

# FARM AND DAIRY

## RURAL HOME

PETERBORO, ONT.

AUGUST 19 1909



A HARVEST SCENE THAT DEPICTS THE PROSPERITY OF THE PROGRESSIVE ONTARIO FARMER.

Good crops do not come by chance. They are rather the reward of careful management. Well drained, well cultivated, and well fertilized fields rarely fail to return an abundant harvest. It is true that crops are affected by the season even under such conditions, though to a much less extent than they are on farms poorly managed, where the farming practised savors more of mining — taking from the soil and returning nothing. The photo reproduced above shows a field of oats being harvested on Mr. John Jackson's farm in Lincoln County, Ont. The crop of rape, clearly discernible among the stubble, will provide a lot of fall feed for the cattle

DEVOTED TO  
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**CANADIAN COUNTRY LIFE**

## BOWL SPINDLES

This is one of the most important parts of the Separator, and is a part that has, perhaps, given more trouble than any other. Any slight accident to the spindle generally disables the entire bowl, throwing it out of balance and making it run rough and hard.

In the **Self-Balancing "SIMPLEX"** Separator the spindle is relieved of carrying the weight of the bowl, therefore, it is relieved of all the strain which spindles in other machines are subjected to. The only function of the spindle in the **"SIMPLEX"** is to drive the bowl. In other machines the spindle carries the weight of the bowl, and is subject to all the strains resulting from the high speed. In the **"SIMPLEX"** it is merely a means for conveying the driving power from the gearing to the bowl. This driving power, on account of the high gearing, is very slight indeed.

The **"SIMPLEX"** spindle is made of a special high carbon steel. It is specially treated in the drop forging process, and straightened by hydraulic pressure so as to make it as free from internal strains as possible. We use the same care with the spindles that we did formerly when they carried the weight of the bowl, so that there is a very large factor of safety in the spindles of the **Self-Balancing "SIMPLEX."** In the **"SIMPLEX"** the spindle, instead of being one of the most important and sensitive parts of the bowl, becomes of secondary importance only, and is one of the great benefits derived from the **Self Centering Bearings.**

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### Great Loss from Sow Thistle

Ed. Farm and Dairy.—It was with satisfaction that I noticed your strong editorial against perennial sow thistle in Farm and Dairy Aug. 5. If any action that you can take will stamp out this weed, the very worst of weed pests, you will accomplish more good than 90 per cent. of the gentlemen who occupy seats as our representatives in our Legislative Hall. If your agitation will succeed in making two blades of grass or grain grow where one sow thistle now occupies the soil, you will do a public benefactor of the highest order.

How is the good work to be accomplished? Men who grow the most sow thistle will never see your editorial. They don't as a rule attend Institute meetings or read agricultural papers. Some action should be taken to arrest their attention, to prevent them from conducting their farm operations at a loss to themselves and the community in which they reside. No man should be allowed to sow a field of any of the common grain crops that is badly infested with sow thistle. Such seeding will not only be detrimental to his best interests but a curse and a menace to many on land adjoining them. The law orders that all stock affected with certain diseases be destroyed. There is more loss every year from the sow thistle than from all the losses resulting from glanders, hog cholera and foot and mouth disease, and yet no Legislative action is taken to prevent the spread of the sow thistle.

Our Legislature should make it compulsory on all municipal councils to appoint an inspector whose duty it should be wherever the sow thistle flourishes to take heroic measures to see that they are not allowed to go to seed to pollute the free air of heaven and to infest their neighbors' farms.

Sow thistle can be eradicated from our soil, but it will require eternal vigilance and thorough and systematic work. Drainage on low wet or springy land is one of the first essentials to the eradication of sow thistle. They flourish in low springy soil. Land infested with sow thistles should be sown to buckwheat, hog crop or rape and thoroughly cultivated. Slip shod cultivation will only aggravate the evil. Land badly infested with sow thistles should be either pastured or mown, plowed about the middle of July, given thorough surface cultivation all season, or be summer fallowed or thoroughly hoed or worked once a week with twynplow or broadsheared cultivator until July 1st, then sowed to rape in drills, cultivated and gone over with the hoes once or twice until rape takes full possession. This should be finished nearly all sow thistles. A very few may make their appearance the next year. These can be pulled. A field badly infested two years ago was sown to rape and cultivated as described. This year after a careful scrutiny only five plants could be found.

Tenant farmers are not the only sinners. Some of the worst infested farms are owned by men who were born where they reside and whose ancestors cleared the land. I hope that Farm and Dairy will keep up the good work that it has commenced, and that some action will be taken to suppress and stamp out the bold, brazen usurpation of our soil by the perennial sow thistle.—T. Baker, Durham Co., Ont.

### Good Feed, Poor Cows

At several cheese factories in Eastern Ontario the average production per cow has been conclusively shown to be approximately 2,800 pounds of milk only for the full factory season. In one group of cow testing associations in Western Ontario 450 grade cows had an average yield of 1,950 pounds of milk during June. There

is food for thought; as much milk in one month from one set of cows as in three months from the same set. There is evidently urgent need of more careful selection of the better class of dairy cows, and need of more intelligent care and attention, real dairy sense, in the handling of the one class of farm stock that brings in the regular income. Plenty of choice intelligent cows in the single month of June gave from 1,800 to 2,100 pounds of milk or almost as much as the poorer, unselected dairies averaged for the whole factory season.

A great many of our farmers need to wake up to the folly of wasting good time and good feed on poor cows; milk records will quickly indicate which to keep as the foundation of the good herd.—C.F.W.

### Getting Ready for the Next Competition

Many of those who would have liked to have taken part in the dairy farms competition being conducted over Ontario this year by Farm and Dairy, were deterred from doing so owing to the short notice that was given, and the comparatively short time that was available to fix up things around the farm and to get ready for the visit of the judges. Some of these have signified their intention to enter in the next competition slated for two years hence. Typical of the letters received in this connection, is the following from Mr. S. A. Northcott, an enterprising farmer in Ontario County:—"I would certainly have gone into the dairy farm competition as conducted by Farm and Dairy this year had my dairy herd been large enough. I have sold six cows since January and intend to sell at least two more. On this account I have left only 10 milkers on 140 acres. I found that some of my cows were not making me anything so I gave them a walking ticket. I shall get into a herd of the right kind as soon as I can and then will take pleasure in competing."

A reader of Farm and Dairy who lives in Prince Edward County and who we know has a splendid herd of cattle, good buildings and a fine farm, and who would be a very strong competitor, wrote us a few weeks ago stating that he belongs to a breed that likes to win. For that reason he had decided not to compete this year but he intended to get ready and go in for the next competition. When a man who already has things on his farm in such shape that he would be certain to take a high standing in the competition, prefers to stay out and take two more years to get ready it is a good indication that others who may be in the same part in the next competition had better be getting ready.

### A DIFFERENT VIEW POINT

It is singular how differently farmers look at competitions of this kind. Some won't enter unless they are sure of winning. Others take part because they believe such competitions do good and, therefore, they like to help them along. Mr. H. Baptie, of Dundas County, entered the special competition in that county this year for that reason and because he hoped to gain some pointers from the judges. He said when he entered, that through lack of help he knew that his farm was not in good shape but that he would enter for the reasons given. One of the competitors in western Ontario wrote us that he had entered his farm because he wanted to encourage his boys and lead them to take a greater interest in the farm work.

During the last month and a half our inspectors have tested over 600 head of cattle for tuberculosis. Only about 1 1/2 per cent. have reacted.—R. W. W. Inver Stock Commissioner for British Columbia.

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Vol. XXVIII.

FOR WEEK ENDING AUGUST 19, 1909.

## THE BANG METHOD OF HANDLING TUBERCULOUS HERDS\*

Prof. G. E. Day, O.A.C., Guelph, Ont.

No. 33.

**A System whereby Healthy Stock is Raised from Re-acting Animals - It Has Proved Successful in Denmark and is Being Adopted in Connection with Some Canadian and American Herds - Of Much Concern to Dairymen.**

A MOST interesting pamphlet has been published by the University of Illinois entitled "Studies on Animal Tuberculosis." It contains a full report of an address by Professor Bernhard Bang, M.D., of Copenhagen, delivered at the International Convention on Tuberculosis at Washington, D. C., and gives a very clear idea of the views held by this distinguished authority, and the methods he has devised for eradicating bovine tuberculosis in Denmark.

The question of bovine tuberculosis is one of grave importance in every stock-raising country. Among stockmen probably the breeders of dairy cattle are the most vitally interested in the matter, but every consumer of milk has something at stake, so that there are few people in the Province of Ontario to whom the question does not appeal.

### A CONTAGIOUS DISEASE.

Professor Bang works upon the principle that bovine tuberculosis is a contagious disease, and that healthy animals placed in a stable with diseased animals, are liable to infection, sooner or later. The point scarcely admits of controversy, as it has been demonstrated in many instances, as clearly as it is possible to demonstrate matters of this kind. As a rule, calves are born healthy, but if the uterus of the cow is affected, the calf may be tuberculous at birth. Such cases, however, are rare. Milk is a common means of carrying infection. If the udder is tuberculous, the milk will likely contain the germs when drawn, but milk from a healthy cow, drawn in a stable where there are diseased animals, is liable to contamination from particles of filth which are almost sure to find their way into the milk, and which may contain large numbers of tubercle bacilli.

The tuberculin test gives no information regarding the location of the disease, nor the progress which it has made, and post-mortem examinations prove that most animals which react, but which do not show clinical symptoms, are only slightly affected; many of them so slightly that they might live for years, and, in some cases, recover.

### INDISCRIMINATE SLAUGHTER A MISTAKE.

From these facts, Professor Bang reasoned that the indiscriminate slaughter of reacting animals was a mistake. Cows which reacted, but which showed no clinical symptoms, would likely produce healthy calves and should be retained for breeding purposes. Only those showing clinical symptoms should be slaughtered.

But a cow might not show clinical symptoms and might still be a menace to other animals confined in the same stable, and the only way to avoid this danger is to separate those animals

which react from those which do not. Bang's system, therefore, calls for complete isolation of reacting animals. Calves born in the infected herd are removed immediately to separate quarters, and are fed upon milk from healthy cows, or milk which has been heated to 80 deg. C. to destroy disease germs. For the first day of the calf's life it is fed the mother's milk raw, the colostrum being important to the welfare of the calf, but after the first day it is fed only the milk of healthy cows, or sterilized milk. Where practicable, there should be two sets of attendants, and the two herds should have nothing in common, separate implements and utensils being employed for each herd, and the herds should be kept separate when turned out to pasture. When it is not possible to have different attendants, then the herdsman should always tend and milk the healthy animals first, and put on special

### Condensed Reading Matter

Farm and Dairy is the best paper I know of for putting its reading matter in a condensed form. Farmers have not time to read two or three columns to get one or two ideas.—D. N. Anderson, Lambton Co., Ont.

overalls and boots before attending to the diseased herd. Instead of changing boots, a pair of rubbers could be worn over the ordinary boots when in the infected stable.

### SECURING ISOLATION.

The most effective isolation can be had when the two herds are kept upon different farms. Next in effectiveness would be separate stables, but if neither of these methods is feasible, the stable may be divided by a tight board partition, with a tight fitting door. It would be better to have no door in the partition, provided it is practicable to have an entrance to each stable from outside. The tuberculin test is applied twice a year, or at least once a year, to the non-reacting part of the herd, and any reacting animals are removed to the infected herd.

In 1902, Professor Bang received a grant from the Danish Government to enable him to test his method on a highly tuberculous herd. Upon the first application of the test, 131 animals reacted, and only 77 failed to react. Most of those which failed to react were young animals. The stable was divided by a solid wooden partition, the reacting animals being placed in the other. Two sets of stable hands were employed, and the cattle were kept separate when grazing as well as in the stable. Nearly all the calves born in the

infected division were found to be healthy at birth. They were removed at once from the infected stable and fed the first day upon the mother's milk raw, after which they were fed sterilized milk.

The "healthy" division was tuberculin tested every six months, and for a number of years a few reactions were obtained. Generally the percentage of reaction was very low, but on a few occasions, it was as high as nine per cent. The slowness of the operation is accounted for on the ground that the farmer who owned the herd was not so careful as he might have been. Gradually, however, the numbers of healthy animals increased, and the animals of the reacting division were gradually disposed of until none of them were left. The farm now supplies "Milk for Infants" to the city of Copenhagen. The animals are tested every year, and under the last test, which was in 1907, not one out of 211 animals reacted.

The Bang system has been adopted on a great many farms in Denmark, and though a considerable number of breeders have abandoned it from one cause or another, those who have persevered have almost invariably obtained gratifying results. A few notable instances may be cited as examples.

### SOME NOTABLE INSTANCES OF SUCCESS.

On one estate in 1894, 139 animals reacted, and 86 failed to react. In 1908, only one calf reacted, and that so slightly as to be regarded as doubtful. On another estate, in 1895, the test showed 271 diseased and only 68 healthy animals. At present, only 10 animals remain in the reacting division and only six out of 373 animals reacted under the last test. On another estate, in 1895, 115 animals reacted, and 48 did not react. Under the last test only two out of 158 reacted. On still another estate, in 1896, 166 animals reacted and 74 were found healthy. There is now a stock of 264 cattle, only three of which reacted in 1908. It is worthy of note that in this herd, one of the half-yearly tests showed 22 per cent. of reactions. This was very discouraging, but, fortunately the owner persevered, with the success already noted. In many other herds, large and small, equally satisfactory results have been obtained, so that the efficiency of Bang's system has been very fully demonstrated, when the person who undertook it exercised great care, and possessed the necessary patience.

### A MODIFICATION OF THE SYSTEM.

Professor Bang also suggests a modification of the method which has been described. In cases where the owner has reason to suspect that a very large proportion of his herd would react to the test, he might prefer not to have his herd tested. In such a case he could isolate the calves and feed them sterilized milk. The young herd thus evolved would be tested every six or 12 months, and a new herd of healthy animals built up. This plan has been adopted upon a number of Danish farms, and has given most satisfactory results.

The Danish Government makes an annual grant

\*This article is reproduced from the O. A. O. Review.

for the purpose of carrying on the work. Farmers who wish to adopt the method, and who will agree to comply with all its conditions, can have their herds tested free of charge. Provision is also made for partial compensation for animals slaughtered. With this assistance, the farmer is enabled to clear up his herd with a comparatively small expenditure of money, the cost for small herds of 25 to 30 animals being under \$100.00 according to the statements of several Danish farmers. The method involves a good deal of extra trouble, however, which is probably the main factor in hindering its more general adoption.

#### ADAPTED ONLY TO THE BREEDER.

There are several points which stand out prominently in connection with Bang's system. It is a method adapted only to the breeder, since it calls for the renewal of the herd by breeding and rearing healthy stock. The dealer, that is the man who is constantly buying new animals, would scarcely find it practicable. It is necessarily a slow process, and the man who undertakes it must be prepared to exercise patience. It calls for unceasing care and vigilance, perhaps, more than the average man can be expected to practise. It calls for the expenditure of more or less money, and involves a very considerable amount of extra labor.

There are certain facts, however, which should be considered in connection with the question. The problem of dealing with tuberculosis is attracting more attention now than it ever did in the past, and the chances are that it will attract more attention in the future than it does at present. In connection with the problem, the question of pure milk supply has received some consideration in the past, and is likely to receive more as time passes. It is quite probable, therefore, that the dairyman who starts betimes to rid his herd of tuberculosis, may have reason to congratulate himself upon his foresight. In addition to this, the animals and products from a herd that is known to be healthy should command a premium over those from doubtful herds, and it has been demonstrated in Denmark that the cows retain their usefulness for a longer period in those herds which have been cleansed. Here, then, is some compensation for the expense and trouble which the system involves.

#### SYSTEM CALLS FOR VOLUNTEERS.

The Bang system is not one which can be forced upon a people, but it calls for volunteers, and the Denmark Government encourages volunteers by giving financial aid. This is surely a wise use of public money, where so much is at stake, and is vastly more economical than the wholesale slaughter of reacting animals, such as we have sometimes seen in the past.

Space will not permit of the full treatment of the subject, but enough has been said to give a reasonably clear idea of the Bang method. From results achieved in Denmark, we are forced to the conclusion that the method has great possibilities, and is worthy of full investigation. One thing is certain, it could scarcely be carried out without financial aid from the state, but the cost to the country would be a very trifling matter in comparison with the importance of the undertaking. Those of us who are interested in the live stock industry should make it our business to become fully informed regarding the practicability of the method proposed by Professor Bang.

In conclusion it may be noted that the Bang method has been tested in several American herds and the results up to the present are very encouraging.

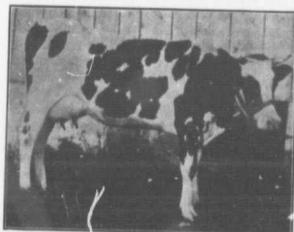
Farm and Dairy is a very practical and helpful farm and dairy paper and should be of value to any Canadian farmer. I cheerfully recommend it to any farmers in my district who I think might subscribe.—Horace W. Parker, Kings Co., P.E.I.

