

Issued Each Week—Only One Dollar a Year

VOL. XXVIII

NUMBER 6

FARM AND DAIRY

AND

RURAL HOME

PETERBORO, ONT.

FEBRUARY 11 1909



THE FARM RESIDENCE OF A PROMINENT LIVE STOCK BREEDER

For the past 44 years, Mr. Arthur Johnson of Greenwood, Ont., whose home is illustrated above, has been engaged in importing and breeding pure-bred stock—Shorthorn cattle, Clydesdale horses, Cotswold sheep and Berkshire hogs. Mr. Johnson was born on the other side of the Atlantic. He has crossed the ocean 49 times, having made 24 round trips for stock. He is now engaged solely in breeding Shorthorn cattle, his herd numbering over 40 head, all imported or directly descended from imported stock of Scotch families. Mr. Johnson is one of the charter members of the Dominion Shorthorn Breeders' Association.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

NO
ROOM AT
THE TOP,
WE ARE
THERE



SATISFACTION
EFFICIENCY
EASY TO CLEAN
EASE OF OPERATION
ECONOMY
DURABILITY
SELF-CENTERING BEARINGS
LINK-BLADES

There is room on the top for only one "best" Cream Separator, and as the Link-Blade is there now there is no more room. We won't be pushed off, for every step in the ladder has been won on merit and we are on the top to stay. You might as well get a good machine while you are about it, so write us to-day for particulars of our free trial offer.

D. Derbyshire & Company

Head Office and Works: BROCKVILLE, ONT.

Branches: PETERBOROUGH, ONT. MONTREAL and QUEBEC, P. Q.

WE WANT AGENTS FOR A FEW UNREPRESENTED DISTRICTS

HIGH-GRADE
ICE TOOLS
COAL AND ICE
HANDLING MACHINERY
CUT YOUR ICE WITH A

Gifford Wood Co.
PLOW

SEND FOR OUR NEW CATALOG

HUDSON, N.Y.
OHIOGEO, ILL.
ARLINGTON, MASS.

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

Short Course at Lindsay Should Investigate Danish Bacon Trade

The second short course in Stock and Seed Judging in connection with the agricultural extension work in the County of Victoria, has passed into history and its success is unquestioned. An outstanding feature of the course was the large number in attendance, running from 100 at the morning sessions to 500 at the afternoon sessions and far exceeding these numbers at night. The spirit of earnestness and inquiry with which the crowd seemed imbued was gratifying and encouraging to those in charge, as it enabled them to give their instructions under the most favorable conditions.

The work in seed judging was in charge of Prof. C. A. Zavitz. The time allotted to him was too short to enable him to do justice to his part of the work, or satisfy all the demands for

The suggestion that was made recently in Farm and Dairy, and that has been endorsed by a number of our readers, that the Dominion Government should send a commission of Canadian farmers to Denmark to investigate the conditions surrounding the Danish bacon trade, was discussed and approved last week by the members of the Dominion Swine Breeders' Association at their annual convention in Toronto. Leading swine breeders from all parts of the province were present.

The matter had been considered previously by the directors of the association who had approved of the proposal and appointed Messrs. J. E. Brethour, of Burford; Wm. Jones, of Zenda, and R. H. Harding, of Thornedale, to draft a resolution, dealing with it, for submission to the members of the association in open convention. This committee submitted the following recommendation:

"Having learned with regret that there has been a heavy falling off in Canadian bacon exports to great Britain, caused largely by the keen competition of foreign countries, chiefly Denmark, we recommend that the members of the Dominion Swine Breeders' Association petition the Dominion Government to lend all the assistance in their power toward strengthening this important industry, and to this end we would recommend that a deputation of practical agriculturists be sent to Denmark to study the conditions that exist there, including their methods of breeding, feeding and marketing and the various phases of the industry in that country."

PROPOSAL ENDORSED

The recommendation was freely discussed. It was soon evident that the meeting was thoroughly in favor of having a deputation visit Denmark for the purposes mentioned. The success the Danes are meeting with in the production of bacon and the fact that Danish bacon is driving Canadian bacon out of the British market, indicates that Canada may be able to learn something from the Danish methods. Speakers pointed out that no country can know it all and that Canada should endeavor to learn all that she can from the methods of her competitors.

The meeting decided that it would not be well to draw too much attention to the matter as were the Danes to hear about it they might refuse to give the deputation the cordial reception as is proposed. It was felt that the commission should visit Denmark as quietly as possible. The directors of the association were requested to push the matter quietly. Messrs. D. C. Platt, Millgrove; J. E. Brethour, of Burford, and Jos. Featherstone, Streetsville, were appointed a committee and instructed to wait on Hon. Sydney Fisher, in Ottawa, and lay the matter before him.

Farm and Dairy feels that there is little reason to fear that the Danes would not give such a Canadian deputation as is proposed, a cordial reception. We are always glad to give the deputations from foreign countries that are visiting us constantly, all the information they desire. The Danes are too broad minded not to be willing to do the same. It would be beneath our dignity as a nation to have a deputation of our farmers try and steal into Denmark by stealth to secure the information about their bacon industry that we desire. Denmark would have a right to resent such action on our part.

I received the alarm clock for securing two subscriptions to Farm and Dairy in good order, and I am very much pleased with same, and thank you very much for it.—F. Jamieson, Timberland, B. C.

D. A. McKenzie, B. S. A.
In charge of Secondary Agricultural Education in Victoria Co., Ont.

information. It may be advisable in another year to hold two courses rather than one and thus devote more time to seed work.

The stock judging was under the direction of Prof. G. E. Day and Dr. Henry Reed, of Georgetown. Both expressed their pleasure at having such a superior class of stock for demonstration purposes. It speaks well for the farmers of Victoria County.

The evening meetings were well attended. The speakers were Prof. G. E. Day, C. C. James, Deputy Minister of Agriculture, Prof. C. A. Zavitz, J. Lockie Wilson, G. A. Putnam, and Dr. Henry Reed. On Friday evening, Jan. 29, Dr. Falconer, of Toronto University, was present and delivered a powerful address, dwelling on the farmers' interests in higher education because their sons and daughters attended the university. Further, he hoped for a strong healthy country side, rather than crowded cities, for from the ranks of the country bred the highest positions of our national life are filled.

What we needed in our life was a spirit of toleration, a respect for the opinion of other men, the spirit which would allow of rivalry without creating hostility. If we possess this spirit born of a higher intelligence we cannot help but mark our influence on posterity, and in time create a distinctive type of manhood which shall be a worthy contribution to Anglo-Saxon Civilization.

To those most closely connected with this agricultural extension work, the result of this course was most encouraging and leaves no doubt as to the complete success of secondary agricultural education in Victoria County.

Renew Your Subscription Now.

Issued
Each Week

FARM AND DAIRY

&

RURAL HOME

Only \$1.00
a Year

FORMERLY THE CANADIAN DAIRYMAN AND FARMING WORLD

Vol. XXVIII.

FOR WEEK ENDING FEBRUARY 11, 1909.

No. 6.

HOW TO OBTAIN LARGE MILK YIELDS

Geo. Rice, Oxford Co., Ont.

"Push Cart Dairying"

"I HAVE had a cow freshen, and I would like to know just how to feed her to get a large milk yield," writes A. B., of Haldon Co. If a man is doing business with a push-cart, then all the preparation he needs is to take hold and push. He will have to keep on pushing too or the cart will stop at once. A man can't do a very big business with a push-cart—his earnings will be small, but the exercise will be large. A cow to give a large yield of milk cannot be run on a push-cart plan.

PREPARE THE COW FOR HER WORK

A cow when giving a large quantity of milk is producing a great quantity of food value, and, although we cannot tell just to what extent, it must tax her to the utmost. When we want a large milk yield, instead of a "push-cart" we are going out with the "fast freight," or the "lightning express," and the greater work we expect to do the more necessary it is to prepare for it. This applies with equal force whether we want to make a one-day, seven-day, or a one-year milk record.

COW MUST NOT STOP

The pace when we start will be terrific. There is no time then to overhaul the engine while running. We would have to stop the engine to do that. But if we stop a dairy cow on the trip, we cannot start her on as good again that year. The engineer knows that if he starts out with a poor fire and low steam pressure he will have a very hard time of it getting up some steam when running. His pressure being low and the steam weak, the power is not nearly as effective.

It is something the same with a cow. The milk she gives does not come directly from the feed she consumes at that time, but from the dynamic energy stored up in her system. If she has not been fed enough over and above a maintenance supply, then she can make no reserve strength, and she will have to start out weak in strength and energy, weak in stomach and lungs. She is in even a worse plight than the steam power, because, besides producing the milk she has the additional heavy tax of maternity to go through.

Common sense, therefore, shows us that if we want a large yield of milk we must start to put the cow in condition for the heavy work we want her to do long before she freshens. If her "machinery" is properly fitted and runs all right, we may expect results. But if her "machinery" is worn out, wobbly and ill-made, we can't expect very effective work.

*See articles of this series in former issues.

We will start on the cow two months at least before she is due to freshen and have her dry. Then the feed necessary will depend upon her condition at that time. It should be sufficient to make her gain in flesh one or two pounds daily. The ration, even at this time, should be succulent and not all dry unpalatable feed as is too often the case. We want not only more flesh upon her bones, more marrow in her bones, but we want also her skin to be in good condition; her stomach in good tone and her lungs sound, and working like a good bellows. In fact, it is the working of the lungs that give the draft as it were, that enables the cow to get energy from the food. It is something the same again as the fire under the boiler, it must have a good draft. The oxygen

so after parturition has taken place, the cow should have a bran mash. Say four quarts of bran scalded with very hot water. After this has steamed a few minutes, fill the pail (it should hold over 12 quarts), with water. The mash should, when the pail is filled up with water, be warm—75 or 80 degrees. The cow will be thirsty and will take it down. It will be good for her stomach and bowels and it will aid in the throwing off of the afterbirth.

The cow must not be in the cold. She should be milked out, only partially, for the first 24 hours. When these simple precautions are taken there is no danger of milk fever or other troubles. The cow's stomach is weak for some time after the calf is born and she must not be fed heavy chop, or, in fact, not so much of anything for the first week after calving, some silage, roots, bran, and oil-cake with a bran mash once a day, pure water and pure air, will answer nicely. Do not turn her out in the cold.

Artificial Incubation

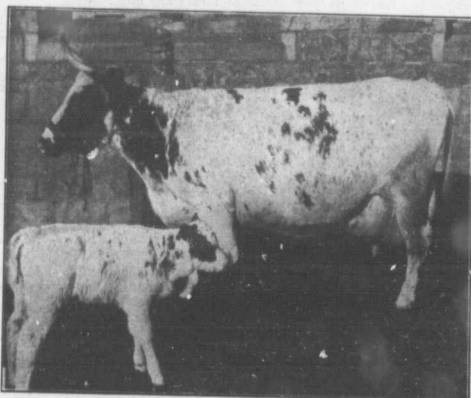
Thomas W. Lee, Mgr.-Dir., Poultry Yards of Canada, Pembroke

When the genial travelling representative of Farm and Dairy recently visited our poultry plant, he seemed to be very much impressed, amongst other features, with the vigorous appearance of our stock and learning that every pullet he saw was once an incubator chick, it was no doubt, this fact that prompted him to ask me for a few notes of our experience in operating incubators, so that he might place before his readers the possibilities of the Canadian poultry industry, now that artificial incubation has proved itself a commercial success.

If any words I might write will convince Canadian poultrymen, that to make big money in the business, they should depend on the fowl for producing the egg, and the right incubator for producing the fowl, then this article is warranted. Yes, more than warranted, because the Dominion of Canada to-day is up against a poultry famine, ridiculous in the extreme, which has been brought about, largely,

by the lethargic indifference with which the industry has been publicly treated, and by the corresponding lack of interest on the part of farmers and others who have long since realized that the business offers little encouragement, owing to the difficulty in procuring hatching hens during the early spring so as to enable them to raise pullets for fall layers, and broilers and roasters for the market, when the prices are most favorable. At the same time erroneous impressions prevail as to what a modern incubator is capable of doing, and a feeling is existent in too many minds touching the intricacy of its mechanism, resulting in a mysterious halo surrounding artificial incubation.

Artificial hatching, is mysterious, but only for one reason, that is, its simplicity and in that very



One of the Honest Kind as Shown by Her Record

Ayrshire Cow, "Jessie A." This cow has a record of over 11,000 pounds of milk, testing 3.8 in 10 months. She left a net profit of over \$70.00, after paying all expenses for year. Owned by Experimental Farm, Ottawa.

from the air makes the fire burn, and the oxygen of the air helps to digest the food given the cow, and oxidizes the blood.

MANAGEMENT BEFORE CALVING

When within two or three days of calving the cow should be fed no heavy grain. Feed her silage, roots and bran with a little oil cake. It is a mistake to put her on dry feed at this time. Her bowels need to be kept moving. A bran mash is very good. Just as soon as parturition takes place we must consider the cow as an invalid. Her stomach is now weaker and she must be fed judiciously.

Invalids do not want to be starved nor yet to be fed on fat pork and beans. They require a nourishing, easily digested diet. Half an hour or

simplcity also lies its true greatness. In other words the simplicity of the process allows you and me and every other poultryman to make hatching a phenomenal success. I mean no disparagement to her feathered majesty the hen, and I speak with all due respect to the dear old lady, when I say that her business is not that of hatching, but of laying eggs. When she is working at hatching and brooding chicks, she costs more than she earns. In fact, a modern, well behaved and honest hen appears to have realized her true mission, and thanks to the introduction of the incubator she is fast losing her maternal instincts and under careful management, has set about filling the egg basket with a will that commands the admiration of her friends. It is left to the modern incubator—the incubator which follows closest to Nature—to make of hatching, a big, a real and a remunerative business.

FACTORS IN SUCCESSFUL INCUBATION

Upon what factors is successful artificial incubation contingent? To my mind they number three, namely,—good eggs, a good incubator and good management. By good eggs I mean strongly fertilized eggs, that is those having in them life germs of sufficient vigor and vitality which will, when the period of incubation shall have ended, exclude healthy and sturdy chicks. But here, let me point out, that fertility and hatchability are by no means identical. That is, an egg may be fertile and yet the germ lacks the vitality necessary to produce a vigorous chick. Weak germs will prove that they are such by ceasing to show activity in the early stages of incubation, by producing chicks, fully developed, but dead in the shell—frequently at the pipping stage—by producing weakling chicks that emerge from the shell, then limp around for a few days, droop and die. The cause even an amateur will understand—the eggs had not in them that sufficiency of the seed of life to materialize into a living rugged chick. The cause can invariably be traced to the condition of the parent stock. Breeding from immature pullets, inbreeding and its consequent predisposition to delicacy of constitution, over-feeding and improper feeding, lack of proper shelter, lack of exercise and cleanliness, these are the causes responsible for infertile and unhatchable eggs. The remedy is quite simple. The practical poultryman will see the necessity of retaining in his breeding pens, only those birds whose constitutional vigor is apparent, birds that if given proper care, will surely produce eggs which when hatched will develop into robust and vigorous chicks.

A GOOD INCUBATOR NECESSARY

So much for the eggs, now for the incubator. I said a good incubator was necessary. How is the amateur poultryman to know which is a good machine? The question is pertinent. Our Poultry Company asked itself the very same question many times during the first years of its establishment. And now from the knowledge gained in poultry raising added to the experience accumulated while testing nearly every known incubator, I say first, a good machine, must be one made to meet our Canadian climate and Canadian conditions. A good incubator should be strongly built of good material, thoroughly insulated, which in combination with a good heating system, will insure that essential feature in artificial hatching, name *y*,—the production of the proper degree of heat, mechanically regulated and evenly distributed throughout the egg chamber. A good incubator should have a ventilating system which will distribute pure air in the egg chamber in such quantities as will supply sufficient life-giving properties to the growing germs. The movement of the air should be slow and gentle in order to conserve rather than waste the moisture given off by the eggs, and thereby insure the proper degree of humidity in the egg chamber.

If attention to the above features has been given by the manufacturer, then the machine is

bound to work successfully because the great laws of Nature are there and have simply been combined into a limited space in a practical form. It was only after securing and operating an incubator complying with the above requirements that we date the real prosperity of our poultry plant. When I speak of this prosperity I do so only to more firmly impress upon the reader that artificial incubation positively proved itself to us a real poultry-for-profit proposition. Furthermore our success in artificial incubation has been duplicated by thousands of poultry raisers all over Canada, big and little, who have followed our simple suggestions.

PROPER MANAGEMENT

The third factor in artificial incubation is proper management. Here let me say, that artificial incubation is not perplexing and there is nothing difficult about running an incubator. Why there is not one-ten-th the complication about its mechanism that there is about most farm machinery. Good management is nothing more than properly attending to the incubator while in operation. This can be accomplished by intelligently following the manufacturers' directions. The machine should be placed in a well ventilated apartment where the variation in temperature is not likely to be too great. The best quality of coal oil should be used and the lamp should be carefully attended to, the wick trimmed so that it will give a uniform flame. The incubator should be started and kept in good running order for a day or more before placing the eggs into it. When the trays have been filled and set in to the machine, the thermometer should be so placed that a reading is possible at any time without opening the door. After the eggs have been in the incubator twenty-four hours they should be turned and aired, as set forth in the book of directions.

The testing should be done not later than the tenth day and all infertile and bad eggs should be rejected. Give plenty of airing during the week preceding the twenty-first day. "Hands Off" on that day. As the chicks hatch they will drop into the nursery underneath, where they should be left for at least 24 hours before being removed to the brooder.

The foregoing, briefly, has been the result of our observations and experience in Artificial Incubation. Are we satisfied with these results? Well, we are still in the business, and anyone who cares to pay our plant a visit during the next few months and see how we are raising poultry, will find our latch string out. Especially would I like more of the hard-headed, practical farmers of Canada to visit us. There is a lot of truth in the old adage "Seein' is believin'" and that would be one way of convincing them that Artificial Incubation is not an occult science or something beyond their reach, but a profitable poultry work upon which they should be engaged, and which will, I verily believe, in the near future prove itself a real solution of Canadian poultry raising.

Two Sample Canadian Boys

Barlow Cumberland, Durham Co., Ont.

Some time ago, I came across the facts of a little history in successful dairying which I give below. These may be helpful to others. They are the result of farming with the head as well as with the hands.

"A" aged 22 years, and "B" aged 19 years had duly passed through the public school and high school in Kingston. Their elder brother, who was engaged in business, thought the best thing for them to do was to go into farming. The following results were reaped:

1885. A farm of 180 acres was rented for the two for one year, the elder brother guaranteeing the rent \$600, and advancing them \$500, for purchase of stock, etc.

1886. Out of the proceeds of the year's earnings A and B paid the rent and the \$600 loaned. The experiment having succeeded, the farm was then

leased for five years at \$450 per annum. The two started with ten head of cattle and went into the milk business, selling milk in Kingston, three miles away. In five years they remitted \$3,000 in cash to the elder brother, paid for all stock and at the end of the term had 40 head of cattle.

1891. Two farms were purchased and \$1,500 paid in cash on account of each.

"A" 90 acres \$4,500, paid \$1,500 cash, mortgage \$3,000.

"B" 100 acres \$3,300, paid \$1,500 cash, mortgage \$1,800.

1897. "A's" farm had good buildings, so needed no new ones. In the six years he paid off his mortgage and purchased in 1897, 25 acres adjoining for which he paid \$1,000 cash.

"B" died in 1897, had built a new brick house and stables costing over \$2,000. Left a \$2,000 policy in the Independent Order of Foresters, which paid off the mortgage and left his wife and two children with the farm entirely free of debt.

Both of these young men were intelligent farmers, their practice was to devote themselves to the complete stumping and drainage of their farms in sections of 10 acres, and in intelligent culture so that their farms, although of the same character as those of their neighbors, raised larger crops than those of any others. They were both healthy and with average intelligence. In addition to the capital created, their farms gave themselves and their families a good living all the time. Is there any other employment that can make a better report in 13 years?

It has been my habit for many years past to search out instances of lads who have passed through our high schools and have returned to the farm—few, alas, very few do so. The education given in the high school leads to shop-keeping, clerkships, typewriting, school teaching, and what may be called "town" work instead of "country" work. Instruction is given in book-keeping for stores and banks, but not in the keeping of the accounts of a farm, or of the business industries connected with it. The work of the Agricultural College at Guelph, with its winter courses open to all, and the agricultural centres now established in some high schools are doing good work. We might have more of this in all of our high schools. I trust that the record shown in the foregoing may help others to see what can be done in the business of farming.

Horse Shoeing

Horses in their natural or wild state needed no shoes. But when brought into subjection by man and made to perform their work on hard roads and pavements it was found necessary to protect the hoof from undue wear by fastening a rim of iron around the bottom of it. That was the first and simplest form of horse-shoe and it would have been well if that original simplicity had not been departed from to the extent that is common law.

Of course it is necessary under certain conditions to have calkins attached to the shoe. On the slippery pavements of cities and towns horses have to be rough shod to prevent slipping and in northern countries such as ours it is necessary in winter not only to have calkins on the shoes but they must have a sharp or chisel shaped point. While shoes of this kind are necessary under certain conditions and in certain seasons, they are used very much more than there is any need for them.

Calkins on a shoe are objectionable in many ways. Not only is a hoof thus shod standing as it were on stilts, raised from an inch to sometimes an inch and a half or two inches from the ground, which in itself is unnatural and bad, but the whole weight of the body is thrown on the wall of the foot or just that part of the foot on which the shoe rests. The frog of the foot was intended by nature to have its share of the weight of the body and also to act as a buffer to relieve the concussion when the foot strikes the ground.

The F
So su
to beco
appears

and hel
smith w
sole of
towards
Horse
weeks.
not be
some m
drops of
horse is

Better
who hav
and ine
farm boy
should b
experien
girls wit
will not
better sa
Creelman

When high calkins are used the frog does not touch the ground at all, and cannot possibly perform those functions nature intended it should. Not only is the frog useless in such a case but it will (like any other part of the body which is thrown out of use) gradually become atrophied or shrunken from want of exercise and the whole structure of the foot is entirely weakened. With a horse properly shod the frog will always come in contact with the ground at every step and bear its share of the weight of the body.

Even where calkins are necessary there is no need of having them made very long. One half an inch in length will answer every purpose just as well as twice or three times that length and in all cases where they can be dispensed with altogether it will be found much better.

When applying the shoe many smiths are far too free with the use of the knife. The sole is often pared out too much. In fact it is a good practice to leave the sole of a healthy foot alone except only so much of it as the shoe will rest on, which is only a narrow margin around the circumference of it where it forms the wall. Even those flakes or scales of dead tissue found on the sole might better be allowed to drop off of their own accord especially in dry hot weather, for although this dead tissue does not strengthen the foot at all, yet it protects the deeper seated and rising tissue from the heat of the road bed

Ice on Dairy Farms

James Winter, Chateauguy Co., Que.

The advantage of a summer supply of ice on a dairy farm cannot be too highly estimated. I could not do without it. While sending from 700 to 800 lbs. of milk a day in summer, or when sending over 1200 lbs. on Mondays, I have never had a pound returned. Many make the excuse that they have no proper place to store ice. Such an excuse should carry but little weight. Any building will do for ice. A part of a straw-mow or any place that will store say 50 cakes will serve the requirements of any ordinary farm.

Such a quantity will cost \$1.00 or two cents a cake, already cut, or the farmer could cut it himself. One or two days with two men and a team would haul and store this ice bringing it from a distance of two or three miles.

The bottom for the ice house must have a good drainage. This can be obtained very simply by placing poles six or eight inches apart in the bottom, and covering them with six inches of sawdust or straw, if sawdust is not available. A space of eight inches must be left on all sides for saw-dust. The dust must be well tramped down and care must be taken during the summer to keep it tramped so that the air will not get through the ice.

Another method may be followed for storing

cooling cream from the separator fourth, for keeping butter, cream, milk, meat and other perishable articles, a great deal of which is lost in the household in summer if ice is not used to preserve it. To sum it all up, no dairy farmer can afford to be without ice, which can be had at so small a cost and which is both a luxury and a necessity.

Canada Thistles

T. G. Raynor, B. S. A. Seed Branch, Ottawa

Not many years have passed since Canada Thistles were thought to be the worst weed that farmers were up against in this country. Many have been the anathemas uttered against the Frenchman who is alleged to have imported them from Europe as food for mules. They may have been good for the mules, but their history written all over so many farms indicates that they were a great ban to the country. There is no weed today so generally legislated against as the Canada Thistle. Nearly every State in the Union has been up in arms against it, with some weed law. However, the thistle is with us yet, but its terrors have long since passed away. Why? because of a better knowledge of its history and knowing how to handle it.

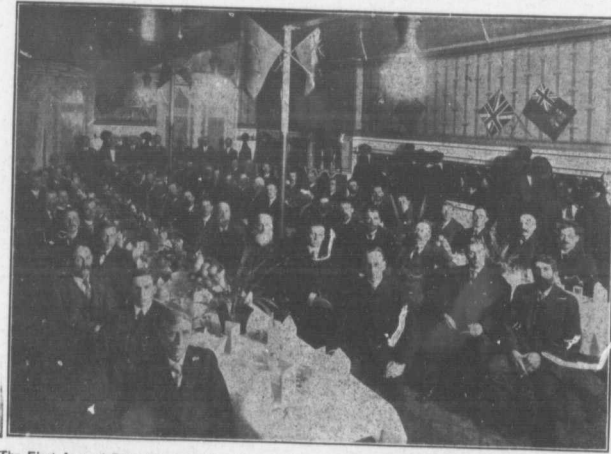
When grain growing was rampant and rotation of crops was systematically followed, the Canada Thistle winged its way largely with the wind against all law, obstacles and everything else. But when the majority of the farmers introduced the clover plant into their farming system it wasn't long before the thistle, unequal to the occasion, had to give up the struggle much more readily and easily than when it was fought with the bare fallow. Often the bare fallow was ineffectual in putting the thistle out of business, why? because the underground root stalk where its energy and latent life lay, wasn't sufficiently weakened at harvest time, when too frequently work on the fallow gave way to the all-important haying and harvesting operations. Then the thistle got a chance to recuperate to some extent, which no amount of after-cultivation could overcome and so the thistle nuisance was prolonged even in the bare fallow. If all growth had been kept back at this active stage in the life of the thistle then it would have meant destruction to it in most cases.

