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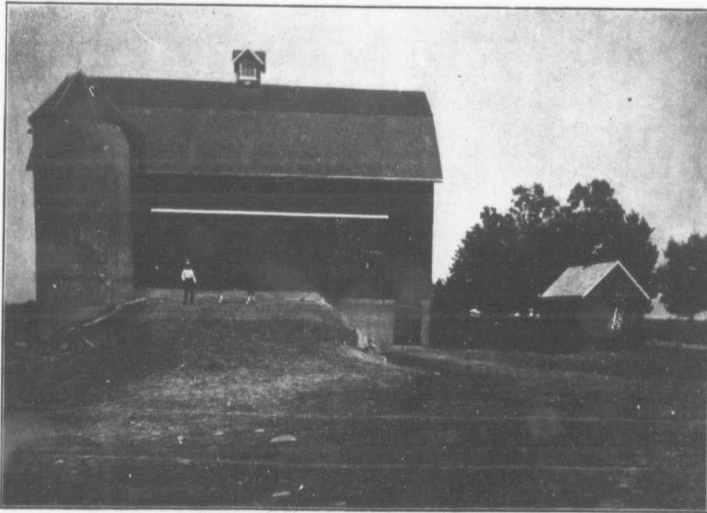
FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

DECEMBER 23,

1909



A NEAT WELL-KEPT LOT OF FARM BUILDINGS IN PRINCE EDWARD CO., ONT.

One would need to travel far to find a more progressive farming centre than is situated in Prince Edward County, especially in the vicinity of Bloomfield. Dairying is generally practised. Some exceptionally fine dairy herds have been developed there, and many others are embarked on the high road of dairy improvement which most surely must lead to success. Everywhere the farmers of Prince Edward are wide awake, eager for information, and seek to make the best of their opportunities. The barn illustrated is on Mr. E. P. Stanton's farm, located in the Bloomfield district.

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Eastern Townships, Que., Notes

The season just closing is about an average one. Hay was a light crop but the shortage is largely made up by the big corn crop which is now put in the silo to be used for winter fodder. This crop forms the largest acreage in the history of our province and while hardly up to that of 1908 in yield may be termed a good crop. Hundreds of new silos have been erected, both cement and stave (the latter most numerous) and a large tonnage of silage will be fed this coming winter. This is essential owing to increased winter drouth, providing milk and cream for Montreal and Quebec and other growing cities also for the condensaries and evaporaries.

The Payne tariff now makes it possible to ship cream to the United States at a profit, therefore many of our creameries are shipping their whole output to American cities. Of course this refers to only those creameries situated near the border or within easy reach of some railway operating in both the United States and Canada. The price realized is about 30 cents a lb. of outlet fat. This is curtailing the output of cheese to a considerable extent.

Cattle have gone into the winter in good condition as the fall has been favorable with good pasturage. What young cattle lost during the drouth of July and August was more than made up. Fewer young cattle have gone to market this fall as has been the case the past two years. Cattle are changing hands at good prices especially milk cows. These will go higher as the milk supply becomes shorter in January.

The grain is not quite as heavy in quality, much of the late sown grain ripened too rapidly. Roots and potatoes are the best crop realized for years, with no rest among the notatoes. Pork is scarce and high. The spring output will be consumed ere the year closes and the crop of fall litters are few compared with several years ago.

The fall has been favorable for working and much plowing has been done. The poor catch of many of the meadows during the past two years, necessitated getting many of them turned over again, this acreage turned over this fall will be larger than usual.—"Habitat."

Central Smith Farmers' Club

The Central Smith Farmers' Club, recently organized in Peterborough County is enjoying a large measure of success. At their second meeting held on Friday evening last, there was an attendance of 50. President, T. H. Graham was in the chair. The subject for the evening was "Feeding the Dairy Cow." This was handled by Mr. J. A. McGregor. A lively discussion followed his address.

The next meeting of the club will be an open one and is dated for January 25. Farmers and their wives are invited to attend. The meeting will be addressed by two of the Professors who will be in Peterboro at that time in connection with the Short Course to be given by the Ontario Department of Agriculture.

Don't Forget Your Name

Several subscribers of late have failed to enclose their names when renewing their subscriptions or when sending new subscriptions. This is the most essential part of your letter to us. Be sure that your name and full address is given plainly in your letter.

We have had to hold premiums many times of late to ascertain who sent for them. This makes a delay for the sender and needless trouble for us. Avoid both. Write your name and address plainly in every communication.

Judging Nearing Completion

The farms entered in the Dairy Farms' Competition will, it is expected, all be judged by the end of this week. Mr. R. R. Ness, the judge for those farms in the district east of Toronto, has finished his work except a few farms in the vicinity of Peterboro. Mr. Glendinning, the judge in Western Ontario, still has those farms near Toronto to examine. This work will be completed this week.

The judges report that they have found most of the farms and stock in a very satisfactory condition. They report a strong feeling on the part of many that did not enter their farms in this competition to do so in the next competition.

A most valuable part of the competition from the standpoint of Farm and Dairy readers will be the essays written by competitors on features of their farm work that have especially appealed to the judges. These articles will be a feature of Farm and Dairy throughout the coming year that will prove of special interest to all desirous of improving themselves in the modern practice on these prize winning farms.

The liberality of a number of firms and individuals has greatly assisted Farm and Dairy in carrying out this competition. In fact had it not been for this material assistance on the part of its friends, Farm and Dairy would not have been able to have carried out the competition. The contributors are: Dr. James W. Robertson, president of the Macdonald

Our Supplement Postponed

Owing to the illness of our photographer and other unavoidable delays, we are unable to issue the Winter Fair Supplement this week as had been planned. It will appear next week.

College, Que., \$250; The De Laval Separator Co., The Empire Separator Co., \$200; The Ontario Dairy Co., of Windsor, \$200; The Eastern Ontario Dairymen's Association \$150; The Good, Shapley & Muir Co., Brantford, \$25.

The results may be announced next week. As soon as the scoring has been done the awards will be made known; if not next week, then as early in the New Year as is possible.

Items of Interest

An agricultural association is formed in British Columbia, which it is hoped will be able to set the dates for fall fairs so that fairs may be formed inter-circuit, thus allowing the Government to send expert judges to officiate at the fairs. The association meeting is to be held in Victoria on January 31st.

The best informed and most expert fruit men in the province will assemble at the Ontario Agricultural College for the special course in fruit growing, January 25, to February 24, 1910. Those interested cannot afford to miss the wealth of practical knowledge and up-to-date information that will be presented at that time.

Don't forget the dates of the Dairymen's Conventions! The E.O.D.A. meets at Belleville on Jan. 6th, 6th, and 7th. The W.O.D.A. meets at St. Thomas, Jan. 12th and 13th, 1910. These associations are doing a great work for the uplift of the dairy industry. They merit the support of anyone interested in dairying. Every dairymen who attends either of these conventions will go home better fitted to make a success of his business.

Don't put off seeing your friends and getting a club of subscribers to Farm and Dairy.

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a Year

Vol. XXVIII.

FOR WEEK ENDING DECEMBER 23, 1909.

No. 51.

A TENTATIVE SCHEME FOR THE UTILIZATION OF WASTE LANDS*

Dr. B. E. Fernow, Dean of Forestry, Toronto University

Formulated Plans Adaptable to the Sand Areas of Durham and Northumberland Counties, Ont., which if carried out would enable these Counties to derive a handsome revenue.

AT your last meeting for the discussion of your waste land problems at which I had the pleasure of addressing you, I pointed out, by way of encouragement, the experiences which French municipalities and private owners have had in the solution of similar problems. I told you that in the last 50 or 60 years some 2,300,000 acres of waste lands of various description had been recuperated in France by forest planting, with an expenditure of \$16,000,000, or say \$7 an acre, and that this acreage now yields an annual income of about \$10,000,000, or say \$3 and \$4 an acre, equal to 7 per cent. on a valuation of \$135,000,000, i.e. eight to nine times the expenditure—a remarkable result!

To-day I want to come back and add to these statements in order to point out how these remarkable results were secured, with a view of aiding you in formulating plans for the solution of your own problem.

PLANTING BY PRIVATE ENTERPRISE

The striking feature in these French undertakings is that it was not the State, but to a large extent private enterprise, and municipalities—to be sure, under the encouragement of and in some cases with substantial assistance by the State—that did the planting and reaped the results. The State has reforested only the 200,000 acres of sand dunes, which were encroaching on the lands, and as you may remember this was done at the rate of \$13.50 an acre and that the State re-imbursed itself, making a profit of \$120,000 by selling less than half the area.

All the rest of the planting was done either by municipalities or by private citizens, and mostly by the latter. The only aid which the State gave was in the case of the vast stretch of nearly two million acres of marshy country, known as the Landes. And this aid took merely the form of legislation that forced the municipalities to reclaim their waste lands for and by themselves. All the State did was to furnish expert advice in making the reclamation plans and to build the roads, which made the country accessible, spending \$1,300,000 in this direction. The corporation, being too poor to finance such an undertaking, secured the neces-

*An address delivered two weeks ago before the United Counties' Council of Durham and Northumberland, and others at a special Forestry meeting in Cobourg, Ont.

sary funds by selling some of these apparently useless lands, thereby also shifting the responsibility of their recuperation, and thus, they became rich in spite of themselves, being forced by the State to help themselves. This is a fine lesson for a democratic country. Such private enterprise as assisted the corporations is, to be sure, not yet developed in this country.

I also referred to the extensive reclamation plans inaugurated in Prussia. Here, the method is quite different. While the State assists corporations and even individuals by furnishing plant materials and advice, and sometimes even by money, the bulk of the waste land planting is done by the State directly, after having acquired the land by purchase or exchange, this being found in the end the surest and quickest road to success.



An Excavation Made by the Wind in the Sand Areas of Durham Co., Ont.

Part of the land that it is proposed to reforest and about which the adjoining article deals. The photo, reproduced above, was taken by an editor of Farm and Dairy, while den A. A. Powers, who is enthusiastically pushing this reforestation question, may be seen in the illustration.

In 1900, the Prussian Government voted to spend \$25,000,000 to carry out this policy of acquiring the waste lands and annually some \$500,000 are spent to plant these new acquisitions. There are then various methods of approaching the problem. Which is the wisest for the conditions in Ontario?

I take it for granted no argument is needed to convince you that this reclamation work should be undertaken, but, if so, it should be done under a broad, comprehensive plan, with full knowledge as to what is before you, and not in a haphazard, from hand to mouth, or from day to day manner. You should realize that to accomplish the recuperation of the 15,000 acres—and nothing less is proper to consider—may, in all, require close

to \$1,000,000, a sum large enough to require proper financing.

Being brought up in the most democratic atmosphere, namely, that of Prussia and the United States, my conception of the proper division of the responsibility of doing such work is based on the fact that three agencies are interested in it, namely, the people of the county now living, the Province as a whole, and the people of the county of the future, who are going to reap the financial benefit of it. Surely, the two last named agencies are the most interested because the most benefited, and hence, the financing must be done in such a manner as to place on them the largest burden.

I am a strong believer in local self government. I consider it quite undemocratic for a county to invite the State to do its job, although it may quite properly ask the assistance of the government financially and otherwise, but without shifting the responsibility. I would, therefore, not advocate the purchase of these lands by the Province, but the expropriation of the same on behalf of the counties, and the property becoming vested in the counties on the ground that these shifting sands are a public nuisance, unless owners will do the reclamation work.

A SCHEME OUTLINED

The government then should provide the funds for the expropriation proceedings as well as for planting by issuing long term bonds for which the counties become responsible, guaranteed by the Province with a lien against the land. In this way the future generation, which reaps the benefit will be responsible for the discharge of the bonds when the property itself is able to repay them.

It would also be quite appropriate for the provincial government not only to furnish technical advice, and supervision of the whole enterprise, but perhaps to start some trial or demonstration

planting before the large scheme is launched so that mistakes in the larger scheme may be avoided. Of course, before launching into such an enterprise, a careful financial analysis of costs and results is needed, as well as an expert inspection of the land and formulation of plans.

In figuring costs and returns of enterprises like these, the size of the property and the extent of the enterprise plays an important part. The usual per acre statements do not satisfy a financier, they give merely a first rough insight into possibilities. Prof. E. J. Zavitz, with certain premises and assumptions has figured out a seven per cent. investment by such per acre calculation. The probability is that ultimately much better results will be obtained, just as in France. Much

depends on the manner of carrying on the enterprise as in every other business.

A TENTATIVE PLAN

Here is a tentative plan: The plan should comprise the entire 15,000 acres, which would make eventually possible the employment of a small permanent staff, a superintendent and two assistants or foremen, say at \$3,000 a year, or 20 cents an acre per annum. It would, of course, not be practicable or even desirable to plant the whole area at once. A 30 year campaign requiring in the average the annual planting of 500 acres, would be a quite practical proposition for growing the plant material and securing the necessary labor for planting. This does not exclude that the tempo or rate of progress may not be varied as opportunity makes desirable.

I would plant more densely than Mr. Zavitz proposes, in order to secure more quickly a soil cover, which on these sands is rather essential say 4,000 plants an acre, and I would use more expensive material in part, and more careful planting methods in order to avoid repairs, which experience has shown is the penalty paid for cheap initial planting and which is usually forgotten in these calculations. I would choose a mixture of White and Red Pine with Scotch or Jack Pine and perhaps Black Locust and other species, the later for the purpose of cheapening the plantation and with a view of earlier utilization of the admixtures, after they have done their duty of covering soil and clearing holes.

ESTABLISH A NURSERY

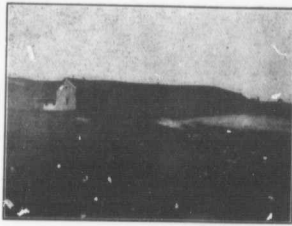
The first thing to do would be to establish a nursery near the area to be planted to grow the material. To plant 500 acres annually would require 2,000,000 plants; to produce which, say three acres of nursery ground would be required, and here the various plants can be grown at the rate of \$6 to \$7 for the 4,000 needed per acre. For the same price, stock could be imported until nurseries are ready to furnish material. The planting could be done in a superior manner for \$10 at most per acre. We would come in this way to an annual expenditure of \$11,500 as very ample for the first 30 years.