## The Culture of Fall Wheat

H. Johnson, Middlesex Co., Ont.

Little time should be lost in preparing land intended for fall wheat. The summer fallow, once thought to be the only place for wheat, and which affords an excellent preparation has gone very largely out of use in Ontario. Land that has grown a crop of peas is generally in a fine condition to be followed by wheat. Peas, however, of late years are not grown largely in many sections. The clovers are grown everywhere and a red clover or alsike sod turned down by plowing lightly makes probably the most satisfactory situation that is available for wheat. It should be plowed early, rolled and harrowed to cause the sod to rot quickly. Cultivation at frequent intervals with the broad pointed cultivator and harrows, will be beneficial and will tend to make a fine seed bed. Barley land possibly makes the next best place for wheat. It should be plowed early in order that a firm bottom may be obtained. Sow during the first 10 days of September.

On land that has been properly underdrained, there will be no need of plowing it up into high ridges. The level cultivation is to be preferred. The drains will take care of surplus water. A top dressing of manure is of great benefit if applied evenly after sowing. The manure spreader is adapted for this work. It will generally give



"Alice Hochstulds De Kol" calved May 19th at 25 mos. In the 30 days of June she gave 155 lbs. of milk, giving as high as 49 lbs. in one day. She is owned by G. A. Brethen, of Peterboro Co., Ont., one of the competitors in the Dairy Farm Competition. Photo by a Special Representative of Farm and Dairy.

the best results if applied before the wheat is sown. The sooner a field that is intended for wheat is plowed, and the more it is worked, the greater is the amount of water the soil will hold, which water will be made use of when the seed is sown. Wheat sown in the fall of 1908 showed marked results in favor of the early plowing.

## Some Pointers Concerning Alfalfa

Hy. Glendinning, Ontario Co., Ont.

Probably 75 per cent. more alfalfa hay has been cut in Canada this year than ever before. The largest number of acres sown in one year was in the spring of 1909. The first crop has been saved in fine condition, as weather conditions in most sections were favorable.

That some mistakes have been made and that some disappointments have occurred is only what might be expected. Complaints are heard from some that they have lost a large quantity of the leaves. This may result from several causes. If the plants are very thick and the crop heavy the leaves on the lower part of the plants are shaded from the sun, which causes them to turn yellow and fall off. The most common cause for the loss of leaves is allowing the fresh cut plants to remain too long in the sun after cutting, without tedding. The leaves become dry and shriveled while the stalks are green and sappy. In this condition the leaves drop off readily and it makes the hay more difficult to cure, as the leaf is the organ that nature provided for drawing the sap from the plant.

Alfalfa should be tedded every two or three

hours before raking into windrows. During the present season, owing to the dry time, we did not find it necessary to coil our alfalfa. We tedded the windrows lengthways two or three times and used the hay loader for putting it on the wagons. This made hay of the finest quality. Another cause for the loss of leaves is that of allowing the crop to mature too much before cutting. It should be cut just as it is coming into bloom, when there are probably one-tenth of the blossoms out. The second crop should be cut when the bloom is at the same stage as for the first cutting.

#### SECOND AND THIRD CUTTINGS.

The second cutting this year will be heavy and if the weather is favorable the third will come on rapidly. Great caution should be exercised about the third crop this season. Owing to the backward spring the first cutting was from two to three weeks later than it has been for some years. New beginners in growing alfalfa may be easily led astray by seeing the rapidity with which a third crop is grown and conclude that if they cut it for hay the cows will be fourth crop sufficient to cover the land and hold the snow during the winter. In this they are likely to be disappointed. A few cold days and nights will change the whole thing. Alfalfa is a rapid grower when the weather is warm, but a very poor grower in the fall when the weather becomes cold. If there is an apparent waste in leaving a heavy third crop on the field to go into winter, it may prove to be the most profitable crop of the season, as it is likely to be instrumental in bringing the plants through the winter in good condition. The most unprofitable and dangerous thing to do is to pasture off this third crop. There are few sections in Canada where it can be pastured in safety.

## The Perennial Sow Thistle

S. A. Northcott, Ontario Co., Ont.

The editorial entitled "Sow Thistle must be checked," in Farm and Dairy Aug. 5, I can strongly endorse as not exaggerating the situation with regard to the perennial sow thistle in Durham and Ontario counties. Sow thistle has been gaining ground till some fields are infested to such an extent that the grain crop is entirely choked out. Low lying lands and farms which have been rented for a number of years are most infested.

Compared with other weeds, sow thistle heads the list of bad weeds ever known in this section. Canada thistle and wild oats are tame when compared with sow thistle, which is propagated both by root and seed and the seed being winged will fly for miles and infest farms at a distance as well as those adjoining. It is evident that it is impossible for any farmer to keep entirely free from sow thistle when other farms, either far or near, are infested like the sections mentioned. This weed is as yet a perfect stranger to farmers in some localities, but unless there is co-operation to prevent the weed from seeding, everyone will know it to their sorrow in a short time. Something must be done to check this foe. It appears that the best way would be for the Ontario Government to follow the course suggested by Farm and Dairy of Aug. 5th, namely, adopt Manitoba laws regarding this weed.

If the weed was prevented from seeding and excidants made more favorable for the growth of crops the roots could soon be killed. Underdraining wet places is a move in the right direction; low, wet land is unfavorable for grain crops and is an ideal spot for sow thistle. Hoed crops will check the weed but will not kill it unless persistent hand hoeing is practised near the plants where the cultivator cannot be used. In badly infested fields this method seems impracticable. The crop, whether grain or hay, should be cut early and the ground plowed shallow as soon as possible, and plowed or cultivated with the broad-shared cultivator for the remainder of

the season appear as well cultivated backwoods. There were seedling, until such be discon-

## Farm

General agriculture who use and Dairy Peterboro this farm enough to Garbutt tations to in the region the dairy. The cows horns. Some appear to be milkers. percentage are registered speaking of the Mr. said that he tried to keep milkers, all good ones from to raise his. Thirty-eight all are kept. time of over seven were

The cattle abundantly provided on a large range, implemented, by a soiling grown in a pen convenient for sent to the very suitable. Fall wheat, in the ratio peas, 12, hay wheat, all the

Mr. Garbutt considers an A stave silo the demand kept, provided is 24 feet high of an eight of corn are Learning. Com varieties, mixed to the field rest and corn only about 1000 cultivation, he believing it to and one of th on the farm. And in this available land on

Although some hood are being Garbutt has been checked. On some troublesome. It is trouble crop.

Some of the suited for sheep cupied an impo this farm, but

the season at such intervals as the weed makes its appearance. Plow again in the spring and keep well cultivated till the 1st of July and sow to buckwheat or rape. This routine has been successful in eradicating sow thistle with us and if there were co-operation to prevent the weed from seeding, farmers could soon clear their farms. Until such co-operation is practised, the fight will be discouraging.

### General Farming of a Local Competitor

General farming well designates the method of agriculture practiced by Mr. J. H. Garbutt, whose farm is one of those entered in Farm and Dairy's Special Good Farms Competition for Peterboro County. Dairying, while a feature of this farm is not carried on to an extent large enough to give Mr. Garbutt the qualifications to compete in the regular competition covering the dairy farms. The cows are Short-horns. Some of them appear to be heavy milkers. A large percentage of them are registered. In speaking of his cattle Mr. Garbutt said that he always tried to keep good milkers, also some good ones from which to raise his beef. Thirty-eight head in all are kept. At the time of our visit seven were milking. The cattle are abundantly provided for on a large range of natural pasture. This is supplemented, in seasons of drought and shortage, by a soiling crop—a mixture of oats and peas grown in a plot close to the barn where it is convenient for feeding. The milk from the herd is sent to the creamery at Peterboro. The crops are very suitable to the style of farming practised. Fall wheat, peas, oats, barley and hay are grown in the ratio of wheat, 12, barley, 11, oats, 27, peas, 12, hay 30. With the exception of the fall wheat, all the grain grown is fed to the stock.

### RAPE AND CORN SILAGE.

Mr. Garbutt grows considerable rape which he considers an AI fall feed for his fattening stock. A stave silo of capacity quite in keeping with the demand made upon it by the number of stock kept, provides much of the winter feed. The silo is 24 feet high; 16 feet of staves resting on top of an eight foot stone foundation. Five acres of corn are grown annually for the silo. The Leaming, Compton, and White Cap Yellow Dent varieties, mixed, are sown. The manure is hauled to the field in the winter and spread on the root and corn ground. Although Mr. Garbutt has only about 100 acres of his 180 acre farm under cultivation, he makes use of a manure spreader, believing it to be the most profitable investment and one of the greatest labor saving machines on the farm. He practises a four year rotation and in this way applies a coat of manure to his arable land once in four years.

Although some of the farmers in the neighborhood are being pestered with noxious weeds, Mr. Garbutt has been successful in keeping them in check. On some of his land quack grass proves troublesome. It is kept down by means of the hoe crop.

### SHEEP ABANDONED.

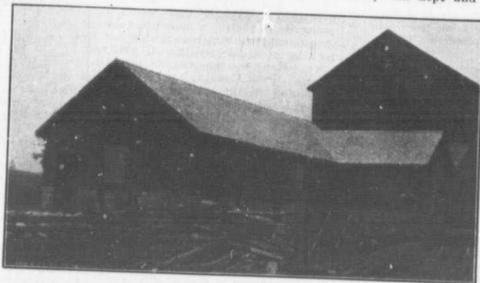
Some of the land on this farm is admirably suited for sheep grazing. At one time sheep occupied an important place among the stock on this farm, but owing to the troublesome dogs

they had to be abandoned. Hounds from the neighboring city and hunters are abundant. "Under such conditions," said Mr. Garbutt, "it is useless to attempt to keep sheep. Out of a flock of 12 the last year we kept sheep, five were killed in the season and the rest became so wild that they had to be disposed of."

A fine young bearing orchard of 65 trees is part of this farm. It is kept cultivated and was in a good thrifty condition. A well laid out kitchen garden showed that Mr. Garbutt valued this department of his farm. The stuff was arranged in rows so that it might be cultivated with a horse cultivator.

### WELL KEPT BUILDINGS.

Probably one of the principal features on Mr. Garbutt's farm is his neat, well kept and well



A Combined Pig and Hen House, one of Several Neat Buildings on a Competing Farm

The building shown in the illustration is on Mr. J. H. Garbutt's farm, which is entered in the Special Good Farms Competition for Peterboro Co., Ont. The "L" is a paint on this building makes it especially noticeable and attractive. Mr. Garbutt's farm practice is briefly outlined in the adjoining article. Photo by an Editorial Representative of Farm and Dairy.

arranged buildings. A combined pig pen and hen house, which is shown in the illustration on this page is one of the most recent buildings to be erected. The building cost \$375. Its appearance has been added to much by a coat of paint. The farm is not equipped with any kind of power. Mr. Garbutt has only been on the farm for a comparatively short period of years and as there are two power houses located within a mile of his farm, Mr. Garbutt has been looking forward to the day when he will be supplied with electric power; hence he has been backward in installing any of the other powers in common use on the average farm.—C. C. N.

### Care of Foals

Dr. H. G. Reed, V.S., Halton Co., Ont.

A little extra care and attention to the foals at this season will repay the farmer well for his time and trouble. The long hot days, the wearisome and continuous fight with flies and (in many cases) the shortage in pasture make the conditions of life rather trying to these little creatures. A foal will always be the better for having a regular daily supply of some grain or meal ration from the time he is old enough to take it in addition to his mother's milk. But, while it will do fairly well without any extras during the early summer months when the pasture is plentiful and succulent, at this season, when conditions are not so favorable, extra feed is a necessity if the owner wishes to give the little creature a fair chance of growth and development.

It is universally conceded by beef growers that in order to produce the most profitable bullock, the veal flesh must be maintained till the animal goes to the butcher. This will hold good to a great extent in the profitable raising of horses, more especially those of the heavy breeds. If we reflect that the many excellent properties of our

heavy horses are to a large extent due to the food and care that they have received through many generations, it would be apparent to breeders that those desirable characteristics cannot be maintained and perpetuated by reversing the conditions under which those properties have been developed.

### SHELTER FROM SUN AND FLIES.

Foals should be brought to the barn during the heat of the day where they will be sheltered from the sun and flies. Allow them a feed of grain or meal morning and evening. Those treated in this way will be in better flesh, will show a more vigorous growth and be in eve., way superior to those which have to rustle for themselves out in the fields fighting flies and depending on the somewhat scanty supply of milk provided by their dams. In cases where the brood mares are working this care is all the more necessary. No foal should be allowed to trudge after its dam while she is at work in the fields, but should be left comfortably in the barn with access to some nice fresh food and a little grain, which it will soon learn to eat. As a consequence it will make a much more vigorous growth than if allowed to follow after its dam, while at work. Then when weaning time comes foals thus treated will do much better; they have become accustomed to eat solid food, their stomachs will have become gradually inured to the digestion of solids and when deprived of their milk supply will not fall off in flesh. After weaning, provided they are allowed plenty of some good succulent food such as well-cured clover hay or grass, together with a grain ration twice or three times a day, they will continue to thrive and grow just about as well as when nursing their dams.

### AVOID "COLIC" FEELING.

It is not an unusual sight in the fall to see foals that have been suddenly deprived of their dam's milk and thrown on their own resources for nourishment, which have become very much emaciated; they are poor little, pot-bellied, ew-necked, dejected looking creatures with rough, staring coats and every appearance of animals about to die of old age or hard usage, instead of fresh young creatures on the very threshold of life. A foal in this condition has lost something which can never be made good to him again, no matter how good care he may receive. There has been an arrest of growth and a consequent loss of development which is gone forever, and I care not how fine an animal he may become in after life he will not be quite so good as he would have been if he had not undergone a setback in his early life. Some farmers think it is bad policy to pamper colts. They think it makes them tough and hardy to rough it during their early life. While many a good horse has been subjected to hard conditions during his growing period, he is good, not because of that treatment, but rather in spite of it. If he had not been possessed of a hard constitution he would have died under the ordeal, and the fact that he is alive, proves that he is good, but he would have been better in every way if he had been well cared for during his youth.

### HALTER BREAK WHILE YOUNG.

It is also time well spent to halter break a foal. It can be done more easily and effectively than at any future time. Put on a little head stall, have some one lead the dam down the lane, the foal will follow as a matter of course. Gradually put a little restraint on the halter, being careful not to throw him, and he will soon learn to yield to the restraint. Ten or 15 minutes spent every day for a week will be sufficient to thoroughly halter break a foal so that it can be led anywhere or tied up in a stall like an old horse. A foal broken to the halter before he is strong enough to make much resistance is not likely to acquire the pernicious habit of breaking loose in after life as too many horses do which are not broken young.



FARM MANAGEMENT

Enriching Soil for Potatoes

I am growing potatoes. Can you tell me what to sow to plow under, so as to enrich the soil so that I can plant potatoes on it next year?—J. J. W., Ken. Co., Ont.

spring with shallow furrow and sow roots or potatoes. As Lo alfalfa would say that I think it would do well with you. Follow directions given in bulletin sent.—J. H. G.

The Steel Silo a Favorite

Our steel silo erected a year ago has proved itself to be a first-class one. For keeping silage, it has no equal. Last winter we had the best cured and best flavored silage that could possibly be aved in the silo. Frost did not interfere with a single day's feed. The steel silo has no equal for cheapness and durability. Once they are erected, they are there and finished. They are made in standard sizes 12 to 14 feet in diameter and any height that a man may order.

We cannot tell from experience how long they will last, but we have been informed on good authority that steel silos have been erected for the last 15 years in the State of Illinois. Were I to build another silo, I would put up another steel one in preference to others. We do not allow it to last as long on steel as paint will on wood, is applied to the outside. The manufacturers furnish a compound to apply on the inside that keeps the steel from rusting, thereby preventing it from rusting.

The question has been raised by some, would they not be a target for lightning. I fail to see why there should be any more danger from a steel silo than from one of any other variety. Many a steel smoke stack, a great deal higher than a silo, has stood for years and has never been struck by lightning. The most valuable thing with a steel silo is that anything you put in must stay, and anything outside must stay out, wind, frost, dampness, etc.

Management of a B.C. Ranch

- I wish some suggestions from your paper as to the best way to handle my ranch: (1) The ranch is primarily a dairy ranch... (2) Soil, two kinds Swamp (reclaimed)—pure vegetable humus... (3) Former owner grew out hay for six consecutive years on the swamps... (4) On his advice, last year, my first year, I used 15 cwt. fertilizer and got a very heavy crop of oat hay... (5) What will be the effect of using commercial fertilizer in this way? Stable manure not sufficient for more than the potatoes and one field.—A. S. Nanimo, B.C.

This farm as described and outlined seems to contain about 24 or 25 acres of arable or cropping land if one may judge from the diagram submitted, whereon areas of fields are indicated only in part. It would suggest a four year rotation on these parts of the ranch where it is possible to get a catch of grass that is of cover and timothy as is likely to be the case on the hillside. As to the swamp lands which as you say consist of black muck I would suggest getting them into hay and keeping them in hay as long as you can make them produce profitable crops. The commercial fertilizer will do this swamp soil good. Especially will this be true if you can secure a fertilizer rich in phosphates and potash. The growing of oat hay year after year will of course impoverish the soil, but the addition of the commercial fertilizer will in a large measure make up for this.

