturist of the Maritime Provinc

During the examinations of the d ferent classes and breeds, disease cond tions were discussed and the location these diseases pointed out. One peri of several hours was occupied with t causes, symptons, prevention and trea ment of diseases.

THE DAIRY WORK IN THE NEW DAI BUILDING.

We shake hands with our new dai building, believing that in it we ha something in keeping with the impo tance of the dairy industry to the Ma time Provinces. Fire left us without dairy building in the late fall, but succe crowned the heroic efforts put forth have for the short course a new dai building. Though its incomplete cond tion somewhat handicapped the practic demonstrations, the charity of the lar class excused the superficial and the zeal looked for that which would he them in their home practice. All we given an opportunity to churn cream to observe conditions desirable and u desirable throughout the churning pr cess.

Champions of all makes of separators were present, but the course proved too short to answer "which is the best separator ?"

In the first part of the course the ladies received their instruction in practical churning of cream and printing of butter in addition to the theoretical creaming of milk and cream ripening. In the latter part of the course the men had work in churning, printing and operating of hand separator.

The dairy work room opens into a well lighted lecture room that will hold two hundred people. Interesting and profitable sessions were held in this room.

Many of the questions asked would indicate a desire for a short cut to "easy street" in dairying. A question more in evidence this year was "at what temperature do you ripen your cream ?" Now that looks good, for we know tnat if the cream is not very clean that its ripening at a temperatnre of 70 degrees F. or above favors the growth of bacteria producing poor flavors in addition to making butter of greasy texture. Marked improvement would result from the use of a good lactic acid culture to control flavor and a richer cream for churning. Cream should test sufficiently high to make at least three pounds of butter to the gallon.

Of course the "old reliable" question "what is the proper churning temperature ?" is still hale and hearty. Let us consider some points that came out in a discussion of this question to show that there must be a balance of conditions—a counteracting of unfavorable factors by favorable ones—in order that the necessary temperature for any churning may come within the rang of what is desirable. Do not rage at the instructor when re refuses to tell you to blindly use a certain temperature in your churning operation and you will come out alright. When he says it will depend he is thinking of the following :

1. The breed of the cow

When the fat globules are hard the churning temperature needs to be higher. When they are large it needs to be lower.

2. The feed of the cow.

When the feed used produces hard fat the churning temperature needs to be higher. When it produces soft fat it needs to be lower.

3. The period in lactation.

If the cow is advanced in lactation the churning temperature needs to be higher. If not advanced then lower.

4. The viscosity of the milk or cream.

If the cream is viscous the churning temperature must be higher. If the viscosity has been reduced by the development of lactic acid or by pasteurization, then the temperature may be lower. If the viscosity is produced by bacteria then the churning temperature should be forgotten and get busy with eternal vigilance, cleanliness.

5. The per cent of fat in the cream.

If the per cent of fat be high the churning temperature will be lower. If the per cent of fat is low the churning temperature must be higher.

6. The amount of cream in the churn and the speed at which it is run.

If the churn is more than half full the space for concussion is reduced and the churning temperature must be higher. If the amount of cream and speed of churn give maximum concussion, then the churning temperature must be lower.

7. The temperature at which the cream has been held previous to churning.

Low temperature has a solidifying effect upon the fat globules.

8. The skill of the operator.

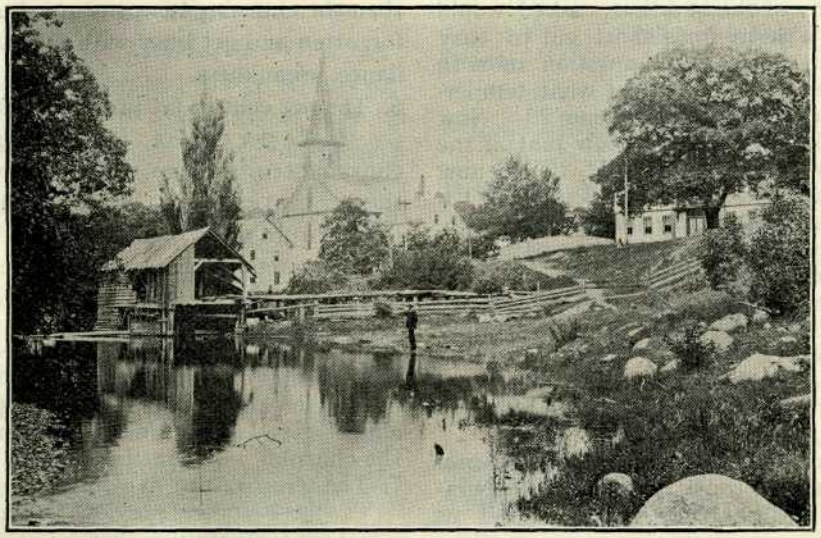
A thoroughly competent man can work near the danger lines in churning operations and finish with butter of a superior quality.

Many other subjects were discussed such as Swine, Horticulture, etc., but as space is limited, we are unable to give an account of the lectures delivered on these subjects.

The above has been written with the view of illustrating the work covered by the short course and although the attendance for the present year has a made record, yet it is anticipated that a greater record will be realized. WEE.

Bear River

BEAR River is sitnated on the river of the same name about four miles from its mouth. This river ts the dividing line at this point between Annapolis and Digby Counties. In former days this section was covered with a dense growth of hard and soft wood. When the forest was cleared away early settlers found a roil, fertile and most responsive io the calls made upon it. Even earlier than this the French thought so favorably of the slopes that it was intended io introduce the culture of the vine. Fruit trees were planted and even to this day the fame of Bear River as a cherry centre is almost continental.



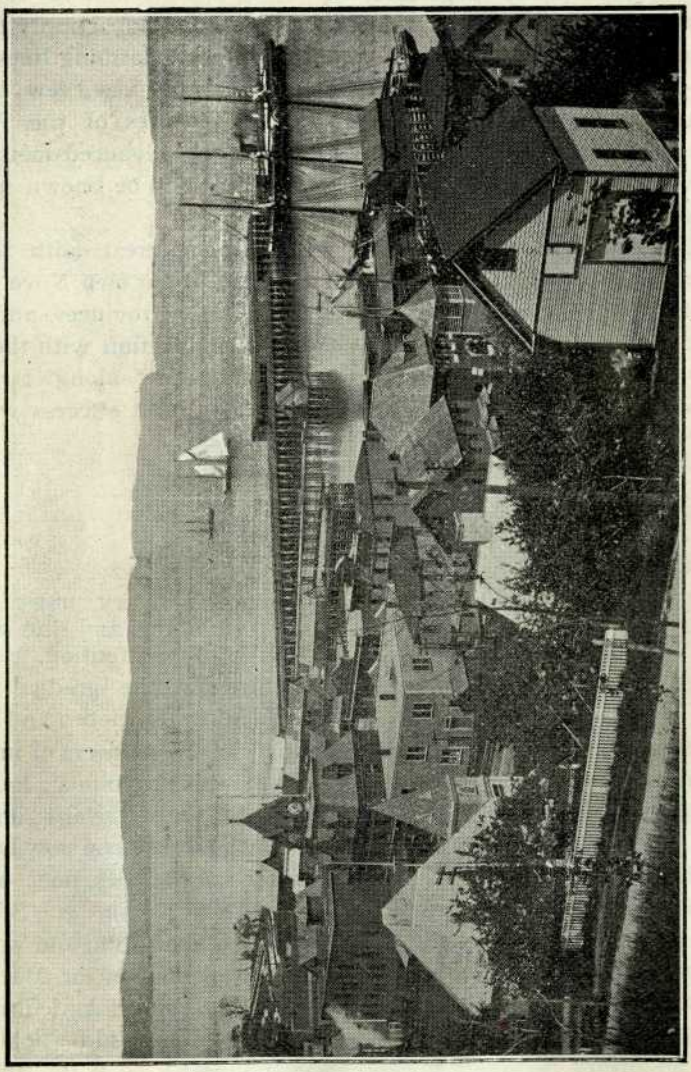
First Saw Mill Bear River.

A seaport within easy reach of renumerative markets, Bear River soon became engaged in lumbering. The prodigality of nature in providing magnificent growths in the forest area made nearly every man a lumberman. Every farm had its quota of timber suitable for lumber or cordwood and the habit became so fixed that farming, pure and simple, was relegated to the back ground. But this tent been robbed of the accumulated humus, of potash, the reserve stored up by nature, until many so-called farmers felt compelled to divide their time between the farm and the relics of what was once a source of considerable revenue.