In other words, by the time the whole area is reforested, it will have cost, allowing three and a half per cent. on the expenditures—the interest rate at which the Province can borrow—\$5,936.50 or somewhat less than \$40 an acre. After this, the expense is limited to protection and management; while a practice of thinning should begin, which contributes to pay part of this expense. Indeed such thinnings may have Legum even earlier.

Each year now 500 acres come into this condition. At first the material secured from these thinnings may hardly pay the cost of removal, but they are needful to make the remaining stand grow better. As the size increases these thinnings become more and more useful and important, being repeated every five to ten years on the same acres. According to German experience at least 25 per cent. of the final harvest will in the average become available in the thinnings, and that to the advantage of the remainder.

Hence, from the 40th year on an average of 40 cubic feet an acre, partly in poles, poles, but also railroad ties

and small dimension timber may be thus annually removed, or in the average a yearly harvest of 600,000 cubic feet or, say three million feet B.M. worth at least \$15,000 stumpage, which will amply



An Abandoned Farm House on Sand Lands

Land in Clarke township, Durham County, Ont., scarcely good for pasture. Wherever the sod is broken the sand begins to drift and works destruction on areas beyond. This particular farm has passed into the possession of a Toronto man.

—Photo by an Editor of Farm and Dairy.

pay for the management and half the interest charges.

THE HARVEST

By the 75th year the harvest should be ripe on the first 500 acres with say 5,250 cubic feet to the acre (70 c.f. per a.p.y.) 40 per cent. saw timber (17 M per A) or altogether 8.5 million feet B.M. worth at least the present stumpage price of \$10, or \$85,000, while the remaining 3,150 cubic feet an acre of small dimension may add at least \$15,000 or around \$100,000 for the year's harvest.

Now a refunding or amortization scheme may be begun and by less than 6 harvests the entire debt with compound interest will be paid up, leaving a property which should be worth not less than two million dollars, if proper care is being taken in the cutting to secure a natural reproduction or to have the cut acres replanted.

I believe that this figuring is most conservative and reasonable, except that no allowance has been made for a rise in stumpage prices, which is almost certain to occur. A tabulation, lately published by competent assistants of the U.S. Forest Service, shows that in the years 1900 to 1907 stumpage prices for every kind of wood have increased, namely from 50 to 286 per cent., for different species, i.e., say from six to 35 per cent. per annum in the average.

White Pine in those eight years appreciated 121 per cent., having had a sudden great rise in the



A One-Time Fertile Meadow, Land Such as it is Proposed to Reforest

The wonderful destruction that the wind is capable of working in the sand areas of Clarke township, Durham Co. Ont., is well illustrated above. The scene is taken on the farm of Mr. Colon Staples, Orono. That this land will grow trees is vouched for by the dense forest growth in the nearby distance, which is covering the same kind of soil.

—Photo by an Editor of Farm and Dairy.

year before; cedar, which had long been undervalued, appreciated 251 per cent., and basswood 286 per cent.; elm showing the least appreciation, namely 50.

In this same publication the cost of growing White Pine to an age of 75 years, including taxes, land at \$3, planting at \$7, interest at four per cent., amounts to around \$7.30 per M. feet, while the present stumpage price of 75 year old wood is stated at about \$8.50 per M. feet.

VALUE OF CUT EXPECTED

It is stated that from experience with White Pine in New England, at 75 years a cut of 47,600 feet B.M. may be expected valued at say \$400 an acre. This would be just double the modest expectation that we have figured. That forest planting in the long run will be profitable even in Canada cannot any more be doubted, but it must be understood and appreciated that it does so only in a long run.

You will have gathered from these statements that a well conceived plan, worked out in detail both on the silvicultural side and the financial side is needed, and I hope that some of the graduates of the Faculty of Forestry now in the Provincial University will have the good fortune to be identified with this movement, with Professor Zavitz as their guide.

How to Judge Horses*

Prof. J. W. Kennedy, Ames, Iowa

Horses are by all odds the most difficult of all classes of stock to judge and systematic methods of work are now essential. This is especially true in show ring judging, where there are a large number of entries and a limited amount of time. The judge usually has horses moved when they first come out; any lameness will easily be noticed. He next has them arranged in line and then begins at one end and examines them as they come.

It is well to approach the horses from the front. Standing at a reasonable distance he scrutinizes his general bearing and proportion of parts; also notices the straightness of his fore legs and his width of chest and spring of rib. He now approaches closer and observes the head more carefully; noticing the size of the nostrils and the length of the head, the width of the forehead and the shape, size and brightness or clearness of the eyes. He next steps back a little and drops down so that he can look back between the fore legs at the hocks, and he also views them from a position in front yet a little to one side of the fore limbs. From these two positions any abnormality of the hock can easily be detected, and in making this survey the judge is careful to compare one hock with the other. He next observes the fore limbs closely, and if he notices an enlargement on the inside of the cannon bone, he examines it with his hand for splint. He notices the feet at the hoof heads, and in hairy legged horses it is always well to examine with the hand for sidebone. The foot is also lifted and its general shape and texture is observed, as well as the size of the frog.

OTHER POINTS TO INSPECT

Having completed the inspection from the front, the judge next steps to one side and makes a critical examination of the animal, noticing his length of neck, chest, carriage of the head, slope of shoulder, depth of body, filling of fore flank, coupling of back and shortness and strength of short-ling.

He also notices the letting down of the hind flank and compares the length of the upper and lower lines. He also observes the length and levelness of the croup, the set of legs from the side and the muscling of the fore arms and gaskins. Next, passing to the rear, he takes the spring of the rib and general width of the barrel; judges width and muscling of the croupe, haunch and thighs and raises the tail to notice the depth of the muscling in the hind quarters between the

*Reproduced from "Rider and Driver."

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legs and also notices the lock at the same time. The straightness of the legs is also observed and the inspection of form is finished.

The judge now has the horse moved straight away from him at a walk. This allows him to observe the straightness of movement and the snap with which the horse picks up his feet; and as the horse is led back toward the judge the straightness of movement is again observed and the judge then steps to one side and allows the horse to pass. As he does so the length and balance of stride and the freedom of knee and hock action is noted. The horse is moved again, this time at the trot, and the same points observed as at the walk. Any tendency toward going wide behind or to throw the front feet out in the manner known as winging is readily noticed as the horse moves straight away; and from the side view, overreaching, a short stilted stride or tendency to drag the limbs is revealed. Besides observing details of action the judge watches the general carriage, the freedom and buoyancy with which the animal moves off. There should be a spring and snap to the action that arises from an exhilaration of spirit and which reflects the happy poise and vigor of the animal.

A SHORT LEET

Having finished the inspection of the first he should be sent to the other end of the line and the inspection of the next taken up in the same manner as before. After all have been inspected in this manner and successively sent to the foot of the line, the judge has a few picked out for a short leet, and makes a more minute examination and comparison of those he has chosen as likely prize winners until he has definitely decided between them. Good judgment in balancing points is very important just here, for many judges are able to see differences but go astray in their attempt to estimate the relative importance of these differences.

In actual work in large rings it is often advisable not to move all of the horses. In such cases the judge passes rapidly over the line, picking out those that by reason of unsoundness or deficiencies in conformation are not entitled to be considered. The rest he sends to the head of the line and makes a complete examination of them. This sometimes arouses some protest from exhibitors, who hold that every horse has a right to be shown in action; but in all large rings they are a goodly number that are so clearly lacking in top qualifications that it is a waste of time to stop to move them. It should be noted that the most successful judges follow some definite method of procedure in judging horses and the plan used by some of the best judges has been roughly outlined in the sketch.

Seed Control Act and the Farmer

"For some time farmers have been inclined to poison their land by sowing grains, clovers and grasses, which are highly polluted with noxious weed seeds," said T. G. Raynor, of the Seed Division, Ottawa, in addressing a gathering in the lecture room at the Guelph Winter Fair. "Hence the Seed Control Act was passed to protect the farmer. It applies however, to him as well as the seed merchant in the sale of seeds.

"The seedsmen cannot offer for sale red clover, timothy and alsike if the seed contains more than five weed seeds among a thousand seeds of clover or grass seed. If he does he is subject to the full penalty of the law. Exactly the same conditions apply to the farmer's sale of red clover, timothy and alsike. And if the purchaser suspects excessive impurity of seed offered for sale, he is at liberty to forward a sample to Ottawa for free examination.

"The only exemption, in which the law as applied to the farmer differs from that applied to the seedsmen is in respect to the sale of cereal seed. The farmer can offer for sale and sell on his own farm seed grain containing noxious weed

seeds without the bags having to be labelled announcing the degree of contamination. On the seedsmen's seed grain bag, the degree of impurity has to be labelled.

"The Seed Control Act has already done much in increasing Ontario's field crops and also in producing a better and cleaner sample of seed. The agitation for cleaner seed makes the farmer more inquisitive in regard to seed that he is about to purchase. It pays to be observing in such matters of vital importance. When the Act was first enforced, seedsmen did not consider that

air may be drawn off. The intake pipes may easily be supplied with dampers, or partially stuffed with hay when the wind is too severe from any one direction.

Best Types of Ensilage Corn*

J. H. Gridale, Agriculturist, C.E.F., Ottawa

Ensilage corn is growing more and more popular among the most successful farmers of to-day. True, some have tried growing and storing ensilage corn and pronounce it of no special value.

They even entertain a poor opinion of it as a food for cattle. But in nearly every case where such has been the verdict, poor preparation of the soil was made, wrong varieties of corn chosen, insufficient care was given the growing crop and poor methods of handling, preserving and feeding the corn, have all more or less been operative in forming such wrong ideas regarding the questionable value of ensilage.

To get good results from any farm crop, good judgment must be exercised. Cultivation, above all things must not be neglected. Choose varieties best suited to your own local conditions. Then when the crop is ready to store, adopt speedy and proper methods.

Giving ensilage corn a fair trial, then, will do much toward removing the all-too-numeric prejudices against it.

THE THREE ESSENTIALS

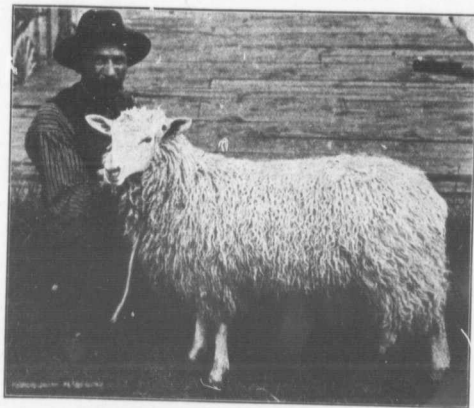
In good ensilage corn, three things are necessary:—First, Abundance of forage, which is of prime importance as it furnishes bulk. Secondly:—It must contain a large amount of food value. It must contain a large amount of digestible matter for upon this depends the true value of any food. Thirdly:—The aim should be to get a food with a narrow margin between protein (the nitrogenous part of the food which forms flesh, muscle and bone) and carbohydrates, which form fat. Upon analysis a food may contain one part protein and 20 parts carbohydrates. The aim should be to get a narrower margin than this, say five of protein and eight of carbohydrates.

VARIETIES

There are three distinct varieties grown in Ontario:—Small yellow corn yielding from five to six tons an acre; Flint corn, yielding from 10 to 15 tons an acre; Dent corn, yielding from 12 to 25 tons an acre. It will be seen that Flint varieties yield a medium amount of fodder but experiments go to show that in these the forage is somewhat lacking as compared with Dent varieties. I would recommend a combination of flint and dent varieties, leaving out the small yellow. In some sections of this Province farmers sacrifice the amount of forage to get maturity, by growing flint varieties. If proper selection were made among the dent corns to suit the local conditions, varieties of dent corn could just as well be chosen which would mature as early and give far larger returns in forage.

The Leaming variety is to be recommended for ensilage growing in eastern districts. A farmer, however, should not adopt any hard and fast

*An address delivered at the recent Guelph Winter



A Fair Representative of One of the Largest British Breeds of Sheep

The Lincoln is one of the larger breeds generally chosen for crossing on common stock to improve their size. The lamb illustrated is one from Mr. D. A. Campbell's flock.

farmers would pay extra for the best seed. But now the supply of No. 1 seed cannot keep pace with the demand, so great has become the demand for better seed."

Provide Some System of Ventilation

G. H. Blair, Carleton Co., Ont.

Fresh air is most essential to the health of stock and to the purity of milk while it is exposed to the air during the milking process. Too many farmers, especially those in cold sections, through a false sentiment of humanity hesitate to expose their cows to the cold, fresh outside air. It is, however, a more humane act to allow them plenty of oxygen, which will help them to sustain their bodily heat, than to injure their vitality by forcing them to breathe over and over again the foul, vitiated air of an ill-ventilated stable.

There are many schemes for ventilating stables, opening doors and windows amongst them, but the one that least exposes the animals to draft and extreme cold is that which admits the air into the barn by means of chutes, and liberates it from small holes in front of or near the heads of the cattle. The foul air is best drawn out by ducts leading from the ceiling to the ventilators on the roof, which will always insure an upward draft of air owing to the expansion of the heated air.

THE KING SYSTEM

Another excellent and cheaper system is that recommended by Prof. King. The fresh air is admitted near the ceiling from ducts which open to the outer air near the floor of the stable on all sides of the building, so that wind from any direction will find entrance therein. The foul air is drawn out by ventilators opening near the floor and leading to the roof. For warm weather these ventilators should be provided with sliding trap doors near the ceiling, through which the foul

rule in the choice of varieties; his own conditions should determine the variety best suited to his land.

SOIL REQUIREMENTS

Corn takes from the soil, a considerable amount of plant food. Hence the ground should be well prepared, in good till, be underdrained and rich in plant food. Cold, sour land, seen mostly where underdrainage does not exist, produces, as a general rule, small amounts of corn of poor quality. Drainage also hastens maturity from two to three weeks.

Do not be afraid of giving the land too much cultivation. When you consider the seedling ready for sowing, apply as much more cultivation to it before planting. Especially is this advice applicable to sod, which hastens maturity of these Dent varieties. The aim should be to select a corn to mature in 90 days rather than 110.

Then in the selection of your variety, acquaint yourself thoroughly with your soil, practise underdrainage and thorough cultivation and figure as much as possible on the season.

VARIETIES RECOMMENDED

The following varieties are recommended for the three different sections:—

Toronto, London, South:—Reid's Yellow, Early Mastodon, Leaming and White Cap Yellow Dent.

Toronto to Cornwall:—Early Mastodon, Leaming, White Cap Yellow Dent.