Ontario Honey Crop and Prices

The Honey Exchange Committee of the Ontario Beekeepers' Association met at the secretary's office in Toronto on Aug. 3rd. Reports were received from a large number of points throughout the Province, covering about 15,000 colonies and the committee were enabled to get accurate figures for comparison with previous years. It was found that the average production per colony the present season was 59 lbs. as against 55 last year. The honey is of much better quality throughout, and a greater consumption may be looked for. All silo honey is practically cleared up both here and in other Provinces. With a light crop only in the United States, and a greater demand for the best due to this fact and also to a good harvest, much more Ontario honey should find a market there at reasonable prices, both to producer and consumer.

The lower prices of fruit in Ontario due to large crops and the slight increase in production of honey mentioned above, warrant the committee in recommending a reduction in the prices, both for extracted and comb, to the following:

- No. 1 Light, Extracted (wholesale) 9 1/2c. to 10 1/2c. a lb.
- No. 1 Light, Extracted (retail) 12 1/2c. a lb.
- No. 1, Comb (wholesale) \$1.80 to \$2.25 a dozen.
- No. 2, Comb (wholesale) \$1.50 to \$1.75 a dozen.

The Committee would suggest to the beekeepers to retain a portion of their crop until later in the season, honey throughout the season and supply the later demand, but to purchase as a result of the splendid quality of this year's crop. As in 1908 a later report will be issued to cover the buckwheat honey.—P. W. Hodggets, Secretary.

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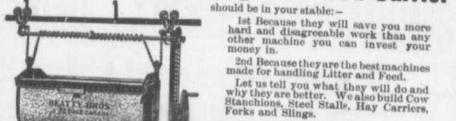
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HORTICULTURE

Orchard Survey in Georgian Bay District

A. D. McIntosh, B.S.N.A., Simcoe Co., Ont.

Since June 25th the writer has visited a large number of the orchards of the Georgian Bay district for the Ontario Department of Agriculture, and has noted several things worthy of comment. In the first place the owners almost invariably took a deep interest in learning about the insects and fungous diseases infesting their orchards and were also anxious to know the effects of culture, pruning and spraying as seen in their own and other districts. A few were also interested in fertilizers and in the most suitable varieties of trees to plant.

The large majority of orchards are in sod and many of these are showing the ravages of both insects and fungous diseases. Most of those who are practising cultivation are making an effort to prune and, in many cases, to spray. Those who have sprayed this year with lime-sulphur and lead arsenate are well pleased with results. The foliage is dark green and the leaves are quite free from cases from the apple aphid while the fruit is very much cleaner and more free from worms.

It is noticeable, too, how much larger the fruit is in cultivated orchards than in the sod orchards even where a crop has been taken off. The idea of cultivating an orchard for just the apples themselves has not become popular in this district yet. Some are not even cultivating their young orchards, and most of those who are doing so, also crop them with grain, roots or clover. Perhaps this indicates great faith in the strength of the soil but it also shows little of that fruit spirit so necessary to success in the fruit business.

When visiting the St. Vincent evaporator in company with Mr. J. G. Mitchell, manager of the Georgian Bay Fruit Growers' Limited, I learned through their factories of culls went over this season of year. Mr. Reid gave the writer a statement which has a very important bearing on the apple industry of this district. He said: "We would rather buy whole orchards than handle the culls which we get. We will be glad to help along the forward movement in the improvement of orchards." Mr. Mitchell said that the rest is calling for 500 cartloads of apples this year. If those culls could just be made No. 1 and No. 2 what a profit there would be in this apple district. With two large fruit houses at their disposal and some thousands of their orchards the growers of this district have only to co-operate to make a success in apple growing. The co-operation must, however, be all along the line, in spraying, cultivation, pruning, picking, packing and marketing, if the highest degree of success is to be obtained.

Pruning and Training Raspberries

Extract from Bulletin of Oregon Experiment Station.

Red raspberries should not be summer pruned as this practice often seems to encourage winter-killing. It is a good practice to remove the old canes directly after fruiting. These canes should be burned as soon as removed. In spring further pruning will be necessary.

The plant throws up so many suckers that if they were all allowed to grow the canes would become very weak. All the weaker young growth should be removed. In cases where

the grower has been unable to mature berries to the tips of the cane, it is advisable to head back somewhat the fruit on the cane.

Where red raspberries are grown to the hill system, the training is very simple, a pole or stake being driven down into the centre of each hill. The canes can be tied or wired to these stakes. A common practice is to set posts from 10 to 20 feet apart, according to size, and at a height of three or four feet from the ground, cross-pieces are nailed on these posts. From the ends of the cross-piece wires are strung, one wire on each side. This is a simple system and it serves to keep the canes within bounds and thus aid in the cultivation.

THE BLACK CAP.

Summer pruning should always be resumed in the case of black caps. When the canes have reached from two to four feet in height, the ends should be pinched off. This will force out the lateral buds, causing the cane to branch. Occasionally these branches have a tendency to grow too long and rank. When this happens, they in turn should be pinched back. Some summer pruners have made a serious mistake. They allow the canes to grow to a height of six or eight feet and then cut the canes back to two or four feet. They never do this more than once, for this kind of pruning removes all the fruit. The pinching should be carried on in the spring just before the growth starts. Where too many canes are growing, thin out the weaker. If the lateral growth caused by summer pruning is too rank, cut it back moderately. Where no summer pruning has been done light pruning is often advisable in the spring of the year, as this reduces the number of clusters and often produces better berries.

Black-caps have rather stiff, upright canes. Especially is this true where summer pruning is practised, so that under ordinary conditions no wires or trellising are necessary. Some growers handle the training much the same as that of the red raspberry, using the posts and wires to confine the young growth and to keep the canes within bounds.

Asparagus Pests

Jos. F. Nicholson, Corton Co., Ont.

When old asparagus beds are badly attacked by rust the best way is to destroy or break them up and plant in a fresh location. The disease may be held in check by frequent spraying with Bordeaux mixture or by cutting with a sharp knife or by burning them. When plants of the season is over, young plants from seeds kept well fertilized, will withstand any disease or fungus better than old beds which have been neglected.

For wire worms at roots, dress the bed with salt and place pieces of carrots and potatoe below ground to attract them.

The asparagus beetle injures the tender shoots that make them useless for market. These insects may be held in check by poultry turned into the beds, cut down all volunteer carrots in early spring so that the beetles will lay their eggs on new shoots which are cut every few days until the eggs are hatched. Another remedy is to spray with a solution of lime, dusted on the plants in the early morning while the dew is on, which will destroy all grubs with which it comes in contact.

After the cutting season is over burn the tops off the bed as it is the surest way to burn all weed seeds, insects and eggs which may have been deposited during growth.

To produce the blanched or white stalks put the rows far apart, plow in the centre and ridge up. After the cutting season is over, put manure in the furrows, level down and cultivate to promote growth of crowns for the foliage season.

Fruit Trade with South Africa

H. R. Pousette, Trade Commissioner, Darban.

There appears to be no reason why Canada should not have the trade which goes to the United States of America, but at the same time it appears evident that the local article is driving out the imported one. This applies with equal force to bottled and tinned fruit.

The fresh fruit trade as far as Canada is concerned is confined almost entirely to apples, although a little is also done in pears. However, during the coming season this will show a considerable decrease, on account of the stringent import regulations imposed owing to the presence of the coding moth. Our best customers are the people on the Rand, but the Transvaal regulations are more strict than the other colonies, and entail the re-exportation of consignments found to be infected by more than one per cent. The only way out of the difficulty is to send very carefully picked consignments, and chance their coming within the one per cent. margin, or else to come to some arrangement (which perhaps is feasible) with the Transvaal government, whereby the apples could be "sicked over" and the clean ones passed to the fruit dealers. Unfortunately, however, the fruit dealers do not appear to favor this, as they state that once having been handled, the fruit will not keep in cold storage, and that it never has

the same appearance as when it comes straight from the Canadian packers' hands. The whole thing is the most unfortunate, as the Canadian apples arrive here at a time when the fruit market has practically no other source of supply, and consequently were particularly welcome. It is a pity that our apples are not sold out here at a more moderate price; this will be understood when it is stated that early this season a local retail dealer was charging five cents apiece for some Russets of rather inferior quality.

Strawberries were good. Cherries are better. There is reason to expect a big crop of apples.—John Archer, Kailo, B.C.

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**POULTRY YARD**

**Co-operation of Poultrymen**

A. P. Hillhouse, Bromo Co., Que.

Why not co-operate as poultry producers? Why should each individual farmer market his eggs at the village grocery, at a price varying from 15 to 25, or at the most 30 cents a dozen (during a few weeks of winter scarcity)? For the reason that he does not have enough eggs individually, to make frequent and regular shipments to more distant city markets, at much better prices. Then, why not co-operate one with the other, and bring all eggs in each locality to a convenient central shipping point, and realize, instead of from 15 to 30 cents, from 20 to 50 cents a dozen. This would make considerable difference in the returns from our poultry at the end of the year. By doing this, shipments can be made twice a week of eggs only three or four days old.

**GREAT WASTE IN PRESENT SYSTEM.**

There will be no waste from eggs remaining at the farm until they get stale. The village grocer does not expect to get fresh eggs, and pays the same price for all, regardless of qual-

ity and cattle, why not fatten our poultry? Unlike hogs and cattle, they are light in weight, and we can not make small shipments to best and distant markets individually, but we can co-operatively. Let the chickens and all poultry be fattened on the farms, and brought in to the central shipping point, where they can be packed and graded. We must establish grades in all our poultry products, then there can be no question of difficulty for buyer or seller; the grade will be there to show for itself.

We will then be in a position, as an organization, to offer so many pounds or tons of poultry of a certain grade, which can be sold privately by the organization or by auction to the highest bidder. Let us realize that we are brother farmers, and what is in the interests of one is for the best interest of us all; and that, by improving the quality of any of our products, we are not only benefiting ourselves, but benefiting our country.

**Head Lice on Chickens**

F. C. Clifford, Macdonald College, Que.

Head lice again. Frequently we receive letters from people who are having trouble with their growing chicks. About the time the feathers are half covering the body, when it is generally considered the danger

of the chick resembles nothing so much as a new feather. The head of the louse is imbedded in the skin, and until some oil is applied to the head.

How the lice work I do not know. I always had the impression that they sucked the blood, but as lice have only biting mouths, they must, get it some other way. However, it is done, and it does not take many days to clear out a flock of young chickens. The remedy is very simple—rub oil well into the skin, over the head and around the ears. In a few minutes the lice will be seen running around, the oil soon smothers them; a second application should be made in five or six days' time to catch any that may have been missed. If the oil is not at hand take grease of any kind. Coal oil will do the work, but if put on too heavy it will take the feathers, too, and possibly the chick, as well.

Even after getting rid of the lice the chick may die, if not carefully looked after. They may have become so weakened that nothing but good feed and nursing will bring them back to normal conditions. Give them the most appetizing mash that they will eat. Clean and disinfect the house and utensils.

Should any person be troubled with such head lice, it would be very some specimens in a bottle or a chick box. Send it alive in a clean cardboard box, St. Anne de Bellevue, P. Q. It would not be wise to send the live chick too far, as it might be dead, and the lice escaped before it arrived.

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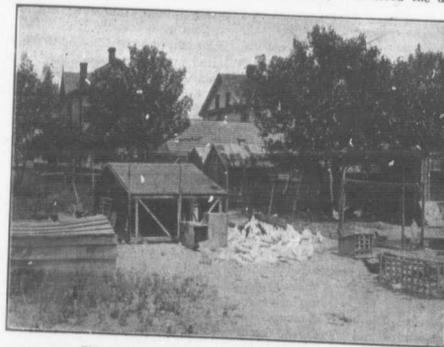
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This villager appreciates to the full the value of his flock

shade—something that is sometimes denied to hens on the farm to their great discomfort and to their owner's loss.

ity. Neither will there be waste from eggs remaining at the grocer's for several weeks longer, what cannot be disposed of locally being at last shipped into the city, where they arrive. No one is benefited under this condition; it is simply waste. The consumer is not receiving the fresh eggs for which he is willing to pay; the producer is producing the fresh eggs, but does not market them fresh. Why not change this condition? The remedy is simple; individually, we cannot remedy the situation; co-operation on the farms is possible to produce; we have only to get them together in quantity when they are at their best, to secure and supply the very best markets.

**INCREASED CONSUMPTION.**

Not only will we realize the immediate benefit to ourselves from the increased price, and confer advantage on the consumer by giving him value for his money, but it will react to our future benefit through increased consumption; as, when we improve the quality of any food product, the demand for that product is at once increased.

Why should we sell our chickens at seven and eight cents a pound, in an unfinished condition? We fatten our

droop and in a few days' time die off. Their feed is all right; and they seem to have grown out of the chick diseases, when all at once or in a day or two a large percentage are sick, dying or dead.

The trouble may be one of various complaints caused from injurious feeding or unsanitary quarters, but it is frequently caused by head lice—lice that bore into the skin on top and the sides of the head. The chick becomes mopy, its wings hang, it loses its appetite, its head takes that long, snake-like appearance, and in two or three days the bird dies, and the reason seems hard to find. So many persons are so sure there are no lice in the flock that they fail to be on the look-out for them, and those that do look for them do not always find them. The chick may be picked up and the head examined, but nothing is seen but the small feathers that are sprouting out all over the body and a little heavier on the head. A few more of the sick ones are handled, with the same results. They are dosed and doctored for indigestion, liver and lung troubles without curing—and the chicks die of some unknown disease. It was the lice that killed them. It is hard to find the lice, because the end of the bodies that are seen sticking out

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# FARM AND DAIRY

AND RURAL HOME

Published by The Rural Publishing Company, Limited.

FARM AND DAIRY is published every Thursday. It is the official organ of the British Columbia, Manitoba, Eastern and Western Ontario, and Bedford District, Quebec, Dairywomen's Association, and the Canadian Holstein, Ayrshire, and Jersey Cattle Breeders' Associations.

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## FARM AND DAIRY

PETERBORO, ONT.

### OF VITAL INTEREST TO DAIRYMEN

Cattle infected with tuberculosis are more common than is imagined. Some infected animals show marked symptoms of the disease. But, as frequently, if not to a greater extent, tuberculosis lurks in the constitution of well fed, sleek looking animals. In this form it is difficult to detect. No one would think of buying a cow that gave evidence of being affected with tuberculosis. In buying the best looking animal in a herd, however, we are not insured against it being tuberculous. The percentage of rejected cattle that are tanked at large packing plants under Government inspection, not to mention the common occurrence of having to do away with emaciated cows in dairy herds, is evidence enough that we are well seeded down with tuberculous stock. In view of the common occurrence of this disease, its dread nature and the loss that annually results from its ravages, dairymen may well give careful consideration to the article by Prof. Geo. E. Day, on the Bang system of handling tuberculous herds, appearing

on page three of Farm and Dairy this week.

Whether or not it is advisable to adopt this system, is a matter that each dairyman must decide for himself. The method outlined is both expensive and inconvenient in its practice. Those having tuberculosis well marked in their herds can possibly find no more advantageous way of securing a healthy herd than by adopting the Bang system. It has proved successful in Denmark and in other countries and is being applied to a number of herds in Canada and in the United States.

Any who have reason to suspect the prevalence of tuberculosis in their herds and are so situated as to make the Bang system, or a modification of this system, applicable, will be gaining much time in applying it at their earliest opportunity. In view of the fact that bovine tuberculosis is generally conceded to be communicable to man and the general agitation that is under way seeking to have all herds providing milk or dairy products for human consumption, inspected, it would seem to be only a question of time when compulsory inspection will be law. Those taking time by the forelock and eradicating tuberculosis from their herds will be in good shape to withstand any inspection that may be asked, and save themselves from annual loss which is inseparable from this dreaded disease. As the system cannot be generally carried out without some encouragement from the State, the Minister of Agriculture, Hon. Sydney Fisher should give this system careful investigation and if found advisable encourage it with public money.

### EDUCATION FOR THE FARMER'S BOY

The Ontario Agricultural College has been rapidly growing in public esteem. Besides the 40,000 farmers who annually visit the College and Experimental Farm, town and city people are being attracted to the place in large numbers from year to year. The course at the Guelph College is of great benefit to any one engaged in farming. It is broad and practical. The professors are unassuming and patient with boys who have not had good early training at school. Any boy with a love for farming and who wishes to improve his methods will receive much that will prove of value throughout life. The cost is reasonable. One can attend the Guelph College for a year for just half what it would cost to attend a university. As everything one learns can be put into practice on the farm when he returns home his outlay is soon recovered in increased earnings from the old farm.

How can the College help a young man? Suppose that he is going in for dairying or that his father already keeps a number of cows. The average cow produces something over 3,000 pounds of milk a year. In the case of the herd is one cow that produced 20,778 pounds in twelve months. Association with this cow and those who are feeding her would surely prove of benefit to any dairyman. By seeing

just how she is handled, fed, watered, and milked, such should be a good education for any dairyman. Aside from this, there is the whole dairy department at the command of the student. He is taught to test milk, to score butter and cheese, to make butter and cheese if he chooses, and to study the relationship between the dairy business and other kinds of farming. While the College has been well attended, still only a small percentage of those who might take advantage of the course offered avail themselves of it. There is no reason why a thousand young men in the Province of Ontario should not take advantage of the splendid course offered at the Agricultural College, Guelph. It is hoped that many will send in their applications to the President before the course opens on September 14, 1909.