Yet amid this there have been for some years individual farmers who saw that the life of the nation is from the soil and have followed a more intelligent plan, so that there are some farms that show is history. What of the present? These timbered areas have largely disappeared and the land cleared has to no small ex- the great possibilities of this locality as a farming section.

Our soil, though not quite so easily worked as in some sections of Nova Scotia, for quality compares favorably with that of the best upland farms. It is hard to get out of the old ruts of habits handed down from father to son – but there is no doubt the light is coming. Ignorance of the best farming methods,

rotation of crops, etc., is gradually giving way to a better knowledge through the medium of agricultural societies, and papers, lectures on subjects peculiar to farming, reports of experimental farms, and that great blessing to agricultural



Digby Waterfront.

interests in these Maritime Province, the College at Truro.

Fruit raising is taking a prominent stand in this locality. This year about twenty thousand barrels of apples were exported, and the next decade will easily see the quantity doubled. The fruit raisers are awaking to the importance of cultivation, and fertilization, and are ever looking for more light. Already, co-operation leading to uniformity in packing and grading is in the air and improvement is sure to be forthcoming, as Bear River and vicinity can grow as fine a quality of fruit as the Provinces produces.

Root crops do splendidly—Turnips turn out from eight to twelve hundred

bushels per acre and other field crops accordingly.

In dairying we have not much to boast of, nor can this be called a beef producing centre. Sheep are not raised to the extent we could wish, owing to some extent to the loss sustained by dogs and other animals

Now let it be understood that the reason for a lack of large herds of any of the above lies in the farms, but rather in the failure of the farmers to grasp the great possibilities to themselves in rearing pure bred stock and selling a finished product, rather than their hay and other crops and thus being compelled to resort to some form of commercial fertilizer to grow the next year's output.

Even along this line there are signs of awakening and the future shows rays of hope.

Within a radius of five miles there are some spiendid properties that would make under up-to-date methods most productive farms, a credit to the country and a joy to the owner. Here, as in many other section of our fair Province, there is a great opportunity for missionory work along farming lines and when each community has a few farms managed by graduates of the Agricultural College, their advanced methods will be object le sons to be known and read of all men

Let us have great faith in our own communities, our own Nova Scotia, the gem of all the Provinces, and by honest efforts in connection with the most advanced methods along farming lines bring about that success which is our due.

Yarmouth

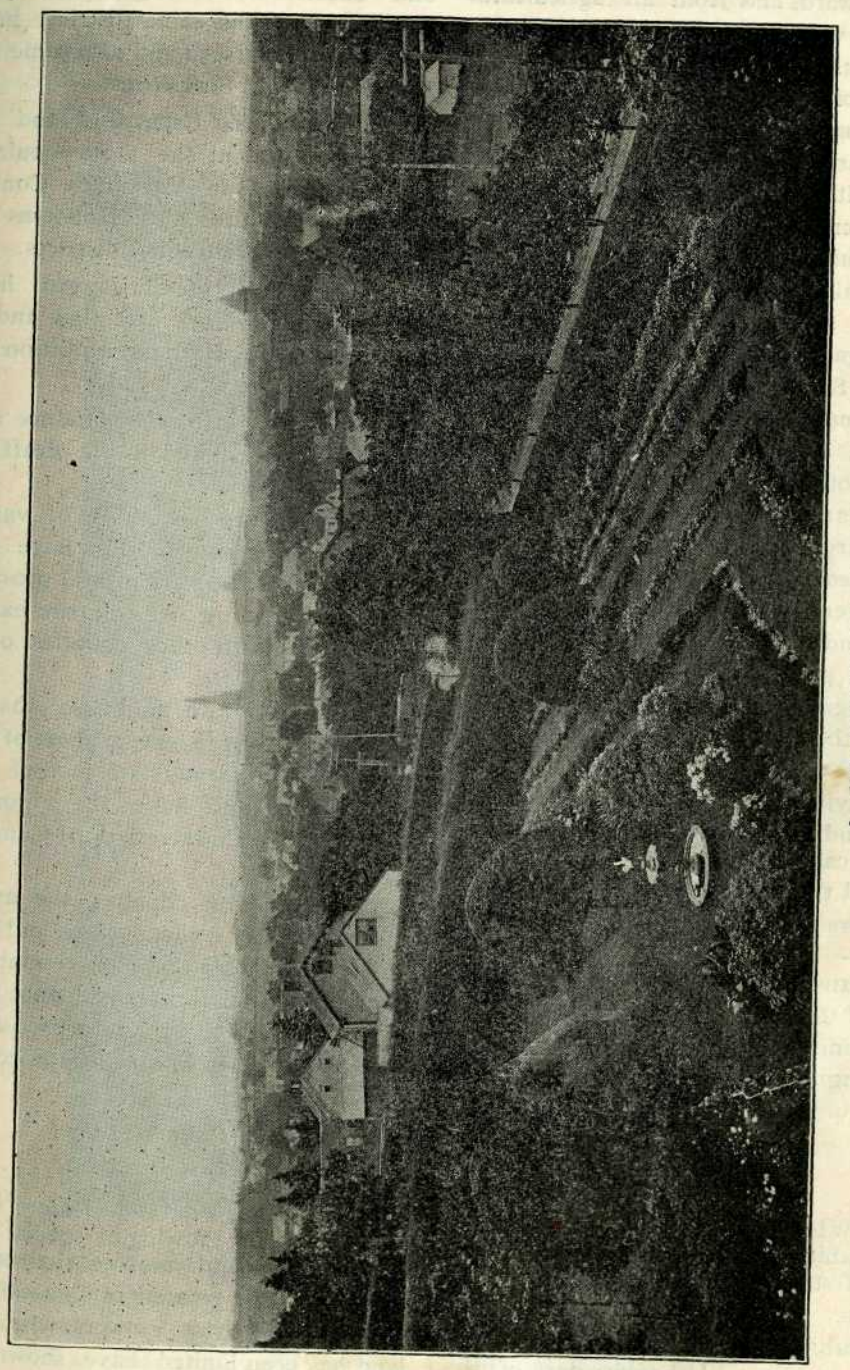
IN the south western corner of the Province of Nova Scotia is situated the County of Yarmouth. Although one of the smallest counties, it has been a mighty factor in the history of this Province, and in proportion to its size it stands easily in the front rank regarding wealth and natural resource.

In the past, shipping, ship building, lumbering and fishing have been the chief occupations, but agriculture was gradually gaining ground and now stands amongst the great industries. Many factors have aided in this growth and possibly it will not be out of place to mention the most important.

In the early eighties the wooden ships were gradually replaced by the more modern and substantial steel vessels which started the gradual but inevitable decline of two of the most important industries of the province. Naturally some other industry must replace one which is declining, and thus was agriculture given more attention.

Then again the gradual growth of the Agricultural societies and Exhibitions founded by the pioneers of improved agriculture in the county has been the greatest influence toward improvement. Yarmouth County can now boast of four Agricultural Societies, one, of which H. Corning, Chegoggin, is Secretary, in numbers, organization and work done, is surpassed by none in the Maritime Provinces. The County Agricultural and Industrial Exhibition also holds a similar place amongst local Fairs, and these two factors in themselves show the progressiveness of the farmers and advancements made by them.

The climate of this county, owing to the close proximity to the sea, is very temperate and moist. Fogs are common



A View of Yarmouth.

along the coast, but extend only a few miles inward, and from an agricultural point of view are beneficial rather than injurious.

The soil, although somewhat stony, is exceedingly rich and readily tilled. The great variety of crops will perhaps prove the wealth of the same. Splendid returns of field crops, such as grasses, hay, barley, turnips, and potatoes, are almost universal throughout the farming districts.

The garden crops, too, are par excellent. Such crops as vegetables for the table and small fruits are of excellent quality, and where grown, are found very profitable. Strawberries and blueberries are especially worthy of mention since large quantities of the same are exported each year. J. M. Porter and S. A. Porter, of Deerfield, have good orchards and are doing well in stock and market gardening.

In regard to live stock we perhaps notice the greatest advancement during the past twenty years.

Dairying, as it should, is taking the lead and the quality and quantity of dairy cattle is rapidly improving. Amongst the more prominent breeds and breeders we might mention the following :—

Guernseys, as bred by Howard Corning of Chegoggin. This breed is steadily gaining favor in Yarmouth. Mr. Corning also has a fine line of Cotswold Sheep, Clydesdale horses and Berkshire and Chester White Pigs. Mr. John Corning, from the same district, has a good herd of Jerseys and also some nice Shropshires and Berkshires.

I might say that Guernseys and Jerseys are at present the most popuiar of the dairy breeds in Yarmouth County, although Ayrshires and Holsteins are gaining in favor in some districts.