Peterborough, Owen Sound and Ottawa:—Leaming, White Cap, Yellow Dent and Longfellow.

For New Ontario:—White Cap, Yellow Dent, Longfellow and Compton's Early.

At Ottawa this year the following varieties gave the following yields:—

Early Bantam variety (sweet corn) yield 9.5 tons an acre.

Mastodon variety (ensilage), yield 16.5 tons an acre.

Compton's Early variety (ensilage), yield 12.5 tons an acre.

Longfellow variety (ensilage), yield 16.5 tons an acre.

Leaming variety (ensilage), yield 18.5 tons an acre.

Reid's Dent variety (ensilage) yield 22.5 tons an acre.

Reid's Yellow variety (ensilage), yield 30.0 tons an acre.

White Cap Yellow Dent variety (ensilage) yield 20.5 tons an acre.

Results from a New Ontario Farm

There is no need of anyone going to the West to find opportunities for profitable farming and quick returns. They can be had nearer home. Mr. Donald Sutherland, Director of Colonization for Ontario has furnished Farm and Dairy with the following letter which he recently received from Mr. W. A. Houser, Earlton, Ont. It shows what can be made by farming in New Ontario.

"During the winter of 1905-06 and 1906-07 I removed from 16 acres of my land 225 cords of pulpwood that netted me (after paying for cutting, etc.) \$550.00. In the summer of 1907 I had the most of this chopped and logged (and as the clearing was made a lot easier by the removal of practically all the large timber for pulpwood) average cost per acre was \$10 or \$160.00. During the latter part of the summer and fall of 1908 I had this land stumped and plowed cost by contract and day labor, \$300.00. Thus making a total cost of clearing from green bush, leaving land ready for crop \$490.00, net on pulpwood \$550.00, leaving me a cash balance on hand of \$90.00, less \$80.00 for 160 acres, balance \$10.00. I wish to show you that under ordinary circumstances and a little judgment together with the natural advantages this district

possesses, the land will clear itself ready to crop, and in the early stages of the work pay the Government the 50 cents an acre or \$80.00 for the 160 acres the settler has acquired.

OSAS MATURED IN 92 DAYS

"In the spring of 1909 I bought from Geo. Keith & Sons, Toronto, seed grain and garden seeds to the amount of \$45.28, f.o.b., Earlton, of this amount: \$23.00 was for clover and timothy seed. I bought among the above mentioned seed 20 bushels of 20th Century oats and sowed them on 11 acres. These oats matured in 92 days from date of sowing and we threshed 910 bushels or 82-311 bushels an acre of good plump and heavy oats. The real yield an acre would, I think be more, as there was considerable waste by shelling during harvest and also in threshing from stooks outdoors.

40 BUSHELS AN ACRE OF WHEAT

"I also sowed two-thirds of an acre of Red Fire spring wheat, two quarts less than one bushel and carried from machine 40 bushels of good wheat in return, which matured in 97 days from date of seeding. I sowed from three to three and a half bushels of threshed 35 bushels; the yield would have been much better but we had frost that injured vines and gave peas a set back. That which was already ripe was a good sample, but the frost reduced yield which would have otherwise been a magnificent crop.

"I sowed some larley as a nurse crop for alfalfa; it was sown very thin, showing a yield of 25 bushels an acre and maturing in 75 days. The alfalfa has done splendidly so far. The balance of the piece of land was put in with mangels, field carrots, Swedish turnips, beets, potatoes, cabbage, cauliflowers, cucumbers, onions, radishes, and all necessary garden produce, which in each individual

sample and yield was as good as can be produced in the older part of the Province.

PROFIT OF \$1.90

"Now to sum up the production of the land approximately would be as follows:—Oats, 910 bushels at 60c a bus., \$546.00; wheat, at \$1.20 for 40 bus., \$48.00; peas, 35 bushels at \$1.10 \$38.50; straw, 30 tons at \$12.00, \$360; 240 bags turnips, at 50c, \$120; 50 bags mangels at 50c, \$25.00; 40 bags carrots at 50c, \$20.00; 50 bags beets, at \$1.00, \$50.00; 50 bags potatoes, at \$1.00, \$50.00; 150 heads cabbage, at 10c., \$15.00; 300 cauliflower, at 10c., \$30.00, we will allow balance of grain produce for caring for above (which was small job as I used scuffler entirely except for thinning) gives \$1,302.50. Actual money outlay \$16.50 for binder, \$10.50 for threshing, and \$45.28 for seed, \$72.28 total, and leaves 12 acre seeded to clover and timothy. The putting in of the grain and taking it off, and threshing was done by myself so in charging work, etc., which all cost something, I could

(Continued on page 9)

FURS

Do you trap or buy Furs? I am Canada's largest dealer. I pay highest prices. Your shipments solicited. I pay mail and express charges; remit Sheepskins, etc. Quotations and shipping tags sent free.

JOHN HALLAM, TORONTO

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NICHOLS & WILMOYLE, Lakefield, Ont.

Reduced Rates to Guelph ON ALL RAILROADS

Because of our special "SHORT COURSES" during the month of January 1910. Delegates should be careful to secure the Standard Convention Certificate when purchasing their One Way ticket.

STOCK AND SEED JUDGING, Jan. 11 to 22, 1910
POULTRY RAISING - Jan. 11 to Feb. 5, 1910
HORTICULTURE - Jan. 25 to Feb. 5, 1910
DAIRYING - Jan. 3 to Mar. 31, 1910



Each day will be spent in practical work as follows: Judging the Seeds of principal farm crops; identifying and examining the weed seeds commonly found in grass and clover seed; judging the various breeds of live stock, including horses, sheep, swine and poultry; judging, grading and packing of apples, pears, peaches, etc.; cultivation, storage and marketing of vegetables.

Illustrated calendar and full particulars will be mailed on application to:

G. C. CREELMAN



The Feeders' Corner

The Feeders' Corner is for the use of our subscribers. Any interested are invited to ask questions or for more prompt assistance.

Feeding Value of Red Top

What feeding value has Blue Joint and Red Top hay? ... Canadian blue joint is a valuable grass for low lands that cannot be drained.

Canadian blue joint is a valuable grass for low lands that cannot be drained. It is commonly found in "heaver meadows" and marshes but may also be grown on cultivated land.

It remains green after the seeds are stages in its growth, and consequently affords a large amount of nutritious pasture.

We have no accurate figures regarding the composition of this Red Top, but in general I think that it is a hay of a greater feeding value than timothy, although it would not be at all equal to clover hay as a feed for dairy cows.

When used along with sugar beets and corn silage it would not make a ration very rich in protein, but it would be well for dry cows, especially if they are to be dry for some months. However, many of our best dairymen now believe that the cows should be fed well during the time that they are dry.

To make this ration at all rich in protein some of the concentrates should be fed with it. As a pasture, the Blue Joint will do well on low lands, whereas, red top will not do well on low, wet lands, and is not as satisfactory for a pasture as the blue joint. Prof. R. Harcourt, O.A.C., Guelph.

Stockers on a 200 Acre Farm

If no other stock is kept on a farm of 200 acres, how many stockers, 700 lbs. each, could be fattened and sold in spring, say about December 1st to May 1st? By "other stock" I mean none other than six horses. Average land and fair crops—K. Toronto, Ont.

To answer such a question accurately would necessitate more detailed information than conveyed in the letter. Nothing is said of the crops grown nor of the location of the farm, two most important considerations to keep in mind in such a problem. However it may be safely promised I suppose that the usual Ontario crops are grown.

From December 1st to May 1st is about 150 days. A steer weighing about 700 lbs. in November 1st would probably eat during the 150 days, provided you were anxious to have him in as good shape as at all possible. May 1st, 2,900 lbs. hay, 1,000 lbs. straw, three tons of ensilage or three tons roots and 800 lbs. meal. If no roots or ensilage are available then each steer would require about 3,000 lbs. hay instead of 2,000 lbs. thereof. The amount and kind of meal would depend on the kind of meal available or procurable and the amount it was desired to feed. Steers will do fairly well on a good deal less meal or grain but of course will not be nearly so valuable the following spring as if fed a heavier meal ration. Further it is very seldom advisable to feed steers on the home grown grains exclusively even if they are available in abundance. For instance it would be better to sell oats or wheat and buy a little corn meal, oil cake meal, cottonseed meal or gluten meal rather than feed heavily on either one or the other of the above mentioned home grown feeds. I would suggest as a suitable meal mix-

ture, bran 200 lbs., crushed oats 100 lbs., barley 200 or 300 lbs. and 1 corn or oil cake meal or gluten meal 100 to 200 lbs. Begin by feeding at first, ponds staying in, raise slowly at two, more rapidly later until steers are getting eight or nine pounds each per diem about April 1st.

Now as to the number it would be possible to fatten on this mixture by estimating feed on hand and dividing by amount indicated as probably necessary for one steer.

But the 200 acre farm in Ontario we might expect to find on it this fall the crop from 200 acres wheat, 80 acres oats, 20 acres barley, and 115 acres alfalfa. For this much hay for the reason that there was apparently no stock. For the same reason it is probable there is no roots or ensilage. The 200 acre farm therefore probably be 750 bushels wheat, 1,200 bushels oats, 700 bushels barley and 175 tons hay.

Now the hay would require about 600 bushels oats and seed 100 bushels, leaving 500 bushels to feed. The six horses would further require about 18 tons hay which in addition to waste etc., would leave probably 150 tons to feed out. The wheat would be worth probably \$700. Out of this money should be bought say 10 tons bran \$200 and this oil cake meal \$325. This would leave you with the following feed on hand.

Hay for steers 150 tons
Straw for steers probably . . . 75 tons
Oats for Steers 17,000 lbs.
Barley for steers, 30,000 or three-about.

Bran for steers 20,000 lbs.
Oil cake meal 20,000 lbs.
Corn meal or 20,000 lbs.
Gluten meal 20,000 lbs.

A total of 87,000 lbs. meal. This would be enough meal for over 100 steers, but as there is probably hay for not more than 100 head it would not be advisable to go beyond that number.—H.J.G.

Our Veterinary Adviser

OSTEOMA—Mares jaws are swollen on the outside to a thickness of a man's hand. She has not done well lately.—E. M. Lennox and Addington Co., Ont.

Give her one dram iodide of potassium twice daily. Rub the swollen parts well twice daily with a liniment made of Iodide of Ammonium one oz., Iodine half oz., Alcohol, eight oz., water eight oz.

BLOODY MILK—Young cow gives bloody milk out of one teat.—W. M. M., Ontario Co., Ont.

This is due to a rupture of some of the small blood vessels of the quarter. Sme cows are greatly predisposed to this trouble. Bathe the quarter often with cold water and give one ounce tincture of iron in a pint of cold water as a drench three times daily until blood ceases to pass.

COW PERSISTS IN EATING WOOD—I have a cow that eats wood. When she cannot get a piece of a stick, she takes boards. Recently she ate a piece of matched lumber about four inches wide, she starts at the end and just grinds it off. Will you please give me the cause, also a cure?—Hugh Lachie, Hastings Co., Ont.

This is due to a want of phosphates in the system. Allow her free access to salt and give her two drams calcium phosphate three times daily until the habit ceases.

Hampshire Pigs.—Premium pigs, being sent out by Farm and Dairy do not include Hampshire Pigs. We are offering the following breeds only, Berkshires, Yorkshires, Poland Chinas and Tamworths. These are the popular standard breeds for which there is a ready market and breeds in selecting which you will make no mistake.

The Maritime Winter Fair

A larger number of entries of live stock and of higher quality than ever before has limited the limit of the Winter Fair building, with its new annex, at Amherst, N.S., to the utmost. Crowds of farmers poured in from all parts of the maritime provinces. They have all realized the value of this winter fair as a place of education as found in the best types of cattle, sheep, swine, poultry, cereals and fruit. The lectures in connection with the fair were well attended and were much appreciated.

DAIRY CATTLE
A new dairy building had been erected. Its system of ventilation was most defective. The air was heavy and moist for the most part, all the time and was against the cows and heifers in that building doing their best work. The dairy cattle exhibit comprised the 12 Ayrshire entered by the Messrs McIntyre Bros., Sussex, N.B., and nine head owned by Fred C. A. Archibald, and one owned by C. A. Archibald, P.E.I.

Ten Guernsey were shown by Roper Bros., Charlottetown, P.E.I.; Jersey by H. T. Pipes & Son, Amherst, N.S.; 10 heads; J. G. Baker & Son, Barronsfield, N.S.; three, and J. R. Simple, Brule, N.S., one. There were also 21 grades. The Holsteins were in the old dairy barn under the basis of the lecture room and had their ventilation. Exhibitors of Holsteins were Logan Bros., Amherst, N.S.; 10 head; Sam. Dickie & Son, Central Onslow, N.S.; seven head; R. Hicks, Dalhousie, J.E., N.B., one cow. These cows and heifers were entered in the Dairy List (which was a 48 hour test) giving the tester scores of 100 and 101.

The Logan Bros. cow, Maple Grove Louise de Kol, won the silver cup valued at \$100, donated by Henry Birks & Co., Montreal, for cow making the best butter, all breeds competing, to be won three times.

BEEF CATTLE
In the beef cattle exhibit Shorthorns predominated. They were of a superior class. A great many lacked finish but the type was there all the same showing progress in this respect over previous fairs, when the Leaf type was not so pronounced.

In the Register of northern classes, C. A. Archibald, Truro, Hazon and Harold Eter, Westmorland Point; Edwin Forest, Amherst Point; Cecil T. Coates, Yappan; Geo. M. Holmes, Amherst; Chas. W. Forrest, Amherst Point, N.S.; Samuel C. Lane, Pownall P.E.I.; Donald Freeman, Amherst; L. M. Anderson, Sackville and J. M. Pipes, Nappan, all figured in the ring with animals of more or less merit.

Cecil T. Coates won the Champion Steer prize with a grand supply fellow C. A. Archibald won the major portion of the prize in the female classes. His smooth, even fleshed, grand type heifer Merrymaid 6th won the Champion prize for best female. He also won the O'Brien Cup for best animal any age and best specimen of any age. Amos Fowler won the Pudge prize for best grade steer. The grade class was contained from eight to 16 animals each.

W. W. Black was the only exhibitor in Herefords. He brought out his stock in fine form. He won for "Keeps" the Giles Cup for the 3rd time which he had won on the previous seven years. He also had the Gordon Cup for best pure bred steer or heifer with his champion steer, two years old.

