

FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

JULY

1909

Grassdale J. H. C.E.F.



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Rain or Shine

June records furnish some interesting contrasts in milk yield as reported by members of cow testing associations. For instance, one herd at Hickson, Ont., contains 17 cows, each one of which gave over 35 pounds of butter fat. In another association not 50 miles away where the milk is paid for by fat content one herd of 15 cows has only two cows that tested three per cent. of fat, all the remaining 13 cows in the herd tested only 2.3 or 2.3, while the average yield was only 32 pounds of butter fat, or 13 pounds less per cow during the month than the other herd.

In another herd the weight of milk from one cow is given as 14 pounds one morning, only eight pounds the next evening, but 15 pounds the following morning; many other cows show just as sharp variations. These are quickly noted if the wise dairyman is keeping a daily record of milk, the cause of such sudden drops will be sought for, and measures taken, if possible, to prevent the shrinkage and keep each cow up to her maximum capacity.

Twice a day, rain or shine, the cow has to be milked. Why not make each milking time bring in eight or nine cents profit? How many men milk eight times before they get one cent profit from some cows?—C.F.W.

B.C. Regulations for Eradication of Tuberculosis

Rules and regulations regarding the control of bovine tuberculosis, the inspection and grading of dairies, dairy premises and herds of dairy cattle, and with regard to the importation of cattle into the Province, have recently been put into force in British Columbia. Extracts from these regulations of particular interest to Farm and Dairy readers are herewith reproduced.

INSPECTION AND GRADING OF DAIRIES AND HERDS.

The Inspector shall inspect all dairies and dairy premises maintained for the supply of milk to the public, and all cows from which milk is taken. After such inspection the Inspector shall grade the dairies and herds inspected as follows:

Grade A. Premises found to be in a sanitary condition, within the meaning of the Regulations of the Provincial Board of Health governing the sale of milk and the management of dairies, cow sheds and milk shops, and the herd has been tested once every six months for tuberculosis and has been found free from that disease.

B. Premises that do not strictly conform to said Regulations, and the herd has been tested once a year for tuberculosis and has been found free from tuberculosis.

C. Premises that conform with said Regulations but the herd has not been tested for tuberculosis.

D. Premises that do not comply with said Regulations and the herd has not been tested for tuberculosis.

The grading made as above set out shall be published from time to time as directed by the Minister of Agriculture.

QUARANTINE

Cattle found by the inspector to be affected by tuberculosis shall be "T" marked in the ear and shall be quarantined, and shall be dealt with under the provisions of section (15) of the "Contagious Diseases (Animals) Act," which section is as follows:—

"15. Where it appears to the Inspector that any animal is affected as aforesaid, he shall at once notify the owner or other person in charge of such animal, who shall at his own expense, cause the animal to be safely kept where it will not be brought into contact with, or be in danger of

transmitting the disease to, other animals, or shall destroy the same."

IMPORTATION OF CATTLE INTO THE PROVINCE.

Cattle imported into the Province for breeding purposes shall be shipped in quarantine to their destination within the Province, there to remain in quarantine under the direction of a Provincial Inspector until properly examined, at the expense of the owner. If considered necessary by the Inspector, such cattle shall be tested for tuberculosis. In case the owner of imported cattle makes and furnishes to the Inspector his satisfactory declaration that such cattle are immediately and only intended for feeding or show purposes, such cattle shall not be quarantined.

SALE WITHIN THE PROVINCE OF IMPORTED CATTLE.

Cattle brought into the Province for purposes of exhibition at fairs, if sold within the Province, must be subjected to the same test as breeding or dairy animals.

TRANSPORTATION COMPANIES

Transportation companies bringing cattle into this Province shall promptly notify the Department of such shipments, giving the name of the consignee, the number of cattle imported, the destination of the same, whether they are for breeding, feeding or show purposes, and the time of shipment from the starting point.

PENAL CLAUSE

Any person or transportation company importing or bringing cattle into this Province and failing to comply with provisions of these Regulations, shall be deemed guilty of an offence, and upon summary conviction therefore before a Stipendiary Magistrate, Police Magistrate, or Justice of the Peace shall be punished by a fine not less than \$25, nor more than \$50.—R. W. Hodson, Live Stock Commissioner.

Winnipeg Industrial Exhibition

The live stock exhibited at the Winnipeg Industrial 1909 were of a quality superior to that shown in former years. Many of the animals, it was agreed by experts, were fit to show in any ring in the world. A noticeable feature of the fair was the prominence given to exhibits in preference to side shows and grandstand performances.

DAIRY CATTLE.

Dairy cattle were out in large numbers. Exhibitors of Holsteins were numerous among them being W. M. Gibson, of Winnipeg; A. B. Potter, of Kenosha; A. S. Johannis, of Clandeboye; H. Hancox, of Dominion City; and H. Herriott & Sons, of Souris. Mr. Potter was probably the outstanding exhibitor carrying off a ring in the world, among which were the Grand Champion Female; herd bull and four females any age, herd get of one bull; herd bred and owned by exhibitor; bull, three years and over; heifer, two years; heifer, one year, and boifer calf. Fine herds of Ayrshires were shown by Wellington Hardy, of Roland, H. McColl, of Glenboro, and J. A. Gibson, of Rosbank. Jerseys and Guernseys, as usual, were favorites with the visitors. W. O. Chadwick, D. Smith and W. V. Edwards were the exhibitors. Sir Wm. Van Horne showed some Dutch belted cattle and as he has the only entries, all were awarded firsts.

BEEF CATTLE.

Beef cattle were well represented. The popular Shorthorn seems to be the most numerous. Many breeders of this famous breed were represented chief among which were Sir Wm. Van Horne, of East Selkirk, J. Crawford, and J. G. Barron, both of Carleton Place, and the exhibitors of Aberdeen Angus, were Jas. Bowman. (Continued on page 6)

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Vol. XXVIII.

FOR WEEK ENDING JULY 29, 1909.

No. 30.

PROBLEMS CONCERNING FOREST PRESERVATION IN NEW ONTARIO

A. Edge-de-Hurst, Rainy River District, Ont.

Valuable Suggestions from a Resident who is in Close Touch with the Situation.—Some Advantages of Ontario's New Lands Open for Settlement

I N travelling from Montreal to Winnipeg by rail one is appalled at the terrible loss the country has sustained by the destruction of such vast areas of timber trees. What applies to the lands adjoining the track does equally so to more remote regions. An enormous amount of national assets have been wiped out. That some of this was accidental is undoubted, but a great deal has been caused by what I can only call criminal negligence and no small portion by wilful burning. I know of men who simply cannot resist putting a match to a dry brush pile. They do not mean to try and fire the district—"it may run a bit but that won't hurt anyone."

THE FIRE FIEND.

Not a season opens but I think "is all the labors expended on my land to preserve the choicest trees and beautify the place going to end in smoke?" Every year it becomes safer and if I can keep back the fire-fiend a little longer my place may be out of danger. But not so the distant hills and intersecting valleys. They will be ruined in their turn; not by the advance of civilization and the clearing of the land to dot it over with homesteads, but by wanton firing of land not properly cleared up or at seasons of exceptional dryness. If the land is not worth the extra

right to let a fire get beyond control even on their own land if it may become a public danger and must be brought to realize that Crown lands are a national asset and as such to be jealously guarded by all and not as at present treated as no man's land.

A SUGGESTED REMEDY.

Time heals most things and it will in the far future replace the timber losses if it gets the chance. But those losses will not stop unless two things are done: The wanton fires must be severely dealt with and the people as a body must be brought to realize that there is no advantage in burning more acres than can be cleared up in 10 years or perhaps then they are ever

the advantages and pleasure to be derived from them. Many magnify the labor of collecting and planting out a few thousand trees. Others do not see why they should trouble over that which will not reach maturity for many years.

OUR NATIONAL OBLIGATIONS.

If we have benefited by the acts of those who have gone before us, how shall we exempt our-



A Scene Typical of Western Ontario

The black spruce, poplar, birch and jack pine, as seen in the illustration, afford shelter, and add much to the beauty of the surroundings. A newly planted hedge of white spruce is seen in the foreground.

seives from doing something, the full value of which will be for future generations. There is generally wanting in Canada that affection for the land that is so conspicuous a feature of Old Country life. Many of the people here have developed a nomadic nature. If they get a good farm and are doing well, the offer of a few dollars more than they gave will buy them out. This spirit does not conduce to the furtherance of our afforesting ideas. When we have banished the thought of the almighty dollar long enough to plant some shelter belts, hedges and specimen trees, when we have tended them a few years and they are beginning to amply repay our trouble, we become absorbed in the word "Home."

WHAT CAN BE DONE WITH TREES.

It is not realized by some persons what can be done with trees when given sufficient light and air. What one has been brought to call scrub takes a new form. We in the north have not the same variety of trees as are to be found further south, yet what endless capabilities exist for white, black and balsam spruce, larch, birch, white cedar, red and white pine and mountain ash. The prairie provinces look to us to embellish their treeless expanses—yet the forests of Ontario are being wrecked. Owing to the nature of the soil in many sections of New Ontario, it is preferable to bring under cultivation the flattest and lowestlands, the less desirable being left under forest growth. A much closer inspection of newly settled land is necessary. It is sugges-



A Picturesque Setting for a Poultry House

The illustration shows a heavy belt of trees that have been preserved for protection of the buildings and gardens on the farm in New Ontario owned and worked by A. Edge-de-Hurst.

likely to get under cultivation, and also that well grown trees are a source of endless pleasure. A few years back the idea of my leaving many trees when clearing around the house was ridiculed, but to-day it is "nicely grown tree there."

In the battle to exist nowadays it is no good expecting everyone to take the same keen interest in forestry that some take; yet all can and must do their little bit in this imperative work.

Canada has been deforested. Nature will do her share to afforest her again in the out-of-the-way parts, but the hand of man has a great work ahead. Gifted as we are with some of the most useful and ornamental trees and shrubs, some simple but effectual means are surely devisable to bring home to settlers—more especially in the newly settled sections of the country—



An Example of Changed Conditions

A lone pine left to be the future glory of a proposed paddock. The three photographs reproduced on this page were taken at Dennyhurst, the residence of the writer of the adjoining article.

trouble entailed, let those who cannot show regard for the national rights and those of their neighbors leave it alone for better men.

The laws for the preservation of the forests are good enough, but we want men capable of enforcing those laws without fear or favor. Settlers must be made to know that they have no

ed to be taken up for agricultural purposes, but the cutting of cord wood if often out of all proportion to the land brought under the plough. A new growth springs up, the farm is called an improved one but becomes a terror to the prospective settler for the last clearing of that farm is worse than the first.

NOT A POLITICAL QUESTION.

The preservation of our forests is not a political question for either party, but the apathy of those whose duty it should be to prevent their destruction is the result of party government. Crown land officials are only sure of their berth so long as the party to which they profess to belong is in power. Forest wardens should be more numerous and have much more limited areas under their care. Their wards should not be arbitrarily fixed by township boundaries and the only remuneration should be a portion of fine on convictions. It would be advisable in many cases that they should be Justices of the Peace within their area. Knowledge of burnings would quickly reach them. Prompt action could be taken if necessary to extinguish fires and equally speedy justice administered where requisite.

CONDITION IN NEW ONTARIO.

The locality from which the photographs accompanying this article were taken was swept by fires some years ago and they illustrate what nature will do at reconciliation. They also show what class of growth is now being constantly and wantonly destroyed both on occupied lands and what some at least of us are endeavoring without adequate support to preserve for our own pleasure and the glory of future generations.

Of the lands open for occupation those of Ontario stand pre-eminent. Within easy access of the markets of the world, with a climate unrivaled for rearing hardy stock, with fuel and sheltered for farm animals and the purest water for man and beast. With good sport—if the game wardens do their duty—few territories offer greater inducements to the man who appreciates the beauties of nature and who can either, from his own knowledge of agriculture or from hints which some of us would be willing to give him lay out a home for himself at small expense.

Silage as a Milk Producer

T. H. Binie, B.S.A., Carleton Co., Ont.

Silage is, above all, a food for dairy cows. It is succulent and nutritive. In Virginia, after considerable experimenting with silage, corn fodder and hay, with concentrates as feeds for dairy cows, Professors A. M. Sonle and J. R. Fain, state that, "The basis of the roughness in a ration for dairy cows, when grass is not available, should be silage."