### AFTER-HARVEST CULTIVATION

Land is cultivated in order that we may grow a crop and destroy weeds. This is the one thought that many of us have when we are at work in fall and spring. These objects are important. There are others that are equally important. By cultivation we conserve moisture. We make the soil in condition for the development of bacterial life that has the power of converting inert matter into available plant food. Striking proof of this is in evidence in the summer when we cultivate the corn crop. If a piece of ground that is free from weeds and in good condition is planted with corn, one half of which is cultivated every week until it is four feet high and the other half receives no cultivation or plow planting, the cultivated portion will yield two or three times as much per acre as that which received no cultivation. The cultivation conserves the moisture and allows the air to circulate through the soil, which makes conditions favorable for the development of bacterial life and enables them to convert the unavailable plant food into available food for plants.

Many crops, such as grain crops, cannot be cultivated while growing. It is the more important that the soil for such should receive good cultivation during the summer or fall previous. The earlier that land can be cultivated, after the crop has been removed, the better. Land that is intended for spring grains should be cultivated during the fall and left in the best possible shape to receive all the pulverizing influences of the frost.

### CONCRETE ON THE FARM

Portland cement concrete, although recognized as an ideal building material for heavy work, has not been given the attention that it merits in the smaller constructions about the home and on the farm. More active interest, however, is being taken in this subject and year by year we find concrete coming into more general favor for farm construction work. The ever increasing price of lumber has had much to do with bringing concrete into more general favor. The cost

of masonry work and the difficulty of getting it done has also led many to take advantage of cement.

The moderate cost, durability and beauty of cement work should bring it more rapidly into favor. Its uses on the farm are varied. Few realize the great diversity of its use. Mention might be made of it as a flooring material. There it is par excellence. It should be the only material for stable floors. For fence posts, hitching posts, water troughs, hog troughs, tanks, walls, walks, steps and stairs, cisterns, well curbs, culverts, bridges and other innumerable uses, concrete may well be taken into consideration. Many farms can be much improved by installing cement work. Prices being low, needed improvements should be installed at the earliest opportunity.

### Good Roads at the Farm Gate

(The Toronto World)

Close up the country roads and the great carrying systems, railroads and steamships would suffer in consequence. Great civilizations have prospered without railroads, but never without good country roads. The national exchange of commodities is curtailed just to the extent that the free movement of internal traffic is curtailed by bad roads. The counties where good roads are the rule are those where farmers live in large homes, where windmills tower above big bank barns, and where modern machinery sows or reaps the harvest. The advanced farmer to-day is the one who asks the candidate for the council: "What is your policy with respect to good roads in this county?"

Three thousand miles of modern leading highways are being built in Ontario or projected under the Good Roads Act by which one-third the cost is borne by the provincial government. This is only a start in the general plan of road improvement, but it is a happy augury for the future. The farmer who drives over fine macadam roadbeds becomes a missionary in spreading the good roads gospel. Ontario seems to be ready for another step in advance. The whole system of leading roads within the province should be taken over by the central administration and made permanent under expert direction.

From these leading highways the counties should co-operate under instruction from the central administration in building the principal feeders to the main roads along scientific lines. No blessing that civilization may bring to the farmer can compare with good roads. He can help by voice and vote in bringing that blessing to his own farm gate.

### A Menace to Agriculture

(The Toronto Globe.)

On Friday last before Magistrate Denison an old-established seed house in Toronto pleaded guilty on three charges of selling foul seeds to local dealers in Ontario towns. One sample of alsike clover offered for sale on being analyzed was found to contain nine noxious weeds per one thousand good seeds. Alsike seed of

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the legal standard may contain nearly 3,400 weed seeds to the pound, and a farmer sowing four pounds to the acre would deliberately plant in his soil more than 15,500 weeds, but when a sample of reed contains nine noxious weeds per one thousand good seeds the farmer plants more than 28,000 weeds in each acre. Weed seeds are notorious for their vitality and high percentage of germination. When a farmer sows 28,000 weed seeds like the night-flowering catchfly, on each acre of his meadow land he is taking a short cut to ruin.

The officials of the Dominion Department of Agriculture are making strenuous efforts to protect the farmers against unscrupulous or careless seedsmen that clean seeds only may be sown, but in spite of all that they can do, and notwithstanding the generous provisions of the "seed control act," the seeds of noxious weeds are still being rapidly and widely distributed. Weed control is no longer a trifling matter. The presence of a large number of noxious weed seeds in clover and grass seeds and in seed grain is now recognized as a menace to Canadian agriculture.

**Creamery Department**

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

**Home Buttermaking vs. Creameries**

*By Glendinning, Ontario Co., Ont.*  
Some comparisons between home butter making and sending cream to the creamery, from one who has made butter on the farm for many years and then changed over to the creamery, may not be out of place. Our equipment was a herd of from 20 to 25 cows bred specially for butter production. Butter was made and shipped twice a week to the city market where it brought a price equal to the best creamery product. Power was used for running the cream separator and churn. This reduced the manual labor of butter making below that of the average farm. The returns were satisfactory. A good profit was shown for the herd, feed consumed and labor employed.

The reader will ask why change to the creamery? The principle cause for the change was labor. The amount of cream obtained daily required the attention of one person for a good deal of time in caring for and making the butter. There was not work enough to pay the hire of an expert butter maker.

The feeding, milking and separating the milk is the same for either cream. In case of the creamery the cream is taken from the ice tank three times a week by the man who hauls it to the creamery. This disposal of the cream so far as the producer is concerned. The returns were good but the labor and expense were great. In addition to the churning and making up the butter into pound shipping boxes, carting it to the railway station and the payment of express charges, which totalled a considerable amount at the end of the year. Under the creamery system there is no work for the producer with the cream after it leaves the farm. A cheque is received once a month in payment for the cream.

There are other advantages in connection with the creamery over mak-

ing butter on the farm. On the average farm there is not enough butter made weekly to command the highest price on the city market. The butter made in the creamery is made of uniform quality by an expert, and in large quantities, so that advantage can be taken of freights to pay a man whose business is to keep in close touch with the markets and thus be enabled to secure the best price.

In many sections where farmers make butter for sale they are compelled to trade it at the country stores for groceries and for other articles of merchandise. As a rule the country storekeeper does not discriminate as to price between the best good and poor quality. The good butter maker is compelled to take the inferior product of the poor maker. There is no incentive so far as price is concerned to make an article of superior quality. In regard to those who make butter at home and sell on the local markets for cash, it is doubtful if they are not out of pocket if they lose attending the market, providing they are within reach of a creamery.

If all those who make butter at home were to send their cream to the creamery and have it made into butter and profit to all. The greater the amount made the less will be the cost of manufacturing. If for no other cause we should patronize the creamery in order that the work of butter-making may be lifted from the women of the house who too frequently have too much to do aside from buttermaking.

**Condensed Milk Market in Japan**

The imports of condensed milk into Japan is increasing rapidly, but for some reason or other, Canada has not shared but very little in this trade, until last year, when a well known Canadian brand, when a well known handled by a firm here, says G. A. Harris, Canadian Trade Commissioner in Japan, in the weekly report of Canada and Commerce. Imports from Canada increased in one year nearly 1,000 per cent. Most of the condensed milk that is imported into Japan comes from England, Switzerland and the United States of America, and the reason of this is that the manufacturers of these countries have agents appointed here who go after the business, and therefore, get it.

All the well known brands are advertised in both Japanese and foreign newspapers, thus keeping the names before the public all the time. The packed four dozen is the one-pound, case used being slightly heavier than that used for domestic shipment. The price of condensed milk averages about 5.50 per case, c.i.f. The freight mediate points, is 95 cents per 100 pounds on carlots, and from Nova Scotia or New Brunswick, \$1 per 100 pounds.

**Canadian Creameries**

According to the report of the Scottish Agricultural Commission to Canada, the way in which the Government supervised creameries are established and managed in the Dominion is as follows: When a desire arises among the farmers of a district to have a creamery, those interested approach the Dairy Commissioner for the Province. He informs them that he can help them if they fulfil the conditions of the "Dairyman's Act." They must, therefore, guarantee the milk from at least 400 cows; they must consent to be registered—free of expense—as a trading association;



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they must subscribe funds for the erection of a suitable building, and for other purposes; and their committee must become responsible for the performance of certain duties, including the hauling of cream from the farms. The Government on its side is prepared to lend money up to 1,500 dollars for equipment, at the low interest of 3 per cent.; to have that equipment bought and erected by a skilled man; and to appoint a buttermaker to take charge.

When butter is made it is taken to the Government cold storage and in time is sold, still by Government officials. The ordinary charge made for the manufacture of butter, whether in Government or other creameries, is 4 cents (2.1) a pound. The use of the cold store is granted without charge, but the material used and the outlay incurred in refrigeration, has to be paid for. Thus the Government, at a very small outlay, encourages the development of an industry that is suitable for the country; it ensures the establishment of creameries on sound and safe business lines; and it provides for the production of the best butter that the country can make.—The Dairy, London, Eng.

To put ice in the cream during churning is objectionable as it not only injures the wood of the churn but by pounding the sides, rollers, etc., during churning, but it may cause an uneven churning and larger loss as in the butter-milk than if the cream have a thoroughly cooled in the ripening vat before it is put into the churn. When cream is churned at a temperature of 50 to 52 degrees, during summer, it should be cooled to about 46 to 48 degrees on the evening before churning.

I would not be without Farm and Dairy at all. I enjoy it more than

any other paper I take and I count it superior to any other.—Hugh O'Donaldson, Frontenac Co., Ont.

Be up-to-date. Renew your subscription to Farm and Dairy.

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But DIFFICULT for the BEAST

To Open this STANCHION

One hand will do it, and it is just as

easy as one if you have a thick pair of gloves on. Just press down the latch and the STANCHION is instantly thrown open, no matter how hard the animal presses against the sides or push-locks on the lock.

Other makes require TWO HANDS, ours only ONE.

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Are made specially to go with these STANCHIONS. All up-to-date Dairy-men use them and would not have any others. Send to-day for our Special Direct to YOU, offer and Catalogue.

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**Cheese Department**

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

**Pine Grove Factory**

The Pine Grove cheese factory near Lakefield, Peterboro Co., Ont., the cool curing room in connection with which was illustrated and described in Farm and Dairy August 6th, is numbered among those factories in Eastern Ontario that skim the whey for butter. Mr. R. H. Little, the proprietor and manager of the factory had just finished skimming the whey recently when called upon by an editorial representative of Farm and Dairy. Motioning towards the cream that had just been taken from the whey, Mr. Little remarked that it made good butter. He wished he had twice as much of it. The whey from 6,000 pounds of milk received daily yields an average of 6 or 7 pounds of butter.

Mr. Little is making use of a pasteurized starter this season and is securing very good results. Speaking of the starter, Mr. Little said, "I have made cheese for 18 years but never used a starter before. Early this season, the milk was in such condition that it was often 10 o'clock before I could get a vat set. I had to do something so I got Mr. Ward our dairy instructor, to bring me a culture, and I have been using it ever since. Lots of cheesemakers use too much starter. They think they will get through with their day's work quicker by using it liberally. They fool themselves. From my experience, we are always late enough with a "rasher." A good steady working curd is much preferred.

"We are experiencing a very good season," continued Mr. Little. "The milk flow is not as large as in some years, but we get all we can handle." Mr. Little owns the Pine Grove factory and gets 1 1/4 cents a pound for making. He pays 35 cents a standard (8000 lbs.) for the whey, the farmers having the privilege of buying it back if they choose. "Ordinarily, I feed a large number of pigs each year," said Mr. Little. "This year it has been impossible to get

pigs and they cannot make use of the whey either. Last spring, I did not get many pigs, thinking that the farmers would want all the whey. It turned out that they had no pigs and hence cannot use it. At present, I have only 35 pigs, whereas in former years it was common to have 200 or 300 at one time."

**MISTAKE WITH CHEESE BOXES.**  
This year Mr. Little has had an experience with home made cheese boxes. Owing to the high price asked,



Members of the Stirling, Ont., Cheese Board through whose Agency Large Quantities of Cheese are Disposed of.

The Stirling Cheese Board ranks well up with other boards in the best districts of Eastern Ontario. Stirling is noted as a good cheese section and for its efficiently managed and well equipped factories. This district is noted as a "wheat" section. An editorial representative of Farm and Dairy was present at one of the regular meetings of the Stirling cheese board recently and had the photograph, reproduced above, taken especially for Farm and Dairy. For those in the illustration, see elsewhere on this page.

pigs, and as a result we have had to waste often as much as 40 barrels of whey a day. Over a third of our whey this season has gone to waste. The farmers have very few

before the season opened, for boxes laid down at the factory. Mr. Little thought it would be worth while to make the boxes himself. They cost him 10 cents in the rough. All told, considering the trouble of making them, not to mention a mistake that was made in getting them too small, Mr. Little has concluded that it would have been well to have purchased the boxes already made. The hoops used in the Pine Grove factory are only 1 1/4 inches. They will hold 80 pounds of curd but when filled to their capacity, they are too high for his boxes, hence it has been necessary this season to make the cheese from 72 to 74 lbs. in order that they may fit the boxes on hand. Mr. Little was well aware of the disadvantages of making small cheese owing to the danger of them being classed, by dealers on the other side, as Quebec's.

As soon as the season ends, the present make-room at this factory will be taken down and a new one of cement blocks erected. A large number of cement blocks made on the ground in spare time are already available to rush up the new make-room at the close of the season. Part of the foundation for the new building is already made, being built of cement also. The new room is to be 43 x 30 feet.

**Members of Stirling Cheese Board**

While present at one of the regular meetings of the Stirling Cheese Board recently an editorial representative of Farm and Dairy had the photograph reproduced on this page taken especially for Farm and Dairy.

Those shown in the illustration are: Front row, from left to right, Messrs. Robt. Lanigan, salesman for Evergreen Fy.; John Tanner, salesman for Harold Fy.; Wm. Meiklejohn, ex-president of Stirling Cheese Board; Fred Jeffs, salesman for Hoards Fy.; J. W. Sager, Pres. Stirling Board; G. W. Thompson, Sec. and Treas. Stirling Board; James Whitton, one of the oldest buyers on the Board, Morden Bird, representing Hogson Bros.; Herbert Morton, representing Lovell

Cook, of W. S. Cooke & Son, Belleville.

**Dairy Conditions in Ontario**

G. A. Putnam, Director of Dairy Instruction, Toronto.

From the second consensus report from the Dairy Instructors and Inspectors of the Ontario Department of Agriculture, it is quite evident that the farmers of Ontario generally are looking for better crops than have been the case for the past two years, and they seem to be in much better spirits on that account. The quantity of milk available for the manufacture of cheese and butter was much below the average last year, and the early part of this year, but all indications there has been a slight increase for the better. There appears to be a marked increase over the available milk supply of this time last year, and the milk producers, although there is still room for improvement, seem to be continuing to improve their condition of milk production. The prospects for the remaining months are bright and the remaining part of the year should be up to the average of the production of butter and cheese for the season of 1909.

As regards field crops the instructors report that the general crops, such as oats, corn, etc., are from an average to a very good yield, but the hay crop is recorded pretty generally to be short, and in some cases to be as low as 3/4 to 1/2 of the average. While the instructors report that there is still a great deal of opposition on the part of some of the farmers to take suggestions for improving the standard of the cheese and butter industry, still they at the same time report a decided improvement in this respect.

Inaccurate thermometers may be the cause of defects in butter as they may vary from 6 to 10 degrees from the correct temperature. When buying a new thermometer compare it with one known to be correct before using it for cream ripening and other buttermaking operations.

**ATTENTION!**  
**Cheese Manufacturers**



We are placing on the market a new cheese box which eliminates all the undesirable features of the old-style package.

This box is made of three pieces of veneer, with the grain running from top to bottom. It also has the advantage of a hoop placed near the top as shown in fig. 2, thus making it very strong and durable. In fact it is impossible to break it with ordinary handling. Every box is guaranteed, and any breakages will be replaced.

This box can be shipped in crates in knock-down shape, thus affecting a large saving in transportation charges.

For full information regarding prices, deliveries, its advantages, etc., write

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"If you will call your 'troubles,' 'experience,' and remember that every experience develops some latent force within you, you will grow vigorous and happy, however adverse your circumstances may seem to be."

-Aron.

### Sowing Seeds in Danny

By Nellie L. McClung

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(Continued from last week)

**SYNOPSIS**—The Watson family live in a small town in Manitoba. The family consists of Mr. Watson, a man of few words, who works on the "section," and nine children. Pearl Watson, an imaginative, clever little girl, 12 years old, and nine the mainstay of the family. Mrs. Watson is often employed to wash and work for Mrs. Francis, a dressy woman, who has beautiful theories. "Wee Danny" is the idol of Pearl's eye, and is a favorite theories. "Wee Danny" set theories on Danny. Camilla Rose is a capable young woman who looks after Mrs. Francis' domestic affairs, and occasionally helps her to apply her theories. Mrs. McGuire, the next door neighbor, is a capable young woman who looks after Mrs. McGuire's daughter, Mary, who does much good among the Watson family. Mr. Watson, Mr. Sam Motherwell and his son live on a farm near the Watson's. Mr. Motherwell is a well off but very stingy farmer. A year or two previously for a act of generosity, he donated the caboose of his train to the Watsons as a addition to their home. He afterwards regrets this move, and demands payment. Mrs. Motherwell is a well off but very stingy farmer. A year or two previously for a After much discussion it is decided that Pearl Watson shall go and work with Mrs. Motherwell, and thus "be out of the stain." Young Tom Motherwell has been brought up to regard the gathering of wealth as the chief aim in life. He is, however, invited to a party at one of the neighbors, and as his parents object to such "foolishness," he steals away unobserved.