Mr. Churchill, of Chegoggin. has a splendid line of Yorkshire pigs and his successes at the Halifax exhibition has proven his place as a breeder.

This county can also produce some splendid horses, both in the draft and light horse classes.

In short, the successes of various breeds from various districts have demonstrated that the agricultural prospects are wide spreading and compare exceptionally well with other counties of the province.

In conclusion, we might say that the outlook is bright in every phase of agriculture. The farmers are men of keen intelligence, and have the vigor and perserverance characteristic of Canadian farmers.

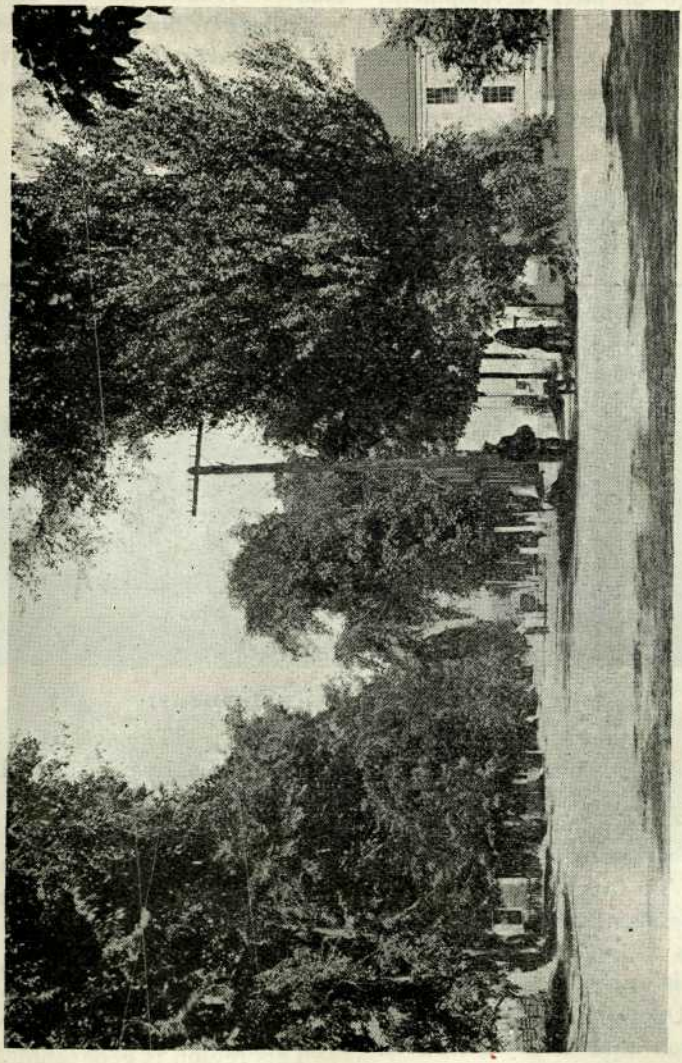
The temperate climate, the artistic and beautifully tended hedges and lawns gives Yarmouth a very close resemblance to Old England and an eminence above sister counties. In the future we expect great things from this southern county.

Berwick

BERWICK is a village of about 700 inhabitants, situated on the watershed of the Annapolis and Cornwallis Rivers. It is surrounded by a fine agricultural region which is well adapted to fruit growing. Although part of this area is well supplied with hay land in the form of rich meadows and intervals, the farm practice has developed more in the direction of the growing of special crops, such as apples and potatoes, than of stock raising and the growing of general farm crops. Some fruit growers whose hay land has been limited have shown that orchards may be grown and the fertility of the soil maintained by the use of com-

mercial fertilizers and clover crops.

Berwick is one of the largest fruit producing centres in the Annapolis Valley, the shipment of apples from this station being among the largest of those made from the stations of the Dominion Atlantic Railway. Over 47,000 barrels were shipped from here during the last five months of the year 1908. Five warehouses, with a capacity of 5,000 barrels each, have been built by the railway for the accommodation of the apple trade. The apples are received at these warehouses in barrels usually as they are picked from the trees, graded and packed and packed and then shipped to the steamer at Halifax for export to England. The first co-operative fruit packing company in the Valley was formed at Berwick in 1907.



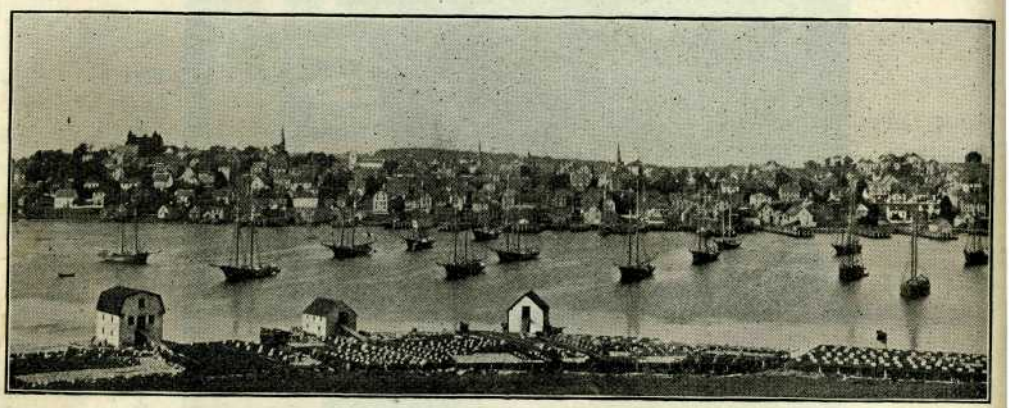
Main Street, Berwick.

A considerable area in the immediate vicinity of Berwick is devoted to the growing of small fruits and vegetables, especially strawberries and tomatoes, and

the receipts from these crops form no small part of the incomes of some of the fruit growers. The growing of strawberries for the Halifax, St. John and Boston markets has been carried on with success here for years and the tomato business, though of later development, promises to be no less profi able. The early fruit from this crop is sold in the local markets while the later fruit is sent to the canning factory.

Berwick has three churches and a graded school of three departments. It has a branch of the Union Bank of Halifax, a vinegar factory, an iron foundry and box factory. It is deserving of the remark made of it by the author of Markland : "It is a beautiful and enterprising village in he midst of a fertile region, well adapted to farming and fruit raising, and the people are alive to the natural advantages of the locality."

Lunenburg



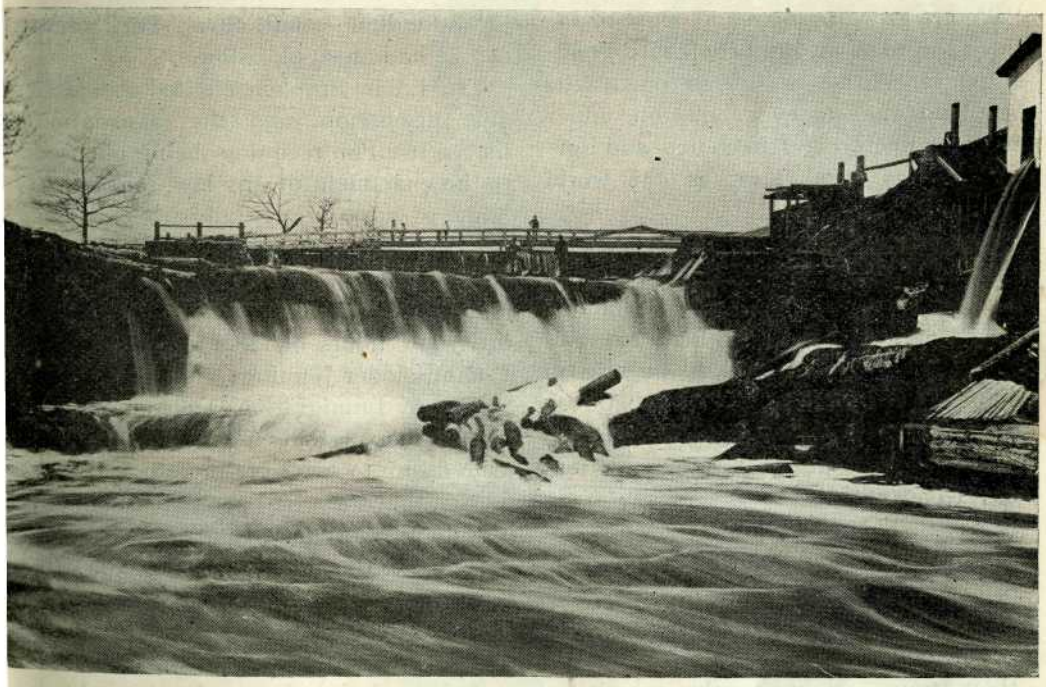
Lunenburg from the Harbour,

THE rugged southern coast of Nova Scotia is famed for its excellent harbors and bold headlands Many deep bays are to be found and a number of beautiful rivers pour their waters into the Atlantic. To this coast come every summer thousands of visitors to enjoy its climate, its fishing, boating and its scenery. It is unrivalled in these respects in the Dominion. Three hundred years ago it was admired by the adventurous pioneers seeking a passage to the Indies, by the hardy sailors with an eye usually single for schools of fish, by the speculative fur-traders, by the dreamers of new kingdoms, by the bearers of the Cross who came to convert a continent to Christianity. Champlain and DeMonts beheld it. The courtly LaSaussage landed at LaHave in 1613 while "Father Quentin and Brother Du Thet held held Mass."