In order to make a good living profit out of his dairy herd a man should have a silo. Why? In the first place, dry foods tend to decrease the flow of milk and do not have the stimulating effect on the blood circulation and on the general health of the animal that succulent foods exhibit. It may be asked why not feed roots as a succulent food and stimulant? The answer as given by Prof. Georgeson, of Kansas, follows:

"If we estimate that 77 per cent. of the amount put in the silo can be taken out sound and available for feeding or 1,544 lbs. for every ton (2,000 lbs.) put in the silo, we find that at the average feed of 32 lbs. a day a ton will last 1 animal 48 days, or 100 tons will last a herd of 25 head 192 days; and in a reasonably favorable season, with good care and good culture, this 100 tons may be grown on about 10 acres. What other method of handling corn fodder will maintain an average farm herd during the long winter season, from grass until grass comes again, on so small an area? I will add that, another question—Is there another farm crop that would do the same amount of work as economically and as well of the same area or even double the area?"

HIGHLY DIGESTIBLE

The value of a food depends upon its digestibility. If a food is not digestible it is of no use to the animal. Prof. Arnst, of Pennsylvania, who has done more for the science of animal chemistry than any other man in America calculates that one acre of corn having 4,351 lbs. of digestible matter fed as a green fodder will have 3,900 lbs. digestible as silage and 5,388 lbs. as dry fodder—field cured. Thus we see it pays to feed corn green, but as we can not do this all winter, we should use the next best substitute, namely, silage. At the Wisconsin Station, while experimenting on the comparative value of corn silage with field cured corn, we find that silage produced 243 lbs. more milk and 12 lbs. more butter

per acre than did the dry corn fodder. This is a gain of 3 per cent., the same as the bank rate of interest. From the same experiment in Vermont, the result was a gain of 8 per cent. in milk and 3 per cent. in butter fat for the silage over the field cured fodder. 2: Ohio in comparing results per 100 lbs. of dry matter, fed in corn silage or hays it was found that for every 100 lbs. of dry matter fed there was a gain of 6 per cent. in milk in favor of the corn silage.

What the comparison between silage and straw and roots is I am not able to state definitely. However, the silage would have the best of the argument by a large margin. Silage being such a profitable food we cannot afford to still continue to practise old methods of feeding.

GENERAL IMPRESSIONS GAINED FROM INSPECTING DAIRY FARMS IN EASTERN ONTARIO

An Outline of the Outstanding Features of Prize Farms in Districts Nos. 1 and 2 in the Dairy Farms Competition, as seen by Mr. R. R. Ness, the Judge

AFTER a most pleasant tour among some of the most progressive and up-to-date dairy farmers of eastern Ontario, I have returned home, having completed my first inspection of those farms entered in the Dairy Farms Competition in Districts Nos. 1 and 2. In each and every case, I found the most genial and kindly people that one could wish to meet, such as are sure to be found among enthusiastic and successful dairymen. Each competitor seemed to feel it his duty to assist in the good work of Farm and Dairy in conducting the Prize Farms Competition as well as to prove his ability as a farmer and as a dairyman. All spoke highly of the good qualities of Farm and Dairy and of its energetic and capable editorial management.

For the most part the competitors possessed attractive homes. These had been beautified by the planting of trees, wind-breaks, shrubs, hedges and flower gardens. The free use of paint was in evidence. Nice lawns (where the family may enjoy themselves in outdoor games), good fences, entrances and driveways—in fact, everything one could think of to make home attractive, such as only dairymen who have an income all the year round can afford—were noteworthy features of these farms.

GARDENS WORTHY OF NOTICE

Mention must be made of the kitchen gardens and the small fruits, that were a part of many of these farms. Some would do credit to any market gardener, who makes such his specialty. The garden is a feature of the farm that adds greatly to health and good-living. It should be given more consideration generally.

The farms of competitors were often in marked contrast to those of their neighbors. In many instances the farms in the immediate neighborhood were a mass of weeds in flower, while the one being judged was free from weed life. Such may be accounted for through the determination of every energetic dairy farmer to keep up the fertility of his soil by growing suitable crops for the dairy cow, and working on the short rotation system enabling him, at the same time, by the proper care of these crops, to clean and keep the soil free from weeds. Most of the farms inspected were showing good work on the part of their owners in combating weeds.

BARN AND STABLES

The number of up-to-date, spacious barns and stables which were to be found on most farms must not go unnoticed. These were fitted with modern fixings, and were conveniently laid out so that the labor is made light to such an extent that in many instances the same amount of work is done by half the help that was required in the old buildings. These new buildings for the most part are fairly well lighted and ventilated, thus insuring the health and comfort of the herds.

Most everywhere the silo was considered the best investment in the line of buildings. Even where roots are successfully grown farmers are very enthusiastic about corn. In some cases as much as 40 acres were grown. Corn in general is a promising crop, though on account of the late cold spring all crops were found to be late. Mangels and turnips were found on most of the farms, but a small acreage only since so much corn is grown. These farmers are finding that corn can be handled and grown more easily and give as good results as roots. A few of the competitors grow pumpkins, finding them to be a very good fall feed for dairy cows.

GRASS GRAIN IN MIXTURE.

Grain, on most of these farms is grown in a mixture. The mixture used most largely was oats, barley and goose wheat. On one large farm barley and buckwheat was grown in mixture. This seems to make an ideal milk producing food and can be sown later than other grains. In one instance the whole grain crop was of this buckwheat mixture, as the man who owns this farm is an enthusiastic dairyman and a good feeder as well as being an extra good farmer, and having made so many useful experiments in dairy feeding, his views are worthy of much consideration.

The hay crop is light. Not much over three-quarters of a crop is expected in some sections, clover having been killed out. Rotations practised have been, in general on the three and four year system. These have given satisfactory results and have enabled these farmers to keep down weeds.

LABOR SAVING IMPLEMENTS

Implements on a farm of to-day are numerous and designed for labor and time saving. Dairy farmers find time precious. As milking and caring for the milk takes up much time, dairymen are ready to adopt most of the useful labor and time saving machines offered. Most of the competitors were well stocked in this particular. On many of the larger farms the hay-loader, side-delivery rake, tedder and horse fork make hay-making a pleasure where without them this season is one of dreaded drudgery, whilst the quality of the hay made is equal, in most cases, to that made in the old way.

Milk and ice-houses on most of the farms were found to be very conveniently and well arranged. Good attention was being given to keeping the milk in good condition. Water was conveniently arranged on practically all the farms. They were supplied either with running springs, cisterns or tanks and windmills.

THE DAIRY COWS

The dairy cows on most all the farms visited were far above the average. Some excellent herds both registered and grade were inspected. Many

of them were cases of the best feeding. Some the dry pastured, whilst at others. Every one to the source

On most farms a horse was a source of manure in used, and when the same time it is Howick, Que.

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off his tormentors. be found that a grain or meal rat of the stall as he side knocking off not be altogether gather it up, but it pose for which it

of them were making grand records. In most cases the owners realize the benefit of summer feeding. Some had ensilage saved to supplement the dry pastures. Others had provided green feed, whilst still others were feeding a grain ration. Everywhere good attention was being given to the source of revenue, the cow.

On most farms it was quite noticeable that the horse was a secondary consideration. The using of manure in a green state is generally practiced, and it is mostly drawn to the fields in winter when time is not so precious, and when at the same time it gives the best results.—R. R. Ness, Howick, Que.

Farm Stock and Flies

Since the fly season is on us again the farmers attention is (ought to be) turned to devising some means of protecting his stock from the annoying attentions of those pests. Many men do not realize the extent of the torment inflicted on stock by flies and the consequent loss in the putting on of flesh, the production of milk, and in the case of horses, the ability to maintain good condition while performing the ordinary farm work. Many of the feeders in the beef producing sections make it a point each year to have their export steers sold before the fly season is on, having learned by experience that a bullock will not put on flesh at pasture after the middle of July to nearly the same extent as he does earlier in the season even though the grazing conditions are just as good. The dairyman also knows that his cows will fall off very materially in their milk supply during the fly season unless some means are adopted for their protection. Many applications have been tried with more or less success in the protection of cattle because farmers know that in the production of milk or beef it will pay well to do something. As applied to horses, however, the farmer has no such direct evidence, he may notice a falling off in flesh but he attributes that to the heat, the hard work or to some other cause seldom placing the blame where it rightfully belongs, viz., to the irritation caused by flies.

PROTECTION FOR HORSES

Cattle are sprayed with certain mixtures which serve a good purpose but which (because of the dirty condition of the skin which generally follows such applications) are not adopted for use on horses. While it is undoubtedly hard to adequately protect our horses from flies, some attempt should be made to afford at least a measure of relief. It is not a hard thing to keep a stable free from them and even that would be a great point gained. Many a tired horse is brought to dinner and tied in a stable swarming like a beehive and has to take his food as best he can while his main energies are devoted to fighting

Meets With Approval

Farm and Dairy is a good paper. I am glad to see that it is giving prominence to alfalfa. I have been through the dairy districts in the east of this province and in other provinces, and while men talk of milking, caring for milk, etc., not enough is said about the production of food suitable for the dairy cow. Insufficient fodder and food of an unsuitable nature is the great hindrance to-day of greater success in dairying.—W. S. Fraser, Simcoe Co., Ont.

off his tormentors. In such cases it will generally be found that a very considerable portion of his grain or meal ration is scattered over the floor of the stall as he swings his head from side to side knocking off flies as he ate. That food may not be altogether lost; the chickens will probably gather it up, but it was certainly lost to the purpose for which it was intended, viz., to nourish

and sustain the horse. An animal fed under such conditions cannot thrive, he not only wastes his food but there has been a great waste of energy as well in fighting his tormentors. In order to keep flies out of a stable it is only necessary to keep it dark. Fly screens or mosquito netting should be placed over the windows. When the horses are taken out to work in the morning a blind of some sort should be drawn over each window and the door shut, which will ensure darkness. In case any flies should be left in the building a small opening might be left somewhere so that a ray of light will enter through it. Every fly in the building will at once repair to that opening and make its escape to the outdoor air. A couple of pails of water sprinkled on the floor in the morning will create a moisture which is also objectionable to flies and which will tend to keep the stable cool. A horse brought in to dinner in a stable such as this will enjoy his food, it will do him more good and he will have had at least one hour of the day free from the infinite torment of flies.

FLY SHEETS AND NETS.

While at work outside fly sheets or nets should be used, the nets are better, the sheets being



Breaking the New Sanitary Law—Milk Stand Beside the Hog Pen

Section 11. of the Milk, Cheese and Butter Act passed by the Ontario Legislature in 1906, expressly states: "No person supplying milk or cream to a cheese factory or creamery, or for sale in cities, towns or incorporated villages shall keep his dairy, milk house, milk stand, or any vessel or equipment used for storing, or the carrying of milk or cream, in an unclean or unsanitary condition." Dairymen will do well to see to it that their premises call, which call is liable to be made at any time. The illustration was taken in Prince Edward Co., recently by an Editorial Representative of Farm and Dairy.

somewhat hot. Some nervous horses are much irritated by gad flies striking them in the region of the throat and between the arms of the lower jaw. Some horses will rear and plunge under those conditions and become so excited as to be almost unsafe to work with. A piece of cloth tied from the throat latch extending downwards will protect the parts very effectually from the attacks of this fly. This appliance while somewhat unsightly answers a useful purpose and for ordinary work on the farm, appearance does not count for much.

If young horses and colts at pasture were brought into the stable every day and turned out each night they would do much better than if compelled to fight flies all day in the pasture. Where stock have access to any kind of a thick growing grove it proves a most grateful shelter from the heat and flies. In fact any method that the farmer can adopt to afford protection to his stock during the fly season will amply repay him for his trouble not only in dollars and cents but also in consciousness of having done something to relieve his creatures from one of the worst forms of punishment to which farm stock are exposed.—Centaur.