#### CHAPTER XX.

##### Tom's New Viewpoint.

PEARL was quite disappointed in Tom's appearance after the morning after the party. Edgert also were a glorified countenance after he had seen Edythe, but Tom looked quite somewhat cross.

He went to his work discontentedly. His mother's moroseness annoyed him. His father's hard face had never looked so forbidding to him as it did that morning. Mrs. Slater's hearty welcome, Mr. Slater's genial and kindly ways, contrasted sharply with his own home life, and it rankled in him.

"It's dead easy for them Slater boys to be smart and good, too," he thought bitterly; "they are brought right up to it. They may not have the money, but look at the fun they have. George and Fred will be off to college soon, and it must be fun in the city,—they're dressed up all the time, ridin' round on street-cars, and with no chores to do."

The trees on the poplar bluff where he had made his toilet the evening before was beginning to show the aspen-brown of autumn, although there had colored against the green, and rust more hardy neighbors, they rippled their coin-like leaves in glad good-byes to the hayfield.

The sun had risen red and angry, giving to every cloud in the sky a tinge of gold, and long streamers had shot up into the blue of the mid-heaven.

There is no hour in the day so hushed and beautiful as the early morning, when the day is young, fresh from the hand of God. It is a new orange, clean and white and pure, and the angel is saving who may "Write" and none there be who may refuse to obey. It may be gracious

deeds and kindly words that we write upon it in letters of gold, or it may be that we blot and blur it with evil thoughts and stain it with unworthy actions, but write we must! The demon of discontent laid hold on Tom that morning as he worked

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Circulation Department, FARM AND DAIRY, Peterboro, Ont.

in the hayfield. New forces were at work in the boy's heart, forces mighty for good or evil.

A great disgust for his surroundings filled him. He could see from where he worked the big stone house, bare in and gray. It was a place to eat prison. He had never known any real enjoyment there. He knew it would be his some day, and he tried to feel the pride of possession, but he could not—he hated it.

He saw around him everywhere the abundance of harvest—the grain that meant money. Money! it was the greatest thing in the world. He had been taught to chase after it, to grasp it—then hide it, and chase again after more. His father put money in the bank every year, and never saw it again. His money was banked. Then they drew that wonderful thing called interest—money without work—and banked it—Oh, it was a great game!

It was the first glimmering of manhood that was stirring in Tom's heart that morning. He saw independence, the new individualism.

Before this he had accepted all his father or mother had done without question. Only once before had he doubted them. It was several years before. A man named Shamer had bought from Tom's father the quarter-section that Jim Russell now farmed. Tom had never seen Shamer, and was paying down a considerable sum of money, but evil days fell upon the man and his wife; sickness, discouragement, and then, the man began to drink. He was unable to keep up his payments and Tom's father had foreclosed their mortgage. Tom remembered the day the Skinners left their farm, the woman was packing their goods into a box. She was a faded woman in a faded wrapper, and her tears were falling as she worked! Tom saw her tears falling, and he had told her with the awful clarity of a child that it was their own fault that they had lost their farm. The woman had shrunk back as if he had struck her and cried, "Oh, no! no! Tom don't say that, child, you don't know what you say," then putting her hands on his shoulders she had looked straight into his face — he remembered that she had lost some teeth in front, and that her eyes were sweet and kind. "Some day, dear," she said, "when you are a man, you will remember with shame and sorrow that you once spoke hard to a broken-hearted, homeless woman who had gone home wondering and vaguely unhappy, and could not eat his supper that night."

He remembered it all now, remembered it with a start, and with a sudden tightening of his heart that burdened and chilled him. The hot blood rushed to his head and throbbled painfully.

He looked at the young Englishman with a sudden impulse, but Arthur was wrapped in his own mask of insular reserve, and saw nothing of the storm that was sweeping over the boy's soul.

Then the very spirit of evil laid hold on Tom. When the powers of good are present in the heart, and

petty meanness that he had been so carefully taught.

The first evening that Tom went into the bar-room of the Millford hotel he was given a royal welcome. They were a jolly crowd, they knew how to enjoy life, Tom told himself. What's the good of money if you can't have a little fun with it?

Tom had never had much money of his own, he had never needed it, or thought anything about it. Now the injustice of it rankled in him. He had to have money. It was his, and then if it was missed he would take it—his father and mother he would take it—taking your own is not stealing—and he would tell them so and have it out with them.

Thus the enemy sowed the tares.

#### CHAPTER XXI.

##### A Crack in the Granite.

While Pearl was writing her experiences in her little red book, Mr. and Mrs. Motherwell were in the kitchen below reading a letter which Mr. Motherwell had just brought home from the post office. It read as follows:

BRANDON HOSPITAL, AUGUST 10th.

Dear Mr. and Mrs. Motherwell: I know it will be at least some slight comfort for you to know that the poppies you sent Polly reached her in time to be the very greatest comfort to her. Her joy at seeing them and been your reward if you could have seen it, and although she had been delirious up to that time for several days, the sight of the poppies seemed to call her mind back. She died very peacefully and happily at daylight this morning. She was a sweet and lovable girl and we had all grown very fond of her, and I am sure you did, too.

May God abundantly bless you, dear Mr. and Mrs. Motherwell, your kind thoughtfulness to this poor lonely girl.

"Inasmuch as ye have done it unto the least of these, ye have done it unto Me."

Yours cordially,  
(Nurse) AGNES HUNT

"By Jinks!"

Sam Motherwell took the letter from his wife's hand and excitedly read it over to himself, going over each word with his blunt forehead. He turned it over and examined the seal, he looked at the stamp and inside of the envelope, and failing to find any clue to the mystery he ejaculated again:

"By Jinks! What the deuce is this about poppies. Is that them things she sowed out there?"

His wife nodded.

"Well, who do you suppose sent them? Who would ever think of sending them?"

Mrs. Motherwell made no reply. "It's a blamed nice letter anyway," he said, looking it over again. "I guess Polly didn't give us a hard name to them up there in the 'ospital, or we wouldn't have got a letter like this; and poor Polly's dead, well, willin' thing too, and not too slow, either."

Mrs. Motherwell was still silent. She had not thought the Pop would die, she had always had great faith in the vitality of English people. "You can't kill them, she had often said; but now Polly was dead. She was sick, and when she went away, her house so strangely silent and muffled. Mrs. Motherwell's memory went back with Polly then—she had said things a remorse that was new and terrible, and Polly had looked at her dashed and wondering, her big eyes flushed and pleading. Mrs. Motherwell remembered now that she had seen Sam to kill a lamb once, and it came

back to her, now how through it all until the blow fell, one lamb had stood wondering, pleading, yet unflinching, and she had run sobbing away—and now Polly was dead—and those big eyes she had so often seen tearful, yet smiling, were closed and their tears forever wiped away.

That night she dreamed of Polly, confused, troubled dreams; now it was Polly's mother who was dead, then it was her own mother, dead thirty years ago. Once she started violently and sat up. Someone had been singing—the echo of it was still in the room:

Over my grave keep the green willers growing.

The yellow harvest moon flooded the room with its soft light. She could see through the window how it lay like a mantle on the silent fields. It was one of those glorious, cloudless nights, with a hint of frost in the air that cooled just as the grain is ripening. From some place down the creek a dog barked; once in a while a cow-bell tinkled; a horse stamped in the stable and then all was still. No restless snars shone through the window. The mystery of life and death and growing things was around her. As for man his days are as grass; as a flower of the field so he flourishes for it in soon cut off and we are awfully away where?—where?—her head throbed with the question.

The eastern sky flushed red with morning, a little ripple came over the grain. She watched it listlessly, Polly had died at daybreak—didn't the letter say? Just like that, the light rising redder and redder, the stars disappearing, she wondered why did herself how feet she could see the light coming like this, and yet, and yet, some time would be the last, and then what?

We shall be where suns are not, A far serene climate.

It came to her memory she knew not from whence. But she shuddered at it. Polly's eyes, dazed, pleading like the lamb's, rose before her; or was it that Other Face, tender, throbbing, crowned, that had been looking upon her in love all these long years.

She spoke so kindly to Pearl when she went into the kitchen that the little girl looked up apprehensively.

"Are you not well, ma'am?" she asked quickly.

Mrs. Motherwell hesitated.

"I did not sleep very well," she said at last.

"That's the mortgage," Pearl thought to herself.

"And when I did sleep, I had such dreadful dreams," Mrs. Motherwell went on, strangely communicative.

"That looks more like the cancer," Pearl thought as she stirred the porridge.

"We got bad news," Mrs. Motherwell said. "Polly is dead."

Pearl stopped stirring the porridge.

"When did she die?" she asked eagerly.

"Pearl stopped stirring the porridge.

"When did she die?" she asked eagerly.

"The morning before yesterday morning, about daylight."

"Pearl made a rapid calculation, "Oh, good!" she cried, "good—good—good!" They were in time."

She saw her mistake in a moment, and hastily put her hand over her mouth as if to prevent the unruly member from further indiscretions. She stirred the porridge vigorously, while her cheeks burned.

"Yes, they were," Mrs. Motherwell said quietly.

(To be continued next week.)

**NEW PREMIUM LIST**—Write for a copy of our premium list. There are many premiums listed in it that you will want to secure this summer. Premiums for everyone and for any number of subscriptions. Send for this list to-day.

## The Upward Look

Lay not up for yourselves treasures upon earth where moth and rust doth corrupt, and where thieves break through and steal. But lay up for yourselves treasures in Heaven, where neither moth nor rust doth corrupt, and where thieves do not break through nor steal. For where your treasure is there will your heart be also.—Matt. vi: 19, 20, 21.

Many people are making failures of their lives because they are allowing themselves to be governed by false ideals. They are aiming at wrong marks. Even should they gain what they most desire they will realize sooner or later how vain have been their efforts. It is a terrible thought that many of them will never realize this until their lives have been spent and it will be too late for them to make amends or carry over for their mistakes. Some, even, will be like the rich man (Luke 12: 16-20) whose land brought forth plentifully and who decided to take his ease and drink and be merry, but that night God required his soul.

The great mistake many of us make is that we confuse the secondary with the essential. We fail to realize that it is more important to us what we are than what we possess. We are so eager to increase our means, to gain wealth or power or social rank or distinction that we are apt to forget the far more important obligation that rests on each of us to develop our characters aright. No matter how costly a frame we may put around a picture, no matter how fine a light we may hang it in, if the picture is poor, its settings will not make it a masterpiece. It will be a mere counterfeit. So it is with us. If we are not strong morally and spiritually, wealth or fame will ruin, not help us. It will make us proud and selfish and lead us into sin.

Charles Wagner, in his book, *The Simple Life*, says: "The greatest lack in that want of discernment which leads men to ground their pride in their fortune. It is a childish confusion of thought to consider wealth as a personal quality. Do not confound what you possess with what you are. The man who finds his satisfaction in things which glitter and holds his eyes, is lost, and easily succumbs to the temptation to live himself for appearances. It is an

error to think that our advantages, whatever they are, should be put to the service of our vanity. Material goods, power, knowledge, gifts of the heart and mind, become so much cause for discord when they serve to nourish pride. Most people, rich and poor alike, imagine that in opulence one has nothing to do but to take life easy. That is why so few men know how to be rich. In the hands of too many, wealth, according to the genial and redoubtable comparison of Luther, is like a sharp in the hands of an ass. They have no idea of the manner of its use. Possession then, is less a privilege of which to be proud than a charge whose gravity should be felt."

Our Lord recognized all this when He gave utterance to the words of our text. He has told us, also, that some day we will have to give an accounting of all that we possess, including the use made of it. We should be very, very careful, therefore, that our aim in life is one that will be pleasing to God, and that we are using aright in the means of our talents we have, even if they be only very humble.—I. H. N.

## Canning of Vegetables

The first step in successful canning is the selection and preparation of the vegetables. Never attempt to can any vegetable that is not mature and commended to harden or that has begun to decay. As a general rule, young vegetables are superior in flavor and texture to the more mature ones. This is especially true of string beans, okra, and asparagus. Vegetables are better if gathered in the early morning while the dew is still on them. If it is impossible to can them immediately, do not allow them to wither, but put them in cold water or in a cold, damp place and keep them crisp until you are ready for them. Do your canning in a well-ventilated well-dusted room. This will tend to reduce the danger of spores floating about and lessen the chances of inoculation.

### TOMATOES

Every housewife knows how to can tomatoes. They are very easily kept, even in the common screw-top Mason jar. If one already has on hand a number of jars of this pattern, it is best to use them for preserves or for canning tomatoes and to purchase the more modern style for canning other vegetables. In using the Mason jars be careful to sterilize them first by placing in cold water, bringing to a boil, and boiling for about ten minutes. The rubber and top should also be immersed in boiling water for the same length of time. Remove them from the boiling water when needed, handling as little as possible. Be careful not to get your fingers on the inside of the top or on the inner edge of the rubber. Fill the jar with the cooked tomatoes, while steaming hot, put on the rubber, screw on the top firmly, invert it, and let it stand in that position until cool.

### LIMA BEANS

Lima beans lose their flavor very quickly after being shelled, therefore it is necessary to can them as soon as possible after gathering. Discard all pods which have begun to harden, and proceed as you would with corn.

### PUMPKIN OR WINTER SQUASH

If provided with a warm, dry cellar one may keep certain varieties of these vegetables all winter. Some of the best varieties, however, do not keep well, and even the best keepers should not be stored in the cellar when not wanted for use. It is then necessary to can them in order to save them. If one has a limited number of jars, it is a good plan to fill the jars with other vegetables during the summer and upon the approach of frost to gather the pumpkins and bring them in-

doors. By the time the pumpkins begin to spoil, enough jars will be emptied to hold them. They can now be steamed and canned in the same way as summer squash.

### CAUTIONS

These directions for canning apply only to pint and quart jars. If half-gallon jars are used, always increase the time of boiling, making it an hour and a half instead of one hour.

Do not go into canning too deeply at first. Experiment with a few jars in the early part of the season and see if they keep well. It is not a difficult matter to can vegetables properly. The writer has never lost a can of string beans, lima beans, carrots, parsnips, lima beans, beets, asparagus or pumpkin in several years' experience, and has had only one can of peas spoil, a few cans of corn during the earlier trials, and a few cans of succotash. An housewife can do equally well. If you follow the directions here given carefully, you will have no difficulty what-so-ever. The writer has had to fail in the first trial, rest assured that you have done something wrong or left something undone. No housewife who has on hand during the winter a supply of home-canned vegetables, ready to serve on ten minutes' notice, will ever regret the trouble or difficulties experienced in learning.

## Mothers, Take Time to Rest

A young lady not long ago was relating an amusing experience which everyone present seemed to enter into and enjoy but her mother, and apparently she was paying no attention at all to anything around her, for at the most interesting point, in a listless tired tone she said:

"Daughter, don't talk so loud. I have the headache." This, noticing the dampening effect of her remark, with a faint attempt at pleasantry, she apologetically added, "Remember mamma is getting old." Her daughter, hurt at her mother's lack of interest and provoked at the interruption, replied sarcastically, "and it's a pity for a girl to have as old a mother as you are."

While I did not approve of my young friend's hasty retort, yet I could feel sorry for her. True, it is a pity for a girl full of life and exuberance of spirits to have a mother, not old in years, but so aged with toil and care as not to appreciate her society or to enter into her girlish plans and sports.

Mothers, do be wise and take time to rest. Train your children to be thoughtful of you and wait on themselves. Don't allow them to lay you on the shelf and regard you as "a back number." Keep a pace with the times, read, dress, etc. You will thus be happier yourself and make those around you happier. Try it.

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People who seldom or never take a vacation get into ruts. Their minds get stuffy and clouded; they lose the power of expansion; of growth; they lose freshness of view; the ability to grasp opportunities; and, finally, they lose their grip on things and on themselves. People who take no vacation lose the rhythm of life. Their days are all monotonous work.

Recreation, for those who have been held closely to business for a long time, is like the turning up of hard soil by the plow, letting in the sunlight and stirring up the chemical forces that have been sleeping during the winter. Play is just as important to the symmetrical development of a well-balanced life as work. A vacation helps to balance our powers to give us a mere symmetrical development. It keeps us from becoming one-sided. It improves our judgment. —"The Daugher."

**PRaise our boys.**

I have watched with interest the Home Club during a short period of illness and enjoying the writing of others, have rested on my oars. A mother is permitted to rest occasionally, but where are "The Doctor," "Aunt Faithful," "Cousin Eva" and others? Surely they have not the same reasonable reason I have for not sending a few lines. The "Hired Man" has been doing his share and giving us good mental food to digest and "The Son!" It is his stirring

little letter which has called me to arouse from my idleness and write. There is something pathetic in the attitude he takes; he wants a word day my boy said, "He was grating those well." "I can always do things better when I know I am doing them right."

In dealing with our boys we are narrating or making our future Canada. Obedience is the first lesson we must all learn and the only time punishment (corporal punishment) should be ever inflicted is when the child disobeys.

Boys should not be paid for every little task they perform, but where the work is done well let them know. There is "something in it" for them, for having done a service well they will be pleased to know their efforts are appreciated—and rewarded.