To enumerate the prize winners would be to take up space, sufficient to say that the best competition was most keen and many of the new exhibitors were offering higher up had their animals been better tried.

SWEEP
Leciesters.—Albert Boswell and S. C. Lane, Pownall, P.E.I., were the exhibitors. Their prize was a good form and were splendidly woolen. Lincoln.—Albert Boswell, jr., lot 35,

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Henry H. Albertson, Burlington, N.J., writes: "My stanchions sold greatly to the comfort of my cows."
WHY TORTURE your rig with stanchions? Send for specifications of inexpensive yet satisfactory cow stable to
WALLACE R. CRUMB, Box 25, Forestville, Conn.

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Grain Grinders
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BRANTFORD, CANADA

P.E.I., and Chas. Symes, Minudie, N.S., showed a good lot.

Cotswolds.—H. B. Parlee, Sussex, N.H., was the only exhibitor.

—The turkeys.—The quality of the birds shown by Chas. Symes, Minudie, N.S., Southdowns.—A keen contest for honors was fought between J. E. Baker & Son, Barronfield, N.S., Cephas Nunn, Windsor, P.E.I., and Oliver C. Saunders, Trillby, P.E.I. Showshires.—These made the largest showing. Exhibitors were Logan and J. J. Stewart, Amherst, P.E.I., Point, Geo. Boswell, Fredericton, P.E.I., Cephas Nunn, Windsor Road, P.E.I., Oxford—J. E. Baker & Son, A. H. Burdell, Marshfield, P.E.I., and Burdell Goodwin, Windsor, P.E.I., R. B. divided the honors in this class. Hampshire.—by Cephas Nunn, P.E.I., Suffolk.—by Albert Boswell, Jr., P.E.I. Grades and crosses were numerous and well fitted. On the whole the sheep were a splendid lot and added much to the attractiveness of the fair.

SWINE

The swine exhibit was full of merit, and in all the breeds the true bacon type was in evidence. Yorkshires led the lead in numbers, closely followed by the Berkshire. The winners were shown by W. H. P. Cook, Little York, Roper Bros., Charlottetown, A. McKeith, Marshfield, P.E.I.; Wm. Holmes, Amherst, and A. Anderson, Sackville, Tanworth.—These were good specimens shown by W. J. Gibson, Marshfield and Roper Bros., Charlottetown, P.E.I., Berkshires.—In this class Berkshire was most keen between Peter Brodie, Little York; Wm. J. Gibson, Marshfield, P.E.I.; J. J. Stewart, Amherst Point; J. R. Semple, Bruie, W. Holmes, Amherst, and Geo. G. Lowther, N.S.

Several other breeds were represented also a great number of grades and cross breed animals. Peter Brodie won for the second time the Silver Cup for best pen of three hogs with his Berkshires.

The judging classes of beef and dairy cattle, sheep and swine, were well contested by over 40 boys, principally those attending the Truro Agricultural College.

The dressed carcasses competition verified in many instances the judgment of the live animals. This part of the fair created much interest.

Poultry

The poultry display was the best ever held at the Winter Fair; over 1,000 birds were on exhibition. Banded Rocks led in point of numbers closely followed by the White Wyandottes. American, Mediterranean and Asiatic were out in numbers in the order named. Some grand specimens of Toulouse, Embden and Egyptian geese as well as Pekin ducks were shown. The display of dressed poultry proved of great interest.

The grain and seed exhibit was unequalled at any former show. The samples of wheat and oats were beautiful as well as weighty. The potatoes were smooth and even. Donald Ingham, Tobique, N.B., worthily won "keeper" for the best display of cereals and seeds. No farmer has been more diligent in assisting the movement for the betterment of the seed grains of the province than he.

APPLES

Apples.—This display far surpassed any former fair. To one looking over the long tables of apples and roses, apples of innumerable varieties it almost seemed as if the three provinces viewed with each other as to which should make the best display.

The evening meetings in the large auditorium were always largely attended by earnest listeners. The addresses by the experts on their particular subjects were of an interesting and practical character. The management, under President Elderkin and his vice, Col. Campbell and Manager Fuller are to be congratulated on the success of their 9th Winter Fair.—W.F.S.

HORTICULTURE

Apple Growing Sixty Years Ago

J. E. Orr, Middlesex Co., Ont., writes 60 years ago the owners of orchards did not previously only borne the natural fruit but grafted their apple trees. The scions used in grafting principally came from the vicinity of Rochester, New York state. And some of the varieties were the "Greenings," which still hold their own among most of the newer sorts. The "Jolly Flow-ers," a large globular fruited apple, with alternating stripes of red and green were very low and low about Christmas time. The "Non-such" was a large yellow apple, with a very poor flavor. The "Munich" was a small seeder, at its best in May and June. The "Spitzenburg," a splendid variety, with an agreeable flavor, was for many years a universal favorite.

The "Pippins" with their various divisions were all very good. The "Pearmain" was a much sought after apple, with nearly always a water core, making them very juicy. The "Russets" covered kinds and many others, gave the preponderance of former days apples in great abundance.

The grafting was generally done by a gang of men, who devoted all their time in the season to this work. They were thus able to do several orchards in a day. Sometimes the scions must have gotten mixed, for the writer recollects members in his youth of seeing a half dozen varieties growing on the same tree, giving an appearance of many colors.

Nova Scotia Fruit Growers Meet

At the annual convention of the Nova Scotia Fruit Growers' Association held at Kentville, Dec. 1 and 2, the question of the standard to be mentioned in the Fruit Marks Act for minimum No. 2 and No. 1 of the principal varieties of apples was taken up. President G. Reynolds thought the present definition using the word "medium" was too vague and allowed of too much variation, that different minimum sizes would have to be established for the different varieties according to typical size, e.g., Baldwins, Greenings, Gravensteins, etc., minimum No. 2, 2-1/4 in., No. 1, 2-1/2 in.; Gravensteins, etc., 2-1/8 and 2-3/8 Sps., Blenheim, Kings, etc., 2-3/8 and 2-5/8 and so on. Since grading in this way would throw out a great many small perfect apples he recommended a definition for No. 3 and the barreling of many of these smooth apples from 2-1/4 to 2 inches and marking them No. 3. The latter then would be for a small price a good marketable article. The speaker deplored the sending away of such trash as was now often shipped under the brand of No. 3.

After a discussion in which the speakers were about equally divided as to the advisability of definite size, the matter was left in the hands of a committee to consider and report at next meeting.

MOISTURE IN ORCHARD SOILS

F. T. Shutt, Ottawa, chemist for the Dominion Experimental Farm, gave a very able address on "The Control of Moisture in Orchard Soils." Some of the points of the paper were that the growing of grass or grain in an orchard was bad practice on account of the great amount of water given off and taken from the soil by these crops, that intertilled crops might be practised in young orchards, that village should begin in orchards as soon as possible, in the spring, that orchard soil should be cultivated to form an earth mulch as soon as plowed and that ground should not be plowed and left without further cultivation.

Prof. H. W. Smith of Truro spoke at some length on plant diseases. He

strongly urged the necessity of stringent legislation for the prevention of the importation of plant diseases. The professor gave the history and habits of some of the more common fungi and urged the adoption of all means possible to prevent the spread of disease, such as burning all diseased plants and parts of plants, dead trees, etc., and the plowing under of leaves upon which might be found the spores of such fungi. The aphid which had had the more trouble this year he was glad to say had a natural enemy which would probably get in to check.

TINNING SPRAYS

R. J. Mesenger, Bridgetown, gave a talk on the benefits of thinning in an orchard in which he cited the case of one tree of Baldwins among others which had been in previous years given a heavy crop of apples, 80 per cent. No. 2's and under. This year after thinning the tree packed 75 per cent. No. 1's, 20 per cent. No. 2 and 5 per cent. No. 3. Thinning saved time in picking, packing, and saved the vitality of the tree and also we get more dollars for the smaller number of barrels shipped of a finer fruit. Quite a number gave the thinning testimony in favor of thinning, among them, R. S. Eaton, G. C. Miller, F. H. Thomson and Mrs. Sangster.

Mr. L. D. Robinson of Berwick gave an interesting talk on winter sprays, dealing chiefly with the lime-sulphur solution. In the discussion on this paper it was the general opinion that about 18 lbs. sulphur and 20 lb. lime was about the right proportion of ingredients, that the water should be added first, then the lime, and that it need not be applied hot, as long as it was slightly warm. Boil about 35 minutes to an hour. It should be used only as a winter spray at this strength.

Quebec Pomological Meeting

At the annual meeting of the Quebec Pomological Society held at Macdonald College on Dec. 8th and 9th, many interesting topics were discussed. President G. Reynolds of La Trappe was unable to be present owing to sickness. A resolution was passed expressing regret at his absence and the hope that his illness is only temporary. Among other resolutions was the following: "That in the interest of the association it is considered advisable to make a list of fruit from this province at the Royal Horticultural Show, London, next fall, and that the secretary be delegated to confer with the officers regarding same."

OFFICERS ELECTED

The following officers were elected:—Pres., Prof. W. S. Blair, Macdonald College; vice-pres., A. C. Verrault, Village des Aulnaies; sec. Treas., Perrin, Chateauguay Basin, and penino director, J. A. G. Hewitt, Entomologist of

the Dominion Experimental Farm, on "Insect Pests." He dealt especially with the colling moth and plum curculio. Prof. J. M. Swain, entomologist of the Montreal College, gave an illustrated talk on the same subject and answered many questions in discussion.

PLUM CULTURE

An excellent paper was read by Mr. W. T. Macoun of the Central Experimental Farm at Ottawa, on "Plum Culture in Quebec." In this paper, he outlined the opinions of growers here and experimenters for the past 40 years as recorded in the transactions of various horticultural societies of the province. The conclusion reached was that the European plums in general are not sufficiently hardy in fruit to warrant planting them to any extent. The only varieties advised are Mount Royal and Raymond, both pruned seedlings of the European domestic plum. The Americana plums are hardy and should be planted in preference to the European. An interesting discussion followed Mr. Macoun's excellent address.

ADDRESS BY HON. SYDNEY FISHER

In an able address the Hon. Sydney Fisher dealt with the possibilities of the province in the development of high-class dessert fruit. The province is especially adapted to the growing of Fameuse and McIntosh. It requires hard work and constant attention to detail in fertilizing, spraying, packing, marketing, etc., but nothing of value is accomplished without this effort on the part of the producer and the satisfaction in having a high-class dessert fruit second to none will well repay for the energy expended.

The Hon. J. L. Caron, Minister of Agriculture for the province, addressed the Hon. J. L. Decarie, ex-Minister of Agriculture, now Provincial Secretary and Mr. G. A. Gigault, Deputy Minister for the Province also gave addresses.

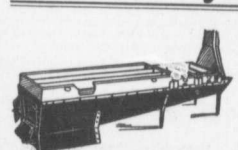
MISCELLANEOUS

A timely and practical paper was presented by J. J. Gagnon on "Forestry and the Orchardist." Mr. Alex McNeill, chief of the fruit division, Ottawa, although unable to be present through illness, sent a valuable paper on "Box Girdling." Prof. W. Lochhead gave an interesting address on "How Plants Feed and Grow."

Mr. Athanasius of La Trappe discussed the growing of asparagus in orchards. Mr. S. L. Kinney, St. John's, related the effects on markets and consumers of the recent New England fruit show. Mr. J. A. Rudolph, Dominion Dairy and Cold Storage Commissioner, gave an illustrated address on fruit growing in different parts of America, showing views of orchards in Nova Scotia, British Columbia, Oregon and California.

The December 2nd number of Farm and Dairy is well worth the price of the subscription for the year.—D. N. Anderson, Lambton Co., Ont.

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Write for our illustrated booklet giving all the information useful and necessary to syrup makers. It tells you how to get more dollars out of your Maple Grove.

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POULTRY YARD

Fattening and Marketing Turkeys

Robert Smith, Lambton Co., Ont.

The turkey has a much more delicate constitution than the chicken. The crate system is too confined for fattening turkeys. Where the turkeys have been accustomed to roaming over the field and picking their own living they must be fed with great care else they will overfeed their stomachs and become sick. Place the turkeys in a dry, light and well ventilated place. Feed them the same sort of feed as you would the chickens. It is best to feed whole grain for two feeds a day. The amount of food will depend on the time they are to be confined and the constitution of the turkeys. If they are to be confined for a short time only the full feeding may be begun in a few days, but if the turkeys are to be confined for a month or more it is better not to advance to the full feed for nearly two weeks. Give them not quite as much as they will eat up, always giving plenty of exercise. Give plenty of clean water and don't forget the grit.

It is better not to confine the turkeys at all if they can be fed in some dry, clean place. Get the turkeys accustomed to coming home at night and roosting in a building where they can be shut in till feed in the morning. Give them a good feed night and morning. They will roam over the fields all day and have excellent appetites, grow fine and fattening will not be troublesome.

Turkeys are easy to dry pluck as the feathers are far apart and pluck readily. Those shipped to distant markets must be dry plucked.

Process of Digestion in Fowls

Miss Mary Yates, Guelph, Ont.

During digestion the food passes through the following stages:—Taken into the mouth and there mixes with saliva which changes the starch part of the food into sugar which is readily soluble. (To the casual observer watching poultry eat their breakfast some cold morning, it may seem absurd to say that saliva mixes with the hen's food, in the mouth. The excitement of eating however, excites salivary secretion and as the food is swallowed, saliva is swallowed also.) From mouth it goes to the crop where it is softened and as required is pushed out into the true stomach where it is acted upon by the gastric-juice. Here the protein are altered and made soluble. It then passes to the grinding mill or gizzard where all portions become pulverized. Then the food passes on, is acted upon by the bile, a secretion of the liver, and fats are emulsified and broken up. Not until the food reaches the small intestines and is so broken up that it will pass through the anatomical membranes is it of any use to the bird. Hence the importance of easily digestible food.

Poultry Pointers
Fowls have no sense of smell. They have nostrils, but no olfactory organ. Don't rob the pigs but see if you can't have some nice sweet milk for the hens every day.
In killing and dressing poultry, handle gently to avoid bruising. Dis-

ELM GROVE POLTRY FARM

Rose Comb Bred Leghorns, Silver Gray Dorkings, Light Brauns, Barred Rocks, Mammoth Bronze Turkeys, Embden Geese. Some splendid bargains in B. B. Leghorn Cockerels and Pullets; also in some Ducks. Write your wants.
J. H. RUTHERFORD, Box 62, Colton East, Ont., Member of the Leghorn Club of Canada. Telephone 7 & 8, Bolton.

coloration quickly follows a bruise, and diminishes the market value of the property.