More on the Sow Thistle

W. S. Fraser, Simcoe Co., Ont.

The method of eradicating sow thistle as advised by Mr. Glendinning, in Farm and Dairy, June 24th, may be all right for his line of farming. Sow thistle is eaten by stock. When land is under grass for some time the chances for sow thistle to spread itself by its root system and also by seed production are very much reduced. In a clover crop it has no chance to produce seed; also, the plants are checked by the luxuriant growth of the crop. In pasture land the sow thistle is eaten off and is thus kept from a full development. Sheep are very fond of the plant and give it a hard time to exist. In districts where grain is grown largely, however, is where the sow thistle flourishes best. Where the cultivation is sufficient to keep the ground loose, the roots are given a good chance for extension. The time necessary for the growing of the crop permits of seed production. The seed is blown about and finds suitable condition for germination in other places. The roots of sow thistle can be killed by a well worked summer-fallow. The trouble is, however, that this same field may be

re-seeded next year from adjoining fields or farms. To keep in subjection, or to eradicate sow thistle, is a great proposition for the farmers of Ontario to-day. Only by studying its nature and its habits of growth can we successfully combat it. A great deal is being said and written about this plant and about others which is arousing the people to the necessity of vigilance. Since, however, we have our Institute organization and our agricultural press, mediums by which the best method of dealing with these weeds are made known to all, there is hope that the farmers will be able to cope successfully with all these pests.

Check the Sow Thistle.—The time has come when farmers must unite to check the sow thistle. This pest can only be held in check by co-operation among the farmers. The check by co-operation from one farm to another and thus seeds down the whole neighborhood. It would seem that legislation bearing on this pest is necessary. The time has come when we cannot allow a man to seed down his whole locality. Why should such a man be tolerated more than one who keeps a vicious dog?—J. Eaton Howitt, M.S.A., Guelph, Ont.

Eight years with Stave Silo

G. Boyce, Carleton Co., Ont.
Much has been written about different ways of making a silo. Each writer claims his way to be the best. Some say cement, some several feet of cement or stone and the remaining portion lumber. After eight years' experience with the silo that I have, it might interest some one who will build a silo next fall to know just the actual facts in regard to making a stave or tub silo such as the one I have.

The lumber is pine 23 feet long, two inches thick and eight inches wide. The edges of the plank are left rough just as they come from the mill as thus they make tighter joints. Some advocate bevelling the edges, but it is only a loss of time and lumber. I built a stone foundation two feet in the ground, raising about six inches above ground, thus making my silo 25 ft. 6 inches in depth. It is 17 feet in diameter. We put on 11 bands or hoops of 1/2 inch iron. It would have done as well with two or three bands less. The bands are in two parts with metal joints to tighten with. Silos are now being built with 2 x 4 scantling at intervals to tighten with. These have holes for the bands to pass through. Washers keep the nuts from cutting into the scantlings when tightening or when the silo is filled. The scantling appears to me as all right and it will save the price of the metal joints. As they are 35 cents each, the cost of mine was \$7.70. If I was building wood I would splice the lumber as it would be much cheaper and do just as well. Lumber 12 and 16 feet long would make a very satisfactory silo 28 feet high.

I kept an account of the total cost and it just amounted to \$80.00. The year after I built it, I put a round

roof on at a cost of about \$10.00. Some say that the plan should not be more than six or seven inches wide. I think they are mistaken, as nine inches would be none too wide. The lumber in mine is eight inches wide and I never had a handful of spoiled ensilage. My silo, to all appearances, is as good as when I put it up, and I think it would be safe to say that a stave silo is good for 15 or 20 years.

As regards cement silos, they may look better and will last a long time if they are properly built and reinforced with coarse wire or iron bands. But, they will cost double or three times as much to build and the ensilage will be no better. In this locality there are some of as large dairy herds as to be found anywhere in Ontario and any new silos that they build now are of the stave variety. If you ask the farmers why they build stave silos they will tell you that such are easily built and they keep the ensilage well. In some cement silos I consider that the ensilage rots more than that in the stave silo.

Some Features of Dairying

L. J. Hankinson, Elgin Co., Ont.

One of the first questions that confronted me and one that confronts most young men about to launch out in farming for themselves, was, what in particular line of agriculture am I to pursue? After considering the matter for some time, and experimenting a little in a small way I came to the conclusion to follow mixed farming with dairying as a specialty.

A man must have a liking and an adaptability for the particular branch of agriculture he undertakes. Some men are born horsemen; other breeders of beef cattle, while still others

are born "with a milk pail in their hands." This perhaps is one of the principal reasons why I decided to undertake dairy farming. No matter what one undertakes that which he most likes is where he generally makes the most success.

One of the outstanding advantages of dairying farming is that it is what we might call a strictly cash producing business. No matter whether we run a dairy, patronize a creamery or cheese factory, or the co-densed milk factory, the outcome is the same. We receive our remuneration weekly, or monthly, as the case may be. And just here is where dairy farming has a great advantage over most other lines of farming. In most other lines we receive our income once or twice a year, while in dairying our income is divided evenly throughout the entire year; thus enabling us to meet our obligations as they appear, or in other words, *running a cash business.*

Another important feature of the dairy farm is its adaptability in connection with other branches of farming. It is almost indispensable to the swine breeder and grower. The by-products of the dairy being utilized in the breeding of swine. The farmers to-day that are making the money feeding bacon hogs, are those who are growing hogs in connection with their dairy, skim milk or whey being almost indispensable in growing and fattening swine. This is a secondary, but none the less, important source of income from dairy farming that no other branch of farming affords.

There is no line of farming by which I can maintain the fertility of the soil as through dairy farming. The dairy cow consumes large quantities of roughage which insures a large quantity of manure. The ration of the dairy cow is made up of clover, ensilage, and mill by-products, all of which have a large value as fertilizers. These feeds after being consumed by the cow are partly accreted as milk and partly returned to the land as manure. The milk by-products being returned to the land when fed to calves and pigs in the form of skim milk and whey.

STEADY EMPLOYMENT.

Another feature in connection with dairy farming that has appealed to me, is that it gives employment for the hired help the year round. The average farmer only retains his help while the busy seasons are on, thus being put to the necessity of hiring each spring, while the dairyman can profitably find work for the help the year through. He is then able to retain the good workmen from year to year, making an advantage to himself and furnishing employment to the laborer who would otherwise be idle through the winter months.

These features of the business have so manifested themselves to me that I feel no hesitancy in saying that, providing one has the adaptability, that there is both pleasure and profit in the management of a well equipped dairy farm.

Winnipeg Industrial Exhibition

(Continued from page 2)

of Guelph, J. G. McGregor, of Brandon, and R. Curran & Sons, of Emerson. Wm. Shields, of Brandon, and G. H. Gray, of Austin, carried off the honors in Herefords, each having many fine animals on exhibition, the judging being close in many cases. The fine showing in Gallows excited much favorable comment, a large number being shown by Col. D. McRae, of Guelph, and J. W. Anderson, of Winnipeg.

HORSES.

Some exceptional fine exhibits were on hand in the horse classes. Among

the exhibitors of Clydesdales were R. H. Table, Condie; J. G. Barrow, Jas. Kirby, Napinka; John Wishart, Portage La Prairie; Matt. Gibb, Morden; Corry & Brown, Portage; R. E. Foster, Melville; B. Jickling, Carman; J. C. Porterfield, Brandon; Sir Wm. Van Horne; Andrew Graham, Pomeroy; R. B. Hogate, and Morden; and B. Ross, of Brandon. The championship for stallion any age, any draught breed, was decided in favor of Halifax, a two year old Percheron stallion belonging to Colquhoun and Beattie, of Brandon. Exhibitors in the Post-graduate class were Colquhoun & Beattie; W. E. Jones & R. C. Upper North Portal; Ellison La Motre, N. D. Shires were exhibited by T. Ross, Grenfell; Ellison & Sons; John Stok, Mack Lauch and D. Smith, Gladstone, Hackneys, Standard Breds, Thoroughbreds, Ponies, Roadsters and Carriage Horses, were represented.

SHEEP.

The pick of the great sheep herds of the west were on exhibition. R. Cotwell, of Swan Lake, showed a fine display. His champion ram and ewe were especially fine animals. Leicester were shown by A. J. McEwen, of Macdonald; N. A. Milne, of Balmorel; A. B. Potts, of Carleton Place; and F. T. Skinner, of Indian Head. McKay had the champion animals and they would rank well in any exhibition. W. L. Trann, of Crystal City and F. T. Skinner, of Carleton Place, the largest exhibitors of Shropshire, carried off all the ribbons in their class. Oxford Downs were shown by R. T. Rodd, of Hillview, and Alex Wood, of Souris, who divided prizes about evenly.

Much interest centred in the farm motor contest. Aside from delays on account of wet weather, the test proceeded with despatch and great credit was due the officers for bringing the event to a satisfactory conclusion. Twenty-two big motors were entered and were put to a severe test to try their efficiency that the ingenuity and mechanics the world over can devise. The motors were not as some might suppose special machines made for test purposes, but were out of regular stock of the companies. A large number had seen much actual service.

Hog Pasture.—It is doubtful whether enclosed pasture may be considered economical, except perhaps for brood sows. The proper amount of land to give over to pasture must necessarily vary according to its quality and other local considerations, and the length of time the pasture will sustain hogs likewise is dependent upon the climate, quality of the crop, age and number of the animals, and the varying conditions. For an average it may be said that an acre of red clover should support six to seven hogs for three or four months. Alfalfa, the leading pasture plant for winter, should support less if vigorous growth, for 12 to 25 animals an acre, but an alfalfa stand should not be grazed by so many hogs that mowing will not be necessary for keeping it in the best of condition. The practice with alfalfa should be to pasture few or hogs that will be able to keep back a rank or wood growth.—From Cobourn's "Swine in America."

Arrangements have been completed whereby the mail carrier between Peterboro and Ennismore will deliver the daily mail to all farmers along the road traversed, who have secured letter boxes from the Government and have complied with the simple requirements of placing it upon a post in front of their gates. Thirteen farmers have secured boxes and will enjoy this daily mail service.

Our "Pig Offer" is a dandy. Have you taken advantage of it yet? Read it elsewhere in this issue.

A Few Reasons Why Our Measurer Should Be Used in Every Factory

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Our Legal Adviser

OUTLET FOR UNDER-DRAINS.—Can I compel the railroad to give me an outlet for my underdrains? At present they have a culvert that will carry off the surface water only. I want to put in the system of underdrains and of course the present outlet is no good for that purpose. The railroad men say that the law only compels them to carry off the surface water. What is the law in regard to this matter and how shall I proceed to get the desired outlet?—R. B. Peterboro Co., Ont.

You have no right now to under-drain your lands and compel the owner of adjoining property to make provision for the carrying away of the water from such drains, unless proceedings are taken under the Drainage Acts.

This is a tedious and somewhat costly proceeding by which a number of persons who are interested in establishing the drainage system through their lands, can petition the municipality to appoint an engineer to make an examination, ascertain the cost, determine the share of the expense to be borne by each party, etc., and if, after his report has been made, the majority of the persons interested desire to proceed with the work, it is done and the proportionate expense borne by the land owners interested. It was in this manner that the work known as the Cavan Drain, with which you are no doubt familiar, was carried on.

A railway company is in exactly the same position as any other adjoining owner, as to proceeding under the Drainage Acts. If your system of under-drainage had been in operation prior to the construction of the railroad, the Company would not have been entitled to carry on

their work in such a way as to obstruct the flow without compensation to you.

KILLED NEIGHBOR'S HOUND.—A had two fox hounds which wandered two miles away and entered an open door and helped themselves to some fresh-cooked chops. In B's habit for damages? This occurred about two o'clock at night.—Oxford, Carleton Co., Ont.

The dog's action was no doubt annoying to "B" but the circumstance did not justify his killing either of them. If he had found them taking cattle or inflicting other serious injuries the circumstance would have been different. "B" is liable to "A" for the value of the dog which was shot.

DAMAGES ON MANGEL SEED.—A buys mangel seed from B, which B says is of a certain variety. After it is up it turns out to be another kind—a variety that is a much smaller mangel and much harder to harvest. Could A claim damages from B, after he insisted on having a certain variety, and was told that the seed was what he wanted? To what extent could he claim damages?—Subscriber.

