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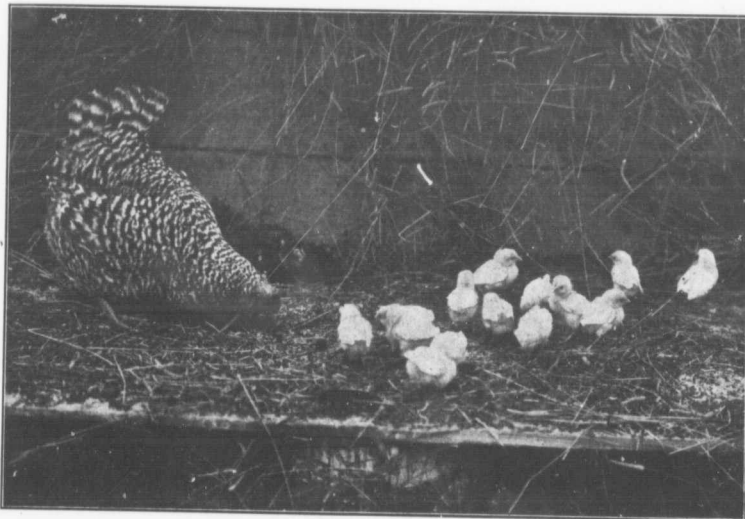
FARM AND DAIRY

RURAL HOME

Illustration by J. H. Clark

PETERBORO, ONT.

FEBRUARY 4 1909



HERE DARLINGS, THERE'S PLENTY FOR US ALL

The demand for poultry products, of first quality, has far out-grown the supply in Canada and as a result, higher prices than ever are being realized for fresh eggs and for fowl of all kinds. The poultry department of your farm should be a profitable one. Is it? If not, give it the attention that it merits and it will give a good account of itself.

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To see what Supplies or Machinery will be necessary to equip your dairy or cheese factory for another season. Orders sent in at the last minute are often delayed owing to the rush. Look over your equipment now and send us a list of articles wanted and we will quote you surprisingly low prices for high quality goods. You may need a

New Separator, Churn Cheese Vat, Shafting

or something else just as important. Remember that when dealing with us you are dealing with the oldest dairy supply house in Canada, and one that satisfactory business dealings with customers has made the largest in the Dominion. Don't be backward in sending in orders because you think them too large or too small, we haven't been stuck yet on an order because it was too large, and the small ones receive just as careful attention as do the large orders.

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The Taxation Question

Proposed Change in Municipal Laws

Ed., Farm and Dairy:—It was recently my privilege to look through the files of your excellent paper, for the year 1908, and I was pleased to see so many letters on the taxation question; especially when I found so many of the writers advocating the exemption of improvements and a single tax on the unimproved value of the land. Permit me to inform your readers that the Single Tax Association has put into circulation a petition proposing a change in the Municipal Tax Laws of Ontario. The petition is addressed to the Provincial Legislature, and asks that the Assessment Act be amended "so that municipalities may tax improvement values; business assessments, incomes and salaries to be classed as improvement values, and the difference in the rates, in every case, to be determined by the municipality."

We submit this proposition to the farmers of Ontario for their consideration, and shall be glad to hear the opinions of any who are interested in the question of taxation, either through the columns of your journal or by personal letter. To any who will write us we will supply sample copies of the petition, and any information on the subject they may desire. Address,—L. B. Walling, Secretary Single Tax Association, 75 Yonge St., Toronto.

Tax Land Values Only

Ed., Farm and Dairy:—Replying to T. H. N., Wellington Co., Ont., in your issue of December 23rd, in place taxes on land we contend as single taxes on land values, a few square yards are often worth more in one place than many acres are in another, possibly only a few miles away. Why not collect all taxes from land values only? What is more simple? New Zealand has this system.

Remember as says Henry George: "All things come from land and everything returns there." How can you tax special privileges and how can we decide what ones are of the nature of monopolies and what are not? We want local option in Canada. Why should this not apply to taxation as well as drink?—David Howse, Lincoln Co., Ont.

Farmers Putting up Silos

While visiting at the home of Mr. J. Elliott, of Tatchat, Quebec, a staff representative of Farm and Dairy was surprised to find how many farmers in that section had recently erected silos. During the past two years, the hay crop in Chateauguay County, Que., has been unusually short and the farmers of the section have therefore, have started to grow more corn. Mr. Elliott erected a new silo last year. "I had often thought of putting up a silo," said Mr. Elliott to our representative, "but some farmers told me that it would not pay me to erect one I took time, therefore, to look into the question until I became satisfied that a silo would pay me. I found that our best farmers were using them and that all stated emphatically that they had found their silos a good investment."

Among the farmers of the section who have erected silos are Messrs. John Dixon, Wm. Tate, Alex. McDougal, Andrew Campbell, John Scott and Andrew Ross, all of whom live near Ormstown, Que. Mr. Elliott's farm won one of the prizes offered by the Government in the good farms competition held in the Province of Quebec.