Few of the rivers of America excell the LaHave, the centeral watercourse of Lunenburg County. This, the central county of the southern tier, is fairly representative of the entire southern slope of the South Mountains of Nova Scotia.

This region is geographically the oldest part of the province. Its rocks when broken up form excellent soil, while most of its surface has been plowed and ground by the mighty bolders of the glacial epoch. Many of these were left in the soil while on the summit of the mountain range they lie in great masses.

While the general slope of the land is torward the ocean, the rocks dip toward the north. This gives a very uneven surface with numerous lakes, waterfalls and meandering streams. The mountain range, the southern exposure and the broken country and coast-line give it the mildest winter in Eastern Canada, rivalling southern New England and New Jersey. Its proximity to the Atlantic moderates the heat of the summer



Morgans Falls.

while its lofty headlands keep off the ocean fogs.

Such in brief is the paradise to which the ancestors of the German population came and in which they settled with a determination to build here a "Lunenburg" like the one they left behind. And how well they have succeeded! Nowhere else in Eastern Canada is there such content and such prosperity. While throughout Eastern Canada the cry has been "go West", it has found no echo in these villages. It has found little response in the sturdy German hearts and they have remained at home to develop its resources. And what a task!

On every hand opportunities presented themselves; the sea with its fisheries, the forest with its lumber, the soil with its crops. Of these, the fisheries receive first attention and to-day it has the largest fleet of fishing vessels of any equal coast in Eastern Canada. Its lumber interest is enormous. The energy of the people has in the past been chiefly along these lines but they have not been altogether negligent of the farm. There were not nor are there yet, hands enough to do all that demanded doing and agriculture had to take third place. In spite of this, it leads the province in some market garden crops and stands third as a fruit producing county. Its mild climate permits many fruits to be cultivated which are scarcely grown outside of the famous Niagara peninsula in Eastern Canada. It would not be an ex-

ageration to claim that she would in future lead in agriculture as she does now in lumber, fishing and natural beauty of her scenery.

Report on Farmer's Association

THE Thirteenth Annual Convention of the Nova Scotia Farmers' Association, held in the town of Digby, Jan. 26th to 28th, 1909, was a confirmation of the clause in the address of the President E. J. Elliott, in which he said: "We are growing more and more to believe and to assert our belief, with greater assurance, that we live in one of the best lands the sun ever shone on, under as great liberty and freedom, and governed by as good laws as the world knows."

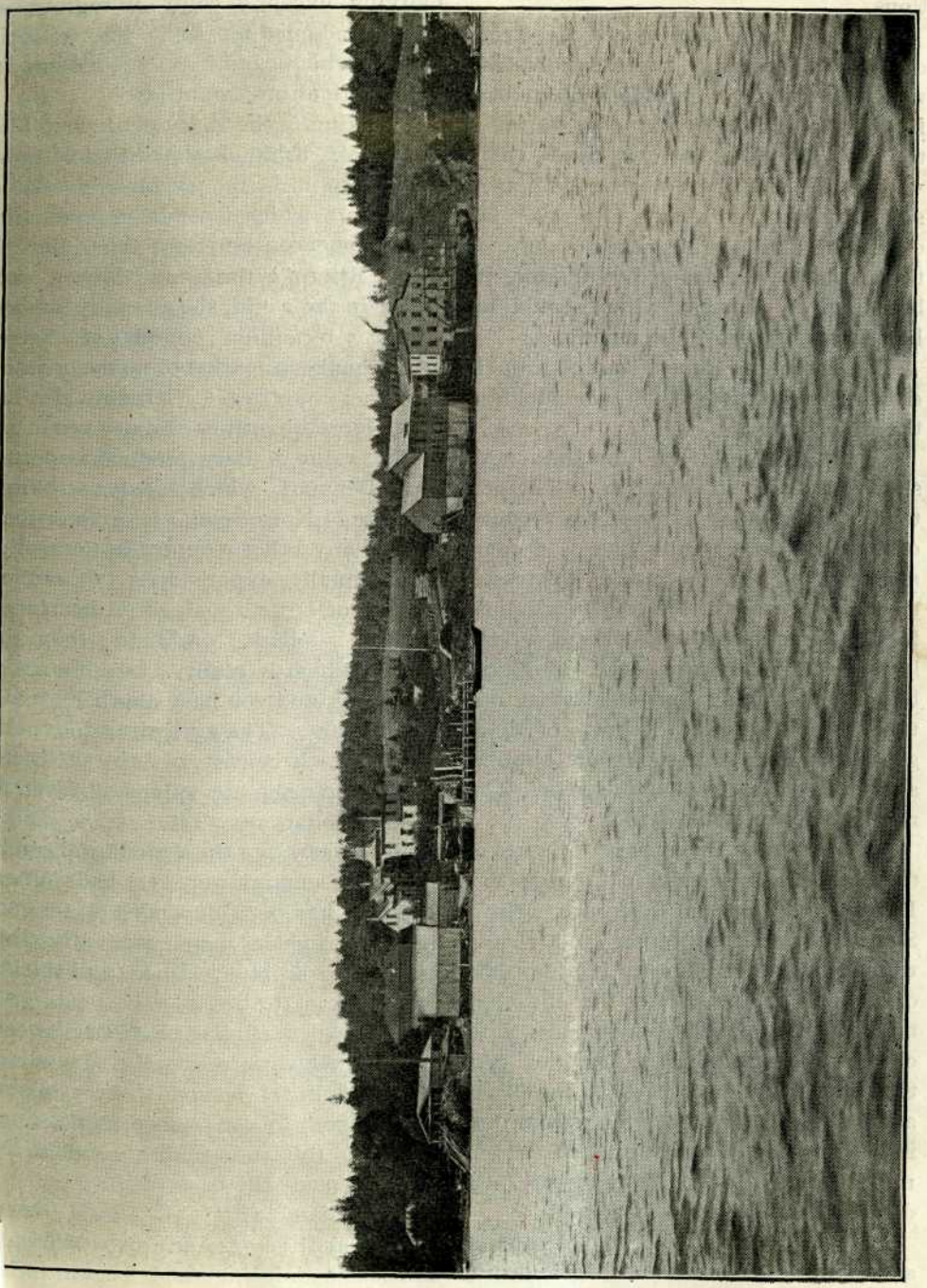
A great many different questions of interest to farmers were discussed, and strong emphasis was laid on the importance of not allowing the different resolutions which were passed, to lie idle till another year, to be passed again; but to see to it that every effort should be put forth to carry out the recommendations of the convention.

Mr. S. J. Moore, Seed Inspector, for the Province, stated that great improvement was noticeable in the seeds of timothy, and clover offered for sale since the Seed Control Act came in force, but little in grains, owing to the scarcity of good seed grain to supply the demand; even with the encouragement offered by means of the seed fairs, and the C. S. G. A., which association is, however, making great strides; but as different localities succeed best with different varieties, there is still a great shortage of seed grain to supply all localities, and as some other provinces have already done, a series of field competitions will be carried on next season with oats, throughout the province; the grain being judged in the field.

This contest is open to anyone on payment of a small fee. Prizes will be given, and any variety, which is kept pure, will be recognized; thus encouraging the the growing of the varieties best suited to individual conditions. Particulars can be had on application.

The Labor Problem elicited considerable discussion, and the association placed itself on record as being opposed to the enactment of any law regulating hours of work in any industries, except in cases where the health of the employees is involved, owing to the effect of such legislation on the farms, where regularity in hours of labor is impossible. Commissioner Jennings, of the Salvation Army Immigration Dept. offered his services through his department to any who desire to secure farm help. He reported that they had placed 500 immigrants in N. S. last year, out of 5000 brought to Canada, and to show the care exercised in the selection of suitable persons, stated that these had been chosen from 100,000 applicants, the demand regulating the number brought.