If "B" expressly represented the seed to be of certain variety and knew it was purchased by "A" in order to be sown, "A" will be entitled to damages to the extent of the difference in value between the crop which he might reasonably have been expected to have had from the variety of seed he ordered, and the crop which he actually had from the inferior quality.

UNLAWFUL SALE FOR TAXES.—A owns a farm and implements, also perhaps he is in possession of another man's wagon and etc., and there are taxes against said wagon, and the collector of taxes seized the wagon for taxes and his cost of seizure, and puts three notices in the municipality, one on A's buildings, and the other two in the

most business part of the municipality, stating the seizure and sale of said wagon, giving A six clear days from hour of seizure.

(1) Is it a lawful sale (the wagon belonged to B)?

(2) Can B lawfully come on buyer of wagon for wagon?

(3) If B seizes wagon in dispute (in case of replevin put in) should he take and keep it in possession until case is tried?

(4) Can B get wagon seized by court bailiff and take possession and use said wagon by giving bonds until case is tried? W. J. H., Altona District, Ont.

The question does not give all information required to properly answer it. If B has become the owner of the wagon by purchase or other transfer, from the person assessed, or if B is an immediate relative of the person assessed, or being a relative, lives on the land as a member of the family, the wagon could be seized for taxes.

If, however, these conditions do not exist, the collector is not entitled to levy on the wagon, and the questions put should be answered as follows:

1. The sale is not a lawful one.
2. B can take the wagon from the purchaser, provided he has not stood by and permitted the purchaser to buy, without protest.
3. B can replevy the wagon by taking proceedings in Court, and giving security, and in such case the bailiff of the Court will deliver the wagon to him to abide the result of the action.

Our Veterinary Adviser

FOUL IN FEET.—Two cows are all stiffened up. They are very sore on fore feet, and can scarcely walk. When forced to move they groan and apparently suffer greatly.—Reader, Huron Co., Ont.

Keep them in dry, clean quarters and apply hot poultices of insect meal to the feet. Change the poultices three times daily. After the soreness disappears if any raw surfaces are present dress three times daily until healed with one part carbolic acid to 25 parts sweet oil.

BLOODY MILK.—Cow has given bloody milk off and on for five months.—Sub., Halton Co., Ont.

This is due to a rupture of the small blood vessels of the quarter. There is doubtless either a congenital or acquired weakness and while each attack can be treated it is quite probable that the condition will continue to recur. Bathe the quarter long and often with cold water and give the cow one ounce of salicylate of iron in a pint of cold water as a three times daily until blood ceases to pass.

Hog Notes

Young pigs should be looked after carefully at this season of the year. They are frequently afflicted by coughs, the result of sleeping in a draughty pen. Keep the pens dry with plenty of fresh air and sunlight, but do not allow the wind to blow through the pen over their backs.

Young pigs are frequently affected by worms that give them an unthrifty appearance. A teaspoon full of some of the coal tar dips mixed in a 40 gallon barrel of slop and fed to the pigs when hungry will be found an excellent remedy.

Alfalfa should not be pastured after the middle of September, as it will be pretty certain to die if the hogs are allowed to run on it after that time.

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HORTICULTURE

Fruit Crop Situation

The general outlook for fruit in Canada is not as good as last report would seem to indicate. The drought in June hindered growth and in some districts, caused more than the usual drop. Some insect and fungous work is commencing to show, plant lice being most in evidence. A fair yield of apples is expected. Among the reports received by Farm and Dairy, the following are typical ones:

Annapolis Co., N.S.—The present outlook for fruit is good. Apples set well and are developing well. Fruit is clean and almost wholly free from black spot. The canker worm did serious damage in some sections and seemed difficult to control by spraying. It is early to predict the harvest but from present outlook would say from fair to full crop of clean fruit.
—J. H. Tupper.

Westmoreland Co., N.B.—Apple crop is not as promising as last month. A very dry spring and late frost has caused heavy "drop" and most noticeable on Bens. The fruit is developing well. Little injury as yet has been done by fungous diseases or insects with the exception of the aphid on both the bearing and growing trees.
—H. B. Steeves.

Queen's Co., P.E.I.—The fruit crop looks fine. The fruit has set well on the trees and is growing fine. There are very few injurious insects and no blight of any account. The foliage looks fine and the trees are a dark green color. Spys are going to be a full crop; Duchess, a full crop; Baldwin, medium; Alexanders and Russets, over medium crop. Plums are a medium crop; cherries, a full crop. There will be an average crop of all fruits. Currants are a full crop and are well set on the bushes.
—W. J. Scott.

Rouville Co., Que.—The apple crop will be below average. Codling moth and curculio are much in evidence and the June drop was heavy. Strawberries, both wild and cultivated, yielded well; currants and gooseberries, full crop; plums, light. Cultivated raspberries, nearly a failure but wild ones O.K.; cherries, very scarce.
—J. M. Fink.

Granville Co., Ont.—Apples are growing well and keeping very free from fungi. There are very few insects of any kind. Everything is favorable for a fair yield of good fruit.
—Harold Jones.

Ontario Co., Ont.—Apples dropped more than was expected, but the crop will be rather more than last year.
—Elmer Lick.

Wilton Co., Ont.—Apples, fair to good; pears, light; plums, fair to

good; cherries, good; peaches, light; currants, gooseberries and raspberries, fair to good; blackberries, good; strawberries, light to fair. Codling moth is beginning to show.
—A. W. Peart.

Lincoln Co., Ont.—Dry weather caused considerable dropping but recent rains saved the raspberry crop. Other fruits will be about medium.
—A. M. Smith.

Norfolk Co., Ont.—Apples promise about 60 per cent. of last year's crop. Aphid has done considerable damage.
—Jas. E. Johnson.

Grey Co., Ont.—All kinds of fruit have made wonderful progress since last report. Apples set very heavy and are staying on well. Unless there is a lot of thinning done, there will likely be a lot of inferior fruit in orchards that are not under cultivation. Trees that were sprayed well

In 1905, the Grimsby Co-operative Co., was formed, a purely distributive company confined to a few growers. This company has proved fairly successful, has turned out a good quantity of fruit and has given good returns to its members. Quite a number co-operative societies have come into being throughout Ontario for the purpose of handling apples during the last four or five years at Simcoe, Walkerton, Oshawa, and a number of other places, and have met with a fair measure of success.

The co-operative system seems to afford the best outlook in the future for the ordinary grower, who is not fitted to both produce a good article of fruit and to distribute the same so as to bring him the best returns. A co-operative society demands a capable man for manager and one who can gain the confidence of the growers.



Weighing the Big One on Glenleeve Fruit Farm. See Article on this page.

are fairly free from worm and scab. There is a very good crop of cherries but a lot of rot where trees were not sprayed.—J. G. Mitchell.

Selling Fruit on the Co-operative Plan*

F. G. H. Pattison, Wentworth Co., Ont.

About the year 1883, some of the leading growers around Burlington formed a co-operative association, called "The Burlington Shippers' Co.," for the purpose of shipping their apples and pears to the Old Country. This company has been in existence ever since and has shipped more or less fruit every year. The results in the main have been satisfactory to its members, of whom there are now about fifteen.

In the year 1898, the fruit growers in the neighborhood of St. Catharines formed a co-operative company, termed the "St. Catharines Cold Storage and Forwarding Co.," Beginning in a small way, the company has been very successful as a purchasing and distributing company, storing, packing and selling it both on order and by commission; also, purchasing supplies of all kinds in wholesale quantities at a great reduction in price. In the year 1907, they shipped 210 cars of fruit, netting about \$100,000 and saving their members \$21,000 in express charges alone, and also purchased \$25,000 worth of supplies at a large saving to their patrons. This company has raised the standard of fruit produced in its neighborhood and has enabled the growers to realize better prices for their fruit whilst at the same time giving the consumers a better article.

*Extract from paper paid at last convention of Ontario Fruit Growers' Association.

Under such, I think the system approaches nearer to the ideal than any other. By purchasing supplies in wholesale quantities and shipping in carload lots a great saving is effected, and more can be accomplished with the carrying companies by an organization of this kind than by individual growers. By this means, the packing can be carefully attended to and an article of uniform excellence turned out which will give satisfaction to the members of the system and to the consumer, sales can be made on order for nearly all the better grades, and arrangements can be made with canning and wine factories to considerable advantage. This system encourages the growers to produce a good article of fruit, as he knows he will get good value for it. As co-operative societies increase and further develop, the supply of fruit can be largely controlled and thus in a measure the price. The next few years will probably see considerable development along these lines, and the day may come when all the growers in our fruit belt between Toronto and the Niagara River will be combined in one central organization, controlling the output and operating through smaller societies at each shipping point.

How we Grew the Big Ones
L. A. Hamilton, Glenleeve Fruit Farm, Peel Co., Ont.

The big squash shown in the accompanying illustration was grown from Rennie's Mammoth Green squash. Special means were not resorted to in order to produce a satisfactory crop of these Mammoths. The ground was carefully prepared and in excellent condition following a heavy crop grown the year before. The soil was heavily fertilized receiving a good dressing of manure, having a large percentage of night soil as one of its constituents.

The squashes were grown in close vicinity of the farmer's house and were watered freely with the waste water from the kitchen and laundry. The laundry water, heavily charged as it was with soap, had the effect not only of giving nourishment to the plants but of keeping down insects that might prove injurious to the leaf.

As these big squashes were grown with such ease and without the trouble necessary: where artificial means are resorted to of stimulating the vines, there is no valid reason why we should not grow greater competition at the fall shows among the farmers for the prizes offered for mammoth squashes.

Setting an Asparagus Bed

"What is the best method to pursue in starting an asparagus bed?" This question was referred to Prof. A. S. Safford, state zoologist for Pennsylvania, by one of the newspapers of Philadelphia, the information having been asked by a correspondent of the paper. It elicited the following reply:

"In planting an asparagus bed the ground should be spaded or plowed deeply, or to a depth of twelve inches, if possible. In turning the soil, manure or a mixed well-rotted fertilizer should be mixed with it and, in fact, some of the best fertilizer should be turned under completely. The soil cannot be made too rich. Three or four inches of manure well turned will answer the purpose. To the soil will not be too much. Dig holes to a depth of eight inches with a circumference of two feet, making the rows four feet apart, or at least not less than four feet. Put two inches of well-fertilized good earth in the bottom of each hole and set the asparagus plant or root on the hole, with the roots spread in every direction. On the place about two inches of good rich soil that is not so damp as to pack or cake when tramped, and then tramp it with the feet firmly around the heart of the stalk of the plant. The object of making this kind of plant grow is to pack the earth quite firmly about the roots but not to have it so wet that it will cake or form a ball. Next, throw two or three inches loose earth over the packed earth, leaving a depression in the ground for watering and future filling. As the little weeds start, hoe and gradually fill the space around them, thoroughly and frequently, and use considerable salt and commercial fertilizer. In fact, much salt can be used on the surface of asparagus beds to kill the weeds, and at the same time benefit the asparagus plants greatly. I have seen the ground covered to a depth of one inch, killing the grass and weeds but not injuring the asparagus roots.

"The chief pests will be the 'Rust,' for which spraying should be done with Bordeaux mixture, and the Asparagus Beetle, which insects should be dusted with freshly slaked lime (thirty parts) and Paris green (one part); or sprayed with arsenate of lime, one ounce in each gallon of water or Bordeaux mixture.

According to the value of the United States, \$500,000,000; man, woman a amounts to a Mr. Hastings, partment of the last year a time looking says, to have nearly down of had eggs a campaign of producers—and buying eggs to price according to co-OPERAT

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POULTRY YARD

Poultry Industry in Canada

Prof. F. C. Elford, Macdonald College
According to the census of 1901 there was in the neighborhood of 17,000,000 head of poultry on Canadian farms. The various stocks and products were over \$16,000,000—being about \$10,500,000 for eggs alone. If the same yearly increase in the number of poultry has been kept up until the present year, there would have remained the same there will be this year about \$22,000,000 derived from the poultry industry. This amount points to the magnitude of the industry in Canada. More people are interested in the growing of poultry than in the growing of any other farm product. In 1901 there were about 2,500,000 of the various breeds in the production of poultry. The extent to which eggs are used as a food is probably equalled only by meat and flour. Eggs as a diet are looked upon more and more as a necessity. The prospects for a farm department were never brighter than they are for poultry. Few businesses can be operated in as wide a range of climate and in various sections. Most departments of the farm have their off seasons, but the wet or dry, the cold or hot year rarely makes a difference to the poultry crop.