Both sexes of geese are feathered exactly alike, which makes it difficult to distinguish genders from geese, especially when young.

In selecting ducks for breeding, size of frame, length of body and general activity should be looked for. Without size of body we cannot expect to obtain large ducklings.

It requires three months or more to grow a broiler, much depending upon the weight desired, the stock and the care. Broilers shrink about a half pound each when dressed.

Some poultrymen, in order to have a regular supply of eggs throughout the year, have a pen in two-year-old hens, one of yearlings, and one each of February, March, April and May hatched pullets.

Naturally fowls are healthy, and no other stock on the farm has been so much abused. Yet in spite of all the ill-treatment they receive, they do much better than any other stock on the farm of equal value.

Never introduce a new bird into the regular yards until it has been duly quarantined. Keep it alone for a week and note its condition, appetite, etc. Disease is often introduced into a flock by carelessness in this matter.

As a general thing, not enough attention is paid to the family history of fowls for breeding purposes, as regards their health. Constitutional weakness, though never allowed to enter the breeding pen.

It is claimed that a freshly laid egg placed in a bucketful of water will sink to the bottom; one day old will sink nearly to the bottom, two days old about half way up; three days old, will float not quite at the top; four days old, just touch the top; five and six days, rise a little above the top, rising a little higher as it daily grows older.

Results from a New Ontario Farm

(Continued from page 8)

only arrive at an estimate at best, which I put at \$50.00.	
Grand total	\$122 28
Balance \$10.00 from clearing, produce of land after cleared one year	1,302 50
Total	1,312 50
Expenditures after cleared	122 28

Profit net

SPLENDID CHANCE FOR \$1,190 22

“I have tried to make the foregoing as clear as possible and to demonstrate that there is a splendid chance for thousands of families to make for themselves homes that will in a short time be second to none in our fair and prosperous Dominion, and instead of being to a certain extent in bondage as is very frequently the case, will be independent in a loyal and free country. Pretty nearly all the requirements necessary is courage, determination, back-bone and last but not least, sense and fair judgment. Naturally, a little ready money is always a good thing to have, both in an old or new country, but good health and willingness to hustle and the exercise of judgment in your labors count for more than actual cash in this country in heaving out a home. Unless a man wishes to hire his work done and merely superintend the doing of it either is O.K. What seems strange to me is why the struggling thousands do not follow each other in a rush to this new land of peace and plenty, especially as the experimental stage is past, and we are certain of the very best of results in the future.”

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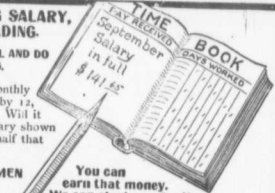
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The Prize List contains a large classification for HORSE, DAIRY and BEEF CATTLE, SHEEP, SWINE, SEEDS AND POULTRY

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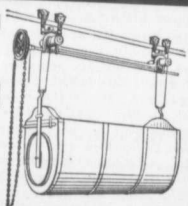
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For Prize List, Entry Form or Programme of Lectures, apply to the Secretary.

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Creamery Department

Butter makers are invited to send contributions to this department, to ask questions on matters relating to butter making, and to suggest subjects for discussion. Address letters to Creamery Department.

Butter and Cheese in Alberta

C. Marker, Dairy Commissioner.

During the past season 11 cheese factories and 54 creameries were operated in the Province of Alberta; 21 of the latter by the Provincial Department of Agriculture and popularly known as Government Creameries. The cheese out-put will aggregate a selling value of about \$28,000, a slight increase over last year. The butter production of the creameries operated this year will reach a total of 2,550,000 pounds for the 12 months ending October 31st, and represent a value of \$600,000, as against 2,100,000 lbs. manufactured in 51 creameries during the corresponding period of last year, worth \$528,800 and 1,500,000 made in 45 creameries and worth \$300,000 for the same period of 1907. In other words, the butter output of the Alberta creameries increased 70 per cent. in two years.

CO-OPERATIVE CREAMERIES

The creameries that are operated by the Government were established on the co-operative principle by associations of farmers and are operated on their behalf. Their butter output represents 40 per cent. of the creamery production of the Province and the largest individual creamery is located at Innisfail. Its butter output for the past year was 204,000 pounds, worth \$50,000.

The great bulk of the butter made in the creameries is disposed of in British Columbia markets, and upwards of 400,000 pounds are annually consumed in the Yukon, where Alberta creamery butter enjoys a splendid reputation for its uniformly fine keeping qualities. Having due regard to quality there is no doubt that we shall find a market in the West for our surplus butter and cheese production for years to come.

Aside from the increased production just outlined the outstanding features of the past year's dairy development are:—1. A greatly increased winter production, and 2. A growing demand for a better class of dairy stock.

ALL YEAR DAIRYING

With regard to the first point the butter output of the creameries operated during the winter 1908-9 was more than 100 per cent. greater than that for the winter of 1907-8, showing that there is a tendency in favor of all year dairying. This tendency has been encouraged in every way and will lead to a rational and profitable development of that industry.

Secondly, now that the factory system of dairying has developed good cash markets for milk and cream it is but natural that the farmers who take up that line of business should desire to make the best possible use of their time and opportunities by paying closer attention to the milking qualities of their dairy animals and this is bringing about a demand for something better than the so-called dual purpose animals. Generally speaking, they are of a beef type and fall short in their dairy performance.

Western Ontario Creameries

Some interesting statistics relative to the creamery business in Western Ontario were given by Mr. Frank Hearn, Chief Dairy Instructor for Western Ontario, at the recent creamery meeting held at the Guelph Dairy School. Seventy-three creameries were in operation in Western Ontario during the past year, there being four less than for the previous season, 20

of these having transferred over to the Eastern district. The total number of patrons sending cream and milk to creameries was 15,307 being 1,192 more than during the previous year. The total output of butter was 3,280 tons, a gain of 10 tons over last year. In 1908, there was an increase of 300 tons, "hence it is apparent," said Mr. Hearn "that we are holding our own in the face of the large amount of cream that is being shipped across the border at Port Huron and at other points."

FAT CONTENT OF CREAM

"The average percentage of fat content of cream in the Southern creameries was 26.5. Last year in the same section it was 24 per cent. For the Northern district, the fat averaged 22.2 per cent. Last year it was 20 per cent. The average for the two groups was 24.8 while last year it was 22 per cent. Thus we note a gain of nearly three per cent., which looks like progress."

"Out of the 73 creameries in operation, 63 are cream gathering; 10 are cream gathering and separator creameries. The Babcock test is used in 63 of the creameries; only 10 are left that use the oil test. We hope that before our next meeting, four of these 10 will put the oil test aside and that the remaining six will also shortly change over to the Babcock test."

"In making the Babcock test 44 creameries are using the pipette. The scales are used in nine creameries while five use the scales and pipette combined."

"The box churn has practically gone out of existence. Fourteen creameries are using the pasteurizer."

NEAR THE HANGER LINE

"Tests for moisture were made of 284 samples of butter. The average moisture for the year was 14.66. Last year, it was 14.33. The tendency seems to be pointing in the wrong way and we are about on the line above which it is not safe to go. Fifty samples showed over 16 per cent. of moisture."

"The two creamery instructors visited 416 patrons. The work has been a very good thing for the business the effect of it always having been good."

"One-third of the creameries, 24, use the individual cans; 22 use large cans; nine use jacketed cans, one, small cans and only 17 still use the cream tanks."

TEMPERATURE OF STORAGES

"Butter in storage rooms averaged the following temperatures: 28 in the southern group, 38.9 in the northern group; 43.7 for all the creameries, which is better than it was two years ago or even last year. Some of the storages can still be brought over to a better temperature. The iced cars provided by the Dairy Commissioner's branch are not for the purpose of cooling the butter," concluded Mr. Hearn, "but rather for keeping butter that has already been cooled, at a low temperature. It is most unfair to those who have good storage for any one to put uncooled butter in the iced car."

Bacteria that will turn old and inferior brands of butter into a product which tastes like the finest of June butter is the discovery Professor H. W. Conn, of the bacteriology department at Wesleyan University announces. This will help dairymen, as the product will be healthful and extremely desirable. When Professor Conn announced several years ago that he had discovered bacteria that would improve butter, farmers laughed at him, but now they are using the bacteria.

I have always preached the better care of handling separators. There is no separator made but that should be washed every time it is used.—G. A. Gillespie, Peterboro Co., Ont.



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Wednesday afternoon session specially for patrons of cheese factories, creameries, and all milk producers.

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FRANK HERNS, Sec.-Treas.,
LONDON, ONT.

Cheese Department

Makers are invited to send contributions to this department, to ask questions on matters relating to cheesemaking and to suggest subjects for discussion. Address letters to The Cheese Maker's Department.

Does Someone Get Your Share

"Supposing a factory were to adopt pay by test, would it not injure many of the patrons," was asked Mr. J. Singleton of the Kingston Dairy Co. Singleton at a recent dairy meeting held in Lindsay. Mr. Singleton replied "Any injury that might result would only last for a short time. Patrons would all direct their efforts towards raising stock, the milk from which would test high.

"The people own the money that is received for cheese. They can divide it any way they like, it is up to them. When it is divided on the fat basis each patron gets his own share and no part of the other fellows. Is anyone getting part of the proceeds that you should receive? Are you getting part of someone else's share?"

The End is Not Yet

That the end is not yet, in the production of purer milk in increased quantities and generally raising the standard of Canadian cheese, was brought out by Mr. J. R. Dargavel, M.L.A., President of the Eastern Ontario Dairymen's Association in addressing the annual district dairy meeting recently at Lanark. There is more to be done, particularly in the way of sanitation, more care in

protecting milk from impurities, cleaner stables and milking places, cleaner factories and surroundings, better arrangement of whey tanks and more cleanliness in regard to utensils. A member of the Ontario Milk Commission, Mr. Dargavel said that he had lately visited farms and dairies in the Ottawa district and was surprised at the minute attention paid to cleanliness about the stables and other buildings. He always thought that his own stables would pass inspection as to cleanliness, but when he saw, near Ottawa, that all were white with lime wash, and no sign of dirt or dust, the cows brushed and groomed, and udders clipped and washed, he felt that the farmers in this district with respect and it is on that line that improvement should be made.

The dairy business, the production of cheese, said Mr. Dargavel, "is a company enterprise. Cheese is sold in England on the general reputation of the country from which it comes; whereas in this country it is lowered by poor cheese, even in small proportion to the bulk of production, the price drops, and those who make a really first-class article suffer in consequence. So it is in the interest of every farmer to pay strict and constant attention to the little details on his own premises and to influence his neighbors on the same line. That is one of the objects of the Dairymen's Association. That is what the Instructors are for. Success cannot be attained and the standard of quality raised and kept up except by combined action and co-operation of all concerned in the production of milk and the making of cheese."

Dairy Lessons from the Past Season

J. A. Ferguson, Caintown, Leeds Co., Ont.

At the close of another dairy season it will be well for the dairymen of Eastern Ontario to look back over the past season and discover where mistakes have been made in order that at the commencement of next season, they may begin to profit by past experiences.

We have met with many difficulties during the last few seasons. This year the weather conditions in the spring were very unfavorable. Owing to the excessive drought of the previous autumn and to the cold weather in the spring, the grass grew very slowly. Added to this difficulty was that of the poor condition of the cows on account of the scarcity of feed.

The experience of the past few years has taught the farmer of Eastern Ontario that it is next to impossible to successfully run a dairy farm without a silo. Since hay and grain were so scarce, the farmers, recognizing that it pays to keep cows in the best condition possible throughout the year, have both diminished their herd and increased their production of corn. Whether this falling off in numbers is detrimental or not is a matter which may be regarded from two standpoints, quantity and quality. Although the quantity has suffered, the quality has improved, for, in most cases, it has been the old poorly-bred stock which has been sold.

But even if the quality of the cows was improved, that, in itself, will have very little effect on the finished product unless the farmers learn and practice the proper methods of caring for milk by keeping and by keeping everything clean. In handling milk, ice is a very essential factor in preserving its original condition. Every farmer should have a supply of ice and could have at a small expense.

Then too, every factory should be provided with a cool curing-room. By saving in shrinkage and by the improved consistency of the uniform temperature during the curing process, the room will pay for itself in a few years. If the Dairy Commis-

sioner had taken a broader view of the subject and, instead of building several illustrative cool-curing rooms, had given each factory a sum of money to aid in building a room, I have no hesitation in saying that nearly every factory in the Dominion would have a cool curing room today. But now it will take years to accomplish what should have been done long ago.

The Dairymen's Association is doing good work in sending instructors to the factories but they do not go far enough. The producer of the raw material needs to be educated. I would advise sending instructors to the farms to encourage and instruct the farmers to deliver milk in better condition. Then, too, besides having instructors for both farm and factory, every maker should take a course in some good Dairy School in order to work intelligently.

There has been too much "patting the farmer on the back" in the past, by the Dairymen's Association. I do not believe in coercion but think it

time that their faults were shown up more clearly. Try to educate them, in some way, to send cleaner and cooler milk to the factory.

A number of factories in the east have made improvements but a great number have not yet complied with the Sanitary law. It is hardly fair to those who have spent so much money in making things better; to let this go any farther without calling the attention of those in authority who can enforce the law. It is hardly fair to the manufacturers to let all the producer of the raw material do as he likes. It is just as necessary to have the farms inspected as to have the factory examined for quality in the milk is the first essential in the making of cheese and butter of high quality.

Now, in making these observations, I wish to do it in the right spirit for I know there is room for improvement all along the line and I hope to see, during the next season, a great stride towards advancement in the dairy work of Eastern Ontario.

Would You?

Would you buy 40 to 60 milk pails just because someone with pails to sell said you needed that many to milk a cow? Certainly not!

Would you buy or bother with an old style cream separator, with 40 to 60 disks in the bowl, just because

someone with that kind of machine to sell said you needed disks? We think not!

Sharpley Dairy Tubulars are the World's Best Cream Separators—and have no contraptions. Twice the skimming force. Fastest, cleanest skimming. Easiest running. Most durable. Safest most, if not all others combined. Probably replace more common separators every year than any other maker of such machines sells. The manufacturer of Tubulars is one of Canada's leading industries. These facts prove contraptions are not needed.