I like the attitude taken in the letter by "Father" in a recent issue. Space forbids me passing any further comments on it. Let us endeavor to keep the best boys, the cleverest boys on the farms—there is much more scope there for the fertile brain.—"Mother."

**SIMPLER LIVING.**

In all walks of life the cry is for greater simplicity. Especially is this true on the farm. When we look around and see the farmer's wife ask she should be at her prime, we can see ourselves the cause, and where, if any, is the remedy. The answer comes "simplicity"; dispense with so much cooking and fancy sewing, especially cooking and fancy sewing, months at least cut out the pies and iced cakes, which take so much time and strength to make in the hot kitchen.

No longer is the overlaid table containing three or four kinds of pies

and cakes popular. In its place we have the higher thinking and lighter living, for instance bread and butter and fresh fruit instead of rubbing the butter into the flour and putting the sweetened fruit inside. The housewife sitting down to such a meal is not too tired to eat, but able to enjoy her meal like the other members of the family.

It is the habit of many homes to have the heavy meal at noonday, not because it is the proper thing, but because our fathers did. Observation proves that the race is getting weaker, still we keep on our noonday dinner. In the west, where the work is very heavy, men find they can not work as well during the afternoon after a heavy meal. A hot body temperature is greater during digestion and they are unable to work easily during the process of digestion in the boiling sun.

Some progressive farmers now eat their heavy meal at five o'clock, when the day's work is nearly over, so they rest quietly and digest their food.

We would like to hear from the farmers and their wives, some plans of simple living and also menus for the hot weather on the farm.—"The Pastor's Wife."

**THE COOK'S CORNER**

Send in your favorite recipes, for publication in this column. Inquiries pertaining to cooking are solicited, and after receipt of same, our Cook Book sent free for two new yearly subscriptions at \$1.00 each. Household Editor, this paper

**Warm Weather Dainties**

**LEMON HERBET**

To 1 tablespoon gelatine add 1 qt water, 1 pt sugar and juice of 6 lemons. Soak the gelatine in a little of the water 10 minutes, heat the remainder of the water to boiling, and dissolve the gelatine in it. Add sugar and lemon juice and freeze.

**PALATABLE ICES.**

Mix juices of 4 large lemons and 1 orange, 1 pt sugar and 1 qt water. Freeze.

To make Pomona ice take 1 cup orange juice, 1 pt new cider and 1 cup sugar. Freeze.

**FROZEN DESSERTS.**

1 pt of berries or peaches cut fine added to a pint of ordinary ice cream while freezing makes a delicious fruit ice cream.

Get the best ripe bananas you can find, peel, mash the pulp and to each cup of pulp add a pt of whipped cream and sugar to taste. Freeze.

Dried fruits should be soaked overnight before cooking. They can be washed much cleaner and are much softer, fresher and nicer in every way.

**DATE DUMPLINGS.**

One pint of flour, half a teaspoonful of salt, two teaspoonfuls of baking powder, sifted together and mix with a cupful of cream. To this add a cupful of finely minced dates and drop by spoonfuls on a buttered plate. Cook in an ordinary steamer over boiling water. Serve hot with a rich sauce.

**FROZEN TOMATO SALAD.**

Peel and cook eight fine ripe tomatoes; season with a little salt, pepper and sugar and three drops of onion juice; turn into a freezer and freeze. Fill a melon mold with this mixture, pack in ice and salt and let it stand for several hours to ripen. Serve on a bed of white celery leaves, garnished with olives, with mounds of thick dressing dotted over it.

**The Sewing Room**

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

**NAVY BLOUSE**



The blouse is made with front and back. There is a short opening at the front which is closed by means of lacing beneath the tie and the big sailor collar finishes the neck. The patch pocket is arranged over the left side of the front and there are short sleeves that are without fulness at the upper edges, but which are gathered at the lower and finished with straight cuffs. They can be worn without openings.

The quantity of material required for the medium size is 3 1/2 yds, 3 1/2 or 44 in wide with 1/2 yd 27 for collar and cuffs. The pattern 6396 is cut in sizes for a 32, 34, 36, 38 and 40 in bust measure, and will be mailed to any address on receipt of ten cents.

**MEN'S COAT SHIRT 6397**



The shirt is made with front and back. When yoke is used it is applied to back on indicated lines and when the tucked bottom is desired is arranged as shown. The fronts which are cut away beneath. In any case the closing is made for the entire length at the center. The closures are of the regulation sort, finished with cover-laps and with straight cuffs. The quantity of material required for the medium size is 5 1/2 yds 34 or 37, 3 1/2 yds 36 in wide.

The pattern 6397 is cut in sizes for a 34, 36, 38, 40, 42, 44 and 46 in chest measure and will be mailed to any address on receipt of 10 cts.

**INFANT'S SHAWL WRAP 6398**



This convenient little wrap especially belongs to every infant's outfit. It serves the purpose of both bath and shawl and it can be slipped on at a moment's notice whenever the temperature requires.

The wrap is made in one piece with casing and draw strings arranged to form the hood.

Material required is for the full length 3 yds wrap 1 1/2 yds 27 or 1 1/2 yds 36 in wide, for the shorter wrap 1 yd 27 or 1 1/2 yds 30 in wide.

The pattern 6398 is cut in one size only and will be mailed to any address on receipt of 10 cts.

**SEVEN GORED SKIRT 6399**



This skirt is cut in seven gores and is laid in inverted pleats at the back. The trimming is arranged on indicated lines and there is a fitted cord arranged under the upper edge which keeps it snugly in place.

Material required for the medium size is 9 1/2 yds 24, 5 1/2 yds 32, 44 or 48 in wide, when material has figure or nap: 7 1/2 yds 24, 4 1/2 yds 32, 4 yds 44, 3 yds 48

when material has neither figure nor nap, 3/4 yd 27 in wide for trimming, width of skirt at lower edge, 3 1/2 yds. The pattern 6399 is cut for a 22, 24, 26, 28, 30 and 32 in waist measure and will be mailed to any address on receipt of 10 cts.



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## CITY MILK SUPPLY DEPARTMENT

### Regulations re Certified Milk

Part of a circular issued by the milk commission of the Toronto Academy of Medicine was published in a former issue of Farm and Dairy. It comprised the standard for certified milk and the recommendations made by the Commission concerning the barnyard, the stables, the water supply and the cow. Other recommendations made are as follows:

#### V.—THE MILKERS

The milker should be personally clean. He should neither have, nor should he come in contact with contagious disease while employed in milking or handling milk. In case of any illness in the person or family

of any employee in the dairy such employee must absent himself from the dairy until the Commission's physician certifies that it is safe for him to return.

Before milking the hands should be thoroughly washed in hot water with soap and nail-brush, and well dried with a clean towel. On no account should the hands be wet with milk or other fluid during milking.

The milking should be done regularly at the same hour morning and evening, and in a quiet, thorough manner. Light colored washable outer garments should be worn during milking. They should be clean and dry, and when not in use should be hung in a clean place protected from dust.

Milking stools must be kept sterile. Iron stools painted white are recommended.

#### VI.—HELPERS OTHER THAN MILKERS

All persons engaged in the dairy

should be reliable and intelligent. Children under twelve years should not be allowed in the stable during the milking since in their ignorance they may do harm, and from their liability to contagious diseases they are more apt than older persons to transmit these diseases through the milk.

#### VII.—SMALL ANIMALS

Cats and dogs must be excluded from the stables.

#### VIII.—THE MILK

The first few streams from each teat should be discarded in order to free the milk ducts from milk that has remained in them for some time, and in which bacteria are sure to have multiplied greatly. If in any milking a part of the milk is bloody and stringy or unnatural in appearance, the whole quantity of the milk yielded by that animal must be rejected. If any accident occurs by which the milk in the pail becomes dirty do not

try to remove the dirt by straining, but reject all the milk and cleanse and sterilize the pail.

The milk pails should have an opening not exceeding eight inches in diameter. Remove the milk of each cow from the stable immediately after it is obtained to the dairy and strain it through a sterilized strainer.

The temperature of the milk is of great importance. The milk should be cooled to 45 degrees F. within one half hour after milking. Aeration of pure milk beyond that of milking is unnecessary.

All dairy utensils, including bottles, must be thoroughly cleansed and sterilized. This can be done by first thoroughly rinsing in warm water, then washing with a brush and soda or other alkaline cleansing material and hot water, and thoroughly rinsing. After the cleaning they should be sterilized with flowing steam for one hour, or with steam under 1 atmosphere of pressure for 15 minutes, and afterwards be kept inverted in a place free from dust.

#### IX.—THE DAIRY

The dairy shall be a building separated from the house and the stable. The rooms in which clothing, utensils and bottles are cleaned and stored should be separate from the milk cooling and bottling room.

Those only engaged in cooling and bottling of milk shall be allowed in the cooling and bottling room.

Bottles after filling must be closed with sterilized discs and capped so as to keep all dirt and dust from the inner surface of the neck and mouth of the bottles and stored in a separate refrigerator.

#### X.—EXAMINATION OF MILK AND DAIRY INFANTRY

In order that the dealers and the Commission may be kept informed of the character of the milk, specimens taken at random from the day's supply will be taken once a month or oftener, and subjected to examination by the experts of the Commission. The Commission will make inspection of certified farms at frequent intervals and reserve the right to change its standards in any reasonable manner upon due notice being given to the producers.

#### XI.—PHYSICIAN'S PRESCRIPTION.

If milk be required by a physician the holder of a physician's order shall in all cases be preferred to other milk.

The Commission is ready to certify to the milk of any producer who fulfills the above standard to their satisfaction.

The Academy of Medicine, in appointing their Milk Commission, is actuated only by a desire to obtain for the children and patients under the care of its members a milk supply beyond suspicion. The members of the Commission are disinterested, and its members forbid to themselves any pecuniary reward.

All the Provinces will be in line with exhibits in the Provinces building at the Canadian National Exhibition this year. Each Provincial Government is at work on a display that will do justice to its territory, and the gold and fruit of British Columbia, the golden grain of the prairies from Alberta, Saskatchewan, and Manitoba, the various products and minerals of Ontario, right down to the best coal and farm products of Nova Scotia and New Brunswick, will form one of the many features that make the Fair truly National in character.

The fountain pen sent me for securing one new subscription to Farm and Dairy has been received. I am much pleased with the pen and wish Farm and Dairy all success.—J. Anderson, Renfrew Co., Ont.

## How To Buy Farm Implements

Choose implements strong enough to stand all hard usage—designed by long experience—built in the way that keeps repair-troubles at arm's length—priced low (value considered).

"Cockshutt" on a farm implement is a reliable insurance against that costly trouble of the farmers—break-downs in the fields, which always happen at the worst possible time. And the same name insures light draft, because 32 years' experience is built into the design, and special processes are applied in the making. Cockshutt moldboards, for example, are made of the best soft-centre steel, heated by natural gas and tempered in a peculiar way that

precludes the bare chance of soft spots or faulty surfacing. All the steel in a Cockshutt implement is

tempered exactly right, and that is why Cockshutt moldboards take temper as hard as glass—polish like fine cutlery—scour in any soil—and make Cockshutt plows lighter in draft than any ordinary plow.

### Cockshutt Implements are Trouble-Proof

Then, into every strain-taking part of any Cockshutt plow, is built enough strength to stand twice the hardest strain it will probably ever have to endure. You will understand about this better when you send for the Cockshutt literature. Sent on request.

## How To Do Better Plowing in Half The Time!

Draws only a fourth harder than a walking plow (actual test) and plows two furrows at once—needs two horses only.



MAPLE LEAF  
2-FURROW  
WALKING GANG  
PLOW

Its frame is a drop-forged I-beam of heavy high-carbon steel, with heavy malleable castings very solidly bolted up—the whole construction combining greatest strength with least weight.

#### Simple and Quick Adjustment

Loosen two bolts and turn two set-screws, and in a minute you can change the furrow-width from seven inches to 10, or any width between—the very simplest and quickest width-adjuster there is. New pattern fine-adjustment ratchet changes the depth of cut by quarter inches, by a pull on the easily-reached lever.

#### Easy to Plow Right With This

Wheels are always under driver's control; and our patent straightener device makes it easy for any plowman to make all straight furrows.

#### Has the Only Perfect Wheel

The ONLY perfect dust-proof wheel is fitted to all Cockshutt gang plows; dust and grit simply cannot get into it; oil cannot leak out of it; and the axles cannot spring nor weaken a little bit. Runs with less friction, and is easier kept in order. Get particulars by writing to-day for illustrated descriptive Booklet A.

#### The Cockshutt Line

built right to farm right, includes not only more than 120 styles of plows—ranging from light garden plows to huge 12-furrow engine gangs—but also all styles of seeders, cultivators and harrows. Write us for details of the kind of implements the business farmer ought to buy.

By actual tests, in competition, this 2-furrow walking gang has plowed two furrows 9 inches wide and six inches deep with but 25% heavier draft than a single-furrow walking plow, in the same soil and with the same horses and plowman. And it was heavy soil at that. To YOU! This means that three horses and one man, with this plow, will do as much as four horses and two men with two one-share walking plows—and the plowing will be BETTER done, because only every other furrow is trod by the off-horse. That makes for easier harrowing and better tillth. On light soils TWO horses can do the work—the draft is so light.

## COCKSHUTT PLOW CO., LTD.

BRANTFORD, ONTARIO

**OUR FARMERS' CLUB**  
Contributions Invited.

**QUEBEC**

**SHERBROOKE CO., QUE.**

**LENNOXVILLE.**—The haying season is sufficiently far advanced so that the crop can be estimated. It is declared to be below the average. Grain promises to be quite good, which will help to adjust conditions. The shortage in hay has already been attributed to the fault of this season, but is no doubt due most of all to the severe drought of last summer and fall, which killed out many of the plants leaving the stand very thin. Some farmers are sowing grass and clover seed on their best land, hoping to thicken the stand of plants for next year. Creamery returns are very good this season, although the price has not risen so high as last year. Pastures have been very good and the yield of milk has been large. Pork still brings 11½c in carcass, and the supply is not sufficient to meet the price. Beef is much more plentiful now and prices will no doubt go lower in consequence of the short hay crop.—H. M. C.

**MISSISSIPPI CO., QUE.**

**PRELAIGHSBURG.**—Haying is about all done. Reports generally concede it to be a very light crop, even lighter than last year. Nearly every farmer had to buy hay this year, so that the yield and crop yield will there will be a considerable shortage of coarse fodder. Many farmers are beginning to reduce their stock of cattle, so that many more horses are being bred. There has been very scarce and prices went up to \$8.25 a cwt, but this week there is a softening feeling and 80 is the price. Eggs are in good demand at 30c a doz. The drought is nearly as bad now as it was at any time last year. Water is getting low in wells and streams are practically burned out on all but low lands. As a result the yield of milk from our cows is falling rapidly and the reports are at a standstill, so we have to resort to milk feed. Rain is \$25 and midlings \$30 a ton. Grasshoppers are doing considerable damage to grain and appear to be increasing in numbers. A large area was planted to potatoes last spring, but the drought has prevented development of the tubers and the crop will be small unless rain comes to our relief soon.—C. A. W.

**CHATEAUGUAY CO., QUE.**

**CRISTON.**—Hay was an average crop. The harvest is a late one on account of the backward spring. There are some fine looking fields of grain. Mr. D. Drummond was here last week and he thought that the corn grew a foot in two days. The hot, dry weather just suits it, although the pastures need rain badly. Hemlock and Elgin are suffering badly. The for the want of rain; pastures are dried up and everything is at a standstill.—N. S.

**ONTARIO**

**HASTINGS CO., ONT.**

**CHAPMAN.**—Hay making is completed. The crop has been light. Wet weather for the past few weeks has made it difficult to cure hay in good shape, and a large amount has got wet. Pastures, however, have profited from the rains and in consequence the milk flow is keeping up fairly well. Barley is, on the average, a light crop, but oats and peas have improved as a result of the recent rains. Hops are scarce and are worth 6c a lb. at cars.—H. S.

**DURHAM CO., ONT.**

**BLACKSTONE.**—Fall wheat is all out, and in the barn in good shape. It is

plump and the straw is of good length. It should yield well. Barley, although short in the straw, will be a good sample generally, and the oat will probably be a fair yield. Oats are looking healthy and growing well. Some silage is being threshed, and a good yield is reported. Roots and corn are doing well.—P.

**PETERBORO CO., ONT.**

**LAKEURST.**—Corn gives promise of an abundant crop. Potatoes are looking fine. Mangels and sugar beets are looking well. Much of the corn is still in the field, and a good stand and had to be plowed up and re-sown with turnips. The turnip crop promises to be better than the recent rains and almost a certain crop. Potatoes will be better again as a result of the rains, but milk this year will be below the average.—A. V.

**VICTORIA CO., ONT.**

**HARTLEY.**—We have suffered considerably from the dry weather which we had through June and the first part of July. The rain which came on the 10th of July, and has been coming since that time in irregular measure (filled full, pressed down and running over) has made a great change in the prospects of the farmers. Although the rain did not come in time to help the hay crop which is very light, it has helped other crops and done the root crop an immense amount of good.—W.M. BRANT CO., ONT.