Any farm is improved by poultry department, and no department can be carried on with as inexpensive an outfit. The system of mixed farming usually carried on in Canada is ideal for the rearing of poultry. Many farms waste sufficient grain to feed a flock. Up-to-date methods of handling poultry make it possible for a flock of hens to add to the farmer's yearly income, without interfering with the time required for other crops. But when we compare our results with other countries, some of which are not better adapted to the industry, we find we are not living up to our opportunities. If poultry were given the same encouragement that other departments of the farm receive Canada might easily realize many times what she does from this industry.

FIGURES FROM THE UNITED STATES
According to Secretary Wilson, the total value of the poultry products for the United States in 1908 was over \$500,000,000; over \$6.00 a head for man, woman and child. In Canada it amounts to a little over \$4.00 a head. Mr. Hastings, an expert in the Department of Agriculture, who has for the last year been spending all his time looking up poultry conditions, says, to save the millions of dollars carried down by the farmers in the shape of bad eggs we must have first of all a campaign of education among egg producers—and secondly—a system of buying eggs that will guarantee a price according to quality.

CO-OPERATION IN DENMARK
According to its population and size, Denmark is ahead of all European countries in the export of eggs. Denmark, however, is a country of co-operation. In 1903 they exported 42,500,000 dozens of eggs. Prior to 1895, which was the first year of their co-operative work, their highest export reached only 19,000,000 dozens. The cash received that year was only one-quarter of what was received in 1903. The number of poultry in 1893, two years before co-operative societies were inaugurated, was 4,500,000. In 1898, two years after co-operation was adopted they numbered 8,750,000. When these poultry societies came into existence, Denmark's eggs were sold and sold very cheaply on the English market. Now, owing to the work of the societies, both the quality and price have very much advanced. Before the formation of the societies, eggs were said to be at least one

month old when they reached the market. Now the oldest of them are but a few hours over a week. The reason for the advance in poultry culture in Denmark is ascribed to their system of co-operation. Other countries are gradually taking up the idea, and are proving that the principle is sound. The situation will be further dealt with next week.

Hints on Summer Management

At this time of the year, the poultry should be most interesting than at any other. The hens should all be laying well and the chickens growing. The main care should be to provide clean sleeping quarters. If convenient, an outdoor roosting place should be provided, one with sufficient roof to shed the rain. A sharp outlook should be kept to see that vermin, that live in the crevices of the roosts, do not get an opportunity to increase to such numbers that they injure the fowl. Apply weekly a lice destroyer or kerosene to the joints of the roosts. Prevention is better than cure.

See that the young chicks get sufficient to eat. Rations that were ample a week ago, are too small now. With warm weather chick development takes place rapidly. It is wise, therefore, to nourish them with that development and so bring the young stock to early maturity that the pullets will be ready to lay before winter. Keep a sharp outlook too, that rats, cats and other depredations are not in the night time, preying on the young stock. If there are a large number of chicks, the simplest way to count them is when they have gone to roost for the night. It is recommended that this be done at least once a week for great ravages may take place in a night or two and a large number of the chickens may be destroyed before it is known that some enemy is at work.—S. Short, in The Canadian Horticulturist.

Poultry Producers Association

To arrange for the co-operative work to be carried on and to decide upon the standards, etc., of the proposed meeting of the Poultry Producers Association was recently held at Ottawa. The meeting was most enthusiastic throughout. The intention is to keep the standard high so that the brand will be a guarantee of quality. The following are the grades for dressed poultry and eggs as decided upon:

GRADES OF DRESSED POULTRY
Selects.—To consist of specially fattened chickens, extra well fleshed, and of superior quality, straight unbroken skin, with appearance of breast bone, and neatly packed in packages that hold one dozen birds; the package shall be made after the plan recommended by the Department of Agriculture and illustrated in bulletin No. 7. One package shall include only birds of a uniform size and color of flesh and legs.

No. 1.—To consist of well fleshed chickens of neat appearance, straight breast bone, no disfigurement. Packed in neat strong boxes.

No. 2.—To consist of fairly fleshed chickens, packed in neat strong packages. The term "chickens" shall mean all birds under seven months of age.

Fowl.—Meaning birds not over two and a half years old shall be graded the same as chickens but shall be marked "fowl," and must not be mixed with chickens. Cocks must not be included in these grades. Birds that have been sick or show any indication of disease, birds that have food in the crop, that have decidedly crooked breast bones, that have blood or other dirt upon their feet, shall not be included in these grades. All birds must be dry plucked, gradually but thoroughly chilled before packing, not dipped in water. Put on the market

undrawn, having head and feet on.

GRADES OF EGGS
Selects.—To consist of strictly new laid eggs, weighing not less than 24 ounces to the dozen. Clean, of uniform size and color, packed in substantial and neat cases having clean fillers.

No. 1.—To consist of new laid eggs, not less than 22 ounces to the dozen. Clean, fairly uniform in size and color, packed in substantial neat cases with clean fillers. During the months of November, December and January, the weight clause shall be reduced by two ounces.

No. 2.—To consist of new laid eggs. Packed in substantial cases. All eggs must be marked with the registered Trade Mark.

REGULATIONS FOR MEMBERS OF BRANCHES
1. Each member should bear in mind that the aim of the Association is not only to get better prices but to raise the standard of poultry produce and to make the Trade Mark an absolute assurance of quality.

2. All produce of a branch must be shipped through the central depot, and the packages must bear the Trade Mark, grade and number of the Branch.

3. The manager is responsible for the output of the Branch. He must see that all grades are properly marked and that all members get full value for produce offered. In case of a buyer's complaint against a Branch, the manager must be able to trace the misdeed to the member.

4. Members must abide by the manager's rating of the produce, and adhere to all by-laws of the local branch. Shut up or otherwise dispose of all male birds except from January first to June 15th, offer for sale no eggs except those laid by his own hens and what may be contained under the three grades mentioned, this excludes eggs that may have been laid 24 hours, before gathered, eggs that have been found under setting hens; in fact all eggs that cannot be guaranteed as absolutely fresh.

5. None but artificial eggs must be used for nest eggs. Eggs must be gathered at least once every day and must be stored in a clean room, free from any deteriorating influence, of a temperature not to exceed 60 degrees.

6. Eggs must be delivered to the collector or brought to the central depot as often as requested by the manager.

7. No eggs on hand but not delivered at any collection shall be offered at the next collection.

8. No birds shall be offered for sale that show signs of disease or are known to be diseased.

9. Any member found guilty of violating any of the foregoing shall on the first offence be fined not less than one dollar and in case of a second offence be expelled.—F. C. Elford, Secretary P. P. Association.

Beef scrap at three cents a pound is cheaper than ground bone at two cents.—W. R. Graham, O.A.C.

As fast as the chicks hatch under the hen, take them from the nest and put them in a basket behind the kitchen stove.

Green bones and scraps of waste can often be bought at the butcher shop at a reasonable price, and this makes an excellent feed for poultry if given to them while frozen. Never feed them decayed meat.



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all improvements of the public highways. The day for temporary and slipshod work has passed, and the campaign of education that has been started must be pushed with vigor. Railroads have been developed to a point where they can do little more to overcome delay and congestion in the handling of crops and merchandise without good country roads to facilitate the work of hauling and distribution. This makes the question of good roads one of the most urgent at present demanding public attention.

Creamery Department

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

Butter Industry in Saskatchewan

W. A. Wilson, Supt. of Dairying.

Many people have been pleased to classify Saskatchewan as a purely wheat growing province, forgetting that, as a whole, it is not an unbroken prairie, but that large portions of it are admirably adapted to mixed farming. Demonstrated results are more convincing than words and a perusal of the figures given below substantiate the view of those who hold that intelligent dairying is a profitable business.

	No. of Patrons	Lbs. of butter.
Moosomin	1907	35 2,433
	1908	80 5,533
	1909	88 9,228
Qu'Appelle	1907	15 1,334
	1908	84 7,596
	1909	72 6,179
Tantallon	1907	44 2,494
	1908	79 8,815
	1909	130 14,160
Langenburg	1907	54 5,657
	1908	138 23,380
	1909	187 24,976
Birch Hills	1909	100 15,487

The foregoing is a comparison of the first eight weeks' work for the season 1907-08-09 at the creameries under government supervision. For the same period the total made for the three seasons is tabulated below:

	1907	1908	1909
Moosomin . . .	2,433	5,533	9,228
Qu'Appelle . .	1,334	7,596	6,179
Tantallon . . .	2,494	8,815	14,160
Langenburg . .	5,657	23,380	24,976
Birch Hills . . .	15,487		
	11,918	45,324	70,030

This year the Lloydminster creamery will be added to the list of government supervised creameries, and will commence work about the 10th of July. In addition there are four other new creameries which will operate under local management.

The butter market has been quite active and already the dairy branch of the Department of Agriculture has received upwards of \$12,000.00 in its patronage. With favorable weather conditions and plenty of food for stock it is estimated there will be a make of 350,000 pounds of butter at the five creameries named above for the six months ending October 31st, or an average of 70,000 lbs. at each creamery.

Lessons from Denmark

Lessons that were to be learned from a study of Danish methods formed the subject of an address given by Mr. D. Cuddie, Dairy Commissioner for New Zealand, at a gathering of dairy factory managers and butter makers held recently at Auck-

land. It will be remembered that Mr. Cuddie also visited Canada. Some extracts from Mr. Cuddie's address at Auckland follow: In Denmark the majority of the farmers own their own land, only about one-fifth being on leasehold. One of the most instructive chapters in the history of agricultural progress is the rise of the dairying industry in Denmark. One of the first things that struck a visitor was the close settlement; the whole country looked like one extended village. The conditions under which milking was carried on were superior to those in New Zealand. The utmost attention to details was observed, and at least 75 per cent. of the dairy farmers cooled the milk during summer. When dairying commenced in Denmark the cattle were of a poor stamp but to-day breeds of dairy cows in the world are obtained by most careful selection and breeding. There were nearly 11,000 farmers owning 100,000 cows, who led the milk regularly tested for butter-fat, and the testing associations had improved the yield of the cows by 1000 lbs. of milk a cow per annum, or 40 lbs. of butter a cow.

There was no home separation in Denmark, and few creameries. The great bulk of the produce, something like \$11,500,000 worth per annum, was made in the dairy factories. In point of equipment the factories in Denmark were not ahead of plants, and the great reason why Danish butter was so superior to other pasteurized butter was because of pasteurization. About 20 factories in New Zealand had established pasteurizing plants and he hoped to see many more very shortly. He strongly recommended pasteurization in every case.

The Danish people were just a little bit ahead of New Zealand in the making of butter. The use of a separator where most extensively, and he strongly recommended a froser use of it in New Zealand. No special secret "starter" was used for cream; the Danish people had no trouble with the starter, simply observing scrupulous cleanliness. There was a tendency in New Zealand to ripen cream at too low a temperature. As a general principle the temperature should be between 63 and 65 degrees. There were about 45 co-operative dairy companies belonging to one association in New Zealand, and sending all the butter to the one grading depot. The result was a great uniformity in the butter. The system would not be practicable in New Zealand, but the point to be learned was that the keeping quality of the butter was being continually tested. This was a matter that New Zealand dairy factories should take up.

In answer to the chairman, Mr. Cuddie said there was not a dairy factory in Denmark which was not compelled by law to pasteurize both the cream and the skim milk, exhaust steam being used for the skim milk and direct steam for the cream. The pasteurization of the skimmed milk was enforced, so as to lessen the risk of spreading tuberculosis, and the results were certainly satisfactory.

Sourness of Cream and Butter Flavor

It has been a generally accepted theory among teachers of and writers on dairy subjects that the production of good butter necessitates the development of a certain amount of acid in the cream, for two reasons — to develop a desirable flavor and to improve the keeping quality. Recent investigations by the United States Department of Agriculture indicate, however, that butter made from pasteurized sweet cream is better keeping qualities and remains free from objectionable flavors for a longer time than butter made from sour cream.