President Falconer at Ottawa

"Education should mean that you and I have studied what we can do, and then doing it, and not stopping until we are dead," declared Dr. Falconer, president of Toronto University, at the official opening ceremonies of the Eastern Ontario Live Stock and Poultry Show held at Ottawa, recently. Dr. Falconer looked upon the show as an education. It directed the farmers' attention into the way into which he could best develop his work. "Education," continued the doctor, "does not mean cramming the brain with a lot of facts. The truly educated man is that one who has his powers so developed that he can use them in the best manner possible."

"Industry, intelligence and integrity," was the motto commended by Dr. Falconer. "Mere industry was not enough, there should also be intelligence, which quality was primarily necessary in the case of the farmer. The man who thinks, is bound to ultimately triumph over his competitor. Again," continued the speaker, "we need integrity. We want men in Canada so understood on the markets of the world, that wherever Canadian goods may go they shall be trusted. This would be an inestimable asset."

In giving his reasons for coming to Ottawa to address the gathering Dr. Falconer stated that as president of the people's university he must come into touch with the people. Fully two-thirds of the students of Toronto University came from outside the city of Toronto. Its attendants were practically all the sons and daughters of Ontario. "The work that is done in the university is work that comes directly to the homes of the province. Every time you call in a doctor, every time you travel over a railroad or are in a great building you are relying upon the education furnished at our universities. Every one must be interested in this." It was from the farm home stated the doctor that the best students came. The work of intellectual life of the farm showed in some of Canada's greatest men to-day. He was persuaded that the well being of the families depended on the life of the families as a whole and urged upon his auditors, the necessity of a strict moral intellectual home life.

Dr. Falconer concluded with a warning against the sweets of the present prosperity. The biggest danger to the farms he said were the men and women that lived there and the boys and girls that went to school. It was often forgotten that great benefactors of the country were the old men and women who lived quietly at home, sending their sons through college to occupy positions of trust.

Clydesdale Grants

At a meeting of the executive committee of the Dominion Clydesdale Breeders' Association, held in Toronto, Jan. 27, grants were made to the various leading exhibitors as follows: Winnipeg, \$40 for best Clydesdale stallion; \$30 for best Clydesdale mare and \$25 for best team of Clydesdale mare or geldings in harness.

Brandon, Calgary, Regina and Edmonton, to each, \$25 for best Clydesdale stallion, \$25 for best Clydesdale mare, \$25 for best team of Clydesdale mares or geldings in harness.

Victoria and New Westminster, B. C., to each, \$25.

The foregoing grants are smaller than those made in 1908 owing to the receipts of the association last year from registry fees having been less than in 1907.

DELEGATES TO FAIRS

Delegates to the various fairs were elected as follows:—
Calgary, R. Thorburn, Davidson, Alta.; Winnipeg, John Graham, Carberry, Man.; Ottawa, Peter Christie, Man.; Toronto, John Bright, Myrtle Station, Ont.; London, James Henderson, Belton, Ont.

Issued
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FARM AND DAIRY & RURAL HOME

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FORMERLY THE CANADIAN DAIRYMAN AND FARMING WORLD

Vol. XXVII.

FOR WEEK ENDING FEBRUARY 4, 1909.

No. 5.

THE POULTRY INDUSTRY OF CANADA

A. G. Gilbert, Manager Poultry Department, Central Experimental Farm, Ottawa

What It Was, What It Is, and of What Vast Importance It Will Be—A Great and Comparatively Underdeveloped Asset.

THE Poultry Industry of Canada, past, present and future, is one of the most important subjects that can engage the attention of the poultryman, be he producer or consumer. It is easy to say "Oh! the poultry industry surely keeps pace with our rapidly expanding country." But does it? There are grave reasons to conclude that it does not. The production of poultry and eggs, although much greater in recent years, has not kept pace with the demand. There are some phases of the past and present markets for poultry and eggs, that must be taken into consideration before we can arrive at a correct estimate of what the future of these markets is likely to be.

First.—What was the nature and value of past markets? *Second*.—Some interesting features of the present day markets and their value. *Third*.—What the future of these markets is likely to be.

It requires a man of years and experience to give you anything like a correct answer to this first query. Twenty-five years ago there was a mighty small winter market in and about the large cities, for eggs and poultry, for there was very little product and few purchasers. People did not expect to get, and did not ask for new laid eggs. Forty cents a dozen for fresh eggs was considered out of the question! And, then, you were apt to be told, the eggs had been kept by some secret process to be launched on the unsuspecting customer during winter. "Any way," it would often be said by a prospective purchaser, "we are sure of the forty cents and we are not of the eggs." The superior quality of poultry was as little appreciated.