Prof. Cumming in his address gave a report of the growth and work that is being done by the Agricultural College. The list of regularly enrolled students has increased in four years from 17 to 48, while the Short Course which started with 40, had this year 220. He also took up such questions as the dog nuisance in sheep raising, the adulturation of fertilizers and feeding stuffs; which matters were afterwards discussed, and resolutions passed asking for the enactment of laws, and enforcement of laws



West LeHave.

we already have dealing with these questions.

Prof. Cumming also warned the farmers of N. S. against horse syndicates, which are taking a great deal of money from the province, by inducing farmers to buy horses at several times their value. He said there were good horses sold that way, but always at a price far exceeding their value, while many of the animals were decidedly inferior, in breeding, to horses which could be bought for one-third the money.

The Director's Report showed a small deficit, but nothing which can embaress the Association.

Report of Exhibition Commissioners showed a deficit of $12,000. The attendance not being as good on account of the early date, a later date is recommended. The association expressed their approbation of the good work done by the Commission, and passed a resolution favoring the use of the exhibition buildings for other purposes when not used for exhibitton. Reports of delegates from county associations showed an increased interest and progress The membership in N. S. is 1695.

J. A. Ruddick in his paper "Some of the essentials to success in Co-operative Dairying with Special Reference to Nova Scotia", said that butter and cheese were known to the Greeks in the time of Homer. Caesar relates that the German tribes supplied the Romans with cheese in his time, while tradition says that butter was discovered by the Nomadic tribes of the East, who found that it was produced by the agitation, which milk received, when transported long distances on the backs of camels.

"It is a significant fact that if you examine into the conditions of agriculture, and agricultural classes in various countries, you will find that their prosperity bears a very close relation to the extent to whioh they have engaged in dairying, except of course in regions especially adapted for some line of agriculture which cannot be carried on in other agricultural countries."

Speaking of the dairy products of the world, Mr. Ruddick stated that of most interest to us is the surplus, available for export, which depends on production and home consumption; thus, though Great Britain is the second largest producer in the world, she annually imports about 5 0 million pounds of cheese, which makes a market of no mean value for other countries. Germany also imports large quautities of dairy products.

The value of dairy products exported from Denmark, which is only two-thtrds the size of Nova Scotia, is greater than that of any other country in the world. She annually exports over 175 million pounds of butter, valued at nearly 50 million dollars. Add to this the bacon, which is really a by product of the dairy, and you have another 22 million dollars. The agricultural exports in all, which consist of dairy products, bacon and eggs, are valued at about 80 million dollars per year.

Fifty years ago the agricultural conditions of Denmark were very bad. Wheat growing had been depended on for generations, and the people were miserably poor, the soil impoverished, and the out look none of the best.

The leaders finally came to the conclusion, which forces itself on the minds of agricultural economists everywhere, that no country can be successful for any length of time in agriculture, unless live stock is made the basis of it.

Conviction with the Danes means action, and they at once turned their attention to dairying, and began to improve the degenerate stock of the country. It was not more than thirty years ago that the buttermaking indus-

try began to flourish. With its growth the condition of the people has steadily improved. The population increased from 2 172,380 to 2,464,770 in eleven years. They are probably as a class, as happy, progressive and prosperous as any farmers in the world; and they owe their present prosperity entirely to the dairy industry. Without it the country would have lost a large percentage of its population. and would have grown poorer each year.

Holland is also a great exporter of dairy produce. Being even smaller than Denmark wiih fully double the population, yet it exports between 20 and 25 million dollars worth of dairy produce, and is so prosperous that having money to invest, the people are emigrating for the purpose of acquiring land.

Siberia, Italy, Australia, New Zealand and Argentine also export dairy produce, but there is siill an increased demand in the Old Country provided the quality is superior. The preference will be given us, everything else being equal.

The dairy industry has not grown as much in New Brunswick or Nova Scotia as one would expect in districts so well adapted to it. Fruit growing, lumbering and fishing have divided the attention of the farmers, and dairying does not prosper unless it is made the special business of the farm. There are, however, a number of successful cheese factories and creameries in these two provinces.

Co-operative dairying was begun in P. E. Island in 1892 and has been given the credit for quickening the prosperity of the Island to a remarkable degree The late spring in N. S. and the fact that crops like corn, etc., which do so well in Ontario and Quebec cannot be grown as successfully here, are disadvantages, but these obstacles are not of very great importance.

The point is, to adjust oneself to circumstances and follow the right lines.

The season is quite as favorable in N. S. as in Denmark. In Denmark the winter season is cold, and there is a great deal of raw, cold weather during the summer months. They do not grow corn, but depend on roots for succulent feed during winter, feeding also hay and oil cake. Denmark is inferior to N. S. as a hay producing country.

True, Denmark has little waste land, but the total area available for dairying cannot be larger than in N. S. and there are large sections in this province which are infinitely more productive than any land to be found in Denmark where the soil is all naturally poor. It is only by careful cultivation and intelligent methods that it is made to produce the large returns it does.

Cattle suffer less in N. S. from heat and flies than they do in Ontario and Quebec, which would be found to be a great saving could it be computed.

This being the case there is no reason why N. S. should not produce at least 25 million dollars worth of dairy products during the year.

The total number of cheese factories and creameries in Canada is 4355. Of this number 2806 are in Quebec, 1284 in Ontario and the other 265 in the provinces.

Mr. Reddick also dealt wfth some of the important factors in the organization and operating of the co-operative system and stated: "There is no uncertainty about the business in these days. If you go into the business at all, follow it on a scale sufficiently large to warrant careful study and attention. Secure a well bred bull of the dairy type and be sure he comes from good milking strain. Avoid the "scrub" bull as you would the plague. He is the biggest curse of

the dairy world. Keep a record of individual cows and raise heifer calves from the best producers only. Protect cows from inclement weather. It takes feed to keep up heat in the animal body.

Succulent food is necessary to secure a large flow of milk. It never pays to allow cows to run down in condition when they are dry. If you expect a cow to give a large amount of milk when she freshens, have her in good condition, otherwise the feed which might make milk will go to put flesh on her bones. No dairyman ever made money by putting his cows on short rations." In conclusion, Mr. Ruddick stated that if he did not have confidence in the future of dairying, or that N. S. has the natural facilities to permit of a successful prosecution of the industry, he would be the last person to advise the farmers to take it up. He has studied this subject in the different countries personally and knows whereof he speaks. His paper will appear in full in the report of the Secretary for agriculture.

Some figures which suggest means of improvements in dairy herds were given by Harvey Mitchell of the Dairy Division. One case out of the many he cited was : Two cows of the same herd, kept under the same conditions and freshening at the same time, gave in four months 3222 lbs. milk containing 122.2 lbs. fat, and 1990 lbs milk, containing 69.6 lbs. fat respectively. Prof. Cumming gives the average production of the cow of N. S. as 3000 lbs. The production of the average cow of Denmark is detween 6000 and 7000 lbs. with whole herds running as high as 12000 lbs.

Mr H. Corning gave a paper on the feeding of dairy cows. His system of winter feeding resembles closely the Danish methods.

Prof. Smith, of the Agricultural College Staff, dealt with the introduction of the Brown Tailed Moth into N. S. from New England, and means of fighting the same, which is being done by means of parasites to some extent in New England. This is still an experiment. The more effective way is to destroy the winter nests. He showed the importance of eradicating the pest while still in its early stages and asked for the continued co-operation of the farmers in this work. He was followed by Mr. H. G. Payne, of Granville Ferry with a synopsis of the life history of this insect and means of identification, which was illustrated by a collection that was a credit to the owner, showing the insect in all its stages of growth.

Other questions under discussion were the building of a dormitory at the Agricultural College, Truro, a committee being appointed to interview the Government for this purpose; a resolution asking the Government to furnish an expert to visit farmers who wish to drain their lands, and give them such assistance as they require in surveying and laying out their operations; also a discussion on the present rural telephone service, resultiug in the appointment of a committee to investigate methods of securing a cheap and efficient telephone servtce.

Standard sizes in the grading of apples were discussed and some dissatisfaction expressed with the carelessness of employes of the transportation companies in handling fruit, which, it is claimed, causes many slack barrels.

The following officers were elected for the ensuing year :

President, A. E. McMohon, Aylesford.

1st Vice President, H. S. Kennedy, Alma, Pictou Co.

2nd Vice Presidedt, W. H. Woodworth, Berwick.

Secy and Treasurer, C. R. B. Bryan,

Durham, Pictou Co.

Directors, Samuel Freeman, Amherst; R. M. Jackson, Jacksonville. C. B.; S. B. Goudey, Yarmouth; W. R. Barss, Barss' Corner, Lunenburg; William O'Brien, Windsor Forks.