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WINNIPEG

The Dairy Division of the Bureau of Animal Industry for the past three years has been making a study of the changes which butter undergoes in storage, and especially the influence of acidity of cream on the keeping qualities. This was done to determine the best method of making butter for storage. The investigations have been carried on by Messrs. L. A. Rogers and C. E. Gray, and included the making of experimental lots of butter by different methods and in different parts of the country. This butter was kept in cold storage and was examined and scored at certain intervals, the scoring being done by men who had no previous knowledge of how, when, or where the butter was made, so that their conclusions were based strictly on the quality of the butter. A report of this work has recently been issued as Bulletin 114 of the Bureau of Animal Industry.

CHANGES IN STORED BUTTER.

As a result of the investigations it was found that butter frequently undergoes marked changes even when stored at very low temperatures, and that these changes are more marked as the acidity of the cream from which the butter is made is increased. No bacteria were found in the cream or the butter which could reasonably be expected to be the cause of the more rapid deterioration of the high-acid butter. Furthermore, the changes in the high-acid butter were not checked by heating the ripened cream, which shows that they were not brought about by enzymes secreted with or in the cream and carried into the butter. The results also indicated that acid which develops normally in the cream by the action of certain bacteria, or which is added directly to the cream in the form of pure acid, brings about or assists in bringing about a slow de-

composition of one or more of the compounds of which butter is largely composed.

A STARTLER.

What is regarded as of special importance is the fact that butter can be made commercially from sweet pasteurized cream without the addition of a starter. Fresh butter made this way has a flavor too mild to suit the average dealer, and is sold after storage as high-grade butter. At the present time there are at least ten creameries in the country making butter from sweet pasteurized cream without a starter and many more with a starter but without ripening. The statements in regard to butter from unpasteurized cream, cream churned without ripening, butter made from unpasteurized cream churned without ripening. Butter made in this way has poor keeping quality.

Butter for the United States Navy is being made from sweet cream, and this plan, adopted last year, is giving satisfaction. A tub of sweet cream butter, 14 months old, on examination at the National Dairy Show last December had no storage or fishy flavor, and was pronounced a fine article.

We have two kinds of creamerymen and both have their mind on the making of good butter. One class wishes for good raw material, the other is trying to get it. Which class will accomplish the most it is not hard to guess. The first class has no trouble in the receiving room—they "take care" without a remedy. The laws of compensation, however, are never-failing.

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Her conversational attainments did not run high. "Things is what they are, and what's the good of saying anything," Martha had once said in defense of her silent ways.

She was small and sallow-skinned and was dressed in an anaemic gray; her thin hay-colored hair was combed straight back from a rather nice forehead. She stooped a little when she walked, and even when not employed her hands picked nervously at each other. Martha's shyness, the "unappearing" quality, another of her virtues in the eyes of Tom's mother. Martha rarely left home even to go to Millford. Martha did not go to the agricultural fair when her mats and quilts and butter and darning and buttonholes on cotton got their red tickets. Martha stayed at home and dug potatoes—*a nice, quiet, unappearing girl.

When they played the games at the Slaters that evening, Martha would not play. She never cared for games, she said, they tired a person so. She would just watch the others, and she wished again that she had her knitting.

Then the kitchen floor was cleared; table, chairs and lounge were set aside to make room for the dancing, and when the violins rang out with the "Arkansas Traveler," and big John Kennedy in his official voice of caller-off announced, "See you, partners," every person felt that the real business of the evening had begun.

Tom had learned to dance, though his parents would have been surprised had they known it. Out in the barn on rainy days hired men had obligingly instructed him in the mysteries of the two-step and waltz. He sat in a corner and watched the first dance. When Jim came into the hall, after receiving a warm welcome from Mr. and Mrs. Slater, who stood at the door, he was conscious of a sudden thrill of pleasure. It was the vision of Camilla, at the farther end of the dining room, as she helped the Slater girls to receive their guests. Camilla wore a red dress that brought out the blue of her eyes, and it seemed to Jim as he watched her graceful movements that he had never seen anyone so beautiful. She was piloting a boy of bashful girls to the stairway, and as she passed him she gave him a little nod and smile that set his heart dancing.

He had heard the caller-off calling for partners for a quadrille. The fiddlers had already tuned their instruments. From where he stood he could see the figures forming, but Jim watched the stairway. At last she came, with a company of other girls, none of whom he saw, and he asked her for the first dance. Jim was not a conceited young man, but he felt that she would not refuse him. Nor did she.

Camilla danced well and so did Jim, and many an eye followed them as they wound in and out through the other dancers. When the dance was over he led her to a seat and sat beside her. They had much to talk of. Camilla was anxious to hear of Pearl, and it seemed all at once that they had become very good friends indeed.

The second dance was a waltz. Tom did not know that it was the music that stirred his soul with a sudden tenderness, a longing indefinite, that was full of pain and yet was all sweetness.

Martha who sat near him looked at him half expectantly. But her little gray face and twitching hands told the room. Nellie Slater, flushed and smiling, was tapping her foot to the music.

He found himself on his feet. "Who cares for music?" he muttered. He was beside Nellie in an instant.

"Nellie, will you dance with me?" he faltered, wondering at his own temerity.

(Continued next week.)

Getting Acquainted

I use 'o to think my papa was an awful solemn man.

An' when he was at home I never sung, or yelled or ran, buhcause I didn't dast to! An' buhcause I'd never 'd come in He's tired from talkin' business to the folks where he is been.

I use 'o to call him "father," I don't hav' 'o any more buhcause we've got acquainted like

An' him an' me, we understand each other an' are glad, An' he don't care a little bit if I should call him "Dad!"

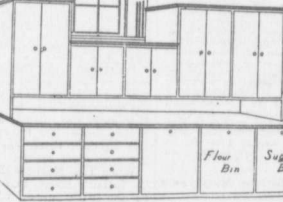
He stayed at home one day las' week an' took me for a walk, An' for a little while, why, I was most afraid to talk.

But pretty soon he ast of me if I knewed what kind of bird

Was singing way yonder, when its song was all we heard—

An' I told him it was a lark, an' then he told me why 'o sing away up in th' deep blue sky, I was surprised, buhcause I never thought my papa knew

Th' least thing about th' birds, like other people do.



A handy kitchen cupboard, the plan of which is easily seen. It is built around a window, and is almost indispensable. The upper part consists of shelves with glass doors, the lower part of drawers, bins and shelves. It might be built and used in place of a pantry. It is a good substitute for a kitchen cabinet.

An' then, why, purty soon he found a willow tree, an' made

A whistle for me, an' showed me how it could be played.

By just cuttin' little holes, till it was like a fife—

I never been surprised so much before in all my life.

An' he told me lots of things, an' showed me how to see

Which way is north by lookin' for th' moss upon a tree,

An' how a daddy long legs finds your cows 'at's running loose,

An' how grasshoppers will set up an' spit tobacco juice!

An' lots of other things! Why, say, you never could have guessed

My papa'd ever been a boy like me an' all the rest.

He really was, though, for I ast him if he'd been a boy

An' he said sumpin' 'bout th' days 'o sunshine an' 'o joy

An' he said he was a 'boy one time an' now is one again,

'At boys could still be boys, although they grewed up to be men,

So him an' me, we understand each other an' I'm glad.

An' he don't care a little bit if I should call him "Dad!"

Children Needing Homes

During the past year, as a result of articles that have appeared from time to time in Farm and Dairy, readers of this paper adopted about 40 children from the various children's shelters in Ontario. More applications have been received from our readers for children than there were children to supply. There are now a

number of children ranging in age from two to nine years, in the Children's Aid Shelter, Peterboro, Ont. If any of our readers would like to adopt some of these children, they are advised to correspond with the manager of the shelter, addressing their letters to the Manager, Children's Aid Shelter, Peterboro, Ont.

The Upward Look

Where is Your Treasure

For where your treasure is, there will your heart be also.—Luke 12:34.

What do we think about the most? good looks? our cleverness? what it our children? our work? our desire to get on in the world? Or is it our constant aim to so live that everything we do will be pleasing in God's sight? If our thoughts are so centered on matters pertaining to ourselves and our families that we forget, except at rare intervals, to worship what God would like us to do, then we are sinning. We are putting other things before our duty to God. Our God is a jealous God. He is not willing that we should set anything ahead of Him in our thoughts. When

acquaintance we must strive in all things to do good unto others. We can do this best by being faithful and diligent in the performance of our everyday duties and by being kind and thoughtful of others. We must love one another. We must, also, strive earnestly to overcome our faults. Every fault we have injures some one else. If we only have faith and will ask a right God will enable us to overcome our faults. He has promised to us. We must be careful though, when we ask Him, that our heart is not wrapped up in the affairs of this world. Whatever we think of most is where our treasure is. We should see to it that our chief treasure is our delight in God's love for us, and that our one aim is to please Him in all things.—I. H. N.

A Kitchen Memorandum

A most useful article in the kitchen is a small child's slate, on which to write articles to be ordered from the butcher or the grocer as fast as they run short. It can be plainly seen and there is no danger of its being overlooked—as is the case when one depends on paper and pencil.

I received the fountain pen you sent me for securing only one new subscriber to Farm and Dairy. It is a very good one and I am pleased with it.—Mr. Cruise, Argenteuil Co., Que.

Fun for the Holidays

Secure this Camera FREE OF COST



What boy or girl would not like to have a camera of their own this summer. Here is a chance to get one free of cost. This roll film camera, fixed focus box type, taking pictures 2 1/2 in. x 3 1/2 in. will be sent you free of cost for securing a club of ONLY FOUR NEW SUBSCRIBERS to Farm and Dairy at \$1.00 each. Write for some sample copies and get some of the neighbors to subscribe. It will not take long to secure four new subscribers. This is a splendid camera, and you can have a good time this summer with it.

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FARM AND DAIRY, PETERBORO, ONT.

The annual Institute was Monday, July 26, and thestitute speaker Powell and noon session some good. At the evening Mr. Duff of ment at Nor congratulated splendid Int and Mr. Duff tions and rec Fourteen new the Institute.

Trouble

"In spite of said Dairy In-boro Co., Ont. Farm and Dairy separator agency misleading cream sepa-

I called at the of farmers who Peterboro. Cre their cream se a number of th being kept in a farmers' cream farmers' agents had to necessary for t

ars—each time of the agents to send thin c claiming that t money by doing was shown by that some of th sending cream per cent., where test 35 per cent.

"I pointed out they were paid eeding to the c could not expect

Don't Throw It Away



A CONG HAM

Secure one



"This hammock is pillow, head spruce side. It comes in colors, which are tions. Size of box will be sent to you turn for securing W SUBSCRIP

Secure one to enjoy your afterno

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HOLSTEIN-FRIESIAN NEWS

Farm and Dairy is the official organ of the Canadian Holstein-Friesian Association...

SPECIAL WORD TO HOLSTEIN BREEDERS

As your representative on the Toronto Canadian National Exhibition Board, I take this liberty of calling your attention to the near approach of Toronto's big fair...

BULL TRANSFERS FOR MAY, 1909.

The publication of these transfers is paid for by the Holstein-Friesian Breeders' Association: Prince De Kol Hartog, Wm. E. Hermiston to Duncan Finlay, Hastings, Ont.

Rosa Mechtilda's Keyes, Edward M. Bull to Alton Leavitt, Picton, Ont. Rosehem Hengerveld, W. W. Brown to J. R. Arnold, Easton's Corners, Ont.

Tidy Butter Joy, Gordon H. Manhard to W. J. Moffat, North Augusta, Ont. Diana's Beauty, Port Granby, Ont.

COW TRANSFERS FOR MAY, 1909.

Aaggie De Kol Yekma, James Lowrie to M. H. Haley, Springfield, Ont. Aaggie Josephine Abbecker, H. E. George to A. W. H. Dean, Stratford, Ont.

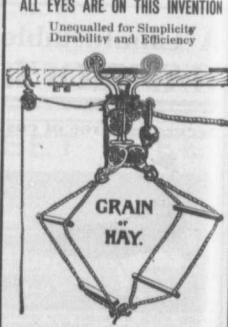
Carrie B., John Haycock to F. E. & Bert Thornton, Kintore, Ont. Catherine Panarista De Kol, R. S. Stevenson to J. L. Low, Stratford, Ont.