**ST. GEORGE.**—Crops are away ahead of what was expected earlier in the season. With few exceptions, crops will be a fair average. Some good pieces of wheat have been harvested. Much of the barley is in stock, and the crop will be a good yield. While speaking of barley, mention should be made of a new strain of Manitoba barley—No. 21—which was recently brought into this district from the Ontario Agricultural College. It has proven much superior to the common Manitoba. It is not only yielding more heavily but is somewhat longer and stiffer than the straw and this year it is much better headed than the common Manitoba variety. No. 21 is discernible wherever grown and as one neighbor put it recently, "you can tell it right to a row and drive down it with the binder without the least difficulty." The difference in favor of No. 21 is very marked this year, it having withstood the unfavorable weather conditions. This strain of barley is destined to do much for our district and will become generally grown here and elsewhere in the province.—R. N.

**MIDDLESEX CO., ONT.**

**LAMBETH.**—Hay was seen in good condition. One farmer had a new hay barn holding 60 tons, filled from sill to ridge all taken from one field, the output being over three tons an acre. Another farmer who had 20 acres of wheat, said this about it: "I believe if it were possible to hold a sheet, six feet high over the whole 20 acres, my hay would weigh 200 tons." This man is looking for a yield of nearly 50 bushels an acre. Barley is doing very well, and already the binder is at work among some pieces. Oats are about half a crop, having suffered for lack of rain. Some good fields are seen, and are those that were before the snow storm of last spring. Early apples are poor, while the late ones are some better. The Spys and Baldwins are rather shy.—J. E. O.

**SASKATCHEWAN**

**REGINA DISTRICT, SASK.**

**COTTONWOOD.**—The crops are excellent. Cutting of early grain will start this week, and by the 15th it will probably be general, as the wheat is turning fast. On Aug. 4 a terrible hail storm swept through the country, its center passing here at three or four miles from the main line of the C. P. R. According to telegraphic reports received at Penna, it covered a strip averaging 100 miles in length, and extending from Medicine Hat to Brandon, a distance of about 470 miles. Its sweep was not regular, as here and there it skipped whole farms. The hail was for the most part from the west. Hail stones varied in character from thin disc two and a half inches in diameter to small pebbles found the next morning which were large as hen's eggs. The smell from some of these battered grapes, it is almost too bad for polite language to do it, almost too. It is doubtful if much of it (the grain, not the small) can be saved. It is probable that it may be attempted—now for hay, though already going under the plow. The Lumsden Fair was a decided success. The exhibits in practically all classes except live stock completely out-numbered and out-

**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  
**\$7.90 a Cwt.**  
FOR HOGS WEIGHING 160 TO 220 LBS.

**THE GEO. MATTHEWS CO., LIMITED**  
PETERBOROUGH, - HULL, - BRANTFORD

classified these at Regina. One deplorable feature was the cowardice of many of the smaller farmers who were afraid to compete against the more experienced growers and traders. Many of them would have sold themselves by saying that they were sure they would have won.—S. J. N.

**BRITISH COLUMBIA**  
**NEW WESTMINSTER CO., B.C.**  
**MUNRO.**—Fall wheat and barley are a good crop, and are now being cut. Cattle and horses look well. Sheep are being largely increased. Grain is selling from \$40 to \$50 a ton. The price of poultry is very low in comparison with the price of grain.—J. C.

**CROPS IN JULY**  
A bulletin issued by the Census and Statistics Office shows that the condition of field crops and live stock throughout Canada at the end of July was, on the whole, very satisfactory. Reports from special correspondents of the Agricultural Department in all parts of the Dominion indicate that the crop conditions in only a few localities are below the average.

Fall wheat in all parts of Ontario was cut early and harvested in fine condition. The estimated average yield is 23½ bushels an acre for a total area of 581,000 acres. In Alberta, the only other Province growing any considerable quantity of fall wheat, the estimated yield is 16½ bushels an acre for a total area of 1,100,000 acres. It was too early at the end of July to get estimates of spring grain crops in the Maritime Provinces, but for Quebec, Ontario, Manitoba, Saskatchewan and Alberta, with an area of 1,023,000 acres, in spring wheat, the estimated yield is 22½ bushels an acre, which makes an aggregate of 159,520,000 bushels of spring and fall wheat in the Provinces show a total of 115,233,000 bushels, grown on 7,694,000 acres. Last year the area in wheat in the estimated yield is 6,510,300 acres, and the estimated yield is 152,333,000 bushels. For Manitoba, Saskatchewan and Alberta, the estimated yield this year is 157,864,000 bushels, and last year at the same date it was 118,000,000 bushels. The barley crop for the five provinces has an area of 1,846,900 acres, as compared with 1,726,700 acres last year and an estimated yield of 57,722,000 bushels, as compared with 51,690,000 bushels at the same date last year. For the three Northwest Provinces the estimated yield is 3,555,000 bushels as compared with 3,857,000 bushels last year. The estimated yield of hay and clover growing in the Provinces is 8,984,000 tons, an average of 1.15 tons an acre. The condition of fall wheat when it was cut was 76.5; of spring wheat at the end of July, 84.7; and of barley, 83.4. The other field crops at the end of July show conditions of 87.9 per cent. of a full crop for corn; 81.84 for rye; 87.07 for peas; 85.15 for buckwheat; 87.23 for mixed grains; 84.33 for beans; 82.96 for corn; 92.63 for potatoes; 4.22 for turnips; 91.57 for other field roots; 73.79 for hay; 83.09 for sugar beets, and 81.82 for pasture. The condition of live stock at the end of July was 94.66 for horses; 95.36 for milk cows; 91.29 for other hatched cattle; 93.34 for sheep, and 92.29 for swine. The June average of live stock has very closely maintained throughout July.

Accidents are Liable to Happen.—You should always have handy a good lini-



**Well Roofed—Well Housed**

A building is only as good as its roof. If you would have your buildings storm-tight—protected against wind and rain, and protected to stay, put on a roofing that will give complete and lasting protection.

**REX**  
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will not rust or rot; it is durable and permanent. Everything needed to lay REX Flintkote Roofing comes in the roll. One man and one hammer is all that you have to furnish to put it on.

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Let us send you free samples to test; also valuable roofing booklet.  
**J. A. & W. BIRD & CO.**  
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**Black Watch**  
Chewing Tobacco  
Rich and satisfying.  
The big black plug.

**MARKET REVIEW AND FORECAST**

Toronto, Monday, August 16, 1909. — Business continues to increase steadily as the end of the harvest approaches. During the week there has been a decided improvement regarding the future of wheat. The western crop is harvested and the crop begins to be marketed there will be an active revival in trade in the west. Money continues in good demand and the banks are experiencing a good enquiry for funds. Call loaning rate at 4 to 4 1/2 per cent., mostly at the latter figure. Discounts on commercial paper run at 25 to 27 per cent., as to name and nature of the account.

**WHEAT**

The United States Government report of a week ago had rather bearish effect upon the wheat market. It showed considerable increase in the wheat yield over last year, which had its effect on the market. Towards the end of the week the action of shorts in covering advanced prices generally on the speculative market. There has been considerable short selling this season and we may look for considerable manipulating of the market in order to suit the ends of the speculators. Some high priced Manitoba wheat has been quoted. On October-November delivery, which will have to be taken care of. Reports of unfavorable harvest weather in Great Britain, together with light Argentine shipments, were sufficient to cause higher cables at the end of the week, notwithstanding the favorable crop outlook in America. So it goes. The market is very "touchy," so to speak, and every little influence has its effect. On Friday at Chicago 8-plember wheat closed at 99 1/2c and December at 96c, and at Winnipeg at 98 1/2c and 95c respectively, an advance over the previous day. The speculative market advance has not had much effect upon local conditions here. On Friday local dealers here quoted new Ontario wheat 1c to 2c a bushel lower at 96c to 96c outside. It is reported that millers are buying wheat in the country at 96c a bushel to be delivered to the mills. On Toronto farmers' market, fall wheat sells at \$1.02 to \$1.03 and goose at \$1 a bushel.

**COARSE GRAINS**

The oat market rules steady. The prospects of a light yield in Ontario will have some effect on the prices. The Old Country market is quoted as being easier as easy at last week's decline. New grain for first shipment are listed on the grain dealers' exchange here at 40c a bushel outside. Old Ontario oats are quoted here at 48c on track Toronto, and 45c to 46c out. Old stocks of barley are exhausted. Dealers here quote new barley at 55c out, on. On Toronto farmers' market oats sell at 55c to 55c; barley at 60c and peas at 50c to 50c a bushel.

**FEEDS**

Mill feeds are a little firmer owing to light stocks and an improved demand, though prices as yet show little change. Dealers here quote Manitoba bran at \$21

to \$21.50 and shorts at \$23 to \$24, and Ontario bran at \$22 and shorts at \$24 to \$25. Car lots on track Toronto. The U. S. Government report for August indicates a big corn crop for that country. Corn in Ontario is looking exceptionally well considering the liteness of the planting. We may therefore look for a crop corn crop. As the price still keeps up. American 's quote here at 77c to 77 1/2c and Canadian at 75c to 76c in car lots Toronto freights.

**HAY AND STRAW**

The hay market shows little change. Prices rule steady under a good local and export demand and light receipts. Some orders have been placed for the shipment of Canadian hay to Holland, where the crop is a failure. New baled hay sold at Montreal last week at \$12 to \$12.50 a ton. Dealers here quote old baled hay at \$12.50 to \$13.50 for No 1 timothy and \$9.50 to \$9 for undergrades, and \$7.50 to \$8 a ton for baled straw in car lots on track Toronto. Receipts of loose hay on Toronto farmers' market at the end of the week were heavier than usual. Old timothy sold for \$ 8 to \$20; new at \$14 to \$16; straw in bundles at \$13 to \$14 and loose straw at 70 to \$9 a ton.

**POTATOES AND BEANS**

The local potato market here is easier. Canadian new potatoes are offering firmer, and the supply at the end of the week was far greater than the local demand would take. Prices range from 75c to 85c a cask. On Toronto farmers' market they sell at 80c to 90c a bushel. Trade in beans is confined to foreign beans, chiefly Austrian. There are no old Canadian beans on the market. Prices rule firm at old uo amounts.

**EGGS AND POULTRY**

The market has ruled steady all week and is slightly increased receipts and a good demand though at Toronto the end of the week there was an easy feeling. Montreal dealers have been in receipt of 50, in the country for fresh gathered receipts. Wholesale prices here rule at 21c for No 1 and 24 for extra stock. Dealers here quote eggs easy at 22c. On Toronto farmers' market new-laid sell at 25c to 27c; old, 20c to 24c for fresh stock. Young fowl at 13c to 15c; spring ducks at 15c to 18c; old fowl at 12c to 15c; and turkeys at 13c to 21c a lb.

**FRUIT**

Receipts of fruit on Toronto fruit market at the end of the week were near normal. Apples, plums, pears and aprils were in abundance. We have reached about the last of the currants, gooseberries and raspberries. Some of these under heavy receipts. Quotations are as follow: Raspberries, 8c to 10c, and thimbleberries, 8c to 10c a box; cherries, 75c to 85c; blueberries, \$1 to \$1.25; apples, 25c to 35c; gooseberries, 75c to \$1; red currants, 60c to 75c; black currants, \$1.25 to \$1.50; plums

to 75c; Canadian peaches, 40c to \$1.25; and tomatoes 25c to 35c a basket.

**DAIRY PRICES**

The cheese market rules quiet but firm. A little more money was paid at the country boards last week than the week previous. At the end of the week at the country these boards prices ranged from 13 1/2c to 13 1/2c, with the bulk of the sales around 13 1/2c a lb. Dealers here quote new cheese at 13 1/2c a lb for large and 12 1/2c a lb for twine.

The butter market has a slightly easier feeling owing to large receipts and a light export demand. At the end of the week prices are quoted at 1/2c a lb lower than a week ago. At Huntington, Que., on Friday creamery sold at 25 1/2c. Wholesale prices for butter here rule at 25c to 26c for choice creamery prices; 18c to 20c for choice dry prints; 16 1/2c to 17c for ordinary, and 15c to 15 1/2c a lb for choice tins. On Toronto farmers' market choice dairy sells at 25c to 25c and ordinary at 19c to 20c a lb.

**HORSE MARKET**

There is little activity in the horse market and this condition is likely to continue for a few weeks longer. The Horse Exchange, West Toronto, reports two carloads of horses as having been shipped to the west, one of which was to be shipped on Winifer. About one hundred horses were to be offered at the Exchange last week but only part of them were sold at public auction. Choice drafters, \$180 to \$220; agricultural and general purpose horses, \$150 to \$170; and heavy, \$175 to \$200 and drivers, \$100 to \$200 each.

**LIVE STOCK**

Receipts of live stock at the Toronto market's keep up well for this season of the year. At the end of the week the quality was better than the one on offer showed some improvement. There is still a large percentage of inferior stuff offering, which sells at a low price and which dealers will not buy unless the price is at a low figure. The market for choice to good cattle has ruled firm all week and all this quality of cattle sold at good prices. On Thursday the market for choice steers or if anything so that all choice cattle arriving this week are likely to sell well. The great bulk of the stock offering just now comes from Eastern Ontario. The dry weather and short pasturage may be inducing farmers to market their cattle before they are ready.

The export market rules steady and strong. At the Union Stock Yards on Tuesday 1600 head of choice cattle were sold at good prices. Firm cables add strength to the market. The top price for export steers was \$6.33 a cwt. This price was the exception, however, and was paid on a specially fitted lot that we do not see on the market every day. The general run sold at \$6 to \$6.25 for choice export steers; \$5.50 to \$5.75 for fair choice export steers; and \$5 to \$5.25 for common steers. Export heifers sold at \$5.75 to \$6; export cows at \$4.25 to \$5 and but's at \$4 to \$4.50 a cwt. At the city market on Thursday export cattle sold at \$5.25 to \$5.25 a cwt.

Choice butchers' cattle have sold at good prices all week. At the city market on Thursday they sold at \$4.20 to \$5.60 and butchers' cows at \$1.50 to \$4.75 a cwt. Early in the week the top price was from not high, choice cattle, ranging from \$5 to \$5.25; medium, \$4.75 to \$5, and \$4 to \$4.50 for common. Butchers' cows sold at \$3.25 to \$3.55 and but's at \$3.20 to \$3.50 a cwt.

The stocker and feeder trade has been quiet of late. Pastures are getting bare and farmers are not buying in many feeders. Quotations show little change from last week, the best steers, \$50 to 950 lbs. each, selling at \$1.15 to \$1.25; best steers at 600 to 800 lbs. each, at \$1.15 to \$1.25; and common stockers at \$2.25 to \$2.60 a cwt. Very few calves kept up in price and lighter runs than a few weeks ago. Prices on Thursday ranged from \$13 to \$6.25 a cwt., with the most new milk fed calves selling at \$6.50 a cwt.

The market for milkers and springers rules steady. Orders for cows, however, are not over numerous, and it does not require a large number to supply the demand. Prices on Thursday, ranging from \$20 to \$60 each, with only a few good ones at \$75 to \$80 the latter figure. The general run sold at \$35 to \$60 a cwt. The run of lambs during the week was light. The drop in price of a week or two ago has lessened somewhat, but consequently the market has better tone and prices are a little higher than a week ago. On Thursday at the city market lambs sold at \$5.50 to \$6.75 a cwt., with a

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OR PAIN KILLER FOR THE HUMAN BODY  
**Gombault's**  
**Cautic Balm**  
IT HAS NO EQUAL

For — Is it rheumatism, neuralgia, sciatica, lumbago, diphtheria, sprains, strains, rheumatism, and all stiff joints? Perfectly Safe and Reliable Remedy for Sore Throat, Croup, Whooping Cough, Croup, and all other ailments of the throat and chest. Gombault's Cautic Balm is a Liniment. We would say to all who buy it that it does not contain a particle of poisonous substance and therefore no harm can result from its use. It is a Liniment, therefore use will require no oil or chronic ailments and it can be used on any case that requires an outward application with perfect safety.

REMOVED THE SORE-STRONGEST MUSCLES  
Gombault, Tex. — "One bottle Gombault's Cautic Balm cured my sore throat and chest. It is a Liniment. Price \$1.00 per bottle. Sold by druggists or sent by express prepaid. Write for booklet B. C. L. LAWRENCE-WILLIAMS COMPANY, Toronto, Can.

few selected ones going as high as \$7 and \$8.50 a cwt. However, should receipts be heavy, the week lower prices may be looked for. Export cows are a little lower at \$3.50 to \$3.75 and rams at \$2 to \$2.50 a cwt.

Receipts of hogs continue light. There was a considerable drop in price from a week ago. On Thursday at the city market hogs were quoted at \$7.50 fed and watered on the market here and \$7.65 f.o.b. at country points. One dealer only quoted \$7.85 and \$7.60 respectively. Drivers from the country reported that \$7.75 and \$7.75 f.o.b. were paid for hogs in the country. It becomes more and more apparent every day that quotations on Toronto market are no criterion of what will be paid in the country for hogs. Packers must have hogs to keep their establishments running and will put up the price in order

**Registered Seed Wheat FOR SALE**

Dawson's Golden Chaff grown according to the rules of Canadian Seed Growing Association, carefully selected for nine yrs.

**C. R. GIES — Heidelberg, Ont.**

GOOD LITTLE BITTY BELLS LIKE SIXTY \$65  
GILSON  
SEPARATOR, CHANGING CANS  
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MILSON MFG. CO. 101 YORKVILLE, ONT.