Auditors, E. S. Archibald, Truro; S. A. Logan, Truro.

Exhibition Commissioners, R. S. Starr, Port Williams; C. R. B. Bryan.

Shropshire Sheep

PROBABLY no class or breed of live stock better exemplifies the skill of the breeder or flockmaster, and undoubtedly no breed of sheep is more popular than the Shropshire. They were produced by an infusion of Southdown, Leicester, and Cotswold blood with the Morfe Common Sheep. The latter was a small breed that derived its name from a wild, barren tract of land of some 4,000 acres not far from the banks of the River Severn, England. The fleece of the Morfe Common sheep was valuable, but only averaged about two pounds in weight. They had horns and black faces and an occasional one was black throughout.

About 1853 the Shropshire was first recognized as a pure-bred sheep by the Royal Agricultural Society of England, and British sheep breeders considered them a breed of great merit. They gradually improved and gained in popularity at the Royal Show and since 1860, when they were allotted a separate class, they have outnumbered those of any other breed.

In America they are no less popular and the American Shropshire Registry Association, of which Mr. Mortimer Levering, of LaFayette, Ind., is secretary, is the largest live stock association in the world.

At our Maritime Fall shows we find the Shropshires usually out-numbering the other breeds and their uniformity and quality is very marked. Again at our Maritime Winter Fair we find the grades of this breed carrying off the bulk of the mutton prizes and in the block tests of both lamb and mutton the red tickets are found on the Shropshires in the majority of cases. Some years ago the Hewson Woolen Mills of Amherst, N. S., in order to encourage the growth of wool, offered special prizes at some of the leading Maritime Shows for the sheep having the best fleece for the manufacture of tweed. These prizes were won, in most cases, by Shropshires and laterly this firm has, in many cases, offered prizes for the best flock of Shropshires.

They have the mutton characteristics of the Southdown, but are somewhat larger and carry a heavier fleece. The wool is of good length, dense and fine, extending well over the face almost to the nostrils and down to the toes. The form is low-down and blocky, head short and broad, and back wide and level. The face and legs are darker than the Southdown and the covering of wool gives them a beautiful appearance in the flock. It would certainly be very hard to suggest any improvement in the Shropshire of to-day. They are very prolific and hardy, the fleece being an excellent protection against our winter storms and with good care they will attain a great age. The writer has exhibited and won prizes with a ewe over ten years old. The lambs are ready for the block at an early age and no breed of sheep can better adapt themselves to varying conditions. In conclusion, it is the "farmer's sheep" and a mortgage lifter.

S. A. L.

Cotswold Sheep

The Cotswold breed of sheep are natives of the Cotswold Hills of Gloucestershire, England. They are beyond doubt one of the earliest, if not the earliest, of English breeds of sheep. They were originally very coarse animals, with thick, heavy fleeces, well adapted to their home upon the bleak exposed Cotswold hills. Such a valuable breed of sheep could not exist long without improvement. Nature favored their improvement with the sweet, nutritious herbage which grew on the limestone covered hills and as agriculture improved in the last century and as the pastures became enclosed and cultivated, the flocks improved very rapidly.

The modern Cotswold is still capable of enduring hardship and exposure, and is at home on all sorts of soils. It produces a large carcass of excellent mutton and is unrivaled for the production of wool. They also mature at an early age. It is a common thing to find them weigh ing from 120 to 150 lbs. at a year old. A full grown sheep exhibited at a Christmas cattle market in England, dressed 340 lbs. or 86 lbs. per quarter. The average weight of fleece for a flock should be from 10 to 12 lbs., although some right good sheep have shorn as high as 25 lbs. A well bred Cotswold would be described as a very noble looking animal. The face and legs are white or gray, some breeders prefer the grey faces, however, this is a matter of taste. The head is strong and massive with a thick forelock of wool upon the forehead, the eyes full and prominent. The neck is moderately long and thick, especially at the base and where it joins the head. The carcass is long, level along the back with well-sprung ribs, giving a round body. The bind quarters are square and full, the flanks deep and the legs are of moderate length. The wool is rather open compared to the down breeds, but does not part on the back as it does on some of the long wool breeds.

The wool is of fairly good quality and is often found from 12 to 15 inches long on young, useful well bred animals. It has been truly said of the Cotswold that they are a guide, doule, hardy breed that will adapt themselves readily to varying condition. They are contented with their lot whether it is in a poor pasture or in a nice patch of rape or clover, the only difference being that in the latter surroundings they will grow into better looking sheep and will be able to give their owner a large percent of profit for the time and labor spent in preparing good succulent food for his flock.

They were first imported into the United States in 1832, and since that time they have become very popular in both the United States and Canada, as a combined wool and mutton sheep. The crossing on grade flocks for the purpose of getting heavier lambs and larger fleeces of wool, the well bred Cotswold ram is unsurpassed. We need not go beyond our own Provinces to prove this statement. For the last eight years at the HalifaxExhibitions, in the class for best grade long wool sheep, sired by a registered ram and each year grades of three or four breeds have competed. The Cotswold grades have always carried off all the first prizes and very often the prizes offered in this class have all been awarded to grades sired by Cotswold rams, With the present prices of wool the difference between an average weight of fleece for a flock of grade sheep of the average short wool breeds—at about 4 or 5 lbs. wool per sheep—as compared with 10 or 12 lbs. per sheep for a flock of high grade Cotswolds, is an item worth considering.

My own experience with this grand old English breed of sheep has been a very pleasing one. I started a flock about ten years ago with very ordinary ewes and a good ram. My system of breeding has been—buy the best ram I could get, every two years select only the best of the ewe lambs, sired by him, for breeding purposes and buy the next ram if possible a little better than the last, and strong in the points where the other one was weak. At present I find myself with a flock that are very much stronger and more useful than those with which I started, and they are so tame and docile, that it is a pleasure to have them about the farm. In winter I have a cold shed on the back of one of the barns which always has a door open. They make this their headquarters, and with plenty of clover, mixed hay, and a few turnips they keep in excellent condition until lambing time when I like to give them a small allowance of oats and bran as well as the pulp turnips. As soon as grass starts in the spring I turn them in a rough pasture, that is too far from the barn to be used for the cows, and they hustle for themselves until the middle of July when I like to have a plot of rape in some part of the pasture to let them run on.

I have tried mating the Cotswolds ram with what we usually call the scrub ewes and in almost every case I got a fine class of mutton sheep with heavy fleeces of fine quality wool.

HOWARD W. CORNING,
Chegoggin, N. S.

College Life

A reception was given by Mrs. Cummings to the college students on the evening of January 16th. Nearly all were present beside many of the opposite sex. The Art Gallery afforded guessing for all besides amusement to those who had delved in animal husbandry. Mr. Baird was the fortunate one in the competition for the prize. The Charades competition resulted in a victory for the first year. The ladies favored us with a very interesting charade. The collation was done ample justice to by all. Songs were then rendered, ending up with "For he's a Jolly Good Fellow." We then took our departure with expressions of pleasure at the delightful evening spent and cheers for our popular Principal and his wife.

COLLEGE RECEPTION.

The first College Reception of the season was held Monday evening, January 25th. The night proved fine althongh a storm had been threatening. A large number were present and evidently a very pleasant evening was spent by all. The programme was excellent and was well listened to. The actors deserve credit as well as the reception committee for the excellence of the productions. Mr. Caulfield evidently took the cake as to performance, judging from the way he was encored.

A Spelling Bee was held at the Y. M. C. A. on the evening of January 14th. The schools were lined up against the town. At recess time less than half were left. Refreshments were served by the ladies. On the resumption of the spelling numbers soon thinned down to seven, Mr. Cock of the College alone being left to represent the schools. When he left the floor three were still left on the town side. Miss Grant received the Ladies' prize and Mr. Cock the Gentlemens'. We wish to congratulate him on having so successfully upheld the honor of the College.

Our debating society has fared ill during the past month, having held only one regular meeting. Our new President Mr. W. H. Porter, was initiated into office. We wish for him a very successful term. The debate for the evening was: "Resolved that Intensive Farming is more Profitable in the Maritime Provinces than Extensive Farming." The speakers were, Messrs. Davis and Longley for the affirmative and Messrs. Gornell and Landels on the negative. The affirmative claimed as their own, orcharding, market gardening and poultry; also agriculture where a short rotation of crops is followed. The negative claimed that intensive farming could not be carried on here, due to the labor and care involved, also that it could only be engaged in by a small proportion of our population. The debate was decided in the negative. Then followed readings and music.