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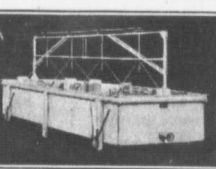


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Windsor Butter Salt



PERFECT STEEL CHEESE VAT

Our 1910 Steel Vat is going to be just a little better than ever before. Can't improve much over last year—it was a dandy. The tin lining in this year's vat will be 20 gauge—the heaviest ever used—4 gauges heavier than your local tinners use. The outside frame will be all galvanized, no paint about it. It will interest you.

Write for new catalogue with prices reduced. It will interest you.

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To educate the heart, one must be willing to go out of himself, and to come into loving contact with others.—James Freeman Clarke.

A Christmas Stop-Over

By Mabel Nelson Thurston
(Concluded from last week)

I wasn't engaged, and an instant later, the cab, with its passengers was spinning smoothly out one of the avenues. Ten minutes later still, Bim having been extracted from a family group, whose amazement was all that even the girl could desire, was sitting enthroned before them, his small face transfigured with joy.

Bim was speechless at first. The girl looked at Janet, and shook her head, begging mutely that he be not heard; but Janet, who had scoffed and disturbed; she would have scoffed could she have seen the tenderness in her eyes, but Janet seeing it, felt her own grow dim, and turned to look out into the bright, empty streets. So they rode for half an hour, till Bim stirred and drew a long breath.

"Say," he piped, his small, shrill voice full of awe; "are we going on forever?"

Janet turned quickly. "We're going for quite a while yet—until we get tired. But there are some things I want to know, and perhaps you can tell me. Do you know a toy shop that would be open to-day?"

"You bet!" Bim responded eagerly. "There's Dennis's. They've got bully soldiers' things there, with straps on 'em—and drums and guns—"

The small voice filled with ecstasy at the mere mention of them. Janet, her face almost as eager as his gave an order. The cab whirled about, turned from the smooth, stone south through poor streets, and came to a stop before a small corner shop, whose door stood hospitably open.

"Let's hold hands, my dear," said Janet, "I want you to help me choose a soldier suit and musket and drum."

Bim's eyes, at once averted and wistful, childish and pitifully old, scanned her sharply; then without a word, he turned, scrambled from the cab, and hunched his way into the shop. Janet, following, found him fingering a slinky soldier suit with glared straps.

"It's—it's fifty cents," he said, looking up at her. The thin voice carried a note of resignation; fate had been denying things to Bim all his life—it was possession for which he was unprepared. For answer, Janet lifted down the suit from its nail and put it into his arms.

"Now, for the drum and musket, Bim," she said.

Bim limped along beside her; he could only point silently to the most desirable musket, but when it came to the drums, Janet felt a twitch at her skirt. Bim's voice was husky.

"Say," he whispered, "kin ye afford it? It makes an awful lot."

Something caught in the girl's throat. To purchase paradise with a dollar and a half! But she smiled lightly down at the child.

"I think I can afford it. Christmas comes only once a year, you know." Bim said nothing for a moment.

How to Keep Christmas

HERE is a better thing than the observance of Christmas Day—and that is, keeping Christmas.

Are you willing to forget what you have done for other people, and to remember what other people have done for you?

Are you willing to stoop down and consider the needs and the desires of little children; to remember the weakness and loneliness of people who are growing old; to stop asking how much your friends love you, and ask yourself whether you love them enough; to try to understand what those who live in the same house with you really want, without waiting for them to tell you; to trim your lamp so that it will give more light and less smoke, and to carry it in front so that your shadow will fall behind you; to make a grave for your ugly thoughts and a garden for your kindly feelings, with the gate open—are you willing to do these things even for a day? Then you can keep Christmas.

Are you willing to believe that love is the strongest thing in the world—stronger than hate, stronger than evil, stronger than death—and that the blessed Life which began in Bethlehem nineteen hundred years ago is the image and brightness of the Eternal Love? Then you can keep Christmas.

And if you can keep it for a day, why not always?

But you can never keep it alone.

—Henry Van Dyke

He drew a long breath of sheer ecstasy. Then his face shadowed. "But I reckon Ted can play with 'em sometimes," he said, with difficulty.

The other girl flashed about. "I reckon he can't!" she declared. "Not unless he treats you better. But I've got one or two things for the kids," she added shamefacedly. "I didn't get them anything before."

"Let's get something for each of them," Janet suggested eagerly. "Bim can tell us what."

They poked about the little shop, exploring and discovering. Finally loaded with purchases, they climbed into the cab again and looked at each other the girl doubtfully, Bim breathlessly. Was the fairy tale over?

Janet pulled out a tiny gold watch. "I thought so," she exclaimed. "I didn't eat much breakfast, and I'm hungry. I think the next thing must be lunch. Let's go to the New Willard."

The girl's face fairly whitened. "They'll guy us," she muttered.

But Janet's chin was set. "Let anybody try," she retorted.

In a silence too large for words, the girl and Bim were whirled to the New Willard, solemnly climbed down from the cab, and then, still silent, the girl with her head in the air, Bim clinging to musket and drum,

though finally persuaded to leave the soldier suit in the cab, they followed the waiter down the dining room. But when she saw the menu the girl capitulated.

"We ain't been introduced—me and these things," she said. "I guess you'll have to do the say-so business."

"You shall try," Janet gleefully ordained, "every single thing you never tasted before. I know just how you feel—it's the way I did when I went to an Italian restaurant once. But it's ever so much fun—truly it is, or we wouldn't do it."

It was ever so much fun. Before long, all the waiters and guests in the room were sharing in it. But nobody did criticised and compared but recklessly, condemning some of the chef's most famous achievements, gaily patronizing others, eating little in reality, but thinking that they were eating a great deal, till Bim's ecstasy reached its culmination at the appearance upon his plate of a sea-green and rose-pink horse, which investigation proved to be "ice cream." Bim cried in a stage whisper that thrilled the room.

But it was over at last, and they were out on the sidewalk once more, and Janet looked at her Christmas comrades with a wistful smile. It was curious how reluctant she was to part with them.

"I suppose it's home now," she said. "You don't know the difference you've made. It will be only two hours now, and I can stand that."

"Say," the girl replied, "do you want us to go back with you?"

"Oh, will you?" Janet cried.

"I guess we'll stand by, all right, won't we, Bim? We'd be pretty low down if we didn't."

Bim nodded. He, too, could make a Christmas gift, he divined it, though he could not put it into words. He could wait two hours, with hands itching to put on that uniform. There was never stuff in Bim.

Back in the stable, the matron greeted them like an old friend.

"I was wishing you'd come," she said. "You'd have had your children down to the corner of the waiting eyes discovered, Italy; two little brown gaily kerchieved women, surrounded by a small, surging mob of children. Some were laughing, some crying, but all were brown, dusky-eyed, and adorable.

"Oh!" Janet cried, with a quick breath, and then she made a dash across the brown woman looked up with interest at the so curious, but still attractive, young lady who shook their heads in answer to her eager questions; only one, trying to hush a wailing child, smiled brilliantly, and remarked: "Hungry."

"Hungry," Janet echoed pitifully. "Hungry—on Christmas Day!" She snatched up one of the babies and nodded imperiously to the girl and Bim.

"Come and help!" she cried. "We're going to the restaurant!" They came—Bim eager, the girl outwardly deliberate, inwardly pleased.

"It's a pity they're so afraid of dirt," she remarked. "what do you want me to do, anyhow?"

"I don't exactly know—maybe if you'd pick up that little one in the blue dress—that's right. Mercy, do they think we're going to eat them? Oh, why don't I know some Italian? Do you suppose they'd understand macaroni or banana? I guess the best way will be to hurry them through to the restaurant, and then they'll have to understand."

Christmas Tide

"AUNT FANNIE"

Just as surely as April showers bring May flowers, just so surely do the early December days, breathe the subtle inevitable Christmas spirit. The shops and the very atmosphere teem with suggestions and we can't escape it. The systematic, thoughtful one is ready months ago and has all parcels labelled and is patiently waiting mailing day. How we enjoy them, as for some of us every month is so crammed full of responsibilities and doings we cannot get ahead. Do let us keep our balance. It is a study worth while to stand aside in one of the great stores and watch the throngs of people with tense set faces, memoranda in hand, making merchandise and business of shopping, and it half robs Christmas of its charm. Yet this is the season of gift giving and what would we do without it. This gayest of all our months is brightened with holly. There is such a witching mystery everywhere. It just fits in and completes the year. Don't you think like everything else it has gone to seed?

We overdo it and it is time for re-

action. There is not half the joy in buying the valuable gift that the little girl of long ago felt, in making the tiny needle book for mother, or grandmother. Our chimneys were larger, the fire places gave old "Santa" lots of room to work in.

Yet with all the chance he had, he did not have to squeeze down sleds, miniature baby carriages, life size dolls, pianos, etc. Oh, no. If our stockings being in a row in the fire place were bulging out with oranges, candy hearts, candy dogs, abatts, etc., a pretty ribbon and sometimes a turkey head added by a mischievous uncle or cousin, so much the merrier and we were perfectly happy.

I very much fear Santa Claus and his dashing reindeer will soon be an ancient classic for how can we get down through our furnaces and radiators that our wee boy is puzzling about. There are rumors in the air that he is coming in an "auto". Let us cry back to simplicity in this, as in other things. We were so happy in the old days, and I believe with one writer that, "the true Christmas spirit is just to be kind." Many men dread Christmas as the nightmare.

They have not developed along Christmas lines with the times. For them it means a heavy drain on the pocket book. It would be better for them to be more elastic in many cases, for it means unselfishness, the development of thoughtfulness and we all need it. We should give by all means, it is symbolic of God's great gift to us. Let us keep the true Christmas spirit in our giving and give of ourselves. We may have a loving family circle. Many are sad and lonely, have no home life. We can ask at least one of such to join our festival and our reward comes sweetly, "Inasmuch as you have done it unto one of these, you have done it unto Me."

When creaming sugar and butter for cake, a pinch of salt will give the cake a splendid flavor. Also add a tablespoonful of cream to the butter and sugar and the work will take only one-half the time besides making the cake much more smooth.

In cutting bread for sandwiches, if a hot instead of a cold knife is used, the slices will be thinner and more easily cut.

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Merry Christmas
AND A
Happy New Year

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TORONTO CANADA

It is desirable to mention the name of this publication when writing to advertisers.

Embroidery Designs

Designs illustrated in this column will be furnished for 10 cents each. Readers desiring any special pattern will confer a favor by writing Household Editor, asking for same. They will be published as soon as possible after request is received.

CHILD'S CAP AND BIB 6585

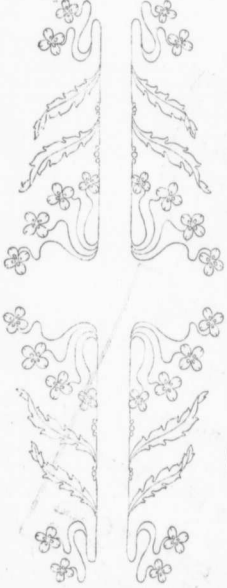
Embroidery Pattern for Cap 651.
Embroidery Pattern for Bib 448.

Caps and bibs embroidered by hand are the daintiest for little children and their making involves very little labor. Here is a cap that can be made either with or without the turned-over portion and a simple but satisfactory bib. The embroidery designs are effective without



meaning any great amount of labor. In the illustration both caps and bib are made of handkerchief linen but all materials that are used for caps and bibs are appropriate. Silk is much liked for caps and is all thinner or heavier material.

The pattern 6505 is cut in sizes for 6 months, 1 and 2 years. The embroidered patterns 451 and 448 will be mailed to any address for 10 cts. each.



453 Design for Embroidering Caps, Bibs and Table, with Sewing for Babies.

OUR HOME CLUB

THE BOY ON THE FARM

I would like to shake hands with "Aunt Faithful." Surety are as the right one to champion the farmer boy's rights. I have often felt the same convictions regarding the boy on the farm and wondered why so many slayed and endured it. I am not speaking and don't think she was of the sons of the poor farmer, but of the well-to-do ones who have found success after years of hard work and hard saving and also after the boy has grown into usefulness so that a cheaper hired man will do. We all know money comes in slowly on the farm and the work is hard. The hours are very long, and sometimes lonely, and although Nature is a very sociable companion, it will grow monotonous if one is associated with it from five o'clock in the morning till after dark at night, with an imported hired man watching all day that he does no more work than the boy.

Again how often the farmer's son is kept from school because of his usefulness until he gets behind and gets discouraged and sometimes the

father seems almost glad because any other ambitions the boy may have had are over and he will make a good worker even if he is not light-hearted. —"Dog."

CHRISTMAS THOUGHTS

Now that thoughts of Christmas are filling our minds and causing the heads of families some anxiety regarding whatever they will give, it might not be out of place to say a word regarding it? First let us get the angel's song interwoven into our hearts and lives; then let all our preparations or the home-comers proceed from that "peace on earth, good will toward men" and see how much easier it will be for us to prepare and get through the busy season. We know that the weight of the work falls on the home-keeper and if the home comers will help a little, how cheery and encouraging it is for the mother to think that the children remember she is not as able to wait on them all as she once was.

I love to think of the home coming of the grown up sons and daughters. How proud the little mother is of them that they are her little children once more and as she playfully reproves one and kisses another she is young again amongst them.

Let us thank God for the Christmas time.—"Aunt Eva."

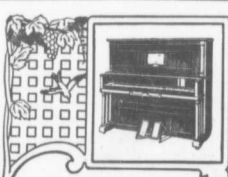
OUR GIRLS ON THE FARM

We hear a great deal in these days of the "dare" of the city, and the craving for unhealthy amusements which draws young people there. Now the subject "How to keep the Boys on the farm," has been pretty thoroughly discussed, so let me say a word for the girls.

In nine cases out of ten, it is no longing for mere pleasure, nor is it any innate depravity, as some good people would have us believe, that takes country girls to the factories and offices in the city. It is simply the desire, natural enough too,—for money of the one which they may spend as they please.

The remedy is simple enough,—why not try it? Make your daughter a regular allowance. Believe me, she will be satisfied with much less than the hired helper who would be a necessity should the "siren call" strike your home. Moreover what gives help could take the place of the daughter of the house? The girl who gives you cheerful service day after day, who attends to the thousand and one duties of your house as a matter of course, who entertains your guests—in short the girl of whom you are proud enough when you take time to think about it.