The clover does the trick in that, whether it is cut for hay or pastured, to a very large extent the thistles are cut or browsed before they seed, and are kept from doing so by cutting with the mower at a time when the stem is hollow and the reserve store of energy below the ground is greatly weakened. Two cuttings in the same season almost accomplish as much as a well-cared for bare fallow when this sod is plowed in the fall, and if followed by a hoe crop properly cared for the whole secret of killing Canada Thistles is exposed.

This method of handling the thistles and many other weeds, expeditiously and effectually explains how that frequently if thistles are allowed to grow up until about the blooming stage and then plowed under, and this followed by a bare fallow or with a rape crop it seems to serve an excellent purpose in destroying weeds of all kinds. It hurts the perennial Wood Thistle, but the latter is usually too tenacious of life to give up the battle, and so we have to adopt a variation of this smothering process which is more effectual.

In fighting Canada Thistles it should be remembered that the adoption of a three or four-year rotation in which it is seeded with clover one year and followed by a hoe crop, is the easiest and quickest way to handle this one time formidable foe.

Photographs and articles are always welcomed for publication in these columns.



The First Annual Banquet of the Members of The Canadian Holstein Cattle Breeders' Association. So successful was the banquet held last week in Toronto by the Holstein-Friesian Cattle Breeders, it is likely to become an annual event. The chairman was Mr. G. A. Gilroy, of Glen Buel, Ont. A report of the banquet appears in another column.

and helps to maintain moisture in the sole. The smith who pares away all dead tissue from the sole of a horse's foot is depriving it of a means towards the maintenance of healthy conditions.

Horses' shoes should be removed every six weeks. Even with farm horses the shoes should not be left on much longer than that, and yet, some men will allow a shoe to stay on till it drops off and after a time will wonder why their horse is going lame.—"Centaur."

Better Teachers Needed.—Many of the teachers who have charge of country schools are too young and inexperienced to give the training to our farm boys and girls that they need. The teachers should be older and they should have sufficient experience to enable them to inspire our boys and girls with higher and better ideals. Such teachers will not be secured until we are willing to pay better salaries to our teachers.—President G. C. Creelman, Ontario Agricultural College, Guelph.

large quantities of ice. It does not however give good results with small lots. This plan is as follows: A large room or building is constructed with tongued and grooved lumber with a floor overhead, said to be covered with about six inches of saw-dust. The walls are all built with a dead air space and the doors packed with saw-dust. The building is then filled with ice as full as possible right up against the walls. This method gives clean ice and is coming into favor with factory men.

These are only some of the simple and cheap plans that I have enumerated. A combination milk and ice house is still better. However, if even the simple methods outlined in the foregoing would be saved and a better quality of milk sent to our factories.

Some of the uses of ice on the farm are, first, for cooling milk to be sent to the factory; second, to cool water to raise cream in deep cans; third,

Roof Proof

Twenty-five years on the roofs.

That's the "Eastlake" record. And that's the kind of proof you want for your roof, isn't it?

"Eastlake" Steel Shingles

side-lock, all nail heads covered, make a roof that is rain, snow, fire, lightning and rust-proof—and are guaranteed to outwear any other metal shingles made.

Write for booklet.

The Metallic Roofing Co.
Limited
(MANUFACTURERS)
Toronto and Winnipeg

GASOLINE ENGINES



The "Stickney"

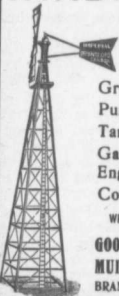
Is the Essence of SIMPLICITY

No pipes to freeze, no "fiddling" to get started. Your boy can do it.

Outside Igniter—Always Cool
WE GUARANTEE POWER
of every engine. What more! With the above advantages we can
MEET ALL COMPETITION

Ont. Wind Engine & Pump Co., Ltd.
TORONTO

WINDMILLS



Towers Girted every five feet apart and double braced

Grain Grinders
Pumps
Tanks
Gas and Gasoline Engines
Concrete Mixers

WRITE FOR CATALOGUES

GOOLD, SHAPLEY & MUIR CO., LIMITED
BRANTFORD, CANADA

Drainage Work in Ontario

Ed., Farm and Dairy—A brief summary of the drainage work being done by the Department of Physics, at the O. A. C., may be of interest to your readers.

Some years ago, as the staff of this department were engaged in farmers' institute work during a wet spring, going about the province from place to place, they saw thousands of acres of land on which the crops were very severely "drowned out," and they were impressed with the immense areas that were in urgent need of drainage. Representations were made to the minister of agriculture that steps should be taken to encourage underdrainage on a large scale, and accordingly he authorized this department to undertake the work. Before doing so we enquired why this phase of agriculture was so generally neglected, and we came to the conclusion that the cause lay in the lack of comprehensive knowledge of extensive drainage operations. Many men could put in a few drains by the eye or by some crude method of leveling, but when it came to planning a general system for 50 or 100 acres, a system composed of several miles of drains, every part of which must fit in with every other part, the grades of which must be sufficient to secure effective drainage, and yet not require too deep digging, the depths of which must be great enough to protect the tile from the frost, and yet varied enough in different parts to secure proper grades, and the outlet for which must be ample and free—when it came to the planning of such a system, many of which are imperative if proper drainage is to be secured, very few farmers were equal to the task. And so the method for the department of physics to pursue was plain: We must assist in the surveying and planning of these general systems, we must take our surveying outfits and go right into the field and survey the farms, where the owners wish us to, and make out plans showing the drains with their grades, depth and size of tile. At first we stopped there, but now, in addition to this, we hold a public meeting in the field at the conclusion of each survey to illustrate and discuss the various principles and methods of drainage, from the preliminary survey to the installed and completed system of drains.

From the outset this assistance was very much appreciated by those directly benefited, and now that its practical results are in evidence in many localities the applications for aid are becoming more numerous and urgent. The following table will show the progress of the work:

GROWTH OF THE DEMAND

Year.	Applications.	Shrives made (Number)	Area Surveyed (Acres)	Drains Installed (Miles)
1906	15	15	500	45
1907	126	70	3570	357
1908	168	100	5000	510

It will be noted that in 1906 we were able to respond to all applications. During the next year, however, only a shade over half were attended to. For 1908 the staff was increased and

Champion Evaporators Make Better Syrup

DON'T rave at your luck if the other fellow gets more out of his Maple Grove than you do. Every day you try to make syrup without a Champion Evaporator you are losing money. The Champion has a corrugated bottom, which doubles the heating surface. This means that the Champion will do more work for the size than any other form of Evaporator. It finishes the syrup without reheating. FREE—Our book of useful information for syrup makers.



"Champion" Evaporator

THE GRIMM MFG. CO.
58 WELLINGTON ST., MONTREAL

still we were unable to assist all who applied, although we surveyed over 500 miles of drains. In the last three years, the work has increased somewhat over ten-fold.

During 1908 we had applications from every county west of Peterboro and from few east, making 99 in all and we have made surveys and held demonstrations in 25 of these.

The drains are being put in as fast as men can be got to dig them. The value of this work can be best shown by an illustration: In 1907 the Horticultural Experiment Station Farm at Jordan Harbor, in the Niagara Peninsula, was undrained, each year the part that was formerly the wettest and heaviest and which usually grew cuttings, that were scarcely worth the crop, produced a bumper crop of oats—65 bushels to the acre, despite the exceedingly wet spring and subsequent severe drought! Land will soon pay for its own drainage at that rate. For years that farm has been notorious for its poor crops. To-day its transformation wrought by drainage is a marvel to the neighborhood. A few examples like this in the low-lying counties of Ontario will produce profits that can be measured only in millions.—Wm. H. Day.

FARM MANAGEMENT

Queries re Alfalfa

1. What do you think of alfalfa for a hay crop for this country; they write very favorably of it in the United States.
2. Where can it be bought?
3. How many pounds in a bushel?
4. Price per bushel?
5. Our land is a light sandy soil. We ploughed up a meadow of 27 acres, seven acres of which we think of sowing to clover, with spring wheat, the rest to alfalfa, and then ploughing the second crop down. The balance of the field we will plant with early Leaning corn for silage, and put in an acre or so of this with sweet corn for cow fodder, to be fed in the stock. Many of the farmers in this locality plant sweet corn for cow feed for their cows, and say it is good for producing milk.
6. Would sweet corn do for putting into silo? We have three silos, two for winter, and one for summer, say, commencing feeding 1st July—J. P. T., Bedford Mills, Ont.

1. Alfalfa as a crop for this country can scarcely be surpassed. It is, however, somewhat difficult to grow, especially in a district where it has never been sown before. Land upon which alfalfa is to be sown should be in good heart and good soil. It should have been in some hoed crop the preceding year, and should have received a dressing of barnyard manure. Even this, however, is not sufficient to ensure a good catch or a good stand of alfalfa the succeeding year.

The land should be well drained and should lie with a gentle slope, so

that water will not stand and freeze upon it in winter.

INNOCULATION OF THE SOIL

Further, should all these conditions be complied with, there is yet no guarantee that a good stand of alfalfa is assured. To ensure success it is necessary in addition to the right amount of seed on the right kind of soil, properly prepared that the bacteria which attach themselves to and live on the roots of alfalfa, should be introduced into the soil of the field in order to enable the alfalfa plants to thrive and prove profitable as a crop. This can best be done by securing from some old alfalfa field a few sacks of surface soil, which would be scattered over the field at the rate of about eight sacks an acre to ensure a good growth. It would, therefore, be advisable to begin the cultivation of this crop on a small scale, and then use the inoculated soil from the small plot to insure success where larger areas are cultivated. Oats or barley sown rather thinly may be used as nurse crops, but where small plots are being grown for the first time, it would be found advisable to sow no nurse crop along with the alfalfa seed.

2. Seed may be purchased from any reliable seedsmen in Ontario or Quebec, or from Messrs. Wm. Fering & Co., Montreal; Steele, Briggs & Co., or Wm. Rennie & Sons, Toronto.
3. Seed weighs about 60 lbs. per bushel and should be sown at the rate of about 25 lbs. an acre, unless the soil is very fertile when 20 lbs. an acre might prove satisfactory.
4. Seed is likely to cost from 15 to 18 cents a pound.
5. The land you describe is suitable for alfalfa culture, but must be in "good tilth if success is to be hoped for."
6. Sweet corn would prove quite satisfactory for ensiling purposes, but in my opinion be rather expensive, since the plant is not as a rule nearly such a large growing plant as the dents or most of the flint varieties. H. Grisdale, Agriculturist, C.E.F., Ottawa.

Concerning Swine

1. Can swine be raised for profit, in winter?
2. What age is best for wintering?
3. What breeds mature quickest?
4. What is the best breed to have ready for slaughter at six months?—A. S. Renfrew Co., Ont.
1. Swine can be fed at a profit in winter.
2. To get the best results from feeding swine in winter the young should come in the latter part of August or early in September.
3. Berkshire, Yorkshire and Chester White and Tamworths are probably equally early maturing breeds, with possibly a slight preference in the order named.
4. Berkshire, Yorkshire, Tamworths or Chester White will any of them mature ready for the block in six months.—J. H. G.

STRENGTH AND ECONOMY

You can depend absolutely on **PEERLESS** fencing to hold live stock under any and all conditions. It is made of No. 9 steel wire, heavily galvanized and has lots of spring. It makes ample provision for contraction and expansion due to changes in the temperature, shades above, etc.

PEERLESS

The Fence That Saves Expense

is held together by the Peerless lock which holds the ends of the wire so that it cannot be pulled apart. It is made of one piece. The lock cannot be slipped or knocked loose, and you can use it over and over again.

THE DANWELL BOXER WIRE FENCE CO., Ltd., Dept. C
Hamilton, Ont. Winnipeg, Man.

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

The Feeders' Corner

The Feeders' Corner is for the use of our subscribers. Any interested are invited to ask questions, or send items of interest. All questions will receive prompt attention.

Feeding Idle Horses

I have oats, bran, corn chop, hay, oat and pea straw, and a young team weighing about 2,500 lbs., which will be idle for several months. Please advise how to feed.

During the early part of the idle season I would suggest the following method of feeding as likely to give most satisfactory results:

FOR PAIR OF HORSES

Morning—Oat straw, 8 lbs.; pea straw, 5 lbs.; bran, 2 lbs.
Noon—Hay, 6 lbs.

Night—Oat straw, 6 lbs.; pea straw, 8 lbs.; bran, 2 lbs.; corn, 1 lb.; oats, 1 lb.

An occasional bran wash, say once a week, will be found of value.

During the month immediately preceding heavy work, the feed should be gradually changed and increased until at the beginning of the working season the horses should be being fed about as follows:

FOR PAIR OF HORSES

Morning—Hay, 10 lbs.; bran, 4 lbs.; oats, 6 lbs.; corn (cracked), 2 lbs.

Noon—Hay, 2 lbs.; bran, 2 lbs.; oats, 8 lbs.; cracked corn, 2 lbs.

Night—Hay, 10 lbs.; straw (mixed pea and oat), 4 lbs.; bran, 2 lbs.; oats, 2 lbs.; cracked corn, 1 lb.

Water before feeding.

If convenient during the month before work begins a warm wet supper would be found advantageous. This cooked feed might consist of, to start with: Oats 3 lbs., bran 2 lbs., barley 3 lbs. for the team. At the end of the month it might have been gradually increased to oats 5 lbs., bran 2 lbs., and barley 5 lbs. Do not feed this way feed once the horses get down to hard work.

If to the feeds mentioned a small amount of roots (carrots or turnips) or corn ensilage could be added each day good results might be anticipated.

Weed Seeds for Sheep

Will the seed of foxtail, pigweed and cockle—screenings of oats—be injurious for sheep?—Economist, Turiff, Q.

The seeds mentioned are not likely to injure sheep but should be fed carefully to avoid their getting scattered around and so getting on to the land. As a better plan I would suggest grinding these seeds and making a dilute mixture of them with the meal fed to cows and pigs. Be sure the proportion of weed seeds is small or you will experience difficulty in getting the pigs to eat the meal up clean.—J. H. Grisdale, Agriculturist, C. E. F., Ottawa.

Feeding Dairy Cattle

1. Our milk is taken to the cheese factory from April to November, and to butter factory the balance of the year. I would like to get your ideas on how to feed the cattle during these two periods.

2. My cows did not do well last summer, the average being about 10 quarts of milk a day each, and I would like to find out where I could purchase some better grade of cattle, as most cows in this locality do not seem to be any better than mine.

3. Kindly tell me where I could buy some good practical books on Dairy Farming and Chicken Raising.—C. M. Utson, Que.

4. In feeding your cows for milk production the principal aim should be to give them an abundance of feed at all times, and to give such as are in milk a plentiful supply of meal, particularly suitable for milk production. Turnips, pumpkins and squash are all highly suitable for this purpose. The pumpkin and squash would

do well for fall feeding and turnips for winter and Spring. For summer, when pastures are short, I would suggest you having two or three small plots of peas and oats, sown at different dates and which could be fed to your cows as they show sign of falling off in milk flow, that is when pasture gets short in the latter part of July and August.

For meal I would suggest bran, oil cake meal and gluten in addition to such home grown feeds as you may have at your disposal. Supposing you have some oats that you would like to feed, I would suggest a mixture of 500 lbs. of bran, 100 lbs. oats, and 100 lbs. of oil cake meal or gluten meal as you find convenient. Feed this meal mixture at the rate of about one pound for each four lbs. of milk produced by your cows. In summer the addition of a small amount of meal to the grass or soiling crop fed would, generally speaking, prove satisfactory. When feeding turnips care should be taken to give the turnips right after milking, but before the milk has been removed from the stable, or else you may find the cheese or butter-maker complain about the quality of the milk.

2.—Your cows appear to be giving quite as much as the average cows in the province, but better cows are available, and as a district where you could obtain them, although they would cost you pretty dear, I would mention Howick and Huntingdon near Montreal. Consult the live stock advertisements on another page of this paper.

3.—Good books on Dairy Farming and Chicken raising are rather scarce. I would suggest "Canadian Dairy Ontario" (\$1.00) by Prof. H. H. Dean, Ontario Agricultural College, Guelph; "Successful Farming" by Wm. Rennie (\$1.50). This latter is the best book of its kind that I know of. "Poultry Order" by Wm. Rennie (\$1.50). Order through Book Department, Farm and Dairy, Peterboro, Ont.—J.H. Grisdale

Problems in Dairy Feeding

1. Bran is about \$22 to \$25 a ton while wheat is only about \$10 to \$12 a bush. Could the wheat be ground and mixed with oats and barley to take the place of the bran for dairy cows?

2. How would peas be a substitute for gluten meal? The price of gluten meal and oil cake would be almost prohibitive here.

3. Would ground flax do for oil cake? Flax is about 90 a bush.

4. Would mangrove and sugar beets do as a substitute for corn ensilage; corn does not grow well here?—Mr. H. P. Cummings, Alta.

1.—Bran pound for pound is better feed for dairy cows than is wheat, but a mixture of bran and wheat is better than either one of the feeds alone. I would suggest therefore that you sell the best of your wheat, get the poorer stuff and the weed seeds if you are so unfortunate as to have any, amongst your wheat, ground up, and mix this ground wheat etc., with twice its weight of bran. This will give you a meal ration that should prove satisfactory when fed in proper quantities for milk production. As the right amount of feed I would suggest one pound of the above mixture, for each four pounds of milk produced per diem per cow.

2.—Peas would prove very satisfactory as a substitute for gluten meal. They are not quite so rich in protein, but if anything are more palatable than the gluten.

3.—Ground flax at the price you quote per bushel would prove satisfactory indeed as a feed for dairy cows. I would suggest you decide to feed the flax along with the bran and wheat: 500 lbs. bran, 150 lbs. ground wheat and 150 lbs. flax.

4.—Mangrove and sugar beets prove most excellent substitutes for corn ensilage. In fact, sugar beets give the best results of any feed I know of for milk production.—J.H.G

MANGE AND RING-WORM

Attack nearly all animals. For years it has been impossible to find a dressing which will really cure these diseases

LAVENE

In one dressing applied according to our directions will effectually cure either RING-WORM OR MANGE

FREE SAMPLE ON APPLICATION

WILLIAM COOPER & NEPHEWS

506-507 Manning Chambers, 72 Queen St. W., Toronto

FARMS, HOUSES AND LOTS FOR SALE

BLEWETT & MIDDLETON, 421 George St., Peterboro.

For Farms, Houses, Lots

CONSULT BELL AND TAYLOR 376 Water Street Peterboro

Write for Lists of

FARMS, HOMES, BUSINESS PLACES

J. T. O'CONNELL & CO. 163 Hunter Street Peterboro

DON'T FEED YOUR CALVES MILK

Blatchford's Calf Meal

IS BETTER, CHEAPER, MORE HEALTHFUL.

It is conceded to be the only real milk substitute in the world. Makes stronger and healthier animals and sweeter, firmer, butter, veal than any other known method of feeding. Prevents scouring. Costs half as much as milk and contains no milk feed or other by-products.

WRITE FOR our valuable free book, "How to Raise Calves Cheaply and Successfully Without Milk."

Recalls the concentrated experience of the preparer which this firm has spent in learning to produce an absolutely perfect calf feed. The 40,000 farmers who use Blatchford's Calf Meal know its value. Your name on a bottle will bring this book.

Address: STEEL, BRIGGS SEED CO., Ltd., - TORONTO, ONT.

WARRINER'S CHAIN HANGING STANCHION

Give animals perfect freedom and absolutely no chaining. Thousands have testified to its simplicity, compactness and durability, among them J. B. Givensdale, Agronomist and Dominion Experimental Farms at Ottawa, who writes: "I find your Warriner Stanchions very satisfactory indeed. They should be an asset of their position. Made in Canada, and shipped subject to limit in your own goods. Send for booklet to WALLACE B. CHURCH, Box 18, Forestville, Conn., U. S. A."



The Feed That Makes The Cream

Livingston's Oil Cake is the cheapest feed for cows—cheaper than corn, shorts or even hay. Because it actually increases the richness of cream—and also increases the amount of butter that you get out of the milk.

Test your cows before and after using Livingston's Oil Cake for a month—and your "butter money" will be economy.

Livingston's Oil Cake contains the richest and purest Lined Oil—rare soft enough to break into small meals, and completely and easily digested. Write us for sample and price list. Write to Livingston Lined Oil Co., Limited, 31 Mill Street, Montreal.

Livingston's Dairy Oil Cake

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

HORTICULTURE

Short Course in Fruit Growing

A. J. Logsdail, O. A. C., Director

The short course in fruit growing that was held at the Ontario Agricultural College, Guelph, recently, was of unusual interest. The selection and variety of the topics discussed made the course of great value to all in attendance. The following notes cover briefly the proceedings of the first week:

In speaking on "Sites and Locations for Fruit Growing," Mr. Harold Jones, of Maitland, brought out many valuable points. He said the climatic conditions are influenced by the proximity of large bodies of water. Orchards should not be set on low ground, where the cold air from surrounding areas would collect and settle at night. The best soil for apple trees is a naturally drained clayey or sandy loam. Artificial drainage should be given if the soil is incapable of self drainage. Light soils freeze deeper than heavy soils; therefore, the roots of trees on such should be protected, either by cover crops or by a supply of humus in the form of some kind of litter.

Mr. W. H. Day, of the O. A. C., gave an interesting lecture upon drainage and another upon the conservation of moisture in soils. In concluding, he referred to several practical examples where farms in Ontario output. In one instance, the resulting increase in crop paid for the had greatly increased their annual drainage operations the same season.

In an interesting address on "The Propagation of Fruit Trees and Plants," Mr. W. T. Macoun, of Ottawa, said that the low-heading of trees is a distinct improvement on the older system of high-heading. He said that nursery men would grow trees in any way desired if the planter would give his order some two years in advance of the time that the trees would be required. Mr. Macoun pointed out, also, that many fruit men

could raise their own nursery stock and would know thereby that their young trees were true to name and taken from parent stock of good quality.

A short lecture upon "The Selection of Nursery Stock" was given by Mr. J. W. Crow of the O. A. C. Growers should know what they are buying. The "just-as-good" stock often means failure, for only a few varieties are suitable for any one locality.

In a talk on "Growing Strawberries for the Canning Factory," Mr. S. H. Rittenhouse, of Jordan Harbor, estimated the cost of growing an acre of strawberries to be about \$50, which includes rent of land, manure, cultivation, and so on. From each patch he takes two crops. When choosing plants for new ground, a rigid system of selection is practised. For the canning factory, growers should grow what the canners ask for and should grow it as well as it can be grown. Combination among growers to grow the same crop will attract the best buyers to the locality.

The subject of "Judging Fruit" was discussed by Mr. Macoun, who declared the lack of a general system of judging fruit in Ontario. The adoption of such would do away with much dissatisfaction that now is prevalent. Such a system is now being arranged for in the Maritime Provinces. Ontario growers should unite and appoint a committee of reliable men to draw up a system of judging. This should then be widely circulated throughout the province so that growers would know what is required of them at exhibition. Mr. Macoun considered that only one judge should be called upon to judge any one class of exhibits. All responsibility would then fall on him and him alone. If he were capable and competent, he would be able to explain the reason of any action that he had taken.

Mr. H. E. Peart, of the Jordan Experiment Station, gave an interesting and comprehensive talk upon the best methods of cultivation and general attention for young orchards. Much useful information was given about the methods adopted by growers in sections that Mr. Peart had visited.

New Horticultural Societies

Through the efforts of Mr. J. H. Hare, the district representative of the Ontario Department of Agriculture at Whitty, new horticultural societies have been organized at Oshawa and Whitty. At the organization of the Oshawa society, Mr. A. Barber, of Bowmanville, introduced horticultural society work to the members and at the Whitty organization, Mr. J. Lockie Wilson, Superintendent of Horticultural Societies, Toronto, pointed out the good that such a society might do its members, and also to the community in which it is located.

Officers for the Oshawa society were elected as follows: Pres., Mr. W. H. Tonkin; 1st vice-pres., Mr. R. J. Cowan; 2nd vice-pres., Mrs. L. C. Smith; and a board of nine directors. The Whitty officers are as follows: Pres., Mr. E. Edmund Stary; 1st vice-pres., Dr. A. Adams; 2nd vice-pres., Mr. G. H. Hogarth; sec-treas., Mr. W. A. Wilcox; auditors, Messrs. Jos. White and Geo. Robb; and a board of eight directors.

The Brown-tail Moth

A circular was sent recently from the entomological division of the Central Experimental Farm, to all the larger nurserymen in Canada, in reference to a threatened invasion of the brown-tail moth. In a later issue the life-history of that destructive insect will be published. The circular was sent by Dr. Wm. Saunders, and is as follows:

It has recently come to our knowledge through the kindness of Mr. G. G. Atwood, Chief of the Bureau of Horticulture, of the State of New York, that about 75 nests of the young caterpillars of the brown-tail moth have been found on apple, pear, and cherry seedlings, and quince stocks, recently received in New York state from France. The nests contained living caterpillars in the usual winter form.

The infested stock so far as examined was packed in or near Angiers, France. It would appear that the brown-tail moth has been unusually abundant this year in France, and it

is probable that some of the larvae of this terribly destructive insect may find their way into different parts of Canada and become established there unless the utmost care is taken to promptly destroy them.

This insect has already done incalculable damage to orchards and woodlands in some of the eastern states where many hundreds of thousands of dollars have been spent during the past ten years in the endeavor to exterminate them, with only partial success. The brown-tail moth has recently been found in considerable numbers in parts of Nova Scotia, where constant efforts are being made to destroy them. It will be a great calamity to our fruit industry were this pernicious insect to become established in our important fruit districts since this would result in a heavy annual loss.