RICH DANVILLE, 2 WEEKS HAS BEEN OF HAY, AND A TAKEN ADVANTAGE IS SHORT IN WHERE NEW NEEDS...

Dee Mischief De Kol, R. S. Stevenson to A. E. Bishop, Norwich, Ont. Dea Josephine Nudine, H. E. George to Nell McEugan, Tavolville, Ont.

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Tolton's Fork and Sling Carriers ALL EYES ARE ON THIS INVENTION Unequalled for Simplicity Durability and Efficiency



No barn complete without one. The name does it all. All kinds of Slings, Forks and Carriers, suitable for all farm and stock track. Send for descriptive circular, or see our local agent.

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DAIRYMEN! ATTENTION! 1909 WESTER 1909 LONDON BUTTER-MAKING COMPETITION DAILY CASH PRIZES Large Prizes for Cheese and Butter ONTARIO'S POPULAR EXHIBITION SEPT. 10-18 A beautiful Silver Cup for the winner of Sec. 2, Class 48. Send for Prize List REDUCED RATES ON ALL RAILROADS Write for particulars to— W. J. REID, President A. M. HUNT, Secretary

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July 29, 1909. OUR F... NEW CAR... JACKSONVILLE been splendid sunshine and... considerably dry weather in... fields of potato... crop will be... month ago... Practice... become settled... later than usual... cows are giving... this summer... RICH DANVILLE, 2 WEEKS HAS BEEN OF HAY, AND A TAKEN ADVANTAGE IS SHORT IN WHERE NEW NEEDS... THE EDGE-H... is a better crop... rain on the 19th... Bay. Corn and... since the rains... looking very good... good yield per... short—A... VICTOR... responsible for a... they would be f... without their use... rain in... crop is a failure... plants have app... crop by insect... the other hand... The former will g... hay crop is light... cases, due to... The alkali, thoug... exceedingly diffic... shortness of the... BALHUR KINMOUNT—The since the 12th has... roots and gra... is almost a failu... acres will not be... ing about half a... old meadows the... The outlook is very... out at two inch... planted corn have... crop. Some outlu... through offering... bought many outl... be to the 1 lb. H... live commission m... ST GEORGE'S (A July 21) having 1... haw crops are claim... The hot weat... somewhat by burni... the surface of t... new life into the... now often in rath... are for a light cr... which is filling c... Canada fields in a... new life to it. It... as at present, I... the ridge p... ken's advice. Can

OUR FARMERS' CLUB

Contributions Invited.

NEW BRUNSWICK

CARLTON CO., N. B.

JACKSONVILLE.—The last month has been splendid growing weather. Lots of sunshine and lots of showers. Grain and roots are growing finely. Potatoes missed dry weather in May and June, but most fields of potatoes are those that were sown deeply at planting time. The hay crop will be better than was expected a month ago, but will still be below the average. Practically no one has commenced haying yet (July 20th) but nearly every one will begin this week if the weather becomes settled. It is raining today. This is the third season in succession that haying has been from 10 days to two weeks later than usual. Pastures are good and cows are giving a good flow of milk. There is a good crop of young colts and fillies this summer.—W. R. McE.

QUEBEC

RICHMOND CO., QUE.

DANVILLE.—The weather the past two weeks has been favorable for the making of hay, and a number of farmers have taken advantage of the good weather. Hay is short in old meadows but growing where new seeds have been sown. Grain and all root crops are doing well. Pastures are good, and all root crops included, are doing well. There will be a great crop of apples. The plum crop is still satisfactory. Potatoes are doing well and pork is scarce and high in price. Lamb crop is plentiful. Beef and pork, 1 lb; eggs, 15c; butter, 20c. Lambs are selling for a piece.—M. D. B.

ONTARIO

HASTINGS CO., ONT.

THE RIDGE.—Haying is in full swing; hay is a better crop than was expected. Heavy rains on the 10th and 12th of July were a great benefit to grain, as well as to hay. Corn and potatoes are doing well since the rains. Oats and barley are coming very good, and if we only get an occasional shower they ought to give a good yield per acre. Cows are giving fast in their milk owing to the pastures being very short.—A. B. C.

VICTORIA CO., ONT.

OAKWOOD.—Recent showers have been responsible for a great change in the crop prospects. Many farmers who feared that they would be forced to face the winter without their usual supply of turnips, have been relieved of that worry by the timely rains. In a number of cases the mangel crop is a failure, for where the small plants have appeared they have been destroyed by insects. Corn and potatoes, on the other hand are exceptionally thrifty. The former will greatly assist those whose crops have failed, as it is in the majority of cases, due to the continued dry spell. The abate, though filling well, will be exceedingly difficult to cut owing to the shortness of the straw.—R. W. H.

HALIBURTON CO., ONT.

KINMOUNT.—The showers we have had since the 12th have done the corn, pots, clover, roots and grain a world of good. Hay is almost a failure, as a large number of acres will not be cut owing to the shortness of the straw. New meadows are only turned out half to the acre; in the old meadows the June grass is dried up. The outlook is very bad. Oats are heading out at two inches high. Those who have planted corn have the corn from a fair to a good crop. Some cattle buyers have been bought many cattle. Butcher is still low, to be a lb. Here is the place for a live commission man to start.—J. O. T.

BRANT CO., ONT.

ST. GEORGE.—At the time of writing hoe crops are claiming the farmers' attention. The hot weather earlier in the month damaged manure and sugar beets at the surface of the ground, but the recent rains have stopped this and also put new life into the spring grains, which were so often in rather sorry plight. Prospects wheat is filling out of coarse grains, while from fair to good. Cutting will begin in a week or so. With wheat looking general in a way that will be of benefit as at present, farmers do not relish having the midge reappearing after its long absence. Can't be that ancient his-

tory will be reenacted? Pastures are short and the milk supply is steadily falling off except where special feeding is resorted to. Corn is doing well, though late as are other crops. With favorable weather during the next few weeks the silos will probably be full for winter.—C. S.

WELLINGTON CO., ONT.

METZ.—Haying has just commenced. The hay crop will not be as heavy as it was thought it would be. Oats and barley will be mowed to head out. The root crop is most plentiful, though their turnips some are complaining that their turnips haven't come up. The pasture is also drying up and unless more rain comes soon those who have bought cattle in the spring for the grass will not be able to make much.—R. H. S.

OXFORD CO., ONT.

NORWICH.—Crops are looking fine but the spring grain needs rain badly, none having fallen since June 24. A few fields of oats and barley which were sown in April, are cut in head. A large area of land planted to corn, some having planted as much as 25 acres to a 100 acre farm. It has made very rapid growth owing to the hot weather of late. The hay crop is being harvested but is not nearly as good a crop as was expected. The crop look very good. Many fields will not yield more than a load an acre. Hogs, \$7.75 a cwt; eggs, 17c a doz.—G. P.

HURON CO., ONT.

POETER'S HILL.—Haying is the order of the day; some have finished and others are still busy harvesting the crop. On one gave a very favorable crop. Wheat cutting has just commenced. The acreage is not heavy. The crop look very good. We have had a long dry spell, which has retarded the growth of the spring crops to a considerable extent. The 15th of July we were one month without rain. Since that we have had abundance. Fruit is doing very nicely on cultivated orchards. The apples are going to be larger in size than usual and of good quality. Considerable quantities of cherries are grown and are a good crop, selling from 50c to 75c a basket.—P. R. S.

BRITISH COLUMBIA

NEW WESTMINSTER CO., B.C.

GLOVERDALE.—The hay crop will hardly be as good as usual, the weather so far has been unfavorable. Oats are doing well as good as former years. Farmers are turning their attention to dairying. Good sires of the milking breeds are being used. Some have purchased a few females as a foundation for a future herd. Some are talking of building silos, and from our own experience they cannot do so too quickly.—S. H. S.

GOSSIP

THE CROP OUTLOOK IN THE NORTHWEST

Latest advices from the Northwest report the condition of the wheat crop all that could be desired. The plants heading out in general, says the current issue of the second week in August will be the critical time, as the wheat will be in the milk stage in different parts of the Northwest within that period; and not until it has escaped the early frosts in the milk stage will be out of danger. Although, as has been stated, as the vast areas of land throughout the Northwest become more cultivated, the injury from frost will be less and less. Present prospects are as bright as they have ever been at this period, and it is simply a matter of weather conditions during the next two or three weeks as to the nature of the harvest.

HONORED BY THE KING OF SWEDEN

Henning G. Taube of Montclair, N. J., well known in Chicago, has been created by the royal order of the Vasa to New York in 1869, and he entered business there. His father, who iron industry, brought him to New York in 1869, and he entered business there. His father, who iron industry, brought him to New York in 1869, and he entered business there. His father, who iron industry, brought him to New York in 1869, and he entered business there.

NOTE.—Mr. Taube, who is president of the Empire Cream Separator Company of Canada, Limited, of Toronto, has been in many years past been most prominent in Swedish national interests in the United States as well as in his native land. His brother is now prime minister of Sweden, to which most exalted post he was appointed after long and distinguished services as Swedish Ambassador of Germany. It is a point of great pleasure and gratification to Mr. Taube's friends in Toronto to know that he holds such an illustrious place in the heart and life of his native country.

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

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gushed services as Swedish Ambassador of Germany. It is a point of great pleasure and gratification to Mr. Taube's friends in Toronto to know that he holds such an illustrious place in the heart and life of his native country.

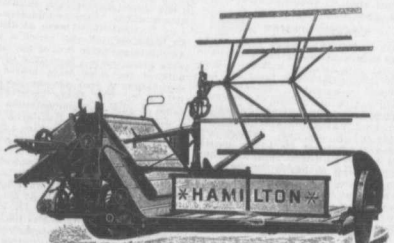
WESTERN FAIR, LONDON, ONT., SEPT. 18-19.

Special efforts are being put forth this year by the management of the Western Fair to make everything in the way of exhibits as attractive and pleasant for the visitors as possible. In the Main Building there will be many new and very interesting exhibits. In the Dairy Hall the butter-making competition will take place each

morning and afternoon, when in addition to the large cash prizes offered by the Assnated by the Canadian Salt Co. of Windsor will be given to the winner of the first prize in section two. In the Machinery Hall will be found all the latest up-to-date machinery in full swing, which is an interesting sight. The Transportation Building, which is always a place of interest, will again be filled with splendid exhibits, and all the Live Stock Buildings will be filled to overflowing. If space is required, write at once to the Secretary, A. M. Hunt, London, Ont., who will promptly furnish price lists, entry forms and all information.

You Will Have No Trouble This Harvest If You Use A

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BECAUSE IT:

- Cuts clean
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 A big nice like skin, but your horse may lack a little or better on his Ankle, Hock, Stile, Knee or Throat.

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will clean them off without laying on of oil or any medicine, no hair gone. A few bottles of Absorbine will free you of all dandruff, itching, eczema, etc.

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Trade Bulletin's London cable of July 22nd says bacon as follows: "The market is quiet, the advance of last week having checked business. Canadian hams 68 to 72."

PETERBORO HOG MARKET
 Peterboro, Ont., Monday, July 26.—Owing to the light deliveries the price of live hogs keeps up but the market is in a very unsteady condition. The English market also is in poor condition, packers over there not getting the cost of the raw product when it is packed. Last week \$2.00 Danish hogs were delivered on the English market. The George Matthews Co. quote the following prices for this week's shipments: f.o.b. country points, 3 cts a weight of cars, \$8.50; delivered at abattoir, from farmers' wagons, \$9.10.

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SWINE IN AMERICA
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It will help you
MAKE MORE MONEY
 Out of the Hog Business

This volume is handsomely printed on fine paper from large, clear type, and is profusely illustrated, containing a large number of magnificent half-tone illustrations and drawings, many of them full page plates, which are printed on a special plate paper. Another marked feature is the frontispiece, which features an anatomical and physiological model of the hog, which appears in a book of this character for the first time. It is entirely new and original, and should prove of the greatest value to everyone—teacher, student, stockman, farmer, or general reader.