The Greenhouse and Garden Club has held two meetings during the month. At the first held January 23rd, the growing of Radishes and Primroses was taken up. Messrs. Davis and Straight spoke on Radishes. Radishes require a rich, loose soil. Plant early in spring and at intervals of a week for a time. They make very rapid growth and are ready for use in about 6 or 8 weeks. About the only insect infesting them is root-maggot which can be held in check by changing the place where they are grown. It is often practicable to grow them in conjunction with other crops as carrots, gathering them before the other crop requires the ground. The market is good early in the season when other stuff is not being offered, but nearly nil later on.

Mr. F. Porter took up the subject of Primroses. The Chinese Primrose is very tender when small. Plant seed in sandy loam. When one or two true leaves have started, transplant to plots and then into pots. Requires a rich loam with good drainage. They are excellent plants to bloom, varying in color from pink to white. The plant aphis can be held in check by syringing with water.

The second meeting for the month was held on the evening of January 30th. B. H. Landels spoke on Beets and Carrots. Beets require a rich, well-tilled soil. Use plenty of well rotted manure. Plant in drills 12 to 18 inches apart and thin to 6 or 8 inches in the row. 5 to 8 lbs. of seed required per acre. The root rot can be held in check with lime, the leaf spot by spraying with Bordeaux and the scab by rotation. Two types are grown for table use, the turnip shaped for early and the long red for late.

Carrots require a clean, mellow soil. Sow in drills 10 to 18 inches apart, thinning to 4 or 5 inches, although for stock little or no thinning need be practiced. No insect pests that are very troublesome. Two types, the half long being used more for table use.

The growing of orchard fruits in the greenhouse was then treated of by W. V. Longley. For greenhouse culture dwarf trees are required. These are imported for the most part. Start in the greenhouse about the first of January. Require a rich loam with good drainage. Pollinate with a camel's hair brush. Thinning of fruit, disbudding and uplacing are practiced. While not of commercial importance, a little might be done along this line either in the greenhouse or a cold frame for home consumption.

It was with some misgivings that the hockey players at the College formed a club and entered the Local League. That they were following along proper lines has been proved to the satisfaction of all. They have already made a name for themselves and are the most popular

team in the town, if not the best. Two of our players have not only distinguished themselves on their own team, but have played on the Truro team with much credit The line-up for the games has been :—

Goal,	Reid.
Point,	Smith.
C. Point,	Chipman.
Rover,	McPhee.
Centre,	Milner.
R. Wing,	Robinson.
L. Wing,	Isener.

The first game for the College was played Saturday evening, January 9th, with the Regals. Our team excelled all all expectations and considering that they had had no practice for the game, did excellent work. The score was in favor of the College when the goal keeper was knocked out by the puck striking him over the eye. Although he returned in a few minutes he was unable to do his best, with the result that two more goals were scored by the Regals, making the score 5 to 4 in favor of the Regals. Referee, C Thompson.

January 14th, the College played the Spauldings. The game was fast but not as guarded as the former game. Chipman did splendidly making 3 goals for the College. The score at the finish stood 5 to 4 in favor of the College. Referee, Percy McDonald.

The College played the Spauldings, January 28th, winning another victory. Things are evidently going on a progressive scale as the score this time was 6-3 in favor of the College Team. The game was rough at times, giving the referee, Aleck Lawrence, plenty to do. The Spauldings had a noisy following, but they were struck mum all at once when 2 goals were made in quick succession by the plucky Collegiates. McPhee and Chipman were the Star players on the College team and many were the words of praise said about them.

The College played their second game with the Regals Saturday evening, January 30th. The number of spectators was the largest yet this season. The game, which was fast, resulted in a victory for the Regals of 5-3. Some of our players were evidently not at their best, one having the misfortune to break a skate. The Regals had rather better combination but we hope for better next time.

A series of debates has been arranged for between the College and the Normal School. The first debate is to be held Februrry 11th, at the Normal School, subject, "Resolved that our present system of immigration is detrimental to the best interests of Canada." Speeches,

Affirmative. Normal School.	Negative. Agricultural College
Bailey	Straight
Tench	Landels
Wood	Gornell

The second debate is to be held Feb. 22nd at the Agricultural College.

On the morning of January 21st one of our boys, J. W. Fraser, met with an accident while on his way from home. On the arrival of the train at Truro station he went to get off before the train stopped. Having a heavy valise in his hand he was unable to clear himself and fell between the platform and car. While not seriously hurt he has been confined to his bed. We hope for his speedy recovery and return to classes.

The second reception is to be held Monday evening. February 1st. The Normal School and Business College are invited. We are sorry that the C's will not be here in time. The programme is under the efficient management of L. Smith and will no doubt be excellent.

Selection of Seeds

SELECTION of seeds is an important factor in progresfive farming of the twentieth century. "As a man soweth so shall he reap," is an established maxim among all those who observe closely the seed and the harvest. Let the sower plant his poorest seed and his whole crop will soon deteriorate. But on the contrary, if ne choose his best each year, then he will eventually have developed a seed superior to the initial grain or tuber. Acting on this principle the Seed Growers Association has done much inestimable work by specializing particularly the qualifications a grain or tuber shall have to be eligible for planting.

"Competition is the life of Business" and it is apparently an impetus to the seed growers of the Maritime Provinces.

Thoughts of possessing the Steele Briggs Seed cnp have led Donald Innis, Richard Creed and others to contribute largely to the seed departments of the Maritime Winter Fair. Yet nothing but the real advantage to their own fields and those of their neighbors could have induced them to labor so long in their selection of seed.

There is a branch of the Seed Fair at the Agricultural College of which I beg leave to make particular mention. This covers sections twenty-five to thirty-seven of the prize list including the different varieties of potatoes.

In connection with this the "Stanfield Cup," a cup donated by John Stanfield, M. P. in 1907 for the best collection of potatoes not exceeding six varieties. At the second seed fair of Jan. 1908, this cup was won by Mr. J. E. Harrison of Maccan. He, however, held the cup but one year, Mr Arthur C. Walker capturing the coveted prize at the seed fair this year.

Although Mr. Walker's potatoes showed good selection and arrangement, they won principally on their superior quality which is being sought after in the potato to-day.

Following is the prize list and winners covering the varieties of potatoes for Jan. 1908.

Sec. 25. Burpee's Extra Early, 1st, J. E. Harrison; 2nd, J. R. Harrison.

Sec. 26. Beauty of Hebron, 1st, Arthur Walker; 2nd, J. E. Harrison; 3rd, J. W. McNutt.

Sec. 27. Early Rose, 1st, Arthur Walker; 2nd, J. E. Harrison; 3rd, Samuel Dickie; 4th, William Hall.

Sec. 28. Ohio, 1st, Samuel Harrison.

Sec. 29. Any other early variety named, 1st, Harry Norrie; 2nd, Arthur Walker, 3rd, A. H. Cutten; 4th, Melville McNutt.

Sec. 30. Clarke's No. 1. 1st. Harry Norrie; 2nd, William Hall; 3rd, Samuel Dickie; 4th, A. H. Cutten.

Sec. 31. Cosman, 1st, J. E. Harrison; 2nd, J. R. Harrison; 3rd, Harry Norrie; 4th, William Hall

Sec. 32. Dakota Red, 1st, J. E. Harrison; 2, Melville McNutt.

Sec. 34. Delaware, 1st, Guy Fuller.

Sec. 35. Empire State, 1st, Arthur C. Walker; 2nd, S. A. Bowser; 3rd, J. E. Harrison.

Sec. 37, Any other late variety named, 1st, Arthur C. Walker; 2nd, J. W. McNutt; 3rd, William Hall; 4th, Allan J. Ross.

The exhibits were twenty per cent better this year than last and yet there is room for improvement in both quality and appearance.

The Stanfield Cup must be won three times, not necessarily consecutive, before it becomes the property of the exhibitor. Competition should not discourage anyone from competing for this cup, as the keener it becomes the more valuable to the possessor.

Then and Now

(By John Mervin Stull.)

GRANDSON.

Now I wonder, excuse my impertinent tongue,
How you ever went anywhere when you were young.
For you couldn't recline in a plush-covered chair
And be rapidly carried with ease anywhere,
While the train hurried on over mountain and dale,
To the trumpet of steam and the drum of the rail.
And you couldn't sit down on a trolley car seat
And be jiggled and jerked through the length of the street.
And the glorious wheel, like a bird on the wing,
You had not even heard of the wonderful thing.
So I often have wondered and wished I could know
If you ever went anywhere, how did you go?