Kindly inform me if you have been or will be importing from France this season any of the seedlings or stocks referred to, as in such case I shall be glad to send one of the officers of our entomological division to examine material brought in and find out whether any of these destructive insects have in this manner found their way to your premises, and if such are found to advise you as to the precautions which should be taken to prevent this pest from becoming established in your nursery. In case you have facilities for fumigating nursery stock with hydrocyanic acid gas on your premises, it would be well to place all boxes of fruit seedlings and stock received in the fumigating chamber for a sufficient length of time to ensure the destruction of all insect life. In case no fumigating chamber is available the cuttings from such seedlings and stocks should be carefully burned.

I would strongly urge upon you the great importance of prompt attention to this impending danger, and trust that you will heartily co-operate with the government in the carrying out of such precautionary measures as it may be necessary to establish to overcome the threatened invasion of this formidable foe.

Renew Your Subscription Now.

HELP US - - - HELP YOURSELF CUT OUT THE BLANK FORM BELOW AND FILL IT IN

There must be several of your neighbors who are not now taking Farm and Dairy w7.5, we are sure they would be glad to subscribe for it.

Fill in the form below with the names and addresses of ten persons whom you know who are not now subscribers to Farm and Dairy. We will send them sample copies free. If you can induce any one of the parties whose names you send us to subscribe we will renew your own subscription free for 6 months; if two subscribe we will renew your own subscription free for one year.

Name _____ Address _____
Name _____ Address _____
Name _____ Address _____
Name _____ Address _____
Name _____ Address _____
Name _____ Address _____
Name _____ Address _____
Name _____ Address _____
Name _____ Address _____
Name _____ Address _____

Your own Name _____

Your own Address _____

Farm and Dairy. If they knew what a good paper Farm Show them your copy and induce them to subscribe.

TO... success... on... of many... cover... with... sary... tor or... when... hens... takes... when... Who... mark... sible... worth... seldom... well o... tional... winter... set up... be at... three... hens... fighting... eggs, t... be left... An... able... direct... ine, wh... of the... hen... every... will... time... two or... ble. V... hens... setting... around... chicks... Birds... temper... severe... splendid... incubat... is gen... kept in... the stove... night, t... culy in... obtainin... place th... in some... where a... can be... Instru... are incubator... structure... in some... the incubator... operate i... his direc... Before... up for a... sure tha... ring ord... the eggs... after wh... morning... day. Th... until aft... Keep the... you alwa... The tem... should be... 103 when... on "live"... cooled re... cooling af... When t... incubator... after all... shell and... the incubator... the hatch... they may... brooder... heated up... and made

POULTRY YARD

The Incubator a Necessity

H. E. Hobe, Northumberland Co., Ont.

Poultry raising can be carried on successfully and with profit without resorting to artificial incubation. It is, however, much more easily carried on when the incubator is made use of. A 300-egg incubator will set as many eggs at once as 14 hens can cover. The incubator can be attended with much less trouble than is necessary with the hens. With the incubator one can hatch chicks at any time when fertile eggs can be had; with hens one has to wait until "Biddy" takes a notion to set, which unfortunately, is sometimes not very often when her services are required most.

Where chickens for the early broiler market are wanted it is almost impossible to hatch them in any number worth while with hens, as the hens seldom set until the end of March or well on in April, though an exceptional one will get broody during the winter months. An incubator can be set up in the house, where it can be attended without running out three or four times a day to see if the hens are on their right nests, not fighting with other hens and breaking eggs, thus giving what few that may be left a poor chance to hatch.

An incubator, set with good hatchable eggs and operated according to the directions furnished with the machine, will hatch as well as the average eggs set, as will the average hen. Sometimes hens will hatch every egg given them. Others again will break half their eggs and by the time the hatch is out there are only two or three chicks left for our trouble. When incubators are used the hens can be kept laying instead of setting and afterwards running around all summer with a brood of chicks.

The hatch from an incubator depends greatly upon where the machine is placed. It should be placed where the temperature is not subjected to any severe change. A good dry cellar is a splendid place in which to operate an incubator, as the temperature there is generally uniform from year to year. If the incubator is kept in the kitchen, there is heat from the stove during the day and none at night, thus there is sure to be difficulty in regulating the machine and obtaining an even heat. Therefore place the incubator in the cellar, or in some other room in the house where a fairly uniform temperature can be kept.

Instructions for running the machine are always sent out with the incubator from the factory. Most instructions for different machines differ in some points. The man that made the incubator ought to know how to operate it, therefore it is well to follow his directions as near as possible.

Before setting the machine, heat it up for at least 24 hours so as to make that everything is in good running order. After setting do not move the eggs until the second or third day, after which they should be turned morning and evening up to the 19th day. Then leave them strictly alone until after the hatch is completed. Keep the lamp well trimmed, so that you always have a good steady blaze. The thermometer in the egg chamber should be kept as near as possible at 103 when the thermometer is resting on "five" eggs. The eggs must be cooled regularly. They require more cooling as the hatch progresses.

When the chicks begin to hatch the incubator must not be opened until after all the chicks are out of the shell, and quite dry. Leave them in the incubator for several hours after the hatch is complete, after which they may safely be removed to a brooder that has been previously heated up to from 85 to 100 degrees and made ready to receive them.

Practical Co-operation Among Poultrymen

There are thousands of poultry keepers in hundreds of localities throughout America who would be directly benefited if they would co-operate in marketing their products. In many farming communities it is other things for farmers to help each other, such as haying, harvesting, threshing, pig killing, etc.; it being found to their mutual advantage to apply their united efforts to the work on each place in turn, rather than each to attempt his work unaided, or with the assistance of such help as could be obtained for the emergency.

A few years ago, in one of the western states, a poultry association was formed for the purpose of handling the poultry produce of its members. Its failure was said to be due to lack of capital. It would have been otherwise had been more correct for no capital is needed for such an enterprise. Ten, fifteen, twenty, or more farmers or farmers' wives or daughters in a community might associate in shipping their eggs and poultry, the shipments being made by one of their number who should receive a moderate percentage on the goods of the others for the responsibility and extra work put upon him.

By combining their produce they would be able to grade their stuff much better than individual shippers generally do. Shipping to a reliable house they would get returns promptly. In the case of failure to which we allude, the trouble seemed to be that all the other members wanted the few in control to pay them cash on delivery for their eggs and poultry. The plan we suggest, says a correspondent, is simply this: Let each member of the others, to receive and ship their stuff and pay to each his share of the returns. This would mean that the members must wait a short time for their money, but the great hardship when the better prices be thus obtained are considered. The idea is worth investigating.—F. C. E.

Poultry vs. Hog and Beef Production

A. P. Hillhouse, Bondville, Que.

During the last few months of the year 1907 and first part of the year 1908 the farmers feeding for flesh production, found themselves in a very tight place, trying to make two ends meet, and were then satisfied if they could do this, let alone making any profit.

We have seen a great deal of discussion in several farm papers as to whether, with the high prices of feed, and not correspondingly high prices of hogs and beef, it was possible to feed at a profit; and although we have been told by some in prominent positions that this could be done, I think the farmers have universally proved for the last few months that during six or eight months they have not made one dollar in either pork or beef production. Probably in most cases there has been a direct loss, while poultry, if properly handled, has stood the test, giving a good profit during the whole time.

A special test was recently taken on a farm where what is called mixed farming is followed, viz., poultry, pork and beef production, and dairying. As the accounts of each branch were kept separately, it was a good chance to find just how each branch stood after feed bills had been paid for. The result was that the pork and beef had been fed at a loss, while the poultry and dairy it had not only given a fair profit. We did not have to look far to find why this was the case, for as the prices of feed went higher and higher, the prices of pork and beef did not increase, placing in these branches on a losing basis, in

spite of the most careful thought and economical feeding. This was proved in several careful tests.

The same results would have followed in the dairying department but that the prices of butter and cheese did increase correspondingly with the prices of feed, giving as good a return as the average for other years had been.

In the poultry department we found entirely different conditions—the prices received for dressed poultry, although the same as in other years, entirely covered all advances in feed prices and left a good margin.

This is just where the poultry branch stands ahead of all other branches—that by crate fattening and producing the very best quality, a price is always available far in excess of the ordinary market price. By catering for the best trade you are always secure above varying conditions. Let me quote a case in point: Ordinary prices of dressed chickens—brim—from nine to ten cents a pound (crate fattened); best quality sold from fourteen to sixteen cents, while in the case of pork and beef it is almost impossible, even when producing the very best quality, to realize half a cent a pound above the ordinary market price, especially in the case of pork.

This is looking at the matter simply from the flesh-producing standpoint, while there is still the important part of egg-production to be credited of poultry.

Note.—Mr. Hillhouse refers here to

Hatch Chickens by Steam

See "Wooden Egg" and "Egg" articles in this issue. Will mail, reliable, practical.—Thomas C. Cullis, Toronto. REG. H. STAIN, Box 23 Quercy, Ill.



DOES YOUR POULTRY PAY? If not, Poultry Fosters, the best down monthly journal, can help you. Best writers and up-to-the-minute articles on all matters of interest to poultrymen. Stamps. POULTRY FOSTERS, Box C, Farewell, Minn.

his own experience on his farm.—Poultry Editor.

Common Sense in Poultry Keeping

What do we have to depend upon to be successful in the rearing of poultry? Common sense. No matter what the circumstances are, surely one can form some opinion after a little thought, whether his poultry has too much of this or too little of that, or enough, taking it all in all. If he can not do this he has no business with poultry. We are given a talent, so let's rely on common sense.

We can make money at most anything if we only use our brains. And this truth is as applicable to poultry as to any other industry. The poultryman who uses his brains the most—in this "ing how best to breed, care for and sell his poultry, is the one who will in the end make the most of it. There is money in poultry, but you cannot make it unless you copiously use common sense.—F. C. E.

FENCE TALK No. 3

Page Wire Fences only seem to cost a cent or two more a rod than common wire fence. They really cost fully three cents a rod less—and then some. Figure it for yourself:

Page Fence horizontal wires—the wires that have to stand the pulling strain, are made of a grade of steel wire termed "high carbon." Other fences' horizontals are "hard steel," or hard drawn wire, at best.

High-carbon Page wire will stand a strain of 2,400 pounds. The other kinds break at 1,800 at best.

That explains why a Page Fence will stretch tighter and stand up longer.

That accounts for Page Fences needing but two fence-posts to the other fence's three.

See now what that figures in a mile of fencing:

Two cents a rod more for Page Fence in the first place, or \$6.40.

100 fewer posts for the Page Fence—because the tougher wire lets it stretch tighter and stay tighter. Are the 100 posts worth 12c apiece? Call it that—the 't's never 20c, a post, most places. But call it \$12.00 saved in posts—which balances the 2c a rod more first cost and leaves \$5.60 to the good.

What would you take to dig 100 post holes? To cart 100 posts! To set and tamp 100 posts! To staple the fencing 100 times oftener than you need to with a Page Fence!

Doesn't ten dollars look small for all that extra work?

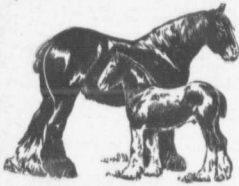
Well, that is only a part of the saving you make on every mile of Page Fence you put up, as compared with any other fence. Our free book, sent from the nearest Page place for your asking, tells the rest—and tells you how to prove Page betterness beforehand.

The Page Wire Fence Co., Ltd., Walkerville, Toronto, Montreal, St. John, Vancouver, Victoria.

"PAGE FENCES WEAR BEST"

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

INSURE



YOUR

IN FOAL MARES

Why risk the loss of a valuable Mare or Foal or both of them when a payment of a few dollars would indemnify you for such loss should it happen.

The general issues policies for 30 days, 6 months or 12 months covering the mare with or without the foal.

**Farm Horses, Stallions,
Castration, Cattle
Insurance**

Prospectuses sent Free on demand.

Agents wanted in unrepresented districts where resides a Veterinary Surgeon.

THE GENERAL
Animals Insurance Co. of Canada.
NEW YORK LIFE BUILDING, DEPT. C.
MONTREAL, P. Q.

The Sheep Quarantine and Hog Embargo

At the annual meeting of the Dominion Swine Breeders' Association, held in Toronto last week, the president, Mr. D. C. Flatt, of Millgrove, drew attention to a petition being circulated for signature by some leading breeders of pure-bred sheep. The petition was to be presented to Hon. Sydney Fisher, Dominion Minister of Agriculture. It asked that if necessary the embargo on United States live hogs be removed in order that the United States Government might be induced to lift the quarantine on Canadian sheep entering the United States.

A REMARKABLE STATEMENT

It was stated at the meeting that some Canadian sheep breeders, while at the Chicago Live Stock Show last December, were informed that if Canada would remove the embargo on United States live hogs the United States Government would remove the quarantine on Canadian pure-bred sheep. The petition was being circulated with the object of inducing our Canadian Government to deal with the matter.

THE PETITION

The petition read as follows: We, the undersigned, hereby request that every effort be made by your department to relieve the present strenuous position of the breeders of pure-bred sheep in Canada. As you are no doubt aware about 90 per cent. of the trade in Canadian pure-bred sheep was done with the people of the United States and under the present regulations of the United States Government, whereby they have imposed a 30-days quarantine against our Canadian sheep. Practically 90 per cent. of our business has been cut off which has about put us out of business; therefore, we earnestly request that your government make every

effort possible to rid our country of the contagious disease, which the United States Secretary of Agriculture claims that we are harboring, and which we know exists in parts of Ontario, and if necessary, raise the embargo against United States hogs coming into our packing houses in bond as they did previously. We feel that it is a gross injustice that the pure-bred sheep industry of Canada is practically ruined just possibly to benefit the hog breeders to the extent of 25 cents to \$1.00 a cwt. for possibly a month or so in the year; and as during the major portion of the year hogs are worth more money in the United States than in Canada, therefore, it is a comparatively small matter to each individual in the hog breeding business but it is everything to the breeders of pure-bred sheep in Canada for which our country was and is becoming much noted and should be to the western hemisphere, that England has been to the world in the production of pure-bred stock. We therefore urge that this question, of such vital importance to the swine men of Canada, will have your most careful consideration which we trust may result in our immediate relief.

HOG BREEDERS SAY "NO"

The members of the Swine Breeders' Association decided that it would prove an injury to Canada's hog interests were the embargo on United States live hogs to be removed. While it was felt that there is little likelihood of the Dominion Government granting the request contained in the petition, it was thought best to pass a resolution dealing with the matter. The following resolution was carried unanimously:

Moved by Jos. Featherstone, seconded by D. DeCoursey. That we, the members of the Dominion Swine Breeders' Association, in annual meeting assembled, having heard of a resolution about to be presented to the Dominion Government through Hon. Sydney Fisher, asking that the embargo on American live hogs coming into Canada should be raised, wish to strongly express our disapproval of such action being taken on account of the grave danger of hog cholera being distributed throughout Ontario which, under the careful administration of the government, has been almost eradicated. It is further resolved that a copy of this resolution be forwarded immediately to Hon. Sydney Fisher, the Minister of Agriculture, and also, that he be requested to obtain accurate information as to the calling of each person signing the petition.

Messrs. D. C. Flatt, Millgrove; Jos. Featherstone, Streetville; J. E. Bret-Streetville, and J. E. Bret-Streetville, a committee to wait on the Dominion Minister of Agriculture to present the petition.

Berkshire Breeders Meet

The members of the Ontario Berkshire Breeders' Society, at their annual convention in Toronto last week, discussed methods of advertising their breed of hogs. It was claimed that the breed has not had the assistance from government authorities and packers as its merits deserve.

Mr. W. Cavan, of Toronto and Chicago, claimed that breeders in the Western States are deserting the small type of Berkshire and looking for a longer, rangier, more prolific animal. They know that Canadian breeders have this type of hog. Mr. Cavan advised the making of an effort to secure more business from the United States breeders. Mr. E. E. Martin, of Canning, suggested that the breeders should arrange to hold a big sale of Berkshires to which they should contribute at least one animal each and these should be their best pigs. He thought that the sale might be held at the Union Stock Yards.

A constitution was adopted, the society being a new organization.

OFFICERS ELECTED

The following directors were elected: W. H. Durham, Toronto; E. E. Martin, Canning; Samuel Dolson, Alton; H. M. Vanderlip, Cainsville; Robert Vance, Ida; T. A. Cox, Brantford; The Provincial Farmers' Association will be elected by the directors.

FINANCIAL STATEMENT

The financial statement showed total receipts of \$316.47, the amount of the grant from the Dominion Swine Breeders' Association. The expenditures totalled \$160, being grants of \$40 each to the Ottawa and London exhibitions, and \$60 to the Toronto exhibition. The balance on hand was \$176.47.

The officers were instructed to apply for incorporation under the act respecting agricultural associations.

The amount to be given in grants to the various exhibitions was left in the hands of the directors.

Our Legal Adviser

TITLE TO TIMBER AND LAND.—Is a verbal agreement about a sale of standing timber binding, and if so for how long a period? The particulars are about as follows: A sold a parcel of land with standing timber to B. A told B that he had sold the timber to C, and received the money for it from C, and that the sale to B was not made. B has paid for the land and has been given a clear title for it. There is nothing in the deed referring to the timber. B now claims that legally he is entitled to the timber as well as to the land. Is this the case?—J. D., Peterboro Co., Ont.

1. B having received a clear deed, he is not obliged to make a title to the timber, to any purchaser who has not actual notice of the claims of A or C.

2. A, however, can take proceedings to have the deed given to B, amended by inserting therein a reservation of the timber on the land conveyed. A may have some difficulty, however, in doing this, if B denies that the timber was reserved.

3. C has a right to recover back from A the money paid for the timber, but will have no right to the timber itself, (the agreement with A not being in writing, unless he had actually entered upon the land in accordance with the agreement, and cut some portion of the timber.)

DEBT OUTLAWED.—How long a period must elapse before a debt for \$20.00 be come outlawed? A collector's agency is endeavoring to collect a doctor's bill that has been outlawed. Fourteen years have elapsed and the particulars of the account are disputed.

An ordinary account becomes outlawed in six years from the time the debt was contracted, or, if a period of credit was given, from the time the debt became actually payable; unless (a), some payment is made on account by the debtor, or (b), the debt has been acknowledged by the debtor by some writing.

Our answer assumes that no proceedings to enforce payment have been taken within the six-year period. If a claim were once sued and judgment recovered, the judgment might be kept in force for a period of 20 years.

POWER OF COUNCILS.—Have township councils of Ontario power in council to pass a by-law to abolish statute labor, or must they submit same to ratepayers for their approval? The power to limit weight of loads on roads, or do the Provincial statutes govern same, and if so what is the limited weight?—E. T. Winder, Ont.

Township councils have power to pass by-laws to abolish statute labor without submitting the by-law to the ratepayers.

The councils of cities, towns and



16 POINTS in the Selkirk Stiff Stay Fences and Gates possessing Undeniable Superiority.

Selkirk Fence Agents make money and build business. Selkirk Fence Users get the best value for their money and are satisfied customers.

We will send you full particulars on receipt of the following coupon properly filled out.

Selkirk Fence Company, Hamilton, Can.

I would like to know more about the Selkirk Fences and Gates. Send me a free sample piece of the fence and literature on the Points of Superiority with Agent's terms.

Name.....

P. O. Province.....

villages have power to restrain the passage of heavy loads on their streets, but this right has not yet been extended to township councils, nor is there any statute of the province regulating the weight of loads on township roads.

A Great Year for the Holstein Breeders

The year that closed on the first of February, 1909, was the most successful in the history of the Canadian Holstein-Friesian Association. The membership now is greater than ever before. It is practically 600, being an increase, during the year of 135. In spite of greatly increased expenses the cash on hand is over \$600 greater than it was a year ago. It is \$906.54. This is greater than that of any other cattle association in Canada including even the great Shorthorn Breeders Association which, hitherto, has been the financial king. The knowledge of these facts created a feeling of joy and optimism in the breasts of the members of the Association, during the time of their annual meeting in Toronto last week, that was very noticeable. One of the crowning features of the occasion was a banquet held Wednesday evening, at which some of the older members, such as Messrs. A. C. Hallman, of Breslau, and H. Bollert, of Cassel, who have been members of the Association since its organization 26 years ago, told of the tremendous difficulties they had encountered in the early days when nothing too bad could be said against Holsteins, when there was practically no money in the treasury and when the addition of three or four new members in a year was a cause for rejoicing.

The attendance was large. It included a number of young men who have only recently started to breed Holsteins. Some of them have exceptionally good animals. Mr. G. W. Clemens told at the banquet of a cow that last year during the management of a son of M. J. Van der Luten, of Luton, produced 15,649 lbs. of milk during eight months of her test. The accuracy of the test was vouched for.

TRADE WITH THE WEST

One of the most important matters dealt with was introduced by Mr. R. F. Hicks, of Newbrook. During the past year the Directors of the Association had to deal with charges made by a western breeder against an Ontario breeder who was accused of having sold stock by correspondence that was not as represented. Through the efforts of the Association a settlement was made that was satisfactory to the purchaser.

To prevent anything of the kind happening again, and to encourage western breeders to purchase stock from eastern breeders, Mr. F. Hicks provided the following resolution:

"That for the purpose of facilitating the sale of cattle by correspondence, especially where buyer and seller are widely separated, the buyer, by making application to the secretary's office, accompanied by a fee of five dollars for the first animal and one dollar for each additional animal inspected in the same herd, together with the letters received from the seller shall be entitled to have the secretary send an official to inspect the animal or animals before shipment and accept of them if they have been fairly described, it being understood that the secretary shall send one of the men who are recommended by this Association to act as judges at the fair."

The resolution met with instant approval. Some difficulties were foreseen. It was pointed out that it might cost more than the money provided for in the resolution to have the animals inspected. Mr. G. E.

Ellis thought that it might not be fair to old breeders who have established a reputation for honest dealing. Difficulties were foreseen in letting possible buyers in other provinces know that they could arrange to have animals inspected at but slight expense. Ultimately the resolution was carried, practically unanimously, with the addition of \$100 to the fund for the expenditure of fifteen dollars in each province advertising the basis upon which animals can be inspected before purchase.

OFFICERS ELECTED

The following officers were elected: president, B. Mallory, Belleville; 1st vice-pres., H. Bollert, Cassel, Ont.; 2nd vice-pres., Stanley A. Logan, Truro, N. S.; 3rd vice-pres., J. E. K. Herrick, Abbotsford, Que.; 4th vice-pres., Jas. Rettie, Norwich, Ont.; secretary, G. W. Clemens, St. George, Ont.; two new directors, Brown, Lyn, Ont.; D. C. Platt, Millgrove, Ont.; (old directors) J. W. Richardson, Galdenora; R. F. Hicks, Newtonboro, Ont.; editors, A. C. Hallman, Breslau; F. E. Came, Montreal, Que.

Delegates to fair boards were elected as follows: W. G. Ellis, Toronto; H. Bollert, W. Clemens, for London; W. Brown and G. A. Gilroy, for Ottawa; J. E. K. Herrick and F. E. Came for Sherbrooke; Stanley A. Logan for Halifax, N. S.; Charlottetown, P. E. I.; Fredericton and St. John, N. B.; D. Munro and J. P. Porter, for Winnipeg; A. S. Blackwood for Calgary; J. M. Stevens and Thos. Laing, for New Westminster, B. C.

FINANCIAL STATEMENT

The financial statement was the most gratifying ever reported since the most successful year organized. It showed total receipts of \$10,321.15 including \$4,396.48 balance from last year, \$4,694.15 received from registrations and transfer fees, \$695 member fees, \$341 annual dues, \$153.37 interest, \$172.25 from bank books and \$23.75 refunds. The principal expenditures were: Printing herd books, \$1,279.50; special prizes, \$1,000; salary of secretary-treasurer, \$247; record of merit, \$425; \$250; silver cups and show cards, \$95.05. The balance on hand was \$5,650.54.

SECRETARY'S REPORT

The report of the secretary showed that the number of registration certificates issued during the year was 2,618 of which 1,060 were for bulls and 1,558 for cows. There were 1,006 transfer certificates issued for bulls and 1,392 for cows, making a total of 2,398.

Eighty-five cows were accepted for the Record of Merit during the year, making a total of 277 cows now in the Record of Merit. Eleven additional tests were made for a period of seven days. Five cows were tested for 30 days and two for 14 days. Two retests were made for a period of one day. Three bulls were admitted during the year, making a total of 27 now entered.

The membership showed that 135 new members were admitted to the association in the course of the fiscal year, 1907.

Attention was called to the careless way in which many applications for registration had been made, and that many had been filled out, over 400 having had to be returned for correction and 126 transfer applications.

The number of registrations of animals was as follows: Under one year, 1,794 from members and 383 from non-members. Over one year, 306 from members, 42 from non-members. Imported cows 62, bull non-members. The number of Canadian bred animals from American book 4. Transfers for members, 679, for non-members 325. Transfer after 90 days after date of sale 391. Total bulls now registered, 7,009; cows, 10,362, bulls now transferred 5,342, cows 7,215.

GRANTS TO FAIRS

The following grants were made to the exhibitions mentioned: Toronto, \$100; London, \$50; Ottawa, \$50; Winnipeg, Man., \$50; Brandon, Man., \$25; Calgary, Alta., \$50; Charlottetown, P. E. I., \$50; New Westminster, B. C., \$50; Halifax, N. S., \$50; Victoria, B. C., \$50; Winter Fair, Guelph, \$145; Sherbrooke, Que., \$100; Fredericton, N. B., \$50; Winter Fair, Ottawa, \$100; Maritime Winter Fair, \$100; \$75 each to the Guelph and Maritime Winter Fairs to be divided at each fair into three sweepstake prizes of \$25 each at each fair; \$50 in special prizes to be divided into two sweepstake prizes of \$25 each.