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 also Shafting Hangers, Pulleys, Piping, All sizes. Good as new. Write for prices, stating requirements.

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FOR SALE
 No. 1 Alpha Cream Separator (2647). Also one Richardson & Co. postseparator, 1,000 lbs. No responsible offer returned.

BOX 297, LISTWELL, ONT.

MONTREAL HOG MARKET

Montreal, July 24.—The market here for live hogs continues very firm. Supplies are still very light and are meeting with a good demand, the offerings of the local trade. Prices this week have scored an advance and as high as \$8.75 per 100 lbs was paid for selected hogs weighing 60 lbs.

There is a good demand for the dressed article and prices range from \$12.50 to \$12.75 per 100 lbs. for fresh killed abattoir hogs.

EXPORT BUTTER AND CHEESE
 Montreal, July 24, 1909.—The price of cheese this week has ruled slightly lower than the week previous. There has been a good demand this week but the dealers on the other side have not been disposed to pay up for the goods, and as a consequence prices at the country markets this week have been easier. The quotations this week have ruled from 12c for fancy Ontario colored cheese down to 11 1/2c for Quebec white, with underfats quoted all the way from 10c to 11 1/2c per lb.

The country markets opened quiet with few orders from the buyers, and the best prices obtained in the country on Tuesday and Wednesday were 11 1/2c to 12 1/2c. There was a better feeling towards the end of the week, and the market limits in the country were advanced, and the bulk of the cheese sold at 11 1/2c to 11 3/4c. Pieteria advanced the highest prices of the week, the offerings at this board selling at 11 3/4c per lb. This was due to the comparative scarcity of cologne. The offerings this week, however have been considerably increased, and there is not likely to be any difference in price in a few days.

The make is keeping up well, and the total up to date is nearly 10,000 boxes. Over the quantity made during the corresponding period last year. The receipts this week amounted to over 100,000 boxes, this is a considerable increase in quantity than was received the same week last year.

The shipments this week were very heavy, amounting to nearly 10,000 boxes. The large figures are due to the fact that there was no boat to Bristol last week, and there is a good demand from this market. The shipment this week to the Bristol boat was exceptionally heavy, the total amounting to over 4,000 boxes.

The butter market is easing off again. The little enquiry from the other side last week seemed to promise a good demand for our creamery at once, but this has not materialized, and we are still dependent upon the local trade to sustain the market. The dealers here however are already well stocked with June creamery and are not disposed to take on any more unless at much lower prices. The make is well maintained and this week's receipts are even greater than those of the corresponding week last year, very much to the surprise of the trade here who were looking for considerably less.

Finest Eastern Townships creamery is quoted here to-day at 22 1/2c, with ordinary creamery at 22c. The cream is selling at from 22c per lb down according to quality. Dairy is not plentiful, and is quoted all the way from 16c to 19c per lb.

AYRSHIRE NEWS

Farm and Dairy is the official organ of The Canadian Ayrshire Breeders' Association all of whose members are readers of the paper. Members of the Association are invited to send their names for publication in this column.

AYRSHIRES AT SUNNYSIDE STOCK FARM.

When, three years ago, owing to illness Mr. J. W. Logan, proprietor of the "Sunnyside," Howick, Que., called an auction sale and disposed of his fine Ayrshire herd, he did not expect to again establish so quickly as large a herd as is now found at "Sunnyside." His herd numbers 45 head. Two years ago he purchased from Mr. R. E. Ness, Howick, Que., the nucleus of a herd, composed of imported animals. These, together with the few reserved at the time of sale, were increased to the number given above. The sire at present heading the herd, Nether Hall Good Time, '6647, is a superior sire, first imported by Mr. Ness. In the fall of 1887 he won first place in his class wherever shown, and maintained this reputation last year at Calgary, Winnipeg, Regina,

Sherbrooke and Ottawa. He has since first place and three champion prizes to his credit from Canadian shows, and first in class and junior champion at the National Dairy Show at Chicago, in October, 1897. Large in size, combined with quality and symmetry in conformation vigorous and active, with great length of depth of barrel, he possesses all the qualifications required in a dairy sire. This is demonstrated in the excellent young female he found in Mr. Logan's.

Among the imported stock is Moss Rose 2259, a Bargarow general McKinley, a beautiful cow but setting a prize winner and grand producer. Barochie Kate 2697, is another wonderful cow. She won first in the three year old class at Sherbrooke in 1906, as well as the champion prize for best female. Also second in class at Ottawa the same year. A young bull from this cow and by the

TAWORTH AND BERKSHIRE SWINE—Bony sows for sale. J. W. Todd, Cornish, Ont. Maple Leaf Stock Farm.

WILLOWDALE STOCK FARM
 LENOXVILLE, ONT.
 Breeds Clydesdale horses, Shorthorn and Ayrshire cattle, Leicester sheep, Chester White swine, all of the best quality. Young stock for sale. Also several of the standard breeds of American poultry and Pekin ducks. Settings for sale. 04-21-10

J. H. M. PARKER

HOLSTEINS
LYNDALE HOLSTEINS

Head your Herd with a son of Sam, a fine young bull, whose sire was recently sold for \$2,000. His 3 nearset dams average 29 1/2 lbs. butter each in 7 days. Only 2 of his sons left. We still have a few sons of Count Dalzell Pietaria Paul, and a number of Heifers for sale. 6-12-10

BROWN BROS., LYNN, ONT.

SUNNYDALE
 Offers four grandsons of Pieterie Hengerveldt's Count De Kol, champion bull of the breed. These calves are 6 weeks old, three months old, nicely marked, and choice breeding. Prices reasonable. Write for particulars. E-5-10

A. D. FOSTER, Bloomfield, Ont.

HOME-BRED AND IMPORTED HOLSTEINS

We must sell at least at cows and heifers at once, to make room for the natural increase of the herd. This is a chance of a lifetime to get a good bull. We also have a few young calves. Please send for our new Illustrated Catalogue, sent free of charge. Hendered Dalcol, world's greatest sire, head of herd. Come and see them.

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If you are thinking of buying a choice young cow or heifer in calf, come and see our herd. Will sell anything. Have a dozen beautiful heifers sale in calf to "The Good Goods" (Imp.), who has five sisters averaging 40 lbs. butter in 7 days and one sister that held world's record 4 year old in 100 lbs. butter. Write us what you want. We will guarantee everything old and new in our catalogue met at Hamilton by appointment.

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Out of a Grand-daughter of Pieterie Hengerveldt's COUNT DE KOL See June 19th No. of Farm and Dairy

He has Breeding, Conformation and Fashionable Marking

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above sire dropped last August is a "peach." Ayrshire Cuntine 2642, Ardrie 2643, are all imported and all of the merit and quality. Besides the many youngsters from Nether Hall Goodtime, Mr. Logan has quite a number of heifers sired by the noted Barochie King's Own, owned by Mr. Logan. Special mention may be made of Burnside Governor 2626, Burnside Blonnet 2627, Burnside Queen 2628, Burnside Blonnet 2629, Burnside Blonnet 2630, Burnside Blonnet 2631, Burnside Blonnet 2632. These heifers are all imported, and are proving to be grand producers. Mr. Logan believes that show stock and producing stock from Nether Hall Goodtime is and is proving this beyond a doubt as his milk records will show. His winnings at Sherbrooke, where he exhibited a herd, and at Ottawa, where he exhibited a herd, first, 1 second and 3 third prizes in the time to time—W. F. S.



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AYRSHIRES

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 Several young bulls for sale. 0-9-10

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 Are large producers of milk, testing high and fine good tenders and fine milk. Orders booked for calves of 1909, male and female. Prices right. Write or call on 0-2-10 W. F. STEPHEN, Huntingdon, Que.

SUNNYSIDE AYRSHIRES

Imported and home bred are of the choicest breeding of good type and have young bulls produced for production. THREE young bulls dropped by this sire by "Nether Hall Goodtime"—26541—(Imp.) as well as a few females of various ages for sale. Write for names and send. 0-5-10

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"Le Bois de la Roches" Stock Farm

Here are kept the choicest strains of AYRSHIRES. Imported and home bred. Ayrshires of the best bacon types. WHITE and RED. Write for particulars. DOTTES and BARRED ROCK Country.

HON. L. J. FOREST, J. A. BIBEAU, Proprietor, Ste Anne de Bellevue, Que.

RAVENSDALE STOCK FARM

Ayrshires, Clydesdales and Yorkshires

If in need of good stock, write for prices as are always reasonable.

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IMPORTED AYRSHIRES

Having just landed with 50 head of choice Ayrshires, mostly purchased at the great Barochie sale, I am prepared to fill orders for herd heading bulls, selected first of the best dairy herd in Scotland, 12 for service to choose from. Also show females in 2 years age. Write for particulars to 70 lbs. per day. Write and phone. Know your wants. Long distance.

R. NESS, Howick, Que.

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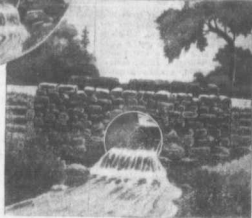
You'll read something about it here; but to KNOW how 'way ahead it really is, you'll want to see the sample (sent free) and read the booklet (free, ditto). With that before you, you will soon see why every reeve, or warden, or town councillor, or anybody who has any use for culverts at all,—will find it pays to get in touch with me right NOW. I am asking you to lay aside your notions of what makes a good culvert, and a cheap culvert, and find out about this NEW culvert. I don't expect you to buy a foot of it until it PROVES to you that Pedlar Culverts are in a class by themselves, and that you can't afford to overlook them. Let us start that proof toward you soon—address place nearest you.



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CORRUGATED
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In every size of Pedlar Culvert, which comes in all standard diameters from 8 inches to 6 feet, we use nothing but the best grade of Billet Iron, specially made for us, of extra-heavy gauge (14 to 20 gauge according to the diameter). This Billet Iron is curved into semi-cylinders—curved COLD, so there will never be any variation from exact dimensions; and it is then deeply and smoothly corrugated on a special press that puts a pressure of SIXTY TONS on every square inch of the metal. The corrugations, therefore, are uniform and very deep.

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When the corrugating process is done, the sections are galvanized by our exclusive process that covers the entire surface with a thick coating of zinc spelter. Every edge, every crevice, is heavily coated with this rust-proof, corrosion-proof galvanizing; not a spot is left unprotected. This is the ONLY culvert galvanized AFTER being shaped. It is ABSOLUTELY RUST-PROOF.

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This triple-rib flange-lock principle, found only in Pedlar Culverts, not only adds greatly to the strength of the piping and makes a perfect joint—practically as good as if welded—but it also allows for expansion and contraction under cold or heat. Though a Pedlar Culvert, of any length, be frozen solid full of ice, it will not spring a leak. Send for sample and booklet and you will see why. State your probable needs and we will gladly quote prices.

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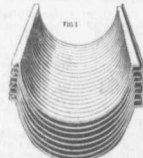
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The heavy-gauge Pedlar Billet Iron sections deeply corrugated and locked together without bolts or rivets by our compression triple-rib (this rib is flat, not corrugated), make a culvert that will stand enormous crushing strains and neither give nor spring. A thin cushion of soil on top is all the protection such a culvert needs against traffic; and no special precautions need be observed in laying it,—it will stand what no other culvert can.

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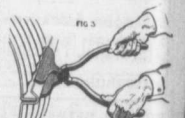
This Shows How It Is Put Together



Pedlar Culverts are shipped in half-sections, nested—saving freight and making carriage easy in roughest country. Quickly and easily transported anywhere. Fig. 1 shows the half-sections or semi-cylinders, nested one within the other for shipment. One of the ribs is a radial flange, the other a re-curved flange. Sections are assembled as shown by Fig. 2. Note that the ribs are flat, and the curved part of the cylinder deeply corrugated. These ribs add vastly to the culvert's strength. Unskilled labor, with a simple



tool, quickly clamps the flanges together, making a triple-fold joint that is tighter and better than any riveted or bolted joint could possibly be. Fig. 3 illustrates the simplicity of the Pedlar Perfect Culvert flange-lock—no bolts, no rivets, no makeshifts. This is the only culvert that is laid with broken joints—the overlap between ends comes in the centre of each length. No chance of leakage.



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