GRANDFATHER

Well boy, I know
Old times were slow.
One trip this way,
Mid-week market day.
Go out, catch Bill,
Warm side of East Hill,
Hitch up. Take time.
Load up. Cheese, prime;
Eggs, fresh; butter, sweet;
All packed, clean, neat,
Get in; sit square
John here, Ruth there.
Good-by. Huddup Bill,
Long road; up-hill;
One hour, three miles;
John speaks; Ruth smiles.
Fresh breeze; pure air
No coal smoke there;
Grass green; mountains high,
Cool brook runs by.
Road now runs down
By and by reach town.
Sell produce, buy rice,
Tea, dress, nails, spice.
Start home; sun low;
Old Bill better go.
Cows milked; stars peep;
Soft bed; sweet sleep.
Slow times——but then,
Good women; strong men.

Movin' On

Wher'm I goin'? Inter town.
Yes, movin' off fer good and all;
Ain't hed no time t' call eroun'—
So tired I ken scarcely crawl.
Yas, given up the hull blamed farm
Ev'ry cussed stick and stone,—
I'm a pesky fool, says Marm,
She's cryin' now, up thar alone.

Ev'ry buildin', field, an' acre,
Horse, cow, steer, sheep an' heifer
Is goin' fast ez I ken take her,
An' won't be back ag'in—no, never.
Sick? No, not exactly that,—
Well enough in bone and muscle,
But spirit's kinder knocked out flat,
Lost the knack t' scratch an' hustle

Two years ago that city feller,
Who bought the place that's next t' mine,
Threw up his job as bankin' teller,
An' started in the farmin' line.
'Most ev'ry day he called eroun',
Sed he thought I'd know fer sure,
What was best for shaly groun'?
Was potash good ez cow manure?

How many pounds uv bone t' use,
When land was badly choked with weeds?
An' did I think the folks would lose
Who used the Guv'ment's gift uv seeds?
An' did I read the literatoor,
Uv agricult'ral experiments?
An' was the nitro-culture sure
T' aid a man uv common sense?

His questions sort o' pestered me,
An' when I thought I hed enough
I told him I had no idee
About new-fangled farmin stuff.
An' what was more I wouldn't touch
Them schemes of system-makin' fools,——
I 'lowed I guess I knew as much
As them experimental schools.

No, he wasn't mad by any means,
Just seemed t' pity me instead,
An' offered all his magazines,
"They'll give ye new idees" he sed.
I told him then, real sort o' mad,
I guess he needn't hev no fears,
An' that the knowledge that I had
Hed stood the test fer twenty years.

An' so we went our sep'rate ways,
He tryin' all his fol-de-rols,
Readin' nights and workin' days,
An' usin' heaps o' chemicals.
Wal, now, ye better jest believe,
There was sum diff'rence in ourcrops
Mine went t' stalk, an' root, an' leaf
An' sort o' spindlin' at the tops.

But his, by gosh! were sumthin' fine,
Ev'ry tree from twig t' root
Ev'ry blade, an' stalk, an' vine,
Was groanin' under heavy fruit.

It took the gimp all out o' me,—
But still I ain't no fool, by gum,
I'm jest a-lightin' out t' see
'F thar ain't a job from whar he come.
I'm goin' t' turn the tables roun'
An' imitate that city slob,——
I'm jest a-goin' inter town
T' get a bankin' teller's job.

—GEORGE C. ORR in Century.

Life's Mirror

There are loyal hearts, there are spirits brave,
There are souls that are pure and true;
Then give to the world the best you have,
And the best will come back to you.

Give love, and love to your life will flow,
A strength in your utmost need;
Have faith, and a score of hearts will show
Their faith in your word and deed.

Give truth, and your gift will be paid in kind,
And honor will honor meet;
And a smile that is sweet will surely find
A smile that is just as sweet.

For life is the mirror of king and slave,
'Tis just what we are and do;
Then give to the world the best you have,
And the best will come back to you.

Locals

Advertisers wishing to change their advertisements in the March issue, must send same to Adverttsing Manager, Box 100, Truro, N. S., on or before March, 1, 1909.

In the new order of things in our public schools agriculture is to take a prominent part. To prepare future teachers for this stupendous undertaking they are being given agricultural subjects to write on. Along with the subjects they have been given permission to obtain all necessary information from College boys. Undoubtedly one reason for this is that the teachers having recognized the high scholastic attainments of the said boys, wish for their pupils to intermingle with them. We have been informed of this state of affairs by the frequent calls for such books as "Dean's Canadian Dairying," "Principles of Fruit Growing" and "Robinson's Poultry Craft." Moreover the Faculty have been besieged by boys spurred on by others for information necessary. That much good will come of this is beyond doubt. We only hope the "would-be teachers" will not undertake to try to explain the many technical terms and phrases used.

The fine sleighing prevailing on January 9th was taken advantage of by many. Among the number were a few College boys, who evidently thought it was too good to miss. One party being very enthusiastic, started in the afternoon, going as far as Folly Village. That they had a turkey supper and a right royal time was all they would tell. The others, through the kindness of B. of the Normal School, had a fine sleigh drive and spent a very pleasant evening. Lunch was served after the drive also games indulged in.

T—— essay in Zoology.

"Molluscs versus Hexopoda flexopoda versus smelt."

"Molluscs are divided into two classes clams and oysters. Of these I like the latter better, although neither stayed long enough for me to examine their structure. I then tried to get other specimens but they all had the same misfortune. We have not had any insects this year. The smelt I saved to fry for my supper."

A is for Archibald who tries to inform us.
B is for Baker whose boots are enormous.
C is for Chipman who for hockey has fever,
D is for Davis who at Amherst did leave 'er.
E for Eisener of his skating who's vain,
F is for Fraser who fell off the train.
G is for Gournall who rounds the bee hive,
H is for Hoyt who on honey does thrive,
I is for Inch whose stay here was brief,
J is for Jack, our Fire Brigade Chief.
K is for Kelsall who shaves once a year,
L is for Landells a great flirt we fear.
M is for Milner who round the rink whirls,
N for Norman MacKay, a terror for girls.
O for O'Brien who to squeakings gives vent,
P is for Porter our new President.
Q for the questions that Mr Bruce asks,
R is for Rutherford who plugs at his tasks.
S is for Straight who loves while he crams
T is Taggart who's a weakness for clams.
U is for Us the pick of the land,
V is for Veterinary a study that's grand.
W for Work, for which we needn't go far,
X for Excellent which I'm sure we all are.
Y for the Youths who class never shirk,
Z for the Zeal with which we all work.

L. BAKER.

Morning after the reception.

"Perchance there is some small vow that I can relieve you of."

"No, but there was a girl that I would have gladly relieved you of last night."

"Gray is the morning,
Grayer still I feel,
The D's are leaving,
And life still is real."

PROFESSOR (In English class 1st year) —"Who is the greatest novelist of modern times."

SIMMS —"Scott."

PROFESSOR —"I do not think that he is a modern novelist."

SIMMS.—"She was relating a novel to me only last night."

It is reported that Chipman was not expelled from the land of Evangeline, he was only suspended.

Prof Shaw, viewing empty show c :

"Oh, where is my wandering fruit tonight,
"The fruit of my tenderest care?
"The apples which once were my pride and joy?
"The students have swiped them, I fear."

"A Quebec shoedealer received the following from a Christmas customer--a French Canadian--'You will put some shoes on my little families like this and send by Sam. Jameson, the carrier: One man. Jean St. Jean (me), 42 years; one woman, Sophie St. Jean (she), 41 years; Hermedis and Lenore, 19 years; Honore, 18 years; Celina, 17 years; Narcisse, Octavia and Phyllis, 16 years; Olive, 14 years; Phillippa, 13 years; Alexandre, 12 years; Rosina, 11 years; Bruno, 10 years; Pierre, 9 years; Eugene, we lose him Edouard and Glisa, 7 years; Adrien, 6 years; Camille, 5 years; Zoel, 4 years; Joseph, 3 years; Morse, 2 years; Muriel, 1 year; Hilarie, he go barefoot. How much?'" Selected.

The fact that the people of Digby felt like singing "Praise God from Whom all Blessings Flow," at the close of the Farmers Association meetings on Tuesday evening, January 26th, was gratifying to the speakers until some evil-minded party suggested as the cause, joy that it was over. We scorn such an interpetration and hope those responsible are properly ashamed of themselves for hinting it.

The discussion among the students of the Normal School as to whether the term "Shropshire" applied to a cow or a hen has been settled. B. No—— having declared that "Shropshires" are a certain kind of pigs, which have a habit of eating every day, and of dying soon after they get fat. Truly the benefits of "Nature Study" make themselves known.

BUSINESS DIRECTORY.