A grant of \$100 will be given to St. John, N. B., if a Dominion Exhibition is held there. A grant of \$100 was given to the Dominion Cattle Breeders' Association.

On motion of Stanley A. Logan, seconded by W. W. Brown it was decided to give \$10 to every breeder who succeeds in putting a cow through the 30-day test. This money will be given for every cow that enters the Record of Merit after 30-day test. It will be given in addition to the \$5 that is given to the owners of cows that pass the 7-day test.

DAIRY TESTS FOR TORONTO

Mr. W. G. Ellis was instructed, on motion of Mr. Jas. Rettie, seconded by Mr. A. C. Hallman, to endeavor to have a two-day milk test at the Toronto Industrial Exhibition. The belief was expressed that it would create great interest.

Mr. W. G. Ellis drew attention to the small exhibit of Holstein cattle at the Toronto Industrial Exhibition last fall. He claimed that the present day popularity of Holsteins is due, in a considerable measure, to the exhibits of Holsteins that have been made at the exhibitions in the past. He feared that Holsteins will lose ground if they are not shown in larger numbers at the leading exhibitions. Young breeders were urged to make exhibits. Mr. Ellis offered to help any who may decide to exhibit at the Toronto exhibition.

IMPORT CERTIFICATES

On motion of Mr. J. W. Richardson, an amendment was made to article 6, section 8, of the constitution, by which in future no import certificates will be issued by the secretary until a fee of \$5 has been paid to the secretary-treasurer for each female and \$10 for each male imported. The animals must be registered in the Canadian Herd Book before an import certificate will be issued and they will not be allowed to enter Canada until they have an import certificate. A similar charge has been made in the past but it did not have to be paid until the animal imported was registered in the Canadian Herd Book, provided it was registered within a year from the date when it was imported.

HOLSTEINS FOR ASYLUM

Dr. English, of the Insane Asylum, Hamilton, was introduced with the announcement that the asylum has selected Holstein cows as the best for its purposes. Dr. English stated that after looking into the question of the best variety of cows he had selected Holsteins because they give a large quantity of milk of the best quality. The government had given him permission to establish a herd at the asylum. In time he hopes to be able to show Holsteins at the leading fairs.

QUALITIES OF HOLSTEIN MILK

Mr. J. E. K. Herrick gave an address on the qualities of Holstein milk. He told of a number of cases in Canada and the United States where he had induced mothers, with sickly babies that had been fed on rich milk, to try Holstein milk with

the result that the babies improved in health. Mr. Herrick had letters from mothers giving Holstein milk credit for having saved the lives of their babies. Doctors were named, both in the United States and Canada, who are advocating the use of Holstein milk for children mainly on the ground that it is better balanced than the milk of other breeds of cattle. Milk containing large quantities of fat, they claim, is too rich for young babies to digest. The members of the association were urged to talk up the good qualities of Holstein milk on every possible occasion.

Mr. F. E. Came reported that the American Holstein Society has appropriated \$3,000 this year for the purpose of advertising the special qualities of Holstein milk.

The salary of the secretary was increased by \$100 a year, or to \$1,100 a year.

A lively discussion took place over the appointment of an official organ. For three years Farm and Dairy has been the official organ of the association. The association has subscribed for Farm and Dairy each year for all its members. Last year a small, semi-monthly Holstein paper was started and the association has subscribed for it, also, for all its members. This year the belief was expressed that the association could not afford to take both papers. The value of having a paper

(Continued on page 12)



Healthy Chickens

A high or low death rate is usually the difference between successful and unsuccessful poultry raising.

REX Flinkote ROOFING is used for roofs and eaves on profit-making poultry plants, because it keeps the houses warm and dry, with even temperature and humidity.

As a result, fewer chickens are lost and the layers are more productive in poultry houses covered with

REX

FLINKOTE
ROOFING

This roofing is fire-resisting, rain and snow-proof, and very durable. REX Flinkote ROOFING affords more kinds of protection to your buildings and their contents than any other roofing. Everything needed in laying courses with roll—any laborer can lay it.

Send for Free Samples

and test them for fire, water, pliability and appearance. We also send a booklet about roofing. All in illustration, photos of REX Flinkote roofs everywhere.

*Make for the postage (a booklet worth many times the postage) (a booklet which is well worth it). Send for it.

J. A. W. BIRD & CO.
19 India St., Boston, Mass.
Canadian Office,
25 Dominion Street, Montreal

Mention Farm and Dairy when writing.

Canadian Seed Growers' Association

The fifth annual convention of the C. S. G. A., held in Ottawa last week was well represented by delegates from the various provinces except the western ones. The report of Mr. L. H. Newman, secretary-treasurer of the association showed that the work of the last year had been a prosperous one. A number of meetings had been held in some of the provinces in connection with the winter fairs. It was recommended to make these meetings annual ones in their capacity, and to do business in connection with the association peculiar to their local conditions.

It was thought that some recognition should be given to grain produced from selected plants such as are derived from the work carried on at the experimental stations, and might be carried on even by any member. It was recommended that the Hon. Minister of Agriculture be again asked for sufficient funds to carry on the work another year and to print the annual report; that a resolution of thanks be tendered the railway authorities for their kindness in allowing cheap rates to the secretary-treasurer of the association; that the experimental

stations should try more experiments to determine whether or not garden and vegetable seeds could be grown in Canada profitably. These recommendations were taken up one by one and adopted except the one referring to grain from selected plants which was left over for further discussion at a later date in the meeting. In this discussion it was explained that a good plant with fixed characteristics was a surer way to get permanent improvement in crops than to select the best heads from plants as was the general practice of the association.

INCREASE IN YIELD AND WEIGHT

Senator Perley asked if it had been found by the work of the association that crops had been increased in yield and weight, for he had noticed that in late years the percentage of No. 1 northern wheat had been growing less in the west instead of greater. It was pointed out that there were a number of causes which might contribute to that state of things, such as weed seeds, frost, etc.; but that the amount of good vital seed in the West was increasing steadily every year and was in such demand that the supplies were inadequate to meet that demand. Mr. Donald Innes, Tobique River, N. S., claimed that as a result of selection during the last six or seven years his oats, which formerly weighed 35 lbs. a bus. after cleaning, now weighed 42 lbs., as they came from the machine.

A summary of the season's work was given by the secretary-treasurer. During the last season there were 101 who had reported good work done, 71 of whom were old members and 30 were eligible for membership. The total number of crop applications were 688, but as some applicants operated with more than one kind of crop there were in all only 432 members and applicants. Of this number 71 returned satisfactory reports, 30 were quite satisfactory, 49 unsatisfactory and 10 had dropped out altogether. The remainder were still considered applicants; 74 new applications were received dur-

ing the year. The total number who asked that the inspectors visit them were 159. A summary of the work by province showed that wheat was still the most popular crop for the Dominion, while the oat crop was a close second. More had tried corn in Ontario than any other single crop.

Quite a large amount of registered seed had changed hands but this did not represent by any means the amount of good seed used from these various sources, as much of it was sold by members without getting the certificates.

THE BEST NONE TOO GOOD

Messrs. Raynor, Cots and Moore, inspectors for Ontario, Quebec and the Maritime Provinces, respectively gave short reports of their work. Mr. McKillean also sent a report from Alberta and British Columbia. The inspectors reported that a number of the members were getting a better grasp of the work and were enjoying larger and quite satisfactory markets. A member of the association remarked in the discussion that at one time in his locality, "Any kind of seed was good enough, but now the best seed is none too good."

Some representatives from the large seed firms of Toronto were present as well as others nearer by and expressed themselves as being in sympathy with the association's work. Thirty new applicants, eligible for membership were received. The various papers were then taken up. All the papers presented were of a high order and their publication in the next annual report will be worthy of perusal. An unfortunate feature was that there was very little time for discussion on any of the papers.

The president's address on Thursday evening in the Council Chamber of the Senate, House of Commons, was a splendid synopsis of the work of the association, and its possibilities, while the Hon. Mr. Fisher's address on the "Agricultural Convention Rome" and Mr. Peter H. McKenzie's address were of great interest to all who were privileged to attend.

The election of officers resulted in installing the same body for another year. Dr. Robertson, president; L. H. Newman, secretary-treasurer. Ten of the 29 directors who are appointed by the elected directors at the meeting, are to be selected at some future date. The convention marks another milestone in the cause of the promotion of good vital seed.—T. G. Raynor.

Huntington, Que., Dairymen Meet

Interesting and instructive addresses by well known experts and a large attendance of farmers from many parts of the district, reaching as high as 200 in the afternoon, made a success of the 28th annual meeting of the Huntingdon Dairymen's Association, held in the city of Valleyfield, Que., on February 3d.

The president, Robert Ness, of Howick, made a comparison between the conditions which prevailed when the Association was organized, 22 years ago, and now. He referred to the progress and extent of the dairy industry in the district during these years, thanks to the advent of the silo; silos are now to be seen on every hand. A superior class of stock was in evidence, and it was being given better care. He considered that improved transportation facilities had done much to better the condition of our dairymen. Canada was taking her own place in the world's production of food stuffs, and he looked forward to a bright future for our country, and especially for our farmers.

Sec. W. H. Walker, M.P.P., of Huntington, reported a balance on hand of \$90.55.

Mr. Louis Simpson (formerly manager of the Montreal Cotton Mills, at

Valleyfield) spoke in enthusiastic terms of the new smelting process for iron, smelting by electricity, instead of the old blast furnace, by which process a finer and better product could be made, and also at a lesser cost. To the farmers this would mean cheaper and better implements and machinery. Also cheap sulphuric acid could be made, with which our phosphates could be treated. He said that superphosphates could be made and sold to the farmer for about \$5 a ton. He believed the day was not far distant when the Canadian farmer would find it profitable to use a moderate amount of phosphates to ensure good crops.

AN INCREASE OF \$10 A COW

Mr. C. F. Whitley, of the Dominion Department of Agriculture, stated that the work of cow testing had been introduced into Canada owing to the results obtained from it in other countries. The associations that had taken up the test had found that they have many 6,000 lb. cows. In some places they found a great difference between the amount, and also in the quality of the milk given by different cows. In many cases the fellow that sent the low-testing milk to the cheesery was being helped by the farmer that sent the high-testing milk.

He gave a number of figures illustrating the gain in the yield of milk obtained by giving attention to feed and weeding out the poor cows. He emphasized the importance of weighing and testing the milk of each cow from the herd at least three days during the month at intervals of ten days, and taking composite samples, and testing for fat once each month. This work was one in which to interest the boys and girls of the farm.

The song of cow testing was important for another reason—that it makes an accurate observation and comparison of milk yields. It was as much a part of up-to-date farming as potato spraying, or other methods now in vogue to get the best results from the land. He considered dairying the highest type of farming, and was of the opinion, after several years' experience with this work, that the yield could be improved at least \$10 a cow by weeding out the poor cows and paying more attention to feeding those that were left.

The newly-appointed Minister of Agriculture, Hon. Jerome DeCarie, of Hochelaga, said that his policy as Minister of Agriculture would be to extend facilities for farmers, remembering that the public wealth of the province lay largely in the farms. He wanted the farmers to be proud of their calling.

Professor Arkell, of Macdonald College, described the points of dairy cattle, looking to their selection with a view to higher milk production. The dairy cow had evolved from a long process of breeding and selection. The process of breeding and selection tends to a certain type. The true breeder knows there is something that distinguishes the good cow from the bad, and this is largely through conformation and type. The correct dairy type must be established and is in many points different from the true beef type. The latter uses her food to make flesh while the former has the capacity to elaborate milk from the blood. The thick coat, wedge shape, wide hump, with a marked evidence of sparseness of flesh, this together with a good heart girth, depth and spring of rib, broad and strong loin, are points worthy of consideration. Also she should show quality in handling. A soft silky hair and mellowness of skin. The capacity of the digestive organs must be large, and last of all the udder must be long, broad, well attached behind, extending well forward, with the teats of medium size set well apart. The fleshy udder is to be avoided. Milk veins

DAIRY BOOKS

FREE

Write for our Catalogue of Dairy Books and particulars of how to secure any of these Books free of cost. Catalogue with Prices of Books sent free on request. Address

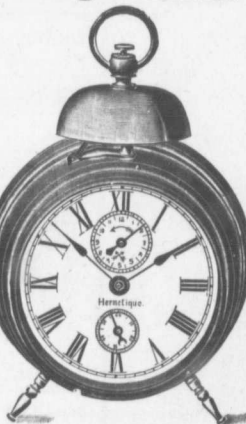
BOOK DEPARTMENT

FARM AND DAIRY

PETERBORO, CANADA

Repeating Alarm Free

FOR
TWO
NEW
SUB-
SCRIP-
TIONS



FOR
TWO
NEW
SUB-
SCRIP-
TIONS

Here is a chance to secure this splendid Repeating Alarm Clock free. This Clock is made of specially dust proof, repeating every minute TIONS TO FARM AND DAIRY at \$1.00 each. A few minutes work will enable you to secure this valuable alarm clock. Write to

CIRCULATION DEPARTMENT

FARM AND DAIRY
PETERBORO, ONT.

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

and wells of good size are desirable; the former should be crooked and branching.

Professor Arkell made a very favorable impression, his manner being pleasing and impressive.

CORN AND THE DAIRYMAN

Mr. J. H. Grisdale of the Experimental Farm, Ottawa, again addressed this convention. There is no man more popular than he. His wide experience, his thoughtful and helpful manner, are always much appreciated by our farmers. He spoke of the advantages of corn growing, and its relation to the dairymen. Among other things, he said, no successful dairymen in this part of Canada considered he was producing milk cheaply without a silo and a good crop of corn. The experimental stage of the silo was past, and the laggards were getting into line and silos were being erected on every hand. The silo was now a factor in summer as well as winter feeding. No better nor cheaper soiling crop can be raised than corn. With the land well manured, drained and cultivated, the corn this section the Early Leaming, Longfellow, and White Cap Dent as the varieties that will give the best results. Secure the seed early and test it so that there will be no loss of crop.

Inspector George Barr, of the Dairy Division, Ottawa, opened the evening session with his interesting illustrated lecture on the aerating and cooling of milk for cheeseries. This address, given at the Eastern Ontario Dairymen's convention was fully reported in our issue of January 14.

J. N. Lemieux, of St. Hyacinthe, gave an interesting talk on the advantage of the cool curing of cheese,

to maintain the texture, quality and flavor of the cheese. It resulted in a higher grade and quality of cheese. Cheese put through the cool curing rooms always sold for a higher price; there was less shrinkage and a higher average. All these taken together would give an average of about five cents a cwt. of milk each season, which in the aggregate would mean larger profits to Quebec dairymen.

BREEDING AND FEEDING

Professor Arkell said the dairymen should have a double policy, to select the best stock and breed them to the strain, having good records behind them if possible. Then feed them the most economical ration compatible with the milk flow. Roots and corn silage and our clovers must form the basis of the profitable ration. This ration must be continuous 12 months of the year to get the best results. Concentrates must be added according to the season and also according to protein are the most desirable. Oil cake meal was not appreciated by our Canadian farmers as it should be for all classes of farm stock. Where it was a safe and valuable food alfalfa could be grown successfully, it was a most valuable forage crop for the dairymen. It requires well-drained land with the water level at least two feet below the surface. He emphasized the matter of breeding to type and uniformity. This required the best thought and intelligence. Breed with an object in view—to always improve on present conditions, and then feed with intelligence all the year through.

Mr. Grisdale closed the evening meeting with a good address on "Soil Cultivation and Rotation of Crops." He considered this a most important subject for dairy farmers to discuss,

as from the soil comes the foods to feed our cows, and the larger crops that can be produced the less the dairy farmer will have to purchase. Soil has not been treated fairly by many farmers as they had been taking crops off the same soil for years, and had been returning little or no fertilizer to that soil, with the result—the country had been reduced to such an extent that they failed to return a maximum crop. He cited cases where such farms had been reclaimed by dairying and instituting a short rotation of crops. He considered the short rotation, say, four years, where the land was all arable, as follows:—3rd year, corn and roots (after manuring); 1st year, 2nd year, pasture; with clover and timothy. Where there is only a portion of the land tillable and a lot of rough pasture land then the three or four year rotation must be set aside for soiling crops for summer feeding. Under such a system of rotation the number of cows can be increased and the production of the farm doubled within a few years.

OFFICERS ELECTED

The following officers were elected: Pres., Robt. Ness; vice-pres., A. Muir, sr.; sec.-treas., W. H. Walker, M.P.P.; directors, Thos. Drysdale, William Ogilvie, James Donaldson, Edward McGowan, J. E. Burke, Thos. White, W. Scott, David H. Brown, and D. D. McMain.

During the day a number visited the creamery of Mr. D. D. McBain. This creamery manufactured last season over 100,000 lbs. of butter. Its equipment is one of the best in the province and was much admired. The machinery is operated by electricity,

the churn having a capacity of 600 lbs. He finds a great home market here in the city, as it is a great manufacturing centre.

The delegates and their friends also had a treat in visiting the stables of the Montreal Cotton Co., where they keep a large herd of registered Ayrshires and Holsteins, as well as a large number of grade cows of high quality. Here we found everything in shape as required in an up-to-date dairy barn, with its two large silos, one built last summer of brick, covered outside and in with cement. This silo is 25 feet in diameter and 35 feet high. The company provides high class milk at nominal prices for its employees. The farm is under the management of Mr. A. D. Perry, formerly of Macdonald College, and making good his reputation as a manager.—W. F. S.

To Our Subscribers

Too much care cannot be taken in sending us remittances and addresses for new subscriptions and renewal subscriptions. The full address should always be given. We have received several letters recently enclosing money for new or renewal subscriptions, with no address of the sender. One we are holding at present is from Mr. Robert Findley, at Braeside Farm. We do not know where this farm is, and we are unable to renew Mr. Findley's subscription. Will he kindly send us in his address, and oblige.

If you do not receive your paper regularly, kindly advise us at once. We have no other means of knowing that papers are going astray. It is necessary that we shall be notified, to rectify all such errors in mailing. We aim to send our papers regularly and promptly. Help us all you can.

Every Farmer Needs a Reliable Telephone.

Nowhere is a telephone more needed than in the farmer's home. It's really only in the country and small villages that the many advantages of the telephone can be fully appreciated. But, to be of practical use, it's absolutely necessary that the telephone you have installed be reliable.

A telephone that refuses to respond at any vital moment is not only useless but positively dangerous.

Such a telephone is expensive at any price.

What every farmer needs is not a "fairweather" telephone, but one that he can rely upon under all conditions and in all weathers.

Remember that a telephone must do more than be a mere ornament in your home—it must be useful and reliable.

The cut illustrates one of the most popular and most reliable telephones made for use in country homes—a telephone that has never failed to make good—a telephone that can be absolutely depended upon under all conditions and circumstances.

Write and say that you would like to know more about private telephones and we will mail you some interesting facts, with particulars as to cost of installing, etc.

You can build and operate your own telephone line.

The Northern Electric & M'fg. Co., Ltd.

427 Seymour St.
VANCOUVER.

599 Henry Ave.
WINNIPEG.

Cor. Notre Dame & Guy Sts.
MONTREAL.

Use address nearest you.

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 Dairy-men's Associations, and of the Canadian Holstein, Ayrshire, and Jersey Cattle Breeders' Association.

2. **SUBSCRIPTION PRICE.** \$1.00 a year, strictly in advance. Great Britain, \$1.20 a year. For all countries, except Canada and Great Britain, add 50c. for postage. A year's subscription free for a club of two new subscribers.

3. **REMITTANCES** should be made by Post Office or Money Order, or Registered Letter. Postage stamps accepted for amounts less than \$1.00. On all checks add 20 cents for exchange fee required at the banks.

4. **CHANGE OF ADDRESS**—When a change of address is ordered, both the old and new addresses must be given.

5. **ADVERTISING RATES** quoted on application. Copy received up to the Friday preceding the following week's issue.

6. **WE INVITE FARMERS** to write us on any agricultural topic. We are always pleased to receive practical articles.

CIRCULATION STATEMENT

The circulation of *Farm and Dairy* exceeded 5,000. The actual circulation of each issue, including copies of the paper sent to subscribers, is slightly in arrears, and sample copies, varies from 5,000 copies to 12,000 copies. Subscriptions, unless renewed, are discontinued as they expire. No subscriptions are accepted at less than the full subscription rates. Thus our mailing lists do not contain any dead circulation.

Sworn detailed statements of the circulation of the paper, showing its distribution by countries and provinces, will be mailed free on request.

OUR PROTECTIVE POLICY

We want the readers of *Farm and Dairy* to feel that their assurance of our advertisers' reliability. We are glad to admit to our columns only the most reliable advertisements. Should any subscriber have cause to be dissatisfied with the treatment he receives from any of our advertisers, we will investigate the circumstances fully. Should we find reason to believe that any of our advertisers are unreliable, even in the slightest degree, we will discontinue immediately the publication of their advertisements. Should the circumstances warrant, we will expose them through the columns of the paper. Thus we will not only protect our readers, but our reputable advertisers as well. All that is necessary to obtain you is that you include in the address to our advertisers the words, "I saw your ad in *Farm and Dairy*." Complaints should be sent to us soon after the date of the reason for dissatisfaction has been found.

FARM AND DAIRY

PETERBORO, ONT.

TORONTO OFFICE:

Room 308 Manning Chambers, 72 Queen St., West, Toronto.

WEEDS AND THE CARELESS FARMER

How long is the careless farmer, indifferent to weeds, to be allowed to carry on his business in a locality? Until he dies? If that be the policy then weeds, like the poor, will always be with us. One way to rouse him to action is to put him and his place to shame by everyone else in the locality getting their houses in order and thus showing up his work by contrast. Competition of any kind is a great stimulus to get people to do their best. In the days of the prize farm competitions this fact was forcibly brought out.

It should be pointed out and continually rubbed into the careless farmer that he is a menace to his community in allowing at least certain kinds of weeds to mature their seeds. Better that the few should suffer through chaffing, than that all should

suffer their labors increased and their sorrows multiplied by the invasion of foreign weeds or the scattering of the seeds of those already present in a locality.

The careless farmer without intending it, may cause almost irreparable loss to his neighbors by simply neglecting to look after the weeds of a noxious character on his farm. For instance he may have fostered, by his system of rotation in cropping and his method of cultivation, a large number of perennial *Sow Thistles*. He may have allowed them to grow and mature their seeds, so that they are scattered by the wind hither and thither over a large constituency. Would it be unreasonable to have the weed law of the Province of Ontario so amended that the careless farmer will be forced to prevent at least this weed from going to seed in his crops?

THE KITCHEN GARDEN

It is common for us to neglect to supply ourselves with a sufficient variety of raw fruit and vegetables. In these latter days of shortage of help and the rush for the "almighty" dollar, the family garden has been sorely neglected. Few seem to realize the value of a well kept garden. The carefully planned garden properly managed will provide a large proportion of the family diet at a very nominal cost. In addition it will do much towards insuring health.

To have a garden worth while it must be planned early. Do not wait until the spring time comes. Procure catalogues from one or more of the well-known seed firms now and make the purchase of the seeds from one of these reliable sources rather than delay this matter until spring when you must take anything that the country grocer may offer. Much of the neglect and the unfruitfulness of the kitchen garden in recent years may be attributed to the lack of the proper selection of seeds from a reliable seed house.

PREPARE FOR A BETTER PRODUCT

We often wonder if the dairyman who attempts to supply either milk or cream to his factory or creamery throughout the summer without a supply of ice ever figures out what it costs to do without it. The milk returned and the decreased price received for the product, from uncooled milk, which must of necessity be inferior to that from properly cooled milk form a large item with many. One owes it as his duty to himself and to his neighbor to put in ice. A small quantity of over-ripe or tainted milk will taint the whole vatful when added to it. In this way the loss resulting from milk delivered in bad condition has to be borne by all. It is not enough that one stores ice on his own farm, others should be induced to store ice, and to make use of it, that all the product of the factory may be made to grade the best that is possible.

The maker has sometimes been censured for an inferior product. He cannot, however, be held responsible for the cut on the price of the product when he does not receive the raw ma-

terial in the best condition, except that he should have refused to take it, in which case the loss would fall where it belonged—on the man who sent the milk. The season for storing ice is now at hand. It is for you to say whether you will store ice that will aid you in furnishing a first quality of milk to your factory this coming summer from which your maker can make goods that will grade first.

UNDERDRAINAGE PROFITABLE

The advantage of a thorough system of underdraining has long been well known to our progressive farmers. In many sections farms have been thoroughly underdrained for the past 30 years during which time the investments in connection with this work have not ceased to pay dividends all the way from 30 per cent. to 100 per cent. yearly. Notwithstanding all that is known as to the profitability of underdraining, thousands of underdrained acres throughout Ontario year by year fail to produce the crops they might. The expense of installing this work is considerable and hence many hesitate to make the necessary outlay. Few expenditures if any, on our farms will bring such large returns as those invested in properly laid underdrains. Those farmers that have land in need of draining should not hesitate to drain them at the earliest possible date.

The evidence of all who have underdrained their farms is to the effect that the expenditure has been returned, in the increased crops obtained, in from one to three years. Should the land to be drained be level and the outlet difficult to find, assistance can be had from the Physics Department of the Ontario Agricultural College which will lay out and plan the whole work at a cost which is practically nothing, being only the transportation expenses of the man sent out from the department. Investments in drains this coming season are practically sure to return at least 30 per cent. interest in the extra returns from the first crop from the land drained. With the possibilities of underdraining and other improvements on our farms before us, we need not look elsewhere for profitable investments for spare capital.

A case instanced by President Creelman, of the Ontario Agricultural College, at the recent Western Ontario Dairy-men's convention, where a field that could not be worked early owing to dampness had at the expenditure of \$14.50 been underdrained, enabling the farmer to get his crop in six weeks earlier, should be enough to convince one of the advisability of draining.