Make your daughter as independent as the city worker, cheer her as lowlance as her right, no asking her to ask for every cent she spends as a favor on your part, and I believe very few country girls will have any desire to leave their comfortable homes for the crowded "hall bedrooms" of a city boarding house.—"A Home Club Friend."



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An ordinary piano is limited in its usefulness. If no one in the family plays, it stands idle. This Piano is never idle—every one in the family plays it.

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108 A

The Sewing Room

Patterns 10 each. Order by number and size. If for children, give age; for adults, give bust measure for waists, and waist and skirt. Address all orders to the Pattern Department.

PRINCESS GOWN 6498

This model includes a long panel at the front. It can be made either to clear the ground or in round length and consequently is adapted both to simpler materials and to handsome ones. The dress is made with the panel and the bodice portion and the skirt. The skirt is laid in a box plait at each side and single plaits at both the front and back.



Materials required for medium size is 1 1/2 yds 27, 6 yds 44 or 5 1/2 yds 44 in wide with 3/4 yd of silk and 1/2 yd of all-over lace.

The pattern is cut for a 34, 36, 38, 40 and 42 in bust and will be mailed on receipt of 10 cts.

GIRL'S SCHOOL SUIT 6581

The school suit that is made with the loose blouse turned up and finished with a facing in shawl style is the most fashionable. This model can be made of two materials as in this instance or of one alike. The combination of plaid with plain material is smart.

Material required for medium size (12 yrs) is for the blouse 2 yds 24 or 27, 1 1/2 yds 32 or 1 1/2 yds 44 in wide; for the skirt and trimming 3/4 yds 24 or 27, 3/4 yds 32 or 3/4 yds 44 in wide.

The pattern is cut for girls of 8, 10, 12 and 14 yrs of age and will be mailed on receipt of 10 cts.

FANCY BLOUSE OR CHEMISETTE 6473

The pretty dressy blouse that is closed at the front, makes one of the novelties of the season. This one also shows new fancy sleeves that are attractive.

Material required for medium size (12 yrs) is 3 1/2 yds 21 or 24, 3/4 yds 32 or 1 1/2 yds 44 in wide, with 3/4 yd 18 in wide for the chemisette, 3/4 yd of satin for banding.

The pattern is cut for 32, 34, 36, 38, 40 and 42 in bust, and will be mailed on receipt of 10 cts.

BLOUSE OR SHIRT WAIST 6580

The shirt waist with a yoke which is one of the smartest just now. The yoke is cut to form tabs that give a novel effect, and the sleeves with their deep cuffs are new and comfortable and smart.

Material required for medium size is 2 yds 24 or 27, 3/4 yds 32 or 3/4 yds 44 in wide with 3/4 yd of contrasting material for piping.

The pattern is cut for a 32, 34, 36, 38, 40 and 42 in bust and will be mailed on receipt of 10 cts.



OUR

COMPTON cut better farmers are will pay the better letter will go 80 and not having sell for 40 to very plentiful catches of fish

SYDNEY are close have had the idend range production age during most part, hay, \$14 to ton; horse, hay, 65c to \$12; middling

The cow Martin, Illinois Mr. Martin's and is bred

to 30c a doz toes, 45c to \$50; beef,

ACTINOIDE weather just been fine all exception of about two ice storm the locality, 15 to orchards. shrubs. We here and all demand, and last year. This probabilities so scarce this

WOODVILLE that could be and the farming is still in is not large c is a fair case opt when clover is not and roots h

BURY'S GR weather has joy the same winter in fall plentiful, who will corn, the shipped from and good price a little after New Year is yet in the great still going to try be the most the Canadian and the gener if it we: left

OUR FARMERS' CLUB

Contributions Invited.

QUEBEC

COMPTON CO., QUE. COMPTON CENTRE. Hay is holding out better than was expected. Although farmers are wintering a small stock it will pay them better because it is receiving better care. Quite a lot of pulpwood will go out this winter; it is selling for \$45 and \$5.25. Eggs are very scarce, hens not having started to lay much yet; eggs sell for 40c to 50c a doz; pork, 11c a lb; hay, \$10 to \$14 a ton. Game seems to be very plentiful; trappers are making large catches of fur—H. C.

ONTARIO

HASTINGS CO., ONT.

SYDNEY CROSSING.—The cheese factories are closing up for the year. Several have had their annual meetings. The dividend ranges from \$25.50 to \$27.50. The production has not come up to the average during the past season owing for the most part, to the very dry fall. Timothy hay, \$14 to \$15; baled straw, \$7 to \$8 a ton; loose, \$5 to \$7 a ton; oats, 47c; barley, 65c to 70c; corn; peas, 90c; bran, \$25; middlings, \$23 a ton; fresh eggs, 35c.

would be quickly settled, as such an enormous expenditure and waste of money seems by many to be unequalled for and altogether unnecessary—G. B.

GRENVILLE CO., ONT.

PRESCOTT.—Farm produce realizes the following prices: Timothy hay, \$15; clover, \$13; oats, 40c; bran, \$22; middlings, \$23; gluten meal, \$25; fresh eggs, 40c to 45c; creamery butter, 27c to 30c a lb; dairy butter, 25c to 27c; potatoes, 30c a bushel; milk cows, \$25 to \$30; beef 27c to 30c; hogs, \$7.75 to \$9 a cwt; hides, 13c a lb.—G. W. C.

ELGIN CO., ONT.

TALBOTVILLE.—Mr. and Mrs. Travers, a retired couple living at this place, related to the writer the following, among a host of other incidents of the years long past away: "About 50 years ago, when we lived in Wellington Co., 28 miles from Guelph, just after the coming of the G. T. R. to that town, it boomed ahead wonderfully, and was a splendid market for all kinds of farm produce. There were no cheese factories in those days so the milk was all made up into butter and cheese at home. On a December day long ago we went to Guelph market to sell the following load: Eight bins of straw stack, each weighing 120 lbs., or in all 960 lbs., which after being tested was pronounced O. K. and was sold for 20c a lb., netting \$192. Then a salt

LIVE HOGS

We are buyers each week of Live Hogs at market prices. For delivery at our Packing House in Peterborough, we will pay equal to Toronto market prices. If you cannot deliver to our Packing House, kindly write us and we will instruct our buyer at your nearest railroad station, to call on you.

THIS WEEK'S PRICES FOR HOGS DELIVERED AT FACTORY \$8.00 a Cwt. FOR HOGS WEIGHING 160 TO 220 LBS.

THE GEO. MATTHEWS CO., LIMITED

PETERBOROUGH, - HULL, - BRANTFORD

The apple crop, which was a large one, is nearly all marketed. Shippers and packers have reaped the benefit by being fixed anywhere from \$10 to \$800.—R. S. S.

BRANT CO., ONT.

ST. GEORGE.—Rain to-day, so one can hardly call it typical winter weather. It has been a good winter lately, though, and—Brother, have you noticed the fur coats? Whose? Well, the coats' and young cattle's especially. Give them a good look, for fur coats are always expensive, and these not the least. The leaf of a straw stack is hardly the proper thing for any animal at this time of the year; if you doubt it, try it yourself some of these nights—yes, or days, but you'll not repeat the experiment, if I fancy. Dairy products continue firm at the markets round about. Butter is hard to keep at 25c. Eggs bring 40c a dozen, and good spring chickens, \$1 a pair. The festive birds of Christmas sell at 25c to 30c a lb. At a recent sale pigs weighing on an average, 60 lbs. sold for \$7 each, and other stock at prices to correspond. This, too, with winter ahead.—C. C. B.

NORFOLK CO., ONT.

SOUTH WALSHINGHAM.—Farmers are getting out winter wood for home use, during the long winter months, also a good supply for spring, summer and fall. Cordwood is selling for \$2 a cord; hogs are worth \$7.50 a cwt.; eggs are 20c a dozen; butter, 30c a lb. Our intelligent farmers are spending the long winter

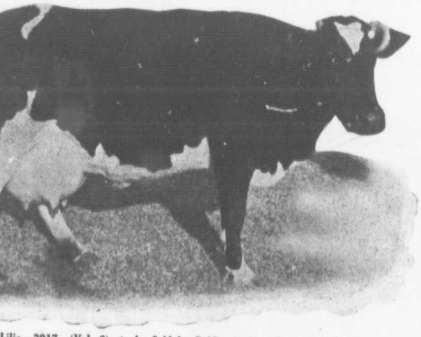
evenings reading that excellent journal, Farm and Dairy, whose columns are flooded with useful and instructive information. Practical farmers use such knowledge.—B. B.

MIDDLESEX CO., ONT.

MELBOURNE.—From this station much grain and live stock are shipped. This is not a dairying district; there is not a cheese factory near here. The spring crops, although sown late and the land poorly worked, yielded better than was expected. My informant tells me this tribute saying of his father, which contained good advice. "Boys, if you ever get a good crop from late sowing never tell your children about it." Meaning, of course, to be alert to sow early, if good returns are expected from labor expended. The hay, wheat, corn and potatoes were good. This township of Carleton is noted for its potato culture outside the markets of this province.—J. E. O.

LANDBOX CO., ONT.

WYOMING.—Wheat is firm at \$1 a bush. In Petrolia, Fall plowing is well advanced. Farmers are beginning to feed their ensilage, which is now becoming the main fodder. Ten years ago there were only one or two silos in this district; now about every other farmer has one. Hogs are very scarce. Farmers have not the help to attend to them. Young men are still leaving the farm, the cause—lack of agricultural papers in the home. Heavy horses are still being sought for, next spring.—D. N. A.



Lille—3017.—(Vol. 6), to be sold by Public Auction Dec. 31st, 1909

The cow illustrated above is but one out of the Holstein herd, owned by R. B. Martin, Elmira, Ontario, being offered for sale by public auction. The stock offered in Mr. Martin's dispersion sale is the kind that has had to pay its way at the stall, and is bred from noted strains.

to 30c a doz; creamery butter, 25c; potatoes, 45c to 50c a bag; milk cows, \$40 to \$50; beef, 5c to 6c a lb.—J. K.

ACTIONILITE.—We are having cold weather just now, but the weather has been fine all through November, with the exception of an ice storm which we had about two weeks ago. It was the worst ice storm that has ever been seen in this locality. It did a great deal of damage to orchards and all kinds of trees and shrubs. We have had no sleighing. Turkeys and all kinds of fowl are in great demand in prices are much better than last year. Times are dull just now. The probabilities are that fodder will not be so scarce this winter.—T. E.

VICTORIA CO., ONT.

WOODVILLE.—The weather has been all that could be desired up to the present, and the farm work is well up. Threshing is still in progress. The bulk of straw is not large on an average but the grain is a fair sample with the exception of spring wheat which is none so well. Red clover is not turning out well. Potatoes and roots have been a heavy crop.—J. A.

BURY'S GREEN.—The recent fine weather has been appreciated. Stock enjies a little down but may rise again winter in fair condition. Seed is fairly plentiful, and with considerable roots and corn, the stock should fare pretty well. Quite a lot of poultry has been shipped from here to the Lindsay buyers, and good prices have been paid. Hogs are a little down but may rise again after New Year. Some clover cut for seed is yet in the fields and may not be gathered until the end of the year. There is no going to try the alfalfa, believing it to be the most profitable. The question of the Canadian navy is going the rounds, and the general opinion expressed is that if it were left to the country to decide, it

barrel full of 1 lb. rolls, and 100 dozen eggs swelled our cash much larger. We had led behind our sleigh a well set up and kindly broken young grey horse, which a buyer immediately took from us at \$180, bringing all our load up to over \$450, which as young beginners we were very proud about. This was followed in other years by good crops, for soon after we had 700 bush. of wheat, which we sold for \$1.62 a bushel.—E. E.

PORT STANLEY.—The fishing industry of this place has been booming this season, and tons of fish have been landed daily, and Lake Erie never yielded a more satisfactory harvest of the finny beauties than has come from her waters this year. Captain Berry's tug brought to shore, from the nets, the other day a mammoth catch, which weighed 13 tons. The bulk of these record hauls are shipped to the large cities of our friends to the south of us, as the Americans cannot have their buyers on hand, ready for business. The price is about 4c a lb. wholesale, while the retail price is a couple of cents higher. The variety is mostly herring of a much larger size than the herring of a few years ago were. Many farmers are laying in a supply of fish, and in no year was the fish sweeter and more appetizing than now, as the writer can verify, after having an opportunity to sample some.—J. E. O.

HURON CO., ONT.

BLVTH.—A large number from this section attended the Winter Fair at Guelph last week and came back more than pleased with the grand exhibits of stock and poultry. The only complaint was lack of accommodation, both in the show building and in the city. There has been sleighing for about a week, but it has not turned much milder again. Several auction sales have been held, where prices ranged high especially for stock,

IT WILL PAY YOU

To Cut Your Straw and Corn With One of Our Cutters

They are strong, easy running and handy to operate. Large and small styles. Latest improvements.



The Peter Hamilton Co., Limited Peterborough - Ontario

MARKET REVIEW AND FORECAST

Toronto, Monday, December 20 — Receipts received from one end of the Dominion to the other show that business is brisk in all sections. All classes of stocks seem to be in a flourishing condition. The encouraging yearly statements of the banks add to the feeling of security prevailing in business circles. In the western provinces money seems to be so plentiful that many of the farmers are paying off their mortgages. Loan companies are said to be experiencing some difficulty in letting out the funds that are in their hands available for investment. Possibly nothing shows more clearly to what a height of prosperity Canada has attained than in the budget speech of Hon. W. S. Fielding, in which he stated that there was a surplus of no less than \$16,500,000 available for the current year. In the past five years deposits in Canadian banks have increased from \$25,000,000 to \$73,800,098.

Wheat is still advancing, December closing in Chicago on Friday at \$1.14½, May wheat at \$1.11½ and July at \$1.00½, the highest price each month has ever attained this season. At Winnipeg also wheat took a higher turn owing to heavy export demand, December wheat closing at \$1.01½ and May at \$1.00½. In Liverpool wheat the European centres there is a slight upward tendency in price. The visible supply of wheat in the United States and Canada, on December 14th was 42,118,000 bushels as against 56,343,000 bushels in 1908. On the local grain market the rates are as follows: No. 2 mixed winter, \$1.04 to \$1.05; No. 2 white, \$1.05 outside; Manitoba wheat, No. 1, \$1.08, \$1.09½; No. 2, \$1.07; Northern, \$1.07 on track; January delivery, No. 1 Northern \$1.15; No. 2 Northern \$1.15, all rail. On the local farmers' market fall wheat sold at \$1.07 to \$1.08; goose wheat, \$1.03 to \$1.04 a bush.