**1500 Iron & Wood Pulleys**, for sale. All sizes, half price. Also Shafting, Hangers, Iron Pipes, Belting good as new. Cheap. **IMPERIAL WASTE & METAL CO.** 6-10 QUEEN ST., MONTREAL.

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Lavigne Station, Graham, Que., Post Office, 112 acres rich clay land, new house, furnace, hot and cold water, silos, barns, stable, 40 cows, calves, bulls and 13 horses, milk house and complete outbuildings, running water, railway station on the farm, also market boat wharf and post office, near schools and churches. A rare opportunity for a live dairyman to get a money making property. Better come into Montreal. One hour by train. Winter price, \$230 100 lbs. **JAS. J. RILEY, Jr.**

to get them, mixed hogs and rough... The Trade August 12th... must be in firm quotations...  
**PROTECT YOUR EYES**  
**DR. FLYING DUCK**  
Destroy male comedones... The trouble is the stables, houses...

**DR. WILLIAMS' PINK PILLS FOR PALE PEOPLE**  
Form. Easy to take. In results, a 8-10 in one and five gal...

**LOOK FOR NO SUBSTITUTES**  
matter, or a sprayer.

T. G. ROBINSON, 1909.

"It is a shame to see the flies soon as they fly mixture."

Show this ask him for will be pleased.

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**FOR SALE AND**

**TWO CENTS A WEEK**  
FOR SALE—30 working pounds good as new, or will be sold at cost, stock, Ont.

**WANTED—MARRIED**  
by the year. 25c per day required.—J. E.

**WANTED—ONE**  
Must be young coming in from Lakeside, Ont.

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years, able to and help in many cases necessary. A year and boy for Hridge, Wyo.

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A sure and effective remedy against **FLIES and MOSQUITOES**  
Is easily and quickly applied with any sprayer  
**GUARANTEED THE BEST PREPARATION ON THE MARKET**  
Protects animals effectually from the unendurable torments of **FLIES and VERMIN**  
It is cheap. **ONE GALLON** applied properly will keep **25 COWS FLY FREE for 2 WEEKS**  
Cows yield **ONE-THIRD MORE MILK** when sprayed with **FLY KNOCKER**  
**PRICES—50 cents quart, \$1.75 gallon. Freight paid.**  
**WM. COOPER & NEPHEWS**  
152 BAY STREET TORONTO, ONT.  
It is desirable to mention the name of this publication when writing to advertisers.

to get them. At Buffalo heavy hogs and mixed hogs are quoted at \$2.25 to \$3.30 and roughs at \$1.75 to \$1.85 a cwt.

The Trade Bulletin's London cable of August 12th quotes bacon as follows: "The market is firm at last week's prices and quotations range from 5% to 7%."



PROTECT YOUR HORSES AND CATTLE BY SPRAYING WITH

**DR. WILLIAMS' FLY AND INSECT DESTROYER**

Destroys all fly pests. Gives animals comfort. The cows give more milk. The best disinfectant for the stables, hog pens and poultry houses.

DR. WILLIAMS' FLY AND INSECT DESTROYER is put up in liquid form. Easy of application, effective in results, and harmless to handle. Sold in one-quarter, one-half, one and five gallon tins.

LOOK FOR RED LABEL. TAKE NO SUBSTITUTE. Read for printed matter, or \$1 for 1/2 gallon tin and sprayer.

T. G. Robinson, P.O. Box 393, Niagara South, Ont., writes Aug 11, 1909:

"It is a slight good for sore eyes to use the flies roll off the cattle as soon as they are sprayed with your fly mixture."

Show this ad. to your dealer and ask him for this preparation; you will be pleased; so will he.

**F. WILLIAMS CO.**

MORRISBURG, ONT. MADRID, N.Y.

Agents Wanted

**FOR SALE AND WANT ADVERTISING**

**TWO CENTS A WORD, CASH WITH ORDER**

70 SALE.—30 H. P. Engine, with 200 lbs. working pressure. Made in United States, good as new, can be seen at our factory, will be sold cheap.—Hay & Co., Woodstock, Ont.

WANTED.—Married man to work on farm by the day. To commence work November 1st. Must be steady. Good references required.—J. E. Waring, Zenda, Ont.

WANTED.—One or two grade Holstein cows. Must be young and extra good milkers; coming in in August preferred.—Box 57, Lakefield, Ont.

WANTED.—THREE YOUNG MEN.—About 20 years, able to milk and attend to cows, and help in market garden. Some experience necessary. Yearly engagement, \$200 a year and board.—James Conroy, Louisa Bridge, Winipeg.

WANTED.—To send out 1000 of our new subscription premium lists. Profusely illustrated, over 100 valuable and useful premiums mentioned. Full information regarding the securing of subscriptions, list the name of the subscriber, and a post card will bring this list. Circulation Department, Farm and Dairy, Peterboro, Ont.

WANTED.—Agents at all Ontario fall subscriptions paid in cash for all subscribers secured. Outfit furnished for canvassing to all sections can be had on application. Write, Circulation Department, Farm and Dairy, Peterboro, Ont.

**MONTREAL HOG MARKET**

Montreal, Saturday, August 14, 1909.—The market here for live hogs was easier this week with prices lower. Receipts were decidedly limited and were more than equal to the demand and as a consequence buyers reduced their prices and the best price obtained was \$3.60 a cwt for selected lots weighed off cars, prices ranging all the way down to \$3.40 a cwt.

The market for dressed hogs, however, with prices advanced at \$12.50 a lb. to \$12.75 a cwt for fresh killed abattoir stock.

**EXPORT BUTTER AND CHEESE**

Montreal, Saturday, August 14, 1909.—The market for cheese closed strong this week with an increase from Great Britain, and prices have been advanced generally. The markets in the country at the beginning of the week course there with buyers quiet and trade dull, but towards the end of the week with the increased demand from the other side for export there was an improved tone in the market and more eagerness to buy manifested by the dealers generally. As a consequence prices advanced and were more than 1% off so we can look for a period of high prices, as the British trade is usually prepared to pay up for August and September cheese, provided the course there is not an unusually large quantity of the make offering. The market is well prepared for an advance in price, as the stocks of cheese in export on hand in the Atlantic are very small, the total being fully 100,000 boxes less than last year at this time. The week course there will have some effect upon the consumption in England, and it is to be hoped that the upward movement will not be overdone here or we shall have an immediate setback in prices.

The make of cheese here is keeping up well and there is no indication that the output for the balance of the year will be light in excess of last year. The increase however will not be sufficient to affect the course of prices to any extent. The receipts from week to week are ahead of last year and the total increase for the season up to date amounts to about 57,000 boxes.

There is rather more doing in butter this week and exporters generally find an increased output from Great Britain for Canadian creamery. The local dealers are also more interested, they being under the impression that the market has touched the bottom, and that any further move will be upward. The trade generally is looking for advanced prices at to-morrow's country market, and there is no doubt that prices will touch 22% at factory points. The make is beginning to fall off and receipts are decreasing steadily, and in a few weeks will be down to a point where the local trade can dispose of it all. This week's country markets have ruled at 22% to 23% and finest creamery has been selling on this market at 22% to 23% a lb, with undermost at 21% to 22%. Dairy trade is more plentiful and is offering at from 16c to 18c according to quality.

**GOSSIP**

**A HELPFUL WORK ON CONCRETE CONSTRUCTION**

A new edition of the book, "Concrete Construction about the Home and on the Country Farm," just to hand directs attention to the economy of supplanting wood, brick and stone in divers ways by the more durable, lightly sanitary Portland Cement Construction. The book contains out language free from technical terms some concrete is especially a production from the farmer's standpoint as it is treated showing many of the uses to which high quality of paper and profusely illustrated. The book contains out specifications for mixing and handling Portland cement for different kinds of work. The most valuable feature of this production from the farmer's standpoint is the production of a number of plans for the construction of a number of things, such as: foundations for fence posts, watering sidewalks, tile drains, stables, well curbs, arched ways, etc. Farm and Dairy readers who secure this work will prize it highly and will find it a most valuable acquisition to their farm. A most valuable pamphlet, such as this high class production can be had for the asking. We are advised by the publishers that every

Farm and Dairy subscriber may obtain a copy of this book free by writing to them. The Atlas Portland Cement Co., 30 Broad Street, New York, has just reached our Dairy. We would recommend all our subscribers who are in any way interested in concrete construction to secure a copy of this book.

A very neat and attractive booklet describing Crumb's Warriner Patent Chain Hanging Stive has just reached our desk. The Warriner Stanchions have attained a very wide sale among the dairymen of the United States, and we understand that a great many readers of this publication have equipped their barns with this style of stall and stanchion. The descriptive matter in the booklet is very definite and gives an accurate idea of the principal upon which this stanchion is constructed; it also contains numerous testimonials from men who have installed this make of stanchion in their barns. Mr. Crumb will be glad to send booklet to any of our readers who are interested. Address, Wallace B. Crumb, Forestville, Conn.

I have taken Farm and Dairy for many years and have followed it through all its changes of names. It has my very best wishes.—George Corner St., York Co., Ont.

**MISCELLANEOUS**

ABRAM EASTON, Appleton, Ont., Leicester sheep. Show ring and breeding stock for sale. n.s.t.s.00

FANWORTH AND BERSHIRE SWINE.—Boars and sows for sale. J. W. Todd, Corinth, Ont. Maple Leaf Stock Farm.

**PONIES—AYRSHIRES**

FOR SALE.—Twenty Canadian, Exmoor and Welsh Ponies, from 11 to 14% hands in height. Also AYRSHIRES of various ages, and of both sexes. For sale. O. S. 56-10. Write or call on P. A. BAUDON, 107 St. James St., Montreal.

**AYRSHIRES**

AYRSHIRES, males only, two fall and one spring calf. Enquire what their dam are doing. James Begg, St. Thomas. E-1

**"La Bois de la Roche" Stock Farm**

Here are kept the choicest strains of AYRSHIRES, imported and home bred. AYRSHIRES of the best blood, white, orange, spotted and barred rock poultry. WHITE ORPINGTONS, WYANDOTTES and BARRED ROCK POULTRY.

HON. L. J. FORDY, Proprietor, J. A. BIBEAU, Manager. E-26-10. Ste Anne de Bellevue, Que.

**SPRINGHILL AYRSHIRES**

Imported and home bred stock of all ages for sale. See our stock at the leading show this fall. Write for prices.

**ROBT. HUNTER & SONS**

High Distant Phone 8-74-10. Montreal, Que.

**IMPORTED AYRSHIRES**

Having just landed with 60 head of choice AYRSHIRES, mostly purchased at the great Barcheche King's Own (Imp.) 30765. Dam, Pansy 5th, of Garston (Imp.) 23431. In female of all ages. Cows with milk records up to 70 lbs. per week. Write and we know your wants. Long distance phone. E-5-18-09.

R. NESS, Howick, Que.

**AYRSHIRE GALVES FOR SALE**

**RECORD OF PERFORMANCE COWS**

PRICE — \$35 when one month old

1-6-3-10

**GUS. LANGELIER**

Cap Rouge, Que.

**Cherry Bank Stock Farm**

**AYRSHIRES**

High-Class Producers

The richly bred bull, 18 months of age, Cherry Bank Surprise 26605, for sale. Bire, Barcheche King's Own (Imp.) 30765. Dam, Pansy 5th, of Garston (Imp.) 23431. P. D. WINTHUR, North Georgetown, Railway Station, Howick, Que. Que. E-6-25-10

**FOR SALE**

Two Holstein-Friesian cows, three years old; will freshen in October and December; both will qualify in two year old class yearly Record of Performance.

One two year old bull, sired by Victor Toke Boston (No. 1) and mated to the 3rd's Princess Pauline Du Kol (No. 3708). This is a grand individual guaranteed in every way. His dam has qualified two years in succession in the yearly Record of Performance. In five years of age she has averaged 303 days 1155 lbs. milk and 436.574 lbs. fat; average per cent. fat 3.90. At six years she gave 1274 lbs. milk and 468 lbs. fat; average per cent. fat 3.70.

N. BANGSTER, Ormstown

**HOLSTEINS**

**WANTED**

20 GOOD HOLSTEIN MILCH COWS AND ONE BULL. Will take a herd from any one wishing to close out. State age, record, weight, and price of each animal.

JOSEPH GUSENHOFEN, Havro, Mont.

**BERTRAM HOSKIN**

Mount Pleasant Farm, The Gully, Ont. Breeder of Holstein Cattle, Tanworth Swine. High-Class young stock for sale. Long Distance Phone 0-12-26-09

**SUNNYDALE**

Offers four grandsons of Pieterje Hennerel's Conn. Du Kol, champion bull of the breed. These calves born from 2 to three months old, nicely marked, and will grow, two with official dams of very choice breeding. Prices reasonable. Write for particulars. E-6-10

A. D. FORBES, Bloomfield, Ont.

**LYNDALE HOLSTEINS**

Head your Herd with a son of Sara Hengerveld Korntjeke, champion bull of the breed. His 3 nearest dams average 50.15 lbs. butter each in 7 years. Only 2 of his sons left. We still have a daughter of his, sired by DuKol Pieterje Hennerel's Conn. Du Kol, world's greatest bull. A number of Heifers for sale. E-2-27-10

BROWN BROS, LYON, ONT.

**HOME-BRED AND IMPORTED**

**HOLSTEINS**

We must sell at as low as cows and heifers at once, to make room for the natural increase of our herd. This is a chance of a lifetime to get a good bargain; we also have a few young bulls, Pontiac Hermes, Imp. son of Hengerveld DuKol, world's greatest sire, head of herd. Come and see them.

H. E. GEORGE, CRAMPTON, ONT. Putnam Stn. 1/2 miles C.P.R. E-4-10-10

**HOLSTEIN CATTLE**

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 sows in calf to Sumner Hill, Choice Goods (Imp.), who has five sisters averaging 85% lbs. butter in 7 days and one sister that held world's record as 4 year old in the butter. Write us what you want. We will guarantee everything fully secured. Visitors met at Hamilton by appointment.

D. C. FLATT & SON, Millgrove, Ont. L. E. Telephone 2471, Hamilton

**Les Cheneux Farms**

Have nothing for sale—good things are in demand and go fast.

Herd Headed by

**Sir Aaggie Beets Segis**

A son of King Segis, the world's greatest 5 year old Sire, out of

**Aaggie Lilly Pieterje Purl**

Champion Jr. 4 year old cow, 29.36 lbs. Butter in 7 days.

Two sisters by the Sire also hold World Records.

Secure some of his yet and improve your herd.

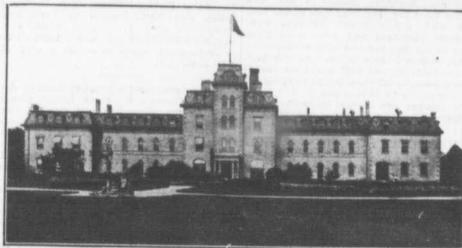
**DR. HARWOOD - Verdruel, Que.**

40 miles from Montreal, by C.P.R. or G.T.R.

Board  
Tuition  
Books  
Laundry, etc.  
for an Ontario Boy

**\$80**

FIRST YEAR



**\$80**

to

**\$100**

SECOND YEAR

# THE Ontario Agricultural College

GUELPH - - - CANADA

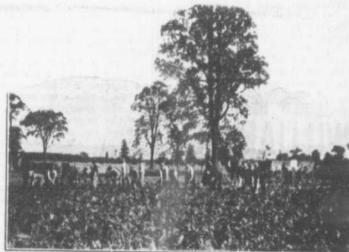
OPENS SEPTEMBER 14, 1909

**T**HE Course is designed to meet the needs of farm boys of the Province of Ontario, boys who have not had the advantage of a College or University education but who have a love for farming and a desire to improve their methods and thus better their conditions. We endeavour to instruct students along the most practical lines and our science is kept close to the ground.

By the teaching of better methods of cultivation, a more systematic rotation of farm crops, the care and selection of seed, the identification of weeds, fungous and insect pests and by the improvement of the home surroundings, we hope to awaken an interest in the life of the farm such as will tend to keep at home farm boys who would otherwise migrate to towns and cities.



Students Judging Shorthorns



Students Hauling Turnips

## SEND US YOUR BOY

He needs special training if he is to make the most of his life work.

Write TO-DAY for a Calendar. It will be mailed to you free. It contains complete information regarding the cost, various courses of instruction, etc.

G. C. CREELMAN, B.S.A., M.S., President

### COURSE OF STUDY

#### FIRST YEAR

Animal Husbandry  
Apiculture  
Arithmetic  
Bookkeeping  
Botany  
Chemistry (Inorganic)  
Dairying  
English (Composition  
Literature)  
Farm Mechanics  
Field Husbandry  
Geology  
Horticulture  
Physics (Mechanics  
Soil Physics)  
Poultry  
Veterinary Anatomy  
Veterinary Materia Medica  
Zoology



Students Judging Seed

### COURSE OF STUDY

#### SECOND YEAR

Animal Husbandry  
Bacteriology  
Botany  
Chemistry (Organic  
Animal  
Soil)  
Dairying  
Economics  
English (Composition  
Literature)  
Entomology  
Farm Mechanics  
Field Husbandry  
Forestry  
Horticulture  
Physics (Agr. Engineering  
Electricity  
Surveying and Drainage)  
Poultry  
Theats  
Veterinary (Obstetrics  
Pathology  
Horse Judging)  
Science