KEEP ACCOUNTS

Some system of book-keeping is an essential on the farm. True, many have succeeded without keeping books. It will be found, however, that a large percentage of the unsuccessful, keep no books and in a measure it accounts for their failure.

A Dundas Co., Ont. dairyman, while discussing this matter recently, said to a representative of *Farm and Dairy* that it cost him so much to live he

was afraid to keep accounts; he would rather not know how much he spent. Few, we trust, are built on that plan.

A very simple system of accounting transactions will answer all requirements of the average farmer. The cost is practically nothing, the satisfaction great. As each year goes by one knows just where he stands with his business when proper accounts are kept. No modern business is ever attempted without some system of book-keeping. How can a farmer hope to succeed in his business transactions without keeping accounts?

EQUIPMENT OF SUGAR CAMPS

In earlier days maple sugar and syrup were classed as necessities. Today they rank as luxuries. In former times haphazard methods of manufacturing these products answered very well. Now, if one would make sugar and syrup of the highest grade, old time methods must be abandoned. In many cases the equipment of sugar makers is inferior, and the buckets are often rusty, as are also the pans.

The demand for high-class maple products far exceeds the supply. If one is to be in the business at all he should make a "silt-edged" product. To do this, requires the installing of first-class utensils and modern means of handling the sap. Covers for the buckets that will not blow off are one of the commonest lacks in the average sugar camp, yet those who have them vouch for their value in keeping twigs and other dirt out of the buckets and in shedding rain water.

The sugar making season will soon be here. It will be well to order supplies early and make such installations of equipment as we deem advisable before the season opens.

It stands without argument that there is money as well as a good living in farming. Nevertheless, the article, "Two Sample Canadian Boys," appearing on another page is refreshing evidence of what it is possible for even younger men to make in farming. It is a deplorable fact that the education given in our high schools tends rather to shop-keeping, clerkships, stenography, etc., rather than to work upon the farm. As Mr. Cumberland points out, good work is being done in connection with the agricultural departments now located in six of the high schools of Ontario. This work of establishing agriculture in the high schools should be extended as rapidly as possible until it includes at least one high school in each county of the province.

Do not disgust the boy with farming in the beginning by telling him that he does not need anything but his board and clothes now, because he will have "it all" when you are gone. Five dollars when a boy is ten years old is more to him than five thousand will be when you are dead and gone and he has the farm.

Every day farmers are running the risk of being defrauded, when they could be certain of escaping that danger, even though it is remote, by complying with the terms of our guarantee printed on this page.

Dominion Cattle Breeders' Association

The members of the Dominion Cattle Breeders' Association, at their annual convention in Toronto last week decided to co-operate with the executive committees of the other live stock associations in an effort to develop the live stock trade between Ontario and the West. It is proposed that the associations shall place a competent man in the West who will visit the leading exhibitions, advertise in the agricultural press and adopt other similar means of inducing western breeders to purchase more eastern stock.

Last year seven cars of pure-bred stock were sent to the West. These comprised 23 horses, 74 cattle, 15 hogs and 14 sheep.

OFFICERS ELECTED

The directors of the association are appointed by the various affiliated cattle breeders' associations and they appoint their own officers. Mr. John Gardhouse, Highfield, was elected general director; Prof. G. E. Day, the representative from the Ontario Agricultural College.

The following representatives to exhibitions were elected: Toronto, John Gardhouse; Ottawa, Wm. Smith, Colymbus, and Robt. News, Howick; London, Capt. Robson, Hecerton, and A. W. Smith, Maple Lodge; Provincial Winter Fair, Guelph, A. Johnson, Greenwood; John Bright, Myrtle; R. S. Stevenson, Amster, and W. W. Ballantyne; Eastern Ontario Live Stock and Poultry Show, the president, Peter White, Pembroke; W. F. Stephen, Huntingdon, Que., and J. H. Grisdale, Experimental Farm, Ottawa.

The appointment of an auditor was left in the hands of the president who will consult with the presidents of the other associations.

Mr. Dodds, of the Union Stock Yards, West Toronto, told the meeting what had been done in the interests of gentlemen at the yards during the past couple of years. He claimed that Toronto was the place for the holding of a large annual live stock exhibition and that this could be secured only by co-operation. During the past year an arena had been built at the yards, and while at present it would not accommodate large crowds like those that attend the International Show at Chicago, if the attendance warranted it a much larger arena would soon be built.

Dominion Swine Breeders' Convention

The annual convention of the members of the Dominion Swine Breeders' Association was held in Toronto last week. It was largely attended. Such important matters as a proposal to lift the embargo on United States hogs and the suggestion that was made recently in Farm and Dairy that a commission of Canadian farmers should visit Denmark to investigate conditions connected with the bacon industry of that country were dealt with. Reports of the action taken in each case are given elsewhere in this issue.

THE DUTY ON UNITED STATES PORK

Pres. D. C. Flatt, of Millgrove, reported that an effort was being made to induce the Dominion Government to increase the duty on United States pork entering Canada from two cents to five cents a pound, which would make it the same as the duty on Canadian pork entering the United States.

Mr. Gunn, a leading bacon exporter, had informed him that the present low duty permits of the importation of large quantities of United States pork which is sold in the Canadian mining districts and lumber camps. This shuts off these markets from Canadian hog raisers who are unable to compete with the low priced United States product. In Mr. Gunn's opin-

ion a higher duty would shut out this United States pork and create a home market for fat hogs. Mr. Flatt reported that a petition from the Association had waited on the Dominion Government last winter and asked to have the duty raised. The deputations had been cordially received but had not accomplished anything as the budget speech was to be made the following day and it was, therefore, too late for the government to consider the matter at that time. Influences have been at work since, however, urging the government to take action. Messrs. D. C. Flatt, J. E. Brethour, Burford; and Jos. Featherstone, Streetsville, will consult the government again about the matter.

OFFICERS FOR 1909

The following officers were elected: Pres., D. C. Flatt, Millgrove; vice-pres., Wm. Jones, Zenda; sec-treas., A. P. Westerville, Toronto; directors, J. E. Brethour, Burford, for Yorkshires; W. H. Durham, Toronto, for Berkshires; D. McCreey, Bomholm, for Chester Whites; W. M. Smith, Scotland, Poland Chinas and Duro Jerseys; Geo. Douglas, Mitchell, Tamworths; Jos. Featherstone, Streetsville, Essex; J. H. Harding, Thornedale, general director; Prof. G. E. Day, Guelph Agricultural College.

Representatives to exhibitions: Toronto, D. C. Flatt, Millgrove; Samuel Dolson, Alton, Central Canada; R. O. Morrow, Hilton; R. J. Garbutt, Belleville; London, Geo. Douglas, Mitchell; R. H. Harding, Thornedale; Winter Fair, Live Stock, G. E. Day, Guelph; G. B. Hood, Guelph; Wm. Jones, Zenda; R. H. Harding, Thornedale; Eastern Ontario Winter Fair, D. C. Flatt, P. O. Collins, Bowesville; J. C. Smith, Hintonburgh; W. H. McNish, Lyn, Ont.

DIRECTORS' REPORT

The directors reported that the number of records for the different breeds appearing in volume 19 of the record was: Yorkshires 2,126, Berkshires 1,476, Chester Whites 421, Tamworths 317, Poland Chinas 43, Essex 30, Duro-Jersey 23.

Registrations by provinces were: Ontario 2,136, Manitoba 555, Quebec 359, Saskatchewan 290, Alberta 236, Nova Scotia 86, Prince Edward Island 77, New Brunswick 79, British Columbia 9, United States 12. Total 4,439. The number of members in the association paid at Ottawa was 378.

The receipts from swine records during 1908 were \$3,422.

The grants paid to the provincial registrations in 1908, out of profits on registrations and memberships for 1907, were: Manitoba \$287.08; Quebec \$345.03; Maritime Provinces \$138.74; Saskatchewan \$96.09; Alberta \$80.59; British Columbia \$36.29. Total \$982.82.

Out of the profits for 1909 it was decided to make a grant of \$15.67 to the Ontario Large Yorkshire Swine Breeders' Society, the profits from Yorkshire registrations and \$149.75 to the Ontario Berkshire Society, the profits from Berkshire registrations.

From the balance of the profits from Ontario and the Ontario surplus, grants will be paid as follows on condition that the price of swine given by the exhibitions in 1909 be at least as large as in 1909, Provincial Winter Fair, Guelph, \$75; Toronto Exhibition, \$100; the London and Ottawa Exhibitions, and the Eastern Ontario Live Stock and Poultry Show, \$50 each.

WANT WESTERN TRADE

It was decided to co-operate with the executives of the various other live stock associations in an effort to promote trade with the western provinces. It is proposed to provide some means by which persons in the West, who have no personal knowledge of the reputation of Ontario breeders may be assured of procuring value for money expended, and to make them familiar with the easy and cheap

AWAY IN THE LEAD FOR 1909 DE LAVAL CREAM SEPARATORS

The year that is past was one of unusual interest and importance in a Cream Separator way. Twelve months ago we announced to cow owners the introduction of a complete new line of DE LAVAL farm and dairy sizes of machines, marking another great move forward in the development of the Cream Separator. The enthusiastic welcome given these improved machines by buyers everywhere exceeded even our great expectations and nearly carried us off our feet. Orders came so thick and fast that stock was soon exhausted, and the DE LAVAL factory was forced to run night and day from March to July and entire year. Notwithstanding the universal business depression DE LAVAL sales for 1908 were over 50 per cent greater than in 1907. The new machines simply swept the field of all separator honors, and made the year a notable one in separator history. Practical experience in the actual sale and use of 100,000 of the new machines has but served to suggest still greater refinement of perfection, and to enable us to offer in the DE LAVAL for 1909 a machine that those who know say IS MILES AND YEARS IN THE LEAD OF EVERYTHING ELSE IN A SEPARATOR WAY. If you have not seen and used an IMPROVED DE LAVAL, you really cannot know what a Cream Separator is to-day. It's surely in your own interest to do so before thinking of buying any other. Why not write at once for Catalogue, and full information to be had for the asking.

THE DE LAVAL SEPARATOR CO.
173-177 William Street
MONTREAL
14 and 16 Princess St.
WINNIPEG

method of transportation furnished by means of the association cars. It was suggested that a representative or representatives be appointed in the West to look after the interests of eastern breeders by booking orders for stock, advertising in western papers, arranging for shipments of stock and doing other similar work.

FINANCIAL STATEMENT

The receipts for the year were \$6,625.37 including \$3,057.47 cash on hand from previous years, \$2,672 from registrations and \$570 from membership fees.

The expenditures were \$4,739.14, including \$1,300 paid to record committee, \$744 for printing and binding the records; grants, Manitoba, \$397.08; Quebec, \$345.03; Saskatchewan, \$112.09; Maritime Provinces, \$91.74; Alberta, \$72.59; British Columbia, \$32.29; Ontario, \$1,156.44. Balance, \$1,886.23.

An animated discussion took place over a complaint, that exhibitors at

the various exhibitions have shown animosity over age in different classes. A motion recommending that exhibitors of Swine, at all the leading exhibitions be required to take an affidavit that the animals were of the proper age, was voted down by a comfortable majority. Another motion was carried advising fair boards to instruct judges to rule out animals that in their opinion are shown out of class.

I enclose \$1 for my renewal subscription to Farm and Dairy. Your paper contains much valuable information, especially that referring to the best milking breeds of cattle, their judicious breeding, care and management, also the production tests of the Ayrshire in comparison with the Holsteins. As a veterinary surgeon one requires to know these points to answer questions which are asked by clients.—R. E. Lumsden, Vt. College, Toronto, Ont.

BARN THAT SCATTER LIGHTNING

Yes, we mean just that. If you want to know about a reliable

Barn Roofing

that is fire, lightning, rust and storm proof—write us. We'll give you some hard facts that ought to turn you against wood and convert you to metal. Give us a chance—write us.

THE METALLIC ROOFING CO., LIMITED
MANUFACTURERS
TORONTO and WINNIPEG

Creamery Department

Butter makers are invited to send contributions to this department to ask questions on past subjects for discussion. Address your letters to the Creamery Department.

Board Meeting of Western Dairyman

A meeting of the board of directors of the Western Ontario Dairyman's Association was held in the secretary's office, London, Feb. 2nd. Mr. Frank Hems was appointed secretary-treasurer for 1909. A committee was appointed to meet a similar committee that may be appointed by the Eastern Dairyman's Association to consider the proposition of conducting a Dairy Farm Competition.

It was decided that in case the Ontario Department of Agriculture did not wish to take up the Dairy Herd Competition this year, that the association would conduct such a competition along similar lines as last year, definite announcement to be made some time in April. A committee was appointed to select a city for holding the next convention. The office of official prosecutor was continued on similar lines as last year.

A committee was appointed to meet a similar committee from the Eastern Ontario Dairyman's Association to confer with the Ontario Department of Agriculture re "legislation for makers' certificates," "the building of small factories in sections already well served by existing factories," and other matters in the interest of the dairy industry.

District meetings are being arranged for Western Ontario from Feb. 15th to 26th. Dates, place of meetings, and speakers will be announced later.

Fairness of Composite Test

I would like to have an expression of opinion through your paper, as to the fairness of a composite test of cream. I have tried making butter for several years, and always made a composite test to pay by. This month as they came in, each day's samples as they came in, I have supported for some time, namely, the unfairness of a composite test.

Out of 72 patrons' cream, only one has a uniform test for each day's sending, the rest varying from one-half of one per cent. fat, to six per cent. fat. Not a single one has sent the same number of lbs. twice. If a composite test is made of each patron's cream, it would be made for at a rate of eight lbs. more fat than they sent. Some will receive a correspondingly less amount, and others more or very few would be made in the price as the gains or losses might affect it. The ones who would feel aggrieved would be the men who were paid for less fat than they sent, and just here is where rain—Ned McPhee's ambition Co., Ont.

We have been experimenting during the past season with reference to the fairness of a composite test of cream, but as our work is not complete about it I should prefer saying very little about it at present. We find that in some cases there would be quite a difference between actual fat delivered, as determined by daily test, and the fat which might be credited by means of a composite sample. However, on the whole, I am inclined to think that unless creameries are prepared to put a special man in to do the testing, or have the samples sent impracticable, my judgment is that the composite sampling is the only practicable method of testing in creameries as operated to-day.

Where creameries have 200 to 500

patrons, to test samples from these twice a week would mean that one man would be employed at it all the time. This is undoubtedly the best way to do testing, but I do not think it practicable under present conditions. It is altogether likely that the variations which occur in daily deliveries tend to counterbalance each other and that the test of the composite sample at the end of the month will represent fairly well the average test of individual samples. If aliquot samples were taken from each delivery of cream, say 1 c.c. for each pound of cream it would no doubt tend to give better results with the composite sampling, especially in cases where there is considerable variation in the weight of cream delivered. We hope to have some further data on this point during next year.

—H. H. Dean, O. A. C., Guelph.

Cream Will Not Churn

What is wrong with cream when it foams and will not churn. The cream is kept warm. I always warm the cream before mixing it together. I am careful to wash the cows' udders before milking. The cows are well housed and fed on hay, straw, shavings and bran and corn. One cow freshened in June, one in April, and one dairy for three years and think it is a good pasture, one that every farmer should take—J. E. M. Danford Lake, Ont.

There may be several reasons why cream will not churn easily. The length of time the cows have been in the condition of the cream as to thinness and acidity; and the temperature at churning. Cream from a cow that has been milking for a long period is frequently hard to churn. Keep the dairy for the cow that freshened in January separate from the rest of the

cream. Cream from cows fed on dry food is often hard to churn. A little succulent food such as silage or roots will help. Do not feed turnips as they will flavor the butter. Feed manure or sugar-beets instead. Thin cream is always harder to churn than thick cream. The less skim-milk there is in the cream the easier it will churn.

Then sour cream will churn easier than sweet cream. Care should be taken not to have it too sour or the butter will not be good quality. The chief difficulty in making butter on the farm in winter comes from low temperature in churning. This may be the cause of the trouble our correspondent has. If he has no thermometer he should get one and find out at what temperature he has been churning. Any kind of cream can be churned, if the temperature is made high enough, say up to 80 degrees. The temperature at which cream may be churned ordinarily may vary from 48 to 70 degrees. We would advise J. E. M. to try churning at about 60 degrees. If that does not help, raise the temperature to 70 degrees if necessary.

New Zealand's Dairy Output

The report of the Dairy Division for New Zealand for the year ending March 31st, 1908, has just been received. In view of the fact that New Zealand has become a more important factor in the market of the matter contained in this report is of interest to Canadians. Climatic conditions have interfered with the production of dairy products there as well as in Canada. One is surprised to find that they have severe winters there. The following extract has a familiar ring about it:

"A severe winter led the cows in a condition which was not the best for starting the spring's work. With many cows calving while in poor condition at the beginning of the season this important result (maximum production) was largely lost to a number of farmers. The cold, wet spring was unfavorable for the early regaining of depleted strength and vitality, and, as a consequence, cows were a long time in becoming capable of their best work."

The high prices current during the earlier half of the year under review were the means of influencing many creameries to make cheese instead of butter. Provided cheese prices keep in advance of butter more cheese will continue to be made. During the season butter prices advanced to a high point for about a week, which tended to create a feeling that the change to cheese had been ill-advised. But the price of butter returned to the former level and this feeling has subsided. We gather from the trend of this report that so long as conditions as to the value of cheese and butter remain as they were during 1907-1908 New Zealand will continue to convert a large share of her milk products into cheese rather than into butter. The total quantity of butter exported for the year was 259,959 cwt. valued at \$1,449,271, a decrease of 49,300 cwt. in quantity and \$212,032 in value

HOW I. H. C. CREAM HARVESTERS HELP MAKE BETTER CALVES

There are indirect as well as direct benefits in using I. H. C. Cream Harvesters. Everybody knows that the Cream Harvester will save labor, save time and get more butter fat out of the milk than you can get by hand skimming. These are direct benefits. They are the most persuasive reasons why every dairyman should have a cream separator.

But an indirect benefit, hardly less important, is the better calves you can raise.

When you skim by hand the calves get the cold, tasteless, sour skim milk that has but little life in it. If you had cold milk that has but little life in it, your portion of the skim milk to the creamery and take back even worse. In addition to its being stale and lifeless your herd.

If you have an I. H. C. Cream Harvester, you separate the milk while it is warm and fresh. The calves, and pigs and chickens get the skim milk before it is appetizing skin milk makes it an ideal food, practically as good as the whole milk.

I. H. C. Cream Harvesters are very close skimmers. The saving in cream alone by using one of these machines goes far each season toward paying for the cost of the machine if you keep a number of cows. There are two styles of I. H. C. Cream Harvesters, the Dairymaid and the Bluebell.

Dairymaid Cream Harvester

This machine is chain driven, and it is made in four sizes—350, 450, 650 and 850 pounds capacity per hour.

Get either of these separators and you will get more butter fat out of your milk than you are now getting. You will get more nutritious and appetizing feed for your calves. You will save labor, save time. Investigate fully by calling on the International local agent and examine the I. H. C. Cream Harvester by handies, or, if you prefer, write to nearest agent for full information.

CANADIAN BRANCHES: Brandon, Calgary, Edmonton, Hamilton, London, Montreal, Ottawa, Regina, Saskatoon, St. John, Winnipeg.
International Harvester Company of America
(Incorporated)
Chicago, U. S. A.

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

Because of the simple and direct application of power from the crank to the bowl, it is exceptionally easy running and is very easily kept in order. The strongest points about this machine are its close skimming, convenient operation and simplicity, which make it exceptionally durable. The supply can and crank are waist high, an ideal location to make the work easy. When you get a Dairymaid you can be sure you are going to get all the butter fat in the easiest possible way.

Bluebell Cream Harvester

The Bluebell is a gear drive machine. It is exceptionally well constructed. The gears are accurately cut to the thousandth part of an inch. They are thoroughly protected from dust and milk. They are provided with A1 oiling facilities. That is why Bluebell owners have less trouble than any other separator owners. The running is simple. It is long-lived, and it is very easy to run. The Bluebell bowl skims down to the thousandth part. Its interior separating device is patented, and it is the most efficient device of this kind manufactured. The supply can and crank sit at the proper height to make the operation easy.

Black Watch
A new sensation.
A real pleasure.
The big black plug.
Chewing Tobacco

2270

compared with the year previous. The exports of cheese amounted to 291,617 cwt. valued at £908,873, an increase of 115,238 cwt. in quantity and £346,939 in value over the year previous. Taking the time together, New Zealand's dairy exports increased in value, £138,996 over the year ending March 31st, 1907. There were 41 new registrations of cheese-factories during the year.

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.

The Babcock Test and Rich Milk

Does the Babcock test give the rich milk too much advantage? The president of our factory claims that even after 2 per cent has been added (as recommended by Professor Dean) the rich milk will still have a bonus. Is this the case? Are the factories in Western Ontario that are paying for the test, adding two per cent or not? Does they from rich milk contain more butter fat than the whey from milk with a lower butter test?—J. D. Peterboro Co., Ont.

According to Professor Dean's experiments, he claims it does. His figures in the Dairy School Bulletin No. 114 give very clear information regarding his experiments. On the other hand, Dr. Babcock and Prof. L. I. Van Slyke claim that paying for milk in cheese factories according to the Babcock reading is more correct than adding two per cent. to the reading, for the reason that cheese made from high testing milk are of better quality than those made from lower testing milk. Having such high authorities as these gentlemen hold different opinions on this important question is unfortunate. My own opinion is that had the adding of two per cent. to the Babcock reading never been advocated in Canada, we should have had more cheese factories using the test as a basis for paying for milk to day than we have, as this system has made some people think that the Babcock test was not a reliable method of paying for milk for these factories.

The adding of two per cent. to the Babcock reading according to Professor Dean's experiments will give the richer milk a bonus. This is as it should be, for the richer milk improves the quality of the cheese. The cheese factories in Western Ontario so far as I know, are all adding two per cent. to the reading of the Babcock test.

Extensive experiments go to prove that there is a slightly greater loss of butter fat in the whey from the richer milk.—Geo. H. Barr.

Progress of a New Factory

Ed. Farm and Dairy:—A meeting of the Wyoming Cheese and Butter Factory was held, at the factory, on Jan. 30th, 1909. The meeting was stormy but many were out. The people are very proud of their factory as they had hard work to get it. The factory is controlled by a board of directors composed of D. W. Brownlee, T. K. Smith, J. S. Bryson, John Cantor, Hugh Donald, and Dell Shaine, President. It was principally through the energy of the president, Mr. Shaine, that we now have a factory.

The chair was ably filled by A. Montgomery, ex-M.P. for East Lambton; D. W. Anderson acted as secretary. The chairman gave a vigorous address, and urged the people to get more cows, as we have very few growing corn and clover and the patrons can haul their own milk, or at least co-operate in hauling it. Dairy Instructor Hart was then called to the platform and gave one of the best addresses on dairying ever delivered here. It would seem that the department are making every en-

deavor to have our cheese the best in the world. They want every patron to get new calves and have everything clean in connection with the milk and to cool it in the old way with the cans placed in a half barrel of cold water; in the water to be favor of pasteurizing whey which is being done in our factory to the satisfaction of all. Our factory was built late last spring yet it has already brought nearly \$10,000 in this community.—D. N. Anderson, Lambton Co., Ont.

List of District Meetings

Following is a list of the district dairy meetings to be held by the Western Ontario Dairyman's Association:

- Canboro, Feb. 16th, 1:30 p.m.
- Jarvis Hall, Feb. 17th, 2 p.m.
- Simcoe Town Hall, Feb. 17th, 7:30 p.m.
- Norwich Town Hall, Feb. 18th, 2 p.m.
- Tillsonburg Council Chamber, Feb. 18th, 7:30 p.m.
- Woodstock City Hall, Feb. 19th, 2 p.m.
- Hickson Hall, Feb. 19th, 7:30 p.m.
- Ingersoll Town Hall, Feb. 20th, 2 p.m.
- Listowel Town Hall, Feb. 22nd, 2 p.m.
- Atwood Hall, Feb. 22nd, 7:30 p.m.
- St. Mary's Town Hall, Feb. 23rd, 2 p.m.
- Kerwood Hall, Feb. 24th, 2 p.m.
- Wartford Music Hall, Feb. 24th, 7:30 p.m.
- Belmont Hall, Feb. 25th, 2 p.m.
- Mapleton School House, Feb. 25th, 7:30 p.m.
- Dorchester Hall, Feb. 26th, 2 p.m.

Every person interested in dairying will be made welcome. Addresses will be delivered by Geo. H. Barr, Assistant Dairy Commissioner, Ontario, and "The Care of Milk," illustrated with lantern slides, Mr. Jos. Burgess, Department of Agriculture, Ottawa, and "Cow Testing Associations," and Frank Heras, Chief Instructor for Western Ontario, on "The Pasteurization of Whey."

Factory Reports

The following is a copy of the annual statement of Pinco Grove factory, Peterboro County, Ont.:

Number lbs. milk received, 1,182,934; cheese, 117,527; average price cheese, 11.12c; expense manufacture, 11.17c.56; price paid patrons for 100 lbs. milk, \$1.04; price a lb. butter fat, 26.55 cents; number lbs. milk a lb. cheese, 11.34; money paid patrons, \$11,128; total receipts, \$13,329; number patrons, 44.

LYNDEN FACTORY

The following is the annual report for 1908:

Number of days factory was in operation, 153

Number of patrons that sent milk, 84

Total quantity of milk received in lbs., 1,263,022

Total quantity of cheese manufactured in lbs., 116,694

Average price of cheese for season, 11.87

Total value of cheese, \$13,854.99

Amount paid patrons, 11,074.55

Paid cheese maker, 1,638.80

Paid milk drawers, 1,467.20

Lionel Hinning, Sec.

Henry Howard, Sec.

CENTRAL SMITH FACTORY

The following is a statement of the operations of the Central Smith cheese factory during the past season:

These factory opened May 1st and closed October 31st

Total number of patrons, 54.