COARSE GRAINS

The price of oats remains unchanged from last week. On the local market, Canadian westerns, No. 2, selling at 46c and No. 3 at 36c on track, lake ports. Shipments by rail rule higher. No. 2 westerns being quoted at 42½c and No. 3 at 41½c; white oats on track, Toronto, rule at 34c to 36c, according to quality. On the farmers' market oats sell from 31c to 42c. On the market at Ottawa, oats were 36c a bushel, and at Montreal 39½c to 42c, according to quality. Barley offers at a trifle lower than last week's quotations, best quality at 56c to 58c, and feed barley at 46c to 52c. On the farmers' market barley is quoted at 60c. At Ottawa barley is quoted at 60c to 66c on the market, and at Montreal at 66c to 68c for malting purposes, and 56c to 58c for feed. On the local farmers' market peas are quoted at 80c to 84c; rye at 74c, and buckwheat at 52c a bushel.

HAY AND STRAW

The price of hay is unchanged from last week, although there is plenty coming to the market. At the farmers' market prices ranged from \$17 to \$23 for timothy, and clover and mixed hay at \$10 to \$17; baled hay, No. 1, timothy, sold in car lots on track, January delivery, at second grade at \$12 to \$13; straw in bundles, \$16 to \$17; loose straw, \$8 to \$9, and baled straw, \$7 to \$8, according to quality.

POTATOES AND BEANS

Trade in potatoes is slack and likely to remain so for some time. On the local farmers' market the price quoted is 70c a bag, and in car lots on track, Toronto, the price quoted is 58c to 60c. In Montreal prices range from 50c a bag for Quebecs to 55c and 60c for Green Mountains. Ontario are quoted at 50c a bag on track Montreal. There is hardly any demand for beans, owing doubtless to the big crop of this season. Prices are the same as last week, \$1.80 to \$1.90 for primes and \$1.50 to \$2 for hand picked. In Montreal prices have advanced to about \$1.80 on track Montreal, for 1 lb. tubs, which is a considerable advance on the price of the past few weeks. This improvement may be due merely to a passing hurry, and again it may mean the beginning of a steady upward trend in the market.

EGGS AND POULTRY

Eggs are still advancing in price. Receipts are light all over the country, and at Ottawa fresh eggs are quoted at 45c a dozen; at Montreal at 46c, and on the farmers' market here at 45c to 55c a dozen. Storage stock here is quoted at 25c a dozen in case lots. In Montreal specialties are selling at 30c to 20c in round

lots and 25c in a jobbing way. Receipts of poultry are very light and the wholesale market shows quotations of 1c to 2c a lb higher than a week ago for Turkeys, ducks and chickens. The following quotations are: Turkeys, dressed, 15c to 20c; geese, 11c to 12c; ducks, 14c to 15c; chickens, 12c to 15c; fowl, 10c to 11c; weight, 2c a lb. lower. On the farmers' market, chickens, 14c to 16c a lb; fowl, 9c to 10c; ducks, 13c to 14c; turkeys, 17c to 18c; geese, 11c to 12c. In Montreal dressed turkeys are quoted at 19c to 20c; chickens, 16c to 16½c; fowl, 11c to 12c; ducks, 15c to 17c; and geese, 14c to 15c a lb.

APPLES

There continue to be complaints from English buyers in regard to the inferior quality of fruit that exporters are sending over to that country. We are told by prominent importers on the other side that the whole crop is being prejudicial owing to the unreliable quality of the shipments, many of which when opened give unmistakable evidence of having been touched with frost. The consequence is that the sale of Canadian apples is by no means so good. On the local farmers' market apples are quoted at \$1.25 to \$1.50 a barrel according to quality.

DAIRY PRODUCTS

Receipts of creamery and dairy butter have been moderately heavy throughout

heavy draught sort. About three carloads were shipped this week to different points in the North West and Ontario. Speeding horses and drivers seem to be at a discount for the time being, scarcely a sale being recorded in this class during the week. Prices ranged about as follows: General purpose, \$135 to \$160; heavy draughts, \$180 to \$220; drivers, \$100 to \$145; wagon horses, \$115 to \$210; and serviceably sound horses at \$25 to \$60 each.

LIVE STOCK

The market towards the latter part of the week was sluggish compared with the first two or three days. On Wednesday there was a tremendous run and prices ran in some cases for prime Christmas cattle as high as \$10 a cwt. On Friday there was a notable falling off, owing to the fact that most of the good quality had been purchased leaving the rough element to be sold at the end. On Thursday and Friday the offering numbered 150 cars, comprising 2075 cattle, 7395 sheep and lambs, 1700 hogs and 170 calves. Good butchers' cattle sold at from \$5 to \$5.68, common and medium steers and heifers at from \$3.25 to \$4.75, while beef cows and hogs fetched from \$4 to \$5 a cwt. Medium and common cows and canners ranged from \$1.75 to \$3.50 a cwt.; stockers, \$4 to \$4.50; medium, \$1.50 to \$4.50.

Milch cows, stock, \$45 to \$60 each; common, \$35 to \$40; springers, \$40 to \$50; cowboys, \$40 to \$45; rams, \$2.50 to \$3; lambs, \$6.00 to \$8.40; calves, \$7.00 to \$10.00; Hogs, 1.0b., \$7.80; fed and wadded, \$7.85. The Trade Bulletin's London cable

Warranted to Give Satisfaction.

Gombault's Caustic Balsam



Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for Croup, Epilepsy, Whooping Cough, Ringed Throats, Hoarseness, Wind Puffs, and all lameness from Spavin, Rheumatism and other bony swellings. Cures all skin diseases of the Face, Throat, and Thighs. Removes all Bunches from Horses or Cattle.

As a Home Remedy for Rheumatism, Gombault's Caustic Balsam is the only one of its kind. It is sold in every bottle of Caustic Balsam, 10c to 50c per bottle. Sold by druggists, or sent by mail on receipt of the price. For full directions see insert in each bottle. For descriptive circulars, send for them free.

The Lawrence-Williams Co., Toronto, Ont.

FOR SALE AND WANT ADVERTISING

TWO SENTS A WORD CASH WITH ORDER

FOR SALE—Iron pipe for water and steam, all sizes and lengths; a gas pump, leys, belting, shafting, etc.; cheaply for free list, stating what you need. Imp. Waste and Metal Co., 11 Queen St., Montreal.

IF YOU ARE LOOKING for a position, place an advertisement in this column. The cost is small—returns large.

AGENTS wanted to represent Farm and Dairy throughout the counties of Northumberland, Peterboro, Ontario, Victoria, Hastings and Durham. Good commissions given. For further information write to Circulation Manager, Farm and Dairy, Peterboro, Ont.

ing the winter shows considerable improvement. Finest Ontario, white and cream, are quoted on this market at from 1½c to 12c a lb., with Townships and other Quebec makes at 1½c down to 11c, according to quality. A few underweight and tail end lots can be picked up at around 10c to 10½c a lb., but this supply is limited.

The trade in butter is fairly active, the demand coming from all parts of the country, it leaving a general shortage in the supply outside of Montreal. If this trade continues through the winter, the stocks here, though ample, will not be sufficient to supply the demand. Finest Eastern Townships creamery butter is quoted at 25½c to 26c, with ordinary Eastern at 25c. Dairy butter is quoted all the way from 18c to 22c a lb., according to quality, the latter price being asked for selected Ontario make, of which the supply is very small.

GOSPIP.

In the Gossp market by J. W. Richardson, in Farm and Dairy last week, that part which said, "18 heifers, 2 years and under, all good enough to be either in calf or in milk," should have read, "18 heifers or 2 years olds or under, making one of the choices lots ever offered by public auction."

Black Watch

Black Plug
The Cheating Tobacco
of Quality.



2271

Sir Pieterje Pesch DeBer, No. 3362 C. H. B. 34884 A. H. B.

His sire has 12 H. of M. daughters. His sire's dam had world's butter record for 2 years, 686.2 lbs. milk; 72.08 lbs. butter 1 week. He has 14 A.R.O. sisters on sire and dam's side, including his full sister with records made at 1, 2 and 3 year old—13.54, 15.5, 20.13 lbs. 7 days. His dam and sire's dam have official records that average yearly. Twenty of his sons and daughters in sale, Riverside Farm, Dec. 30th.

the week; the demand is good, and there are no surplus stocks in sight. Whole sale quotations are as follows: Creamery, \$4.20 to \$4.75; separator prints, 34c to 35c; tubs, 24c to 26c; and inferior quality 17c to 18c a lb. On Toronto farmers' market cheese is quoted at 25c to 26c; tubs, 24c to 26c; separator prints, 34c to 35c; and inferior quality 17c to 18c a lb. In Montreal, separator creamery is quoted at 25½c to 26c a lb; Manitoba dairy at 18c to 20c; and western dairy at 21c to 22c a lb.

SEED PRICES

Seed prices are firm and are quoted as follows, at outside quotations: Alsike, 1st quality, \$4.20 to \$4.75; 2nd quality, \$6 to \$6.25 and 3rd quality at \$5.50 to \$5.85 a bushel; red clover from \$7.25 to \$8.50, according to quality.

FEEDS

Montreal reports Ontario bran unchanged from prices current last week, viz., \$20 to \$21 a ton; Manitoba shorts are also unchanged in price; oat feed, \$31 to \$32 a ton off track. Bran feed prices on the local market are: Mill feed, \$22 to \$22 and shorts, \$23 to \$24 a ton, on track, Toronto.

HORSE MARKET

This season of the year is always the duller in the horse trade, but a good many horses changed hands last week, notwithstanding, at the West Toronto Exchange. Westerners were again heavy buyers, their choice running to the

says: Canadian No. 1, 40c to 60c; No. 2, 50c to 60c; hams of popular size are scarce and there is a good demand. Canadian long cut green sells at 76c.

MONTREAL HOG MARKET.

Montreal, Saturday, December 18th.—The market for live hogs opened easy this week with prices 10c to 15c a cwt. lower than last week, but as supplies were comparatively light, the market reacted towards the close of the week and the bulk of the offerings sold at 88½c a cwt. for selected lots weighed in cars.

Dressed hogs are firm at \$11.75 to \$12 a cwt. for fresh killed abattoir stock. The offerings of country dressed are small, and are quoted at about \$11 a cwt.

EXPORT BUTTER AND CHEESE

Montreal, Saturday, December 18th.—The demand for cheese for export continues dull and the market is very quiet, with little business doing. Holders are firm and confident of the future and are not inclined to force sales by reducing prices at present. All dealers look for an improved demand after the New Year, especially in view of the advance from the late side indicating a new make in New Zealand that was generally expected. The reported large increase in the output from this country was largely responsible for the small speculative trade in Canadians this season and with a normal supply from that quarter the demand for Canadians dur-

NORTHERN ONTARIO

The Mineral Wealth of Northern Ontario has attracted many people from all parts of the civilized world.

One-ninth of the world's reported output of Silver in 1908 was taken from Ontario Mines.

New discoveries of undoubted richness are being constantly reported from sections far distant from the far-famed Cobalt. Yet a more certain reward is insured to the Settler who acquires for himself

160 Acres of the Rich Agricultural Lands

Now open for settlement and made accessible through the construction of Railways and Colonization Roads.

The Fertility of the Soil is Unsurpassed

The Timber is in demand at a rising price. Mining, Railway and Colonization Road Construction, Lumbering, etc., afford work in abundance to those who have not the means to remain on their farms continually. These also provide a market for farm produce at prices unequalled anywhere.

Cochrane, the Terminus of the T. & N. O. Ry., on the G.T.P. Transcontinental Railway, now under construction, is in the same latitude as the southern boundary of Manitoba, and 800 miles nearer the seaboard.



AN OAT FIELD—C. W. SLADE, TOWNSHIP OF DYMOND, NIPISSING DISTRICT.

That the experimental stage is past is clearly demonstrated. The country is rapidly filling up with Settlers from many of the other Provinces, the United States and Europe.

Anyone wishing to make a Personal Selection can have the assistance of a Land Guide Free of Charge, by applying for his services to any of the Crown Lands Agents.

FOR INFORMATION AS TO TERMS OF SALE, HOMESTEAD REGULATIONS AND FOR SPECIAL COLONIZATION RATES TO SETTLERS AND FOR SETTLERS' EFFECTS, WRITE TO:

HON. J. S. DUFF,
Minister of Agriculture, TORONTO

THE DIRECTOR OF COLONIZATION,
Parliament Buildings, TORONTO

IT HEADS THE LIST FOR ONTARIO

Prof. C. A. Zavitz, of the Ontario Agricultural College, Guelph, at the Annual Meeting of the Ontario Agricultural and Experimental Union recently, said that the "O.A.C. No. 21" barley stood at the head of the list above all other barleys in the Co-operative Experiments conducted on farms over Ontario, it having a lead of approximately two bushels an acre.

A Wentworth County, Ont. subscriber to FARM AND DAIRY, who grew "O.A.C. No. 21" and the common Mandscheuri barley side by side in the same field and on the same kind of soil, reports to FARM AND DAIRY a yield of 36 bushels an acre from the common Mandscheuri and 44 bushels from the "O.A.C. No. 21." A lead of eight bushels an acre for the "O.A.C. No. 21."

Have you taken advantage of the exceptional opportunity offered by FARM AND DAIRY to secure seed of this great improved barley? The offer is:—

Two Bushels of "O.A.C. No. 21" for only Four New Subscriptions to Farm and Dairy
One Bushel for Two New Subscriptions
Subscriptions to be taken at \$1.00 each in both cases

The barley will be delivered F.O.B. Brantford, Ont.

Send in your subscriptions at once and claim your share of this great barley before the supply is exhausted.

CIRCULATION DEPT. FARM AND DAIRY PETERBORO, ONT.

DAIRYMEN'S CONVENTION

The Annual Convention of the EASTERN ONTARIO DAIRYMEN'S ASSOCIATION will be held in

BELLEVILLE

Wednesday, Thursday and Friday
January 5th, 6th, 7th, 1910

Some of the Greatest Authorities on Dairying in America will address the Convention. The public are respectfully requested to attend.

SPECIAL RAILWAY RATES

J. R. Dargavel, M.L.A. **R. G. Murphy,**
PRESIDENT SECRETARY
ELGIN BROCKVILLE