IN THE LEAD

For 1909
The 1909 Model U. S. Cream Separators

retain all features that have given them their great reputation for durability and efficiency, and have several improvements that make them even to a greater extent than ever before, the ideal machine for dairymen who are posted and who demand the best. And by intensifying the circuitous and tortuous currents of the milk in its passage through the separator bowl, we have been able to

Greatly Reduce the Diameter of the Bowls
which makes them operate easier than ever and still retain their great milk capacity.

Notwithstanding most manufacturers were completing all last year of dull times and small sales the UNITED STATES SEPARATOR had one of the largest sales in its history and since this fall season began, sales are larger than last year.

Do not forget that the United States has beaten every separator in endurance tests and holds the WORLD'S RECORD.

No dairymen can afford to purchase a cream separator until he has first examined the construction and operation of the

1909 Model

Sales agents in nearly every dairy section. If no agent in your town, write direct to us for Catalog No. 100 and we will also quote prices.

Prompt deliveries from warehouses Montreal, Winnipeg and Calgary.

VERMONT FARM MACHINE CO., Wells Falls, Vt.

U.S. U.S.

Total number lbs. milk delivered, 1,712,622.

Total number lbs. cheese manufactured, 152,641.

Average price of cheese, 11.87c.

Average lbs. milk to one lb. cheese, 14.46.

Amount paid patrons, \$16,416.31.

Amount paid for whey, \$213.30.

Amount paid for manufacturing, \$1,717.20.

Gross value of milk, \$18,346.90.

Value of butter made from whey, \$712.59.

Total business for 1908, \$22,730.74.

Total business for 1907, \$20,357.31.

Increase in receipts over 1907, \$2,373.43.

FOR SALE AND WANT ADVERTISING

TWO CENTS A WORD, CASH WITH ORDER

WANTED.—Position by cheese and butter maker, eight years experience, graduate of Dairy School.—Address Box 334, Owen Sound.

WANTED.—Position by first-class Danish butter maker, anywhere in Canada. Apply p. M. Sorensen, Cowanville, Que.

WANTED.—A man to work in cheese factory. Apply, Box 302, Listowel, Ont.

matter what the cheese is like.—A. G. Wiltsie, Hastings Co., Ont.

Some Poor Makers

Editor, Farm and Dairy:—There is no class of men in Canada who should be better paid than cheese and butter-makers. It is not everyone who can step in and fill their places. I think there should be a set price of not less than 40 cents a cwt. for making.

In regard to granting certificates I think it would be an improvement. A maker should have at least five years experience to qualify and should furnish a recommendation from his instructor as to his ability. There are men who have made cheese all their lives and who are not worthy of a certificate for the reason that they will not stay at home and attend to business. There are also younger men who should not be allowed to make cheese as they are no good, their chief aim being to get through their work as early as possible no

Milk Adulteration.—Chief Instructor G G Pulow, of Kingston, reported to the directors of the Eastern Ontario Dairyman's Association, during the recent convention in Prescott, that a farmer was found last summer who had been in the habit of adding water to his milk, a quantity of 75 lbs. of water a day to 400 lbs. of milk. Some magistrates were slow to prosecute farmers caught at this work. In some cases fines of only \$5 were imposed for a first offence and of only \$12 for a second offence. Mr. Pulow pointed out that if factories would pay for the milk they received by the test, it would soon put a stop to all milk adulteration.

A resolution was passed at the recent Eastern Ontario Dairyman's convention, expressing regret at the loss of Mr. J. W. Mitchell as Superintendent of the Kingston Dairy School and congratulating him upon his appointment to the staff of the Manitoba Agricultural College.

DON'T BUY GASOLINE ENGINES

UNTIL YOU INVESTIGATE "THE MASTER WORKMAN," one of the best and most practical overcomes. Cheaply made, easy to run. It is a combination of the best of all engines. SEND FOR CATALOGUE. THE TRIPLE FIVE CO., 123 N. Dearborn St., Chicago, Ill. THIS IS OUR FIFTY-FIFTH YEAR.

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

Large Yorkshire Breeders' Association

That the association was in a flourishing state and that he hoped it would keep getting better, constituted the foundation upon which the President J. E. Brethour based his comments at the annual meeting of the Ontario Large Yorkshire Breeders' Association held in Toronto last week. About twenty-five members were present.

The financial statement of the association showed a balance on hand of \$431.87. Grants to exhibition last year totalled \$560. The receipts for the past year had fallen off owing to fewer Yorkshires having been registered. As the balance on hand was less than a year ago it was found necessary to cut down the grants to the Toronto Industrial Exhibition and to the Guelph Winter Fair from \$300 to \$125 each. The grants for the Eastern Ontario Live Stock and Poultry Show, the Western Fair at London and the Ottawa Exhibition were left the same. The above grants were made on condition that the prizes offered for Yorkshires be as large as in 1908. Grants will be withheld from exhibitors failing to comply with this condition.

The secretary reported that he had interviewed the Deputy Minister of Agriculture in regard to having the association incorporated. He had been informed by Mr. James that he would have to have a resolution stating under what clause they wanted the association incorporated. A resolution was then passed petitioning the Lieut. Governor-in-Council to incorporate this association under clause 21 of the act respecting agricultural associations, and instructing the officers of the association to make the necessary application and submit therewith a copy of the constitution of the association. It was decided to print the constitution in pamphlet form.

The following officers were elected: President, J. E. Brethour, Burford; vice-president, J. S. Featherstone, Streetsville, secretary, A. P. Westervelt, Toronto; directors, Wm. Jones, Zenda; R. J. Kelly, Havelock; J. S. Featherstone, J. E. Brethour; H. Koelln, Glen Allen; H. J. Davis, Woodstock; D. C. Flatt, Millgrove.

Sheep Breeders Meet

"Sheep scab is not known to exist in Canada," said Veterinary Director-General J. G. Rutherford, V.S., of Ottawa, when discussing the thirty-day embargo put on sheep entering the United States by the American Government, at the annual meeting of the Dominion Sheep Breeders' Association held in the Temple Building, Toronto, last week.

Great progress has been made by the association during the past year, 2,060 registrations having been made.

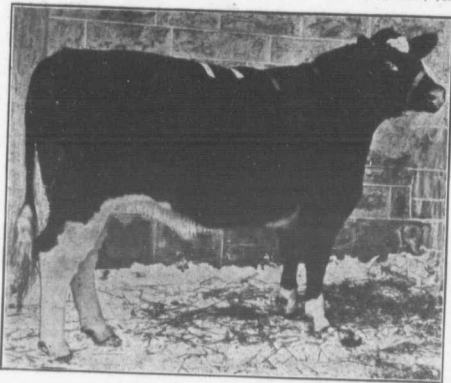
The officers for this year are: President, Andrew Whitelaw, Guelph; vice-president, J. G. Hamner, Brantford; secretary-treasurer, A. P. Westervelt, Toronto; directors, Lieut.-Col. D. McCrae, of Guelph, Joseph Stull, of Clinton, John Kelly, of Shakespeare, R. H. Harding, of Thorndale, John Jackson, of Abingdon, J. S. Gibson, of Denfield, J. E. Cousins, of Harrison, C. W. Gurney, of Paris, and Prof. G. E. Day, of Guelph; general director, W.

H. Gibson, of Beaconsfield, Que., and A. W. Smith, of Maple Lodge; representatives to record board, J. M. Gardhouse, of Weston, and R. H. Harding, of Thorndale; representatives to the National Live Stock Association, Andrew Whitelaw, and J. G. Hamner; representatives to fair boards, Canada National, Hon. John Dryden, Toronto, and J. G. Hamner; Central Canada, N. F. Wilson, M.P., of Cumberland; Western Fair, Lieut.-Col. R. McEwen, of Byron, and George Telfer, of Paris; Provincial Winter Fair, A. W. Smith, John Jackson, Lieut.-Col. R. McEwen, and Robert Miller, of Stouffville.

The financial report for the year showed receipts of \$2,952.40, and expenditures of \$589.68.

ONTARIO SHEEP BREEDERS

The question of establishing in different parts of Ontario experimental stations to ascertain in what parts of the province sheep can be raised to the best advantage was discussed at the first annual meeting of the Ontario Sheep Breeders' Association. The proposal is to place a number of



A. Prize Winning Shorthorn Grade Steer

The steer illustrated above, owned by James McIntosh, Wellington Co., Ont., was first at the Guelph Winter Fair, in the special prize offered for amateur exhibitors not having won a first prize at leading exhibitions. He was second in the open class and third as best steer any age.

sheep with farmers in the sections selected for the experiment and when they keep a complete record of the cost of maintenance, the percentage of the death rate, the suitability of the climate and location for breeding purposes. It is expected that the experiment will be the means of stimulating an interest in the trade and will eventually lead to a very large increase in the breeding industry of the province. After a prolonged discussion the matter was referred to the Board of Directors, with power to act.

The following officers were elected: President, George Telfer, Paris; vice-president, John Campbell and secretary-treasurer, A. P. Westervelt. The directors are: Col. D. McCrae, Guelph; J. H. Patrick, Ilderton; James Douglas, Caledonia; J. L. Jones, Burford; J. Cousins, Paris; J.

Roberts, Milton; Frank Biggs, West Flamboro'; J. Campbell, Woodville, and J. G. Hamner, Brantford.

Sale of Ayrshire Cattle and Hogs

Fancy prices were not in evidence at the sale of Ayrshire cattle and Yorkshire hogs at the Union Stock Yards, West Toronto, on Friday last. The desires of the buyers were not keen enough to induce very large bids. The cattle were from the herds of A. Ont., and W. F. Maclean, M.P., of Donlands farm, and the hogs were contributed by Donald Gunn & Son, of Beaverton, and F. M. Chapman of Picking. George Jackson, of Port Perry, was the Auctioneer. Some of the purchases were as follows: E. C. Monkman, Brampton, \$70 for bull Snowdrop Fizzaway (27629), bred by Donlands Farm; Wm. Thorn, Lyndoch \$65 for cow Snowdrop of Montebello (17755), bred by Hon. Wm. Owen, Montreal; Wm. Thorn, \$70 for James Benning, Williamstown, Ont.; E. B. Palmer, Norwich, Ont.; \$80 for

Shorthorn Cow Brings \$2,500

The greatest sale of pure-bred cattle ever held in Canada took place at the Union Stock Yards, Toronto on Thursday of last week. So far as known the highest price ever paid for a heifer by auction in this country was realized when Pleasant Valley Jill (7903) was sold for \$2,500. The purchaser was Thomas Johnson, of Columbus, Ohio. Jill is a red heifer, calved Oct. 15th, 1906. She was bred by George Amos & Son of Moffat, Ont., and belonged to the herd of Miller Bros., of Brougham. She is a show heifer of the highest order. She was first at a yearling heifer at the Toronto show in 1908, and was also junior and grand champion Shorthorn female of the show.

Farmers all the way from Texas to Calgary were present at the sale. The bidding was spirited. In all probability there will be a large number of breeders utilizing the sale next year for the disposal of their surplus stock.

Cattle were sold from the herds of W. C. Edwards & Co., Rockland, Ont.; Sir Geo. Drummond, Beaconsfield, Que.; Peter White, Pembroke, Ont.; John Miller, Jr., Ashburn, Ont.; Miller Bros., Brampton, Ont.; Arthur Johnston, Greenwood, Ont.; David Burrell, Greenwood, Ont.; John Miller, Brougham, Ont., and Robert Miller, Stouffville, Ont. The manager of the sale was John Miller, Jr., of Ashburn, Ont., and Col. F. M. Woods, of Lincoln, Nebraska, was the auctioneer.

Many of the prices went into the hundreds. The total results for eight females sold by Miller Bros. was \$4,580, or an average for the eight of \$572.50. Nine head by John Miller, Jr., realized \$2,500, or an average of \$284.50 for the nine head. An Ontario man, Mr. J. E. Mitchell, of Burlington got the highest price cow of the sale, Missie of Pine Grove 6th, from the Edwards & Co.'s herd, for which he paid \$825.00. In all about 33 head of this sale brought \$9,065, or an average of \$274.40.

There is a general tendency towards increase of dairy production in the western provinces. During the seven years, 1900 to 1907, there was only a very slight increase in the production of butter in Manitoba, but the value increased from \$292,347 in 1900 to \$388,427 in 1907. In Alberta, the production of butter increased from 60,149 lbs. in 1900 to 1,507,697 in 1907, or 151 per cent, and the value from \$123,305 in 1900 to \$362,782 in 1907, or 194 per cent.

"The fountain pen we received for securing one new subscription to Farm and Dairy came to hand promptly and is being well used. Many thanks for it."—A. Hume, Northumberland Co., Ont.

When the Butter is streaked, you may be sure it was not

Windsor
Dairy
Salt

that was used to salt it
—for Windsor Salt gives an even colour.

—All grocers sell Windsor Salt.

169

Let me send a Domo Cream Separator to Your Home for 10 Days' Free Trial



No. 2 Domo
Cream Separator
Price \$3.00

The test or trial will not cost you a penny. That is the way I sell Separators. It is a fair, good, honest way. I shall sell you one, and you will find that it is the best to be better than others (not simply as good, to stand a chance in competition. It IS BETTER, and is introduced plan should interest you. Write for Circular "X" to—

J. H. MORROW — BRIGHTON, ONT.

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

A Great Year for Holstein Breeders

Continued from Page 11

devoted to dairying and read by all the members of the association was admitted. A general preference for Farm and Dairy was soon manifest.

Several members expressed the belief that the transfers of Holstein cattle should be published regularly in the official organ. It was pointed out that they would take a lot of space and that their publication would cost considerable.

It was moved that 20 cents a member additional should be paid for Farm and Dairy on condition that the transfers are published in the paper. Just as the resolution was about to be put, Mr. Hand, of The Farmer's Advocate, asked if he might speak. A voice cried "No," but Mr. Hand proceeded. He claimed that The Farmer's Advocate had done much for the dairy interests, that it was not fair that the dairymen should favor one paper at the expense of others and implied that the Holstein breeders again decided to stand by Farm and Dairy the Farmer's Advocate might not give them the consideration that it has in the past. He claimed that the management of The Farmer's Advocate had sent a letter to an officer of the association in regard to the matter and suggested that it should be read. This brought forth a general demand that the letter should be read.

Mr. J. W. Richardson, to whom the letter was addressed, then read it. It claimed that The Farmer's Advocate had done more for the dairymen of the country than any other paper, it asked why the Holstein breeders should subscribe for a "cheap," "inferior" paper like Farm and Dairy and concluded by offering to accept subscriptions for The Farmer's Advocate for \$1.15 each providing the association would discontinue Farm and Dairy as its official organ. That set it. The motion reappointing Farm and Dairy as the official organ at 80 cents a year on condition that the Holstein transfers are published was put to the meeting and carried practically unanimously. The association did not subscribe for the special Holstein-Friesian paper.

THE BANQUET

The success of the banquet held Wednesday evening was such that it will likely be an annual event hereafter. The president, Mr. G. A. Gilroy, of Glen Bell, presided. The speakers included Prof. H. H. Dean, superintendent of Guelph; G. A. Putnam, superintendent of Farmers' Institutes, Toronto;

Mr. Allan, of the Union Stock Yards, Toronto; and Messrs. Donovan, H. L. A. Brockville; J. G. Hillman, H. Bollert, R. S. Stevenson, B. Mallory, G. W. Clemons, F. E. Came, Stanley G. Logan, H. B. Cowan, of Farm and Dairy, and several others.

Professor Dean announced that he has recently bought a farm and intimated that he may not be connected with the Guelph College much longer. He made a hit when he pointed out that black is an absence of color and that it absorbs all colors while white reflects all colors. He thought it possible that the black and white Holsteins may before very long absorb all the other breeds. He told of a dairy farm near Ottawa, who told him recently that he made more money last December from 37 Holsteins than he had obtained in December of the year before from over 70 animals of another dairy breed. Further information about the addresses at the banquet will be given in a later issue.

Jersey Cattlemen Meet

The Canadian Jersey Cattle Club held their annual meeting in the Walker House, Toronto, on Feb. 4th. A goodly number of members were in attendance. President R. J. Fleming, of Toronto, occupied the chair. After the usual reading and adoption of the minutes the financial statement was dealt with. It showed a balance on hand of \$440.86, as compared with \$436.36 last year. It was shown that 223 registrations, 92 transfers and four duplicates had been made in 1908.

At the executive committee meeting, which took place in March, the following resolution was drawn up: "That we recommend that the qualification for admission to the Record of Performance be changed so that a certain number of points be given for each hundred pounds of milk and for each pound of butter-fat and the total number of points to be fixed as a standard." This was brought up at this meeting and a lively discussion took place on the question. Some of the members thought that the butter-fat standard should be kept the same but that the amount of milk required to enter should be lowered. Others, however, took a different view to this.

DISCUSSION OF MILK RECORD

Mr. L. J. C. Bull was of the impression that the milk record should be lowered because, he thought, not many cows were being entered as it required phenomenal cows and not good ones to make the record required to enter the test. Mr. C. E. Rogers stated that Jerseys were an special

purpose breed and that that special purpose was the production of butter-fat. He figured it out that it took 22½ lbs. of milk to make a pound of butter-fat and that Jerseymen should not go in to compete with these large producers but go in for butter-fat. He advocated the lowering of the milk fat standard. Mr. Reid thought that time was coming when breeders would demand bulls from cows whose dams had been entered in the Record of Performance and that the milk standard should not be lowered. He did not think that it required phenomenal cows to make this record. Mr. Fleming here stated that he thought that the Canadian standard should be the same as that of the American Jersey Cattle Club and thus Canadian cows would be as good as those in the United States. On reading the standard of the American club, it was found that their standards for milk production were higher than the Canadian. It was moved by W. P. Bull, and seconded by Mr. Rogers, that a committee consisting of Thompson, Peter, D. Duncan, R. J. Fleming, Mr. Green and Hugh Clark be appointed to consider this matter. The motion was carried.

Mr. Reid was voted a yearly salary of \$50 in consideration of his services as secretary-treasurer.

WANT MORE PRIZES

Mr. Thompson Porter thought that the Canadian National Exhibition Board should be interviewed in regard to giving more prizes for Jerseys. He stated that while at the Dominion Cattle Breeders' Association meeting, he had spoken of this and had been informed by a man there that Dr. Orr had been interviewed in regard to this and that he had been told that the exhibition would duplicate any grant the different breeds made. Mr. Porter stated further that exhibitions were giving more prizes for sheep than they were for dairy cattle and that in his opinion, dairy cattle were bringing more money into the country than sheep, or even beef cattle.

RAW FURS and HIDES

Write for Weekly Price Lists.

JOHN HALLAM

Shipments Solicited.

TORONTO, ONT.

Mr. Duncan, of Don, said that while he was on the Toronto fair board, the prize money to Jerseys had been raised \$100 and at that time, the exhibition had promised to raise it still further when the Jerseys came up with the Darhams. The Jerseys have long since done this but yet the prizes have not been raised.

Mr. H. Gee stated that in the Haldimand County fair last year there was \$2 more given for Durham cattle than for all the other breeds together.

ELECTION OF OFFICERS

The election of officers for 1909 resulted as follows: Pres., R. J. Fleming; vice-presidents, for Ontario, D. O. Bull and D. Duncan; for Quebec, H. W. Edwards; for the Northwest, W. V. Edwards; for Nova Scotia, H. S. Pipes; sec-treas., R. Reid, Berlin; representatives to fairs: Toronto, W. P. Bull; London, C. E. Rogers; Ottawa, W. P. Hurdman; Winnipeg, Dave Smith; Calgary, C. A. Julian, H. S. Pipes, Amherst, N. S.

Judges: Toronto W. R. Senn, Dallas, Tex. with Professor Scoville as reserve; Sherbrooke, H. C. Clark; London, F. L. Green, with Jos. Dawson as reserve; Ottawa, H. E. Cliridge. Mr. R. Reid was recommended as judge for all the western fairs. Representatives on record board, R. Reid, D. Duncan and T. Porter. A committee appointed to wait on the Canadian National Exhibition was composed of D. Duncan, T. Porter and R. J. Fleming.

It was moved by T. Porter and seconded by W. P. Bull that the following grants be made: Ottawa, Toronto and London exhibitions, \$50 each. Carried.

Mr. Porter thought that there should be a class at exhibitions for Canadian breeds. He stated that he did not think it was fair for the large importers to be capturing all the prizes and that the smaller fellows should have a chance. This was left for further discussion. The members were entertained at dinner in the Walker House after the meeting was over.

A SEARCHING INVESTIGATION WILL PROVE SUPERIORITY OF

IDEAL WOVEN WIRE FENCE

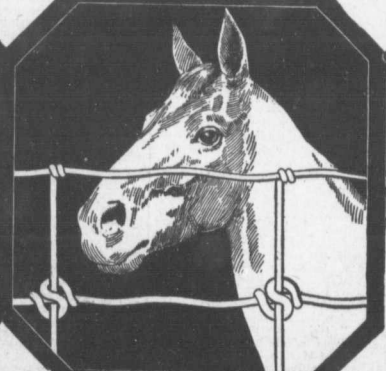
Investigate IDEAL fence. Do like the railways. Test the laterals for elasticity—the uprights for stiffness. Test both for smoothness and heaviness of galvanizing. Test the lock for gripping tenacity. Put a roll on the scales and weigh it. The more searching your investigation the greater the triumph of IDEAL fence.

When finished, you will have indisputable evidence that IDEAL is the stiffest, strongest, heaviest, most rust-proof woven fence. If you are like the railways you will erect for permanency. That means an order for IDEAL fence. But first of all let us send you our free booklet, so you can see the different styles for hogs, cattle, etc.

HAVE WE AN AGENT IN YOUR LOCALITY?

If not, there is a splendid chance for someone to increase his income. IDEAL fence is an easy seller. Its weight, quality and strength are appreciated by every man who is looking for a permanent fence investment.

THE MCGREGOR-BANWELL FENCE CO. LTD., WALKERVILLE, ONT.





WE call our sorrows destiny, but ought,
Rather to name our high successes so.
Only the instincts of great souls are Fate,
And have predestined sway; all other things
Except by leave of us, could never be.
For Destiny is but the breath of God
Still moving in us.

J. R. Lovell

The Domestic Adventures

By Joshua Dakam Bacon

(Continued from last week)

"SURELY I've told you about her," said Chloe. "She is so funny, and Anna is wild with rage at losing her, but she is really too impossible—the other servants complain. Satterlee called her the Penitentiary Paragon, because Anna is sure she has served at least one term behind the bars; but sometimes he calls her the Terrible Treasure, and I think that's best, myself—the Terrible Treasure! She is a Swede, and she can do anything in the world, from hair dressing to milking a cow. Anna got her as a supplementary maid to fill in anywhere upstairs, and she can do anything in the country—her second man won't go to the beach, you know; he says it makes him melancholy. Well, one night the cook was sick, and Maria got a delicious dinner. The next time the butler didn't get back in time, and she served a whole luncheon party beautifully. Another time Satterlee had to get the Chicago Limited, if it killed him, and there wasn't a car that could be used, and not a man about that could harness a horse. And Maria went out and harnessed one in four minutes."

"Dear me," said Sabina, looking at her watch, "it seems a distinct waste of good material to keep such a versatile artist in a household presumably full of specialists. It is humble homes like ours that need that sort of ability."

"Goodness gracious!" Chloe burst out, gurgling again. "To think of Maria in a humble home like ours! What would she say?" And she looked solemnly at me.

"What is the matter with her?" I inquired rather coldly. I object as much as most people to being considered narrow-minded.

"It is easier to tell you what isn't," she replied. "That's what I told Anna say to a friend who asked about her. 'She has never killed any of us,' said Anna, and Satterlee says that he doesn't believe she ever coveted her neighbor's wife, nor his ox, nor his ass. He says if she wanted 'em, she wouldn't waste time coveting 'em—she'd go and get 'em."

"Dear, dear!" said Sabina.

"As for the rest of the Commandments," Chloe continued, "Satterlee said it was merely amiable weakness she'd pulverized them."

"She seems to have impressed Mr. Stuyvesant," Sabina suggested, pushing away her chair.

"I should say she had," Chloe returned. "In the first place, she drank—Satterlee's pet sherry. In the second place, she smoked—his special cigarette, made and imported for him; he thinks she took cigars, too. In the third place, she taught Anna's maid, the second man, and the best machinist Satterlee ever had, to play bridge, and then won all their money away

Your own subscription to Farm and Dairy renewed free for six months, if you send us one new subscription for one year at \$1.00. For two new yearly subscriptions at \$1.00 each, we will renew your own subscription free for one year.

from them. Wasn't that terrible?"

"Very," said Sabina, dryly; "it must have shocked Mr. Stuyvesant unpeakably."

"Oh, well," Chloe murmured, rising from the table, "you know very well, Sabina, one can't have one's own servants."

"Certainly not," Sabina agreed, "there must be some members of the household, and I can't play bridge day and night—I quite understand."

Chloe gurgled reminiscently. "Satterlee wanted to go down and play with them," she added; "he thought he might get some ideas from Maria's play, but Anna wouldn't let him—she said the experiment might be too expensive!"

After Chloe had left the dining room I glanced casually at Sabina.

"I wonder if an insight into the domestic difficulties of the wealthy necessarily enables one to steer clear of them?" I inquired. "If Chloe does marry Mr. Van Ness she will be more able to cope with a butler, for instance, than most girls who have never been addicted to one from infancy. Don't you think so?"

Sabina was going over Pluto carefully, with a view to possible sulphur, and did not look up.

"She won't marry him," she said briefly. "Something in her tone vexed me."

"I know we don't agree on that subject," I replied obstinately, "but you must remember that I have had better opportunities than you for unprejudiced observation, where Mr. Van Ness is concerned. I have watched

him, while you were occupied with talking to him. If you had been here the day Chloe did the branched peaches—"

"My dear," said Sabina, still studying Pluto, "I assure you that Chloe is not going to marry Mr. Van Ness. Really."

That was all; she gave me no further explanation, and I did not ask for any. When Sabina uses that tone there is no doubt in the listener's mind.

I suppose he wrote to Chloe—it is like him, in some ways—and then told Sabina himself, afterward, when he got his mail, and all you could understand his absence. And of course he would not care to come now, and of course Chloe had to make her choice sooner or later. She is a healthy, normal girl, after all, and you could cling to youth if left to its natural instincts. I have been exaggerating the child's worldly wisdom, and Sabina knew her better after all.

Indeed, I do not wonder that Sabina feels she knows her better than she knows me just now. To tell the truth, I am not quite sure, myself, why I acted as I did a week ago, and neither of my family would have been more amazed than I was at the promptness and decision, not to mention success of my unexpected course.

I don't remember exactly what I said when Sabina told me about Chloe's decision, but I am quite sure it was something about its being the most natural and pleasant thing for both of them, and Mr. Stuyvesant's being one of his tiny after all—a clever lawyer always has a good chance.

And Chloe has had an opportunity to study housekeeping on a moderate income, too," I added, "so she is not accepting her lot blindly."

Sabina agreed, with a distinct air

of relief; and it was with evident regret, also, that she drew on her gloves and left the house.

I cannot describe how the perception of this relief irritated me. Did she expect me to fall fainting to the floor when she told me? Is it possible that Sabina thinks that I—Oh, the whole situation is too absurd! When Chloe is off our hands, Sabina and I must have a thorough explanation, if we are ever to start fresh again after these constraints and misunderstandings. It is useless to deny it—we are not frank with each other.

With a confusion of thoughts like these in my mind, on that extraordinary morning, I walked deliberately to the telephone, looked out Anna Stuyvesant's number, and asked her if the extremely able maid of whom Chloe had told me was still in her employ. I heard her gasp.

"You—you don't mean Maria?" she demanded.

"Precisely," said I. "Would she care to undertake an establishment like ours? I should expect to pay her well, and I don't think she would find the work hard."

"Chloe is a wretch," Mrs. Stuyvesant declared, trying to keep her voice steady. "The naughty thing was teasing you. The Para—Maria is a very valuable person indeed, but—there are other considerations. Really, my dear, of all people in the world to be inquiring about Maria, you are the very last person—I suppose that's why Chloe told you about her. It was a joke, my dear, I assure you."

"I know all about Maria," I replied evenly. (Why is it that people will persist in regarding me as likely to be shocked more easily than the average person? Is it because my eyes are gray and rather far apart? As we have no fine sherries, nor imported cigarettes, nor other servants for her to gamble with, it seems to me that with fewer temptations than a menage like yours affords her she will have fewer opportunities for crime. She has so many and such varied talents that it is really a pity to waste them in a house with a large staff of servants, don't you think so?)

There was a longer pause than I have ever known in any conversation in which Anna Stuyvesant takes part. Finally she said very cordially:

"Do you know, I think you have more sporting blood than they think? It seems rather startling, at first, but it's nothing—absolutely nothing—my maid is frightfully jealous of her, and that's the real reason I have to send her away. She watched my hair being done once, and then did it beautifully for me when Helena cruised her finger in the door. But would she come, I wonder? You know they won't usually—"

"You might ask her," I suggested calmly.

(Continued next week)

The Upward Look

And He said unto me, My strength is sufficient for thee; for My strength is made perfect in weakness. Most gladly, therefore, will I rather glory in my infirmities, that the power of Christ may rest upon me.—2 Corinthians 12, 9.

How glorious a message is that to all who are weak, either in mind or body. The world is so inclined to judge us by what we are and not by what we would like to be, we are apt to feel that the Lord may judge us in the same light. When we see others around us performing great deeds in God's vineyard the pain we play seems so insignificant and unimportant as to hardly deserve to receive God's notice.

When such thoughts trouble us we should remember that God's judgment is entirely different from that of man. He reads our inmost thoughts. He knows our secret desires and aspirations. He knows how much we long to please Him. Even when our efforts to please Him seem most helpless and useless to us He realizes our weakness. If we will but ask Him He will willingly make His strength perfect in us.

To the invalid, laid upon a bed of suffering, it may seem as though God did not want the services that would be given him so joyfully did strength permit. And yet, those who are laid not be the ones God needs most. It may be His desire that we shall receive His strength in us by being so patient, so kind, and uncomplaining to those around us and to reveal to them a new vision of God's power and love. How often it is that those upon the hand of God appears to rest the most heroic are those who have the finest Christian characters. Their sufferings have been the means of drawing out all that is best in them as fire tries gold. Paul realized this. That was what enabled him to glory in his infirmities. Let us remember, therefore, that when we feel most helpless and useless God has promised that His grace will be sufficient for us. What our God can do for us we may derive from God's comfort if we will only have faith and be content to leave the fashioning of our lives in His hands, remembering that all things work together for good to them that love God.—H. N.

Renew Your Subscription Now.

Long Distance Marketing

The housewife in a large city has everything at hand, but her rural cousin is none the worse off if she will attend to her marketing in a scientific manner. In every large city there is a reliable grocery store which sells at both wholesale and retail prices and most of these stores issue catalogues. To the rural or suburban trade they are most courteous, always willing to answer any and every question by letter, and boxes are sent within reasonable distance free of charge.

This method of buying is really better for the inexperienced housekeeper, as in a fascinating shop, full of delicious canned goods, fresh fruits, and condiments of all kinds, she is apt to lose her head and buy unwisely; but with a catalogue in hand and a pencil and paper, in the seclusion of her own room she can do some reckoning on quantities and prices that will make the allowance stretch a little into some coveted treasure, for of such little plans and schemings are the luxuries of home brought forth.

For what you have saved on coffee you can buy a new centerpiece for the table, or you can buy a new book for the little library. Is it not a delightful game, worth a little study, a little planning, a little arithmetic? I think it is, and I think you will agree with me when you have once tried it.

ARTICLES BOUGHT IN QUANTITIES

Soap is one of the articles that should always be bought in quantities. When soap is new it wastes in the water, so a real saving may be made by having it well seasoned. Articles like flavoring extracts should not be kept on hand as they deteriorate and a single bottle lasts so long that this commodity can be considered as the "exception to prove the rule." Whole meals like corn-meal and Graham flour do not keep well either, and not more than ten pounds should be bought at a time, as they are apt to be attacked by insects. They should be left in paper bags but transferred to glass or tin receptacles.

With the carefully sealed packages that all reliable cereals come in to-day, there is not much danger of getting poor goods; and by buying a dozen packages of any one kind it is wise to invest, according to the family's likes in regard to breakfast dishes. Beware, however, the advertisements of "cheap grocery stores" in which offer staple articles under price by the package. As the old man said, "Grocery bargains are suspicious." Buy your groceries of a reliable grocer who deals in wholesale and retail quantities, and by so doing you are as sure of your quality as you are of your prices. Teas and coffees lose their flavor if unprotected and sub-

jected to the air, but if kept in a dark place in a close receptacle they may be safely bought in large quantities at a great saving. I quote from a reliable grocer's catalogue: "Above prices for tea are subject to a discount of five per cent. on five-pound lots and ten per cent. on ten-pound lots and upwards." In the same way coffee at thirty cents a pound is eighty-five cents in three-pound lots and one dollar and forty cents in five-pound lots. "Special prices on twenty-five pound lots."

THE HOME STORE ROOM

The store-room should be a light room, well ventilated, with ample shelf space and with dark drawers where tea and coffee, etc., may be kept. Large tin boxes placed in these, and lined with tin, are admirable for holding all sorts of staple groceries, for they are proof against mice and rats, and the boxes or cartons can be neatly stowed away until wanted. The flour barrel should stand on a low platform if there is any danger of the floor becoming damp. Tin canisters may be bought to hold all sorts of staple articles, and while these are plainly marked I do not care for them as I do for glass jars. Even when these are used in the main store-room I would advocate the use of glass quart jars in the kitchen or "at hand" closet. These with the screw-top are air-tight, they are perfectly clean and their contents can be seen at a glance without labeling, while the amount left in the jar is equally discernible. It is not advisable to buy sugar by the barrel for the average family, for the danger of its being attacked by ants would offset any slight saving in its expense.

Laundry Work

SOME PRACTICAL ADVICE WANTED
There are all sorts of ways of doing laundry work. What's your way? Will you answer as many of the following questions as you can, and then add as many more hints as you please? A prize for the best set of replies received by March 15.

WHAT IS YOUR WAY?

- 1-What is the best day of the week for wash day?
- 2-Where is the best place to do the washing?
- 3-What kinds of tubs, boards, boilers, wringers, machines, or other fixtures, do you use?
- 4-Where do you get water, and who carries it and how far?
- 5-If the water is not clear, how do you clarify it? If hard, how do you soften it?
- 6-Do you soak the clothes over night? Do you boil the clothes?
- 7-How should the clothes be sorted for washing?
- 8-What kind of soap, washing powders

or liquids, and what kind of bluing do you use?

- 9-How should woollens be treated to prevent shrinkage, and colored prints to prevent fading?
- 10-Have you any good starching "wrinkles" to pass on?
- 11-Can you tell how to remove all sorts of stains from white or colored goods?
- 12-Can you give recipes and directions for making hard and soft soaps and any other washing compounds?
- 13-Have you any helpful hints to pass on about clothlines, pins and needles, and about hanging and drying clothes?
- 14-How about the sprinkling and raw starching?
- 15-What kinds of irons are best, and do you know of any time and labor saving schemes in connection with the ironing?
- 16-What will help to make the ironing of starched wash easier?
- 17-Can you tell how to starch and iron men's bosom shirts, collars and cuffs?
- 18-How about the ironing board or table covered? Do you use high, and how covered? Do you sit while ironing?
- 19-How should black or any other dark cotton clothes be washed, starched or stiffened and ironed?
- 20-How should silks and woollen goods be washed and pressed?
- 21-How should lace curtains be washed, bleached, starched, dried and stretched or ironed?
- 22-How should wool blankets and bed spreads and quilts be treated in the wash?
- 23-What is the best and easiest way of washing or cleaning rag carpets?
- 24-What is the proper way to care for all the various washing and ironing utensils and machines?
- 25-Would you advocate the use of a washing machine and why?

I have asked you 25 questions, and yet I dare say I have forgotten to ask about some important matters in connection with laundry work. But I cannot think of any more just now, and I'm going to rely on you to answer such questions that I should have asked, but didn't. I'd like to hear from every province in Canada. If you will kindly number your answers the same as I have, and for the rest, if you have more information to give, you can simply continue the numbers—26, 27, etc. you may not want to answer all my questions—suit yourself.

Please don't put anything else in the same envelope with your laundry contributions, write plainly on one side of paper only, sign your name and full address, and send direct to Household Editor, Farm and Dairy, Peterboro, Ont.

A Quebec Woman's Success

I keep usually from 30 to 40 pure-bred White Wyandotte pullets for laying purposes, and from these last year, I set a 220 egg capacity incubator, twice, from which I hatched 302

chicks, every one of which I raised.

Until they were four weeks old I made corn-meal into cakes for them, as I consider cooking the meal keeps the young chicks in a more healthy condition. I also gave them mixed seeds, and very fine oyster shells, as well as all the sweet milk they would drink. After the four weeks, I gave them mash mixed with milk, three times per day, all they would eat.

My first hatch came the first week in April and the first of August my pullets were laying. I kept 40 and up to October 15 they had laid 720 eggs, or an average of 18 eggs per pullet, and they have kept right on laying since that date to the present time.

In my opinion there is no one thing on the farm which pays as well as poultry, if it is well managed; of course, like everything else they require care and attention, if you expect them to respond fully financially.—Mrs. M. H. Sheppard, Bondville, Que.

It is very difficult in working with certain kinds of cloth to keep it from raveling and a dressmaker gave me this hint. Run a line with a sewing machine about a quarter of an inch from where the seam comes. This is more easily done than overcasting.



LEARN TO DANCE FOR 50c.
Hundred have learnt at home by this system. We guarantee absolutely to teach you to waltz in a few weeks without aid of instructor. The course consists of full lessons and charts. You cannot fail. Send 50c. in stamps to—
TRADING CO., Postal Station C, Box 2, Montreal, Can.

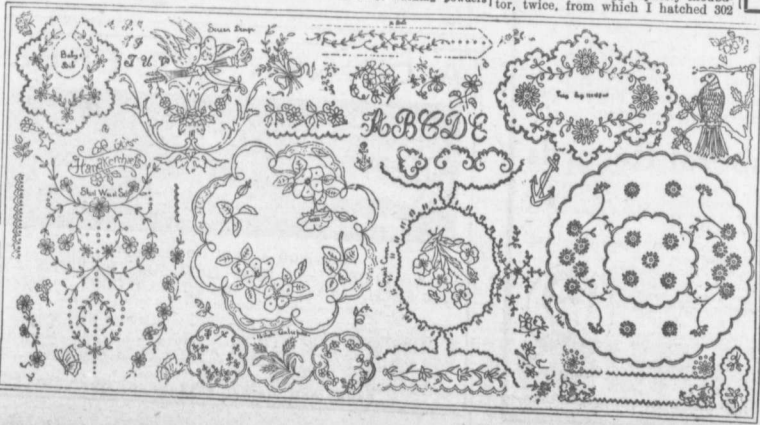


There is no Excuse for Wrinkles
A pallid complexion, sunken cheeks, or thin lips, are all signs of a poor circulation of the blood. The judicious use of some pure preparation, prescribed by scientific doctors, will either prevent or remove wrinkles and undesirable lines.

PRINCESS SKIN FOOD
will do all this, and will brighten the complexion, round out the hollows under the eyes, remove all dirt, pink firm flesh up the tissues, Massage directions with each pot.
Superfluous Hair. Moles, etc. permanently removed by electrolysis. Satisfaction assured. Send stamp for Booklet "K." It contains a mint of hints.

HISCOCK DERMATOLOGICAL INSTITUTE
COLLEGE STREET, TORONTO, ONT.
ESTABLISHED 1882

Art Embroidery
No. 571. Special Perforated Stamping Outfit. This splendid outfit consists of about fifty up-to-date and handsome full-size designs, including a Shirt Waist, Corset Cover, Lingerie Hat, two Complete Alphabets (one 2 1/2 in. and one 1 in.), Centerpieces (size, 16 in.), two Dollies, Borders, Big Book Cover, Sofa Pillow, and many other useful designs, in all the modern styles of embroidery. The above designs are perforated on good quality paper. We also include one cake each of the blue and white of the "Ideal" two Foncettes, and full directions for using the stamping preparation, at the special price of 75c for all.
These Perforated Patterns can be used an unlimited number of times.



Carving and Trussing Fowls

Miss M. A. Votaw

To bone a chicken is a tedious operation, and one requiring much patience on the part of the one preparing it, the operation taking from an hour to an hour and a half. The process is a simple one and consists of starting at the breast bone, and by means of a small knife, cutting and scraping the flesh from the bone until the whole is practically turned inside out. In order to make a success of the operation, the bird to start with must be a good specimen, with no breaks in the skin. It should never have been frozen, and it must be un-drawn.

TRUSSING CHICKENS

In trussing a chicken for an ordinary roast, the first thing to do is to draw the sinews of the legs. This is done by making a slit in the leg, ex-

posing the tendon and then inserting a packing needle under it and twisting the needle around until the sinews give way at the upper end, when they may be readily withdrawn. The neck is next removed by making a cross cut at the back of the neck and cutting the skin down towards the back until the two white spots, familiar to all may be seen. By means of a good stout trussing knife the neck can be separated at this place. By thus taking off the neck the fowl makes a much better and plumper appearance when placed on the table. The crop is then removed, care being taken to get all of it as it is very objectionable when served on the table.

Having proceeded thus far, insert two fingers into the thoracic cavity and by carefully running them around the outside of the space break down the lungs and other viscera from their attachments. When this is properly

done, the entrails may be taken from the bird at one drawing and without inserting the hand into the bird.

TO DRAW THE BIRD

Then proceed in the usual way to draw the bird, making an incision in the rear and carefully extracting the entrails, which may be done readily with one pull if the former work has been properly done. The liver and the gizzard are separated and cleaned as usual.

The legs and wings are next tied in position by means of two strings which are inserted with the packing needle, the first string goes through the middle of the thigh, through the wing, reversed and brought back on the other side in a similar manner, when it is drawn up and tied as tightly as possible to the body. The second string is inserted through the large hole in the back bone. This string is caught over the legs and used to tie them down in position. The feet of the bird are then removed taking them off slightly below the hocks. When done in this way the meat does not shrink from the bone in cooking.

CARVING A CHICKEN

Carving should be done on the table and not in the kitchen as is too often the case. One need not be ashamed to stand up when carving as it may be done much more readily from the standing position. The fork should be inserted in the breast and the legs left there throughout the operation of carving. The first thing to take off is the wings, then the wishbone, following with the legs; after which remove the breast in one piece by pressing the fork downwards from the rear in such a way as to pry the breast up from the front. The back may then be readily parted in much the same way. If it is desired to serve it, it may be split down the center by inserting the knife and twisting.

The breast forms the choicest part of the whole bird. It should be served whole. The upper parts of the legs are the next choicest. They must be split and served in half. The neck as removed in trussing, the gizzard and the liver should never be served on the table, they being used only for making the gravy for which they are well suited, making a strong gravy without fat.

Suitable Farm Houses

"Sweet Briar"

Passing through the country, we see three different styles of farm houses; large, medium and small. If a farmer is planning to build, he is at a loss to know which size is best. Some might say, build the one that suits your pocket best, but I do not know as that is always the wisest plan. For instance, there might be a very small family and it surely would seem fool-

ish to build a large house, even though there were plenty of means. Again, there might be the man with a large family. I am sure it would be a vexation to some of them, to see the father lay his plans for a small house, if the home, and if sometimes think if people looked more at the comfort, convenience, etc. of their own family when building a house it would be a splendid idea. Take for instance, the large houses with all the latest conveniences, hot and cold water, furnaces, bath, etc. Such houses certainly must be very nice to live in, but don't you think you would be on pretty level footing to furnish one of them? It should be to make it look right and then some will tell you it takes as much yearly to heat them.

How often are some of the rooms used? Very often the only time they are in use, is when company comes. When the company goes, they are thoroughly swept and dusted, and made ready for the next caller. In fact, I know of one where you can always tell when they have company because that is the only time you see the parlor blinds raised.

My idea is to build a house plenty large enough for the convenience of your family. When company comes, give them a hearty welcome and make them feel as though they were one of your own family for the day. Don't show them into the parlor first thing, and expect them to sit up and look pretty for the rest of the day.

Have an instrument of some sort if it is possible at all, for I believe there is nothing that tends to keep a family at home like good music. Let the children have their friends in occasionally and give them a good time even though you have, as I heard a young girl say, "no parlor at all, for there is no parlor furniture in it, but just a plain sitting room." Very often we see just as happy families in houses, or homes should I say, where the one room answers for kitchen, dining room, parlor, reception room and on a pinch, for a bedroom. Will some other readers of Farm and Dairy kindly give us their idea of houses for the average farmers? Address, Household Editor, Farm and Dairy, Peterboro, Ont.

A good way to water small plants that have been started in the house is to cover the boxes with muslin, and then pour the water through it. In this way the little plants will not be washed out with too much water, nor will the soil become baked for want of water.

You will surely miss Farm and Dairy if you don't renew your subscription.



The EDISON PHONOGRAPH

Sold at the same prices EVERYWHERE

It is Mr. Edison's desire that a Phonograph should not only be cheap enough for everyone to own one, but also that everyone should enjoy the same advantage in purchasing it.

Wherever you buy an Edison Phonograph you buy it at the same price. The purchaser in the small country town has the same advantage as those who live in large cities.

Not only is the Edison Phonograph uniform in price, but it is also uniform in quality. Everyone that leaves our factory is good, has been carefully tested, will play perfectly, and will furnish unbounded enjoyment.

Edison Amberol Records

There are two kinds of Records for the Edison Phonograph—the old two-minute Records of the past, which are still made and still afford much enjoyment, and the new Amberol Records, which play more than twice as long and are better.

The new Records can be played on any Edison Phonograph by means of an attachment which you can get for a small sum of your dealer. If you buy a new Phonograph, you can buy it with the attachment so as to play both kinds of Records, and thus have the widest possible range of music and entertainment for your instrument.

FREE. Ask your dealer or write to us for illustrated catalogue of Edison Phonographs, also catalogue containing complete lists of Edison Records, old and new.

We Want Good Live Dealers to sell Edison Phonographs in every town where we are not now well represented. Dealers having established stores should write as once to

National Phonograph Company, 111 Lakeside Ave., Orange, N.J., U.S.A.



A DINNER SET FREE

FREE FOR A FEW HOURS WORK
Secure a CLUB of only NINE NEW SUBSCRIPTIONS AT \$1.00 EACH, and you will be sent FREE OF COST, an elegant English Semi-Porcelain Dinner Set of 95 pieces.

This set consists of the following pieces: 12 tea plates, 12 dinner plates, 12 soup plates, 12 fruit dishes, 12 butter plates, 12 cups, 12 saucers, 12 plates (4 inch), 1 slip bowl, and 1 small tin. This set is genuine English semi-porcelain, decorated in a dainty green floral border, with embossed and scalloped edges.

Sample copies on request. Write Circulation Department:

FARM AND DAIRY, PETERBORO, ONT.

AYRSHIRE NEWS

The Canadian Dairyman and Farming World is the official organ of the Canadian Ayrshire Breeders' Association, all of whose members are readers of the paper. Members of the Association are invited to send items of interest to Ayrshire breeders for publication in this column.

RAILWAY RATES TO ANNUAL MEETING

I beg leave to inform those of our members, and we hope there are a large number, who propose attending the annual meeting to be held in the Monument National, 236 St. Lawrence Mountain street, Montreal, on Wednesday, Feb. 17th, at 10 a.m., that in order to secure reduced rates from all points in Canada, they must purchase (not more than three days before the meeting) and get from the agent at starting point, a standard convention railway

Advertisement Brought Results

"Enclosed you will find the money to pay for my advertisement in Farm and Dairy. This advertisement has brought me the best results of any advertisement I ever published. I will advertise with you again in the spring."—Geo. Bennet, Breeder of Chester White Swine, Leicester Sheep, Shorthorn Cattle and Poultry, Kent County, Ontario.

certificate. On presentation of this certificate to the secretary-treasurer for signature to the railway official who will be present at the meeting, this will entitle you to a reduced rate for the return journey within three days after the meeting closes. We especially desire that all contestants to the meeting will secure their tickets in this way.

Those coming to our meeting will also have the privilege of taking in the Win-

WELL DRILLING MACHINES

Over to glass and steel, for drilling either deep or shallow in any kind of soil or rock. Mounted on wheels or on skids. Also complete sets of tools and machinery. A complete set complete. Strong, easily handled for carrying.

WILLIAMS BROS., Ithaca, N. Y.

LAND FOR SETTLEMENT

Lands are offered for settlement in some cases FREE, in others at 50 CENTS per acre, in various districts in NORTHERN ONTARIO.

Write for information as to terms, homestead regulations, special railway rates, etc.

THOS. SOUTHWORTH, Director of Colonization, Toronto
HON. JAMES S. DUFF, Minister of Agriculture.

DISPERSION SALE OF 31 HEAD OF REGISTERED AND 19 HEAD OF HIGH GRADE JERSEY CATTLE

Also 11 HORSES, 6 of them brood mares in foal, 10 Pure-bred YORKSHIRE HOGS, at Bridgeport, near Berlin, Thursday, March 4th, 1909. Implements, Dairy Utensils, etc., sold in the forenoon. Sale of Cattle commences at 1 o'clock. Lunch at noon. Electric cars from Berlin every hour.
Terms—All sums of \$10 and under cash, over that amount 6 months credit on approved security.
JAS. McDONALD, W. D. BAYNE, H. B. DOERING, AUCTIONEERS.
P. REID, Proprietor.

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

ter Carnival with all its special attractions. As Feb. 17th has been proclaimed a civic holiday it will be a gala day in Montreal, therefore come and enjoy it. We expect an interesting meeting and purpose visiting day following, when we will be glad to inspect the Ayrshire herds at St. Anne's as well as that finest of institutions, Macdonald College. Don't fail to come. W. F. Stephen, Sec.-Treas., Huntington, Que.



ROCK SALT for Horses and cattle, in tons and carloads. Toronto Salt Works, Toronto.

G.O. JACKSON, Auctioneer, Live stock a specialty. Address Port Perry, 'Phone 31.

HOLSTEINS

FOR SALE—30 HEAD OF HOLSTEINS
If you are wanting a choice young cow or heifer it will pay you to write me before making your selection, or better come and look them out.
GORDON H. MANHARD
E-54-49 Manhard P.O., Leeds Co., Ontario
7 miles south of Brockville on C.P.R. (Clark's Crossing)

EVERGREEN STOCK FARM
Holstein cattle and Tamworth swine, Bull calves for sale with good official records behind them; also Tamworth pigs. For particulars write
THOMAS DAVIDSON, Spring Valley P. O.
O-4-21-09 Brookville Station.

SUNNYDALE HOLSTEINS
Book your order now for grandsons and daughters of Pieterie Hengerveld's Count Dekal, champion Holstein bull of the breed. His son Ducland Sir Hengerveld has recently sold for \$2,000. His daughter Sarah Jeal Hengerveld, who with her daughter Brown Rose of Lys for \$800. Write for prices and breeding records to be dropped during February and March, 1909. E-4-38-09
A. D. FOSTER, Bloomfield, Ont.

LYNDALE HOLSTEINS

Head your head with a son of Sara Hengerveld Korydke whose bull was recently sold for \$2,000, his 3 nearest dams average \$612. The latter each had 7 days. We still have a son of his son left. We still have a Paul, and a number of other Dekal Pointed Bulls. For particulars write to
BROWN BROS., LYN, Ont.

SPRINGBROOK HOLSTEINS AND TAMWORTHS

32 Choice Young Tamworths, from imported Sires and sired by imported Knowl bull and several females. Bargains to quick buyers.
E-511-09 A. C. HALLMAN, Breslau, Ont.
HOMB-BRED AND IMPORTED HOLSTEINS
We must sell at least at 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, Pointed Horses, Imp. son of Hengerveld Dekal, worth the greatest sire, head of herd. Come and see them.
H. E. GEORGE, TRAMER, N. ONT.
Putnam Sta., 1/4 mile C. P. R. E-54-9-09

MISCELLANEOUS

JOS. FEATHERSTONE & SON, Streetsville, Ont. Large Yorkshire Hogs for sale. E-1-10-09
R. H. BARDIN, Manville Park, Thorndale, Ont. Dorset Sheep a specialty. Telephone E-5-19-09
J. A. GOVONKAL, Forest, Ont. Herefords, Canada's greatest winners. Toronto and London. 197-198
HARRISON BROS., Mt. Albert, Hereford cattle, Oxford Down sheep, Stock for sale at all times. E-5-10-09

PONIES FOR SALE
Exmoor and Shetland of all ages and sexes, broken and unbroken.
P. A. BEAUDOUIN, 187 St. James st., Montreal.

BERKSHIRES AND TAMWORTHS
Choice Berkshire Boars fit for service and sows ready to breed, by imported sires. Choice Tamworths also by a Toronto and London prize winning bull. Prices low, considering quality.

J. W. TODD, E-217-09
Maple Leaf Stock Farm Corinth, Ont.

AYRSHIRES

JAS. BREGG, St. THOMAS, AYRSHIRES. Standard for this herd is 40 lbs. milk per day. No culls. E-219-09

SPRINGBROOK AYRSHIRES
Are large producers of milk, testing high in butterfat. Young stock for sale. A few choice bull calves available ready to ship. Prices right. Write or call on C-4-1-09 **W. F. STEPHEN, Huntington, Que.**

NEIDPATH AYRSHIRES
Bull Calves dropped this spring. By Im and Halifax. First prize Toronto, Ottawa, London and Carleton Place.
O-3-25-09 W. W. BALLANTYNE, Stratford, Ont.



LAKESIDE STOCK FARM
Ayrshires, Clydesdales and Yorkshires. Write for special prices on imported calves.
GEO. H. MONTGOMERY, Philippsburg, Que.
O-1-19-09

SUNNYSIDE AYRSHIRES

Have been bred and imported with a view to combine quality with production. The herd contains many noted winners. Nether Hall Goodtime (Imported) heads the herd. Young stock for sale. Address:
E-5-14-09 J. W. LOGAN, Howick Station, Que.

SPRINGHILL AYRSHIRES

Imported and home bred stock of all ages for sale. See our stock at the leading shows this fall. Write for prices.
ROBT. HUNTER & SONS, Maxwell, Ont. E-5-23-09

JUST BULLS

For sale 1 to 10 months old. Holsteins and Ayrshires. Great milking strains.
GEO. RICE, Tillsonburg, Ont. O-8-4-09

STOCKYARD BRED OF AYRSHIRES

In this Dairy Breed. Our success in the show yards stands for everything that is best. FOR SALE—Stock of both sexes.
D. H. WATT, St. Louis Station, Que. O-6-16-09

AYRSHIRES

DAVID A. MACFARLANE, Kelso, Que. Ayrshires, good testers and good lookers. Several young bulls for sale; prices 0-5-49

AYRSHIRES FOR SALE
A fine lot of young bulls and calves; also the famous stock bull, "Not Likely of spring," a Shetland pony and Yorkshire pigs.

D. BODDEN, Manager, Riverside Farm, Montebello, Que. Hon. W. Owens, proprietor. O-6-14-09

RAVENSDALE STOCK FARM

Ayrshires, Clydesdales and Yorkshires
If in need of good stock write for prices which are always reasonable.
W. F. KAY, Philippsburg, Que.
O-5-19-09

BURNSIDE AYRSHIRES

Are in such demand will make another importation. Will attend great dispersion sale of the world renowned Harkness Herd of Mr. and Mrs. Mitchell, at Ayrshire, Scotland, where some good choice Ayrshires ever offered will be sold. Orders entrusted to me will be carefully attended to. Take advantage of this great sale and replenish with the few good ones. Correspondence solicited and satisfaction guaranteed.
R. R. NESS, Howick, Que.
E-5-15-09

HUME FARM AYRSHIRES

On hand young bulls for service. Several very choice August, 1909, also heifers and other young cows, and cows any desired booked for Yorkshire pigs, orders for importing Ayrshires solicited. Those in residence. Hoards Station, G. T. R.
ALEX. HUME & CO., Monic P.O.

STONECROP STOCK FARM

Harold M. Hochen, prop. Sts. Anne de Bellevue, Quebec. Choice young cows and heifers for sale. Yorkshire pigs from March letters. Largest selection. High and not unguine. Write for prices.
E-5-26-09 E. W. BJORKBLAND, Niagara.

STADACONA AYRSHIRES

THE CHAMPION AYRSHIRE COW
of Canada, for milk, according to the last Herd Book, is Daisy of Carleton, Reg. No. 11,648. She was qualified for Advanced Registry with 12,22 lbs. reasonable figure. Her vigorous, quite large heifer, owned her yearling bull, first in his sale at a high price, and should make a first-class herd sire. For description, extended pedigree and price, apply to
QUS LACROIX, Cap. Beauve, Que.
E-6-2-09

STONEHOUSE STOCK FARM

Here may be seen some of the best Ayrshires in Canada. Imported and home bred. Record of performance cows and heifers.
Prices of stock quoted on application.
HECTOR GORDON, Howick, Que.

IMPERIAL STOCK FARM
Present offering 13 grandly bred Holstein Bull to 12 months old, sire Tilly Dekal
Aberkirk Merwyn Cow (1901)
Tidy Pauline Dekal 25.50 lbs. Butter in 7 days
Sire G. D. Tidy Posh 4th, 38.00 lbs. Butter in 7 days
Sire J. D. Tidy Aberdeen 27.28 lbs. Butter in 7 days
Sire G. D. Tidy Aberdeen 25.78 lbs. Butter in 7 days
Tidy Pauline Dekal, 2nd, 25 lbs. Butter in 7 days
Sire G. D. Tidy Aberdeen 27.28 lbs. Butter in 7 days
Prices \$60.00 to \$100.00 each on stable sale.
Harley Sta., G. T. R. W. H. SIMMONS, New Durham P.O. E-3-10-09

Union Stock Yards---Horse Exchange
WEST TORONTO, CANADA
The Great Wholesale and Retail Horse Commission Market
Auction Sales of Horses, Carriages and Harness every Monday and Wednesday. Private Sales every day.
The largest, best equipped and most sanitary stables in Canada. Half-mile of railway loading chutes at stable-foot.
TRADE A SPECIALTY FOR SHOWING HORSES. NORTH-WEST.
HERBERT SMITH
(LATE GRAND REPORTERY) Manager
It is desirable to mention the name of this publication when writing to advertisers

OUR FARMERS' CLUB

Contributions Invited.

QUEBEC

RICHMOND CO., QUE. DANVILLE—Our farmers have work enough to keep them busy at all seasons of the year. Those that have wood and lumber on their farms are cutting and hauling it to the villages and to the mills. Some are drawing manure and thinking of the spring season. Most farmers that do not have to draw too far wait till spring and draw from the shed or collar, and spread it on the field. The now, and it is not very good. The water had to haul stuff on, on account of so much stormy weather—H. C.

COMPTON CO., QUE.

COMPTON CENTRE—We are having very cold and stormy weather. There is being another thaw, which has improved the water situation greatly. There is now plenty of water in most of the springs and wells. The price of eggs has dropped; they are now selling for 30c and 35c. Dressed pork sells for 30c and 1b. Cornmeal is \$28 a ton; oats 30c a bush. There is quite a lot of teaming going on. The roads have been awful bad to haul stuff on, on account of so much stormy weather—H. C.

ONTARIO

HASTINGS CO., ONT. THE RIDGE—Considerable lumbering is being carried on this winter, which gives work to a lot of men and teams, all though wages are not very high. Farmers are looking forward to a good year this coming season—A. B. C.

TURRIFF—Almost everyone here is interested in some phase of the lumbering industry. We have not heard of much shortage in the supply of fodder yet but few seem to have any fodder left.

CHAPMAN—Recent rains have helped out the water supply, and many feeds which were dry before will furnish water for farm stock. Feed is fairly plentiful with prices fair. Clover hay sells for \$10 to \$12, and timothy for \$12 to \$14 for sale—H. S. T.

ACTINOLITE.—Fodder promises to be very scarce this winter, even more so than last year. Drawing marsh hay is the order of the day. There is very little work as idle, and the young people have lots of time for skating, as the ice is excellent—T. K.

HALIBURTON CO., ONT.

KINMOUNT—The good roads and hard freezing weather of the last two weeks has been a great boon to the farmers, who have improved their time by drawing logs, wood and beaver hay, most of which has to be done during the hard freezing weather. Not many draw manure in the winter, which is a great mistake, as it impedes the spring work, when all is hurry. The official thermometer stood at 25 below zero between Jan. 15th and 20th—S. T.

VICTORIA CO., ONT.

MARIPOSA.—The Agricultural Short Course held in Lindsay for the benefit of farmers and farmers' sons, was a great success. The crowds attending were large and the stock exhibited was of splendid quality. Prof. Day of Guelph, proved himself an able teacher by the careful method with which he discussed the quality of the animals. Professor

Zavits showed himself to be a thorough master of everything relating to grain and weed seeds. Lectures were delivered in the evening bearing on agriculture. Among others, Mr. C. O. James, Deputy Minister of Agriculture, and President Falconer, of Toronto University, gave splendid lectures. Much credit is due those who have the responsibility of the course, in making it such a success.—R. W. H.

DURHAM CO., ONT.

BLACKSTOCK—Fairly high prices rule cattle to protect the wheat and clover. There is a strong demand for hogs, with a prospect of good prices for hoes for the remainder of the season. Horses though not much raised in price seem to be very bright. Grain of all kinds is selling well. Dealers in produce, such as butter, eggs and poultry, are able to pay satisfactory prices, judging from the smiling countenances of their fair customers—R. J. F.

BRANT CO., ONT.

FALKLAND—Sufficient snow is on the ground to protect the wheat and clover. Cattle are worth from \$4 to \$4.75, depending on the quality. Hogs are \$6.25. Butter is 25c and eggs 35c. Eggs are becoming plentiful now. The grain market is steady; not very much grain is being marketed. Wheat is 90c; barley, 50c; oats, 35c to 40c. Corn is selling at \$29 a ton for bran and \$22 for shorts. Hay is worth about \$10 to \$12 a ton, while straw is in good demand and sells at \$4 to \$5 a ton. The complimentary meetings of the Farmers' Institute that were held in this riding, were of considerable interest. Four outside speakers, with one or two local men were on the programme—L. T.

WELLINGTON CO., ONT.

MOUNT FOREST—Many are busy pressing hay. The price offered is about \$7 a ton. It would be far better farm practice no doubt to feed good hay to cattle at present prices, and the land would feel the benefit. Our farming operations will tend to the future, to more finished products, so that our farm products will be state—C. S. N.

ELORA—Our Farmers' Institute meetings were favored with good attendance. A keen interest was manifested throughout the addresses and discussions. The speakers were Messrs. J. Campbell, Wood Miller, R. D. Nodwell, Hillsbury, and Miss Miller. The subjects discussed such as methods of feeding the different classes of stock, so as to realize the largest profit. The keen discussions in connection with each address, showed a desire for information, and to thoroughly test the arguments of the speaker as to correctness of the theory advanced, and which is all things and hold fast that

OXFORD CO., ONT.

GOLESPIE.—The late thaw and rains have proved a great blessing for many. There is no danger now of a water famine. We have had a beautiful winter, selling very well from \$40 to \$70—A. M.

BRUCE CO., ONT.

WALKERTON—During the past fall, the ground being too dry for plowing, farmers generally took advantage of the spare time and did considerable draining. This will enable them to get on the ground much earlier in the spring, which is the secret of getting more and a better quality of stock. Great improvement is also being made in the way of fencing. Primitive look neat and more substantial. They are sure to keep clean and require little or no attention to keep in order—J. A. L.

MUSKOGA DISTRICT, ONT.

HUNTSVILLE—A large number of farmers are sending their teams to work in the woods, so considerable more feed is required for them than if they were idle, as the average farm horse is at this season. With but few exceptions farmers will not purchase more provides for them. Butchers' cattle are rather scarce and few months ago. The farm water supply dry season and throughout the part of the country no person has as yet been put lack of water—F. R. B.

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 \$6.85 a Cwt. FOR HOGS WEIGHING 160 TO 220 LBS.

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

GOSSIP CHANGE OF ADDRESS Owing to the large increase in their business, Messrs. William Cooper & Nephews have found it necessary to take a new address, and wish to notify their public and their customers that their new address will be Peterkin Building, 152 Bay Street, Toronto, where all communications should be addressed.

No Better Preparation.—I. S. Albright, Voorheesville, N. Y., writes under date of Aug. 2, 1908: "Last March I wrote to inquire what dealers in Albia-ABSORBINE, as I had my attention called to it by your advertisement. At that time a young mare had a puffed foot, and shortly after a colt got out of the a badly puffed foot. Both cases were cured with ABSORBINE. I have also used it for wind puffs, collar boils and tumours. Since first writing you, I have used nearly eight bottles of ABSORBINE, and the ninth stands in the medicine closet ready for use when needed. I have found ABSORBINE to be a humane method of treatment, and it seems to me troubles for which it is recommended." The ABSORBINE does not blister or remove the hair, and horse can be used during its treatment. Mild in its action but positive or express paid. W. F. Young, P. D. 123 Monmouth street, Springfield, Mass. Canadian agents, Lyman Sons & Co., 350 St. Paul street, Montreal, Que., Canada.

Endorses Zenoleum.—Mr. John Mitchell pure bred Lincoln sheep, Glencoe, Ont., writes under date of January 2, 1909: "I have been using Zenoleum Dip for the last ten years and have found it the best and easiest to mix of any I have ever tried, and so I have always used Zenoleum to everyone. I have found it number one keep about 50 or 60 sheep and use it also for lice on cattle, and it has done its work every time. I can recommend it to everyone who has use for a

Seeds For the Farm For the Garden Send for Catalogue GEO. KEITH & SONS 124 King St. East TORONTO ONTARIO

PETER HAMILTON Corn and Straw Cutters are the safest, strongest, easiest to operate and best cutters made. PLOWS Farmers everywhere testify to the splendid work of our plows Better Get One Send for Catalogue. The Peter Hamilton Co. Limited Peterborough, Ontario

Nitrate of Soda NITRATE SOLD IN ORIGINAL BAGS The Nitrate Agencies Company Toronto, Canada Orders for All Quantities Promptly Filled—Write for Question

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

THE RECORD OF ONE YEAR'S LIVE STOCK EXHIBITS

To obtain list prices at the British shows during 1908 may be deemed a very fine performance. One hundred and eleven is the number of prizes that the live stock department of Messrs. William Cooper & Nephews of Berkhamsstead and Toronto, have gained at the British shows to date.

This number includes 54 firsts, 12 seconds, 12 thirds, 12 champions, 10 reserved champions and 5 specials. Amongst the champions is that for a Shorthorn bull at the Royal Agricultural Society of England's show, which was gained by Sir Richard Cooper's famous Chiddingstone Mallock.

Sir Richard Cooper is head of the firm

of William Cooper & Nephews, and is the famous breeder of Shorthorns, Shropshire sheep and Red Polls. On his estate in Shenstone, near Lichfield, in the Old County, the famous Cooper herd of Shropshires are kept. These were established many years ago by the purchase of males and females from amongst the most prominent breeders in Great Britain. Since port-

then the herd has been kept in a high state of efficiency by the addition from time to time of many well known prize winning bulls and heifers.

The Toronto branch of William Cooper & Nephews will be glad to forward to anyone interested a copy of their very handsome book, "Pedigree stock and their export."

Every Safe Lock Shingle is made to meet the rigid requirements of the British Government for Admiralty and other Public Service



to proper size for Safe Lock Shingles. The only shingle with galvanized edges.

The only shingle sold with a positive protective guaranty against lightning, backed up by a free insurance policy signed and sealed by the manufacturers, the Metal Shingle & Siding Company, a \$200,000.00 Canadian corporation.

Every Canadian farmer who expects to put up a new barn or house or to re-roof old buildings is directly interested in this extraordinary free offer.

Think of it! A straight-out lightning insurance policy free from conditions of any kind. It is the most liberal roofing offer ever made to Canadian farmers.

Insurance records show that one-half the fire losses on barns in Canada result from lightning. The property loss in these cases amounts to many thousands of dollars every year.

Safe Lock Shingles have been on the market for more than ten years, and in all that time no building covered with them has ever been harmed by lightning.

This proves to us that Safe Lock roofing is a positive guaranty against lightning.

Anyway, we are willing to show our faith in Safe Lock Shingles and will protect you from lightning without one cent additional cost to you, directly or indirectly.

Safe Lock Shingles are sold at the same price as shingles known to be inferior in quality of steel, galvanizing and construction.

Safe Lock Shingles lock positively and securely on all four sides. They cannot be blown off, nor can they be pulled apart through the warping of the sheeting, or in any other way.

And remember this—No other shingle is a Safe Lock Shingle.

Safe Lock Shingles can be found in every part of the Dominion of Canada, where they have been subject to storms of all degrees of severity.

No building covered with Safe Lock Shingles has ever been ueroofed.

We want you to know what some of the users of Safe Lock Shingles say of them.

R. T. McLAUGHLIN, Fair View Farm, Alba, Ont.—"The 'Safe Lock' makes your shingles absolutely wind and water proof. They are the best shingles on the market to-day."

F. B. DODD, Branchton, Ont.—"The Galvanized Steel roof is apparently as good as when put on in 1898. The 'Safe Lock' shingles make a lasting, storm-tight roof, and give clean easter water. I am satisfied that I put on a good roof."

W. J. McPHERSON, Berryton, Ont.—"The 'Safe Lock' Shingles that I purchased from you ten years ago have given splendid satisfaction. The roof has never leaked a drop, and they seem to be just as good as the day they were put on."

J. C. PAYNE, Cayuga, Ont.—"It must be ten years now since I bought the metal 'Safe Lock' Shingles, and up to this time I have no reason to regret their purchase. We have had wooden roofs put on since which are open in spots from the splitting and shrinkage of shingles. No difficulty, so far as I have noticed at least, has arisen with your Metal Shingles, and the roof seems compact and durable. So far as I have been able to see, I have seen no wear or injury to the shingles during the ten years' use, and cannot see why but that the roof is just as good as when it went on."

MURDOCK McKENZIE, Bear Line, Ont.—"The 'Safe Lock' shingles have never given me any trouble, and they appear to be as good to-day as the day I put them on. I am well satisfied with them, as I believe them to be the best roofing that can be used on barn buildings."

GEO. HARDY, Ashgrove, Ont.—"It will be eight years in June since the barn was shingled. I never had any trouble with it in any way, and it appears to be as good as when put on. I have been recommending your shingles as the best that can be got."

MRS. JAMES STEWART, Pendleton, Ont.—"In reply to your letter asking about shingles I bought from you over five years ago, condition as when they were put on the roof. The shingles don't seem to be any the worse for wear, and they will last for years."

Send to-day for our book, "The Truth about Roofing" and full details of our Fire Insurance Policy payable in cash if your Safe Lock Roof is damaged by lightning.

The Metal Shingle and Siding Co. Ltd.

"Roofers to the Farmers of Canada"

Dover Street Factory, Preston, Ontario

Branch Factory, Montreal

CUT OFF THIS COUPON AND MAIL TO US

My roof measures ft. in. long.

The Metal Shingle and Siding Company, Limited
Dover Street Factory, Preston, Ontario
Please send me your booklet "Truth about Roofing," with full particulars of your Free Safe Lock Lightning Insurance Policy.

I expect to build sq. ft. of building

Size of Roof If interested in any other Metal Building Goods please state

such fact here.

Name

P.O. Province,

My roof measures ft. in.

THE British Government requires all galvanized steel roofing for Admiralty or other public work to be of specific grade and to be capable of withstanding a certain acid test.

The acids used for this purpose are strong enough to burn the skin off a man's hand, and yet the galvanizing must be heavy enough to withstand their action for a definite period.

Exposure to wind, rain and snow for a quarter of a century is much less destructive than this acid test.

Yet every Safe Lock Shingle is guaranteed to meet the Government requirement in this and all other respects.

No wonder that those who have used Safe Lock Shingles declare that they will last as long as the buildings they protect.

Safe Lock Shingles are the only shingles that actually lock on all four sides so that they cannot pull apart.

Shingles which do not lock on four sides are not Safe Lock Shingles.

Again: Safe Lock Shingles are the only shingles that completely protect the roofing nails from weather.

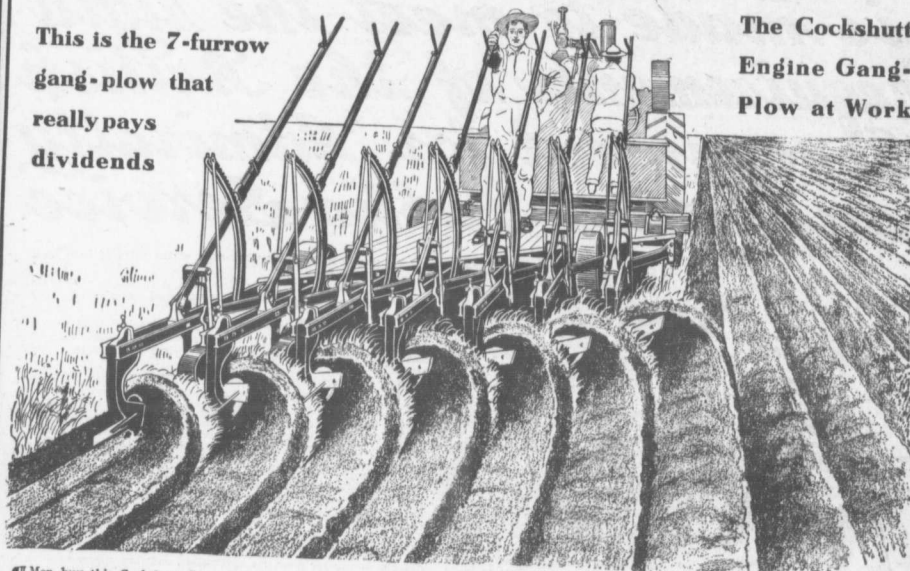
The only shingles that have three thicknesses of steel along the upper edge of lock, thereby doubling the strength along the line of greatest strain.

The only shingle galvanized after the sheets have been accurately cut

You, or any man with your gumption and push, can make real big money by buying this gang-plow. And you can make it year after year, whether your own farm is big or small, in Ontario or elsewhere. Write and ask questions and we will tell you how to go about it. Get at it early—get at it right NOW.

This is the 7-furrow gang-plow that really pays dividends

The Cockshutt Engine Gang-Plow at Work



Men buy this Cockshutt Gang Plow in the West and do plowing by the day, or by the acre, for farmers who don't own such a fast and perfect plowing outfit. Often they travel over half a province in the course of the year, constantly busy with profitable plowing-jobs. Most of them are engaged a whole season ahead. One man cleared \$2,000 that way last year and paid for the whole outfit besides.

Working under hard conditions, in the tough and sticky soil of the Red River Valley, men have again and again plowed with this implement at a cost of only \$1.75 an acre! Out there they get \$3.50 an acre for contract plowing. Good money in that, don't you think? There is better money than that in it for you, in the lighter soils common all over Ontario. Think—How many farmers do you know who can do their own plowing for three-fifty an acre, counting everything? Couldn't it you convince a lot of your neighbors that it would pay far better to contract with you for the work? And then figure, too, that this gang plow is easily **good for twenty acres a day**, and better plowing than the walking plow can do except in really expert hands.

Remarkably easy of draft, the Cockshutt Seven-Furrow Engine Gang. The plow's weight is carried on broad-tired wheels, with a direct centre-hitch from the platform that brings the plow close behind the engine and utilizes every possible ounce of power the tractor develops. Can be handled readily with either a gasoline tractor or the smaller steam kind.

Each plow is hinged to the frame individually, carried between wide jaws more than will ever have to undergo. As the plow-beams are extra heavy, the shares will not wing-down will be always level, never 'slicked' nor 'plastered', and each of exactly the same depth. The tilth produced by this gang-plow is more perfect than the most careful plowing will give with any other kind of a plow.

As shown in the picture, even when used as a breaking plow for virgin soils, the work is done evenly, every cut turning full on its side and burying the vegetation so thoroughly it must rot quickly. Specially the right plow for putting old pastures into planting condition.

One man, standing on the roomy and sensible platform, easily controls the plow's work. Each plow-bottom is independent of all the others, and is thrown into or out of the land by an easy segment of ample strength. No great muscular exertion is required to lift or lower the bottoms, as the length of the levers is sufficient to insure greatest lifting power needed even in wet or sticky lands. Levers all have adjustable stops that regulate the depth at which the bottoms are cutting,—set them in a moment, and they stay set till you change them.

The Cockshutt system of tempering, grinding and finishing all our plow-bottoms, and the use of special formula for the steel in them, makes sure these boards will scour clean and bright under all conditions.

The price is low. Will you write us to-day for descriptive booklet and proposition that will show you what there is for you in this gang-plow contracting idea?—even if your farm is not large enough to warrant your buying such a plow for your exclusive use.

THE COCKSHUTT LINE OF IMPLEMENTS

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.

COCKSHUTT PLOW CO., Limited
of Brantford
Canada's Most Modern Plow Works

Dept. B.