FEATURES OF PRESENT DAY MARKETS

There is a feature of the present day markets for poultry and eggs that is positively unique, and in this way. If you were to say to a business man that we had increased home production in the past few years and decreased exports, he would at once say, that you have a home market of very little value. That would be a most likely result. But such, extraordinary to state, is not the case. We actually have in the face of increased home production and decreased exports, increased prices.

As compared with the export of poultry and eggs for the year 1904, amounting to \$1,250,197, those of the succeeding year 1905, show a considerable falling off. The first inclination would be to attribute the decline in exports to a lessened demand on the part of the English consumers. But the reverse is actually the case, for Canadian eggs and poultry of first quality, were never in greater request or in better repute than they are at present. What then the cause? Why the increased value of the home market, or, in other words, "increased home consumption with increased prices?"

DEVELOPMENT OF HOME CONSUMPTION
What has caused the home consumption to so



Free Range and the Hopper System of Feeding
The introduction of the hopper system of feeding has greatly lessened the labor necessary in caring for chicks. It has also proved to be a very successful means of raising them. Scene in the orchard at the Ontario Agricultural College, Guelph.

rapidly develop—in the face of increasing prices?

1. A rapidly increasing population in rapidly developing cities. 2. The high price of meat. 3. The convenience and despatch with which eggs may be prepared in restaurants, quick lunch counters, &c., as well as in our homes. 4. Less waste in a dozen eggs than in many cuts of steaks, roasts, &c., even at the same cost. 5. The frequency with which eggs are now prescribed by physicians in many forms of illness. 6. It is a nutritious and toothsome article of food, a fact which is being more generally appreciated than heretofore. 7. The knowledge, the extra care and effort necessary in the procuring of the strictly new laid egg, and the number of producers who are so situated as to permit of their placing the strictly new laid egg in the hands of the city

dealers. 8. The comparatively new summer market of high prices for the strictly new laid article.

Experience and close observation have shown me that the foregoing are factors to a greater or less extent in causing the increased value and rapid development in recent years of our home market.

PROGNOSTICATIONS AS TO THE FUTURE

The future of the poultry industry I hold is a bright one and for the following reasons:

A. It will offer still larger margins of profit than at present, and in this way: If, under present conditions, the average output from each hen is 60 to 90 eggs per annum and this permits of 100 to 150 per cent. of profit, what will that profit be when trap nest selected hens lay, on an average, 160 to 180 eggs each a year? Think of the results in poultry and eggs! Think of what this will mean to the future poultry interest of the country!

B. There is surely a bright future for poultry because our Eastern country is not only becoming better populated, but the people are becoming more advanced in home comforts and in their tastes for still better food and more of it.

C. There is likely to be vast populations in the new and rapidly developing cities of the West. This means a great drawing on the surrounding districts for food and fuel. Depend upon it, that food will not be of second quality. Poultry of the best description and eggs of undoubted flavor will be a large part of that food. Politicians talk of the teeming millions that are to find homes in New Ontario, Manitoba, Saskatchewan, Alberta and other provinces. And doubtless these millions will eventually be found there.

D. Did any reader ever think of what a large area of surrounding country a great city such as Montreal, Toronto, Hamilton, Winnipeg, Vancouver, Victoria, and our progressive City of Ottawa are assuming tiny proportions? Other smaller cities are rapidly growing up. Did it ever occur to you in connection with these cities, particularly the greater ones, that in recent months a vast number of restaurants, Chinese and otherwise, quick lunch counters, &c., have sprung up. Why, in our tiny little City of Ottawa nearly a dozen lunch counters have been established within the past few months. In these places you will find eggs in every form of cooking are in very great demand, and closely following comes chicken, or, chicken and ham sandwiches. This means an enormous demand in the various centres of population, and it is a demand that is

likely to rapidly increase. In our domestic economy, in physician's prescriptions, eggs are more largely and rapidly playing an important part.

All and every form of the present demand for eggs and poultry greatly magnified, doubled, and trebled, falls far short of what the near future will call for. Surely there is a most encouraging outlook for the Poultry Industry of Canada.

Working the Mare

W. F. Kytle, Norfolk Co., Ont.

I work my mares all winter when I have work for them to do. If there is no work, I turn them out with the colts in the barn yard for exercise. Nothing is more injurious to horse flesh of all kinds than lack of exercise.

After the foal is born, the longer rest the mare gets, the better the foal will be in the fall, but after the foal is two weeks old, there is no reason why the mare should not be given considerable light work.

I would prefer to have the mare here for foal in a large box stall, rather than in the pasture field, even in the middle of summer, because it is much more convenient watching her and it often enables one to be at hand at the time of birth.

How Do You Value a Cow?

What is the proper way to decide the value of a cow? This question was asked by Mr. C. F. Whitley, Superintendent of Cow-Testing Associations, at a dairy meeting held at Keene, Ont., and, as yet, we have not heard it answered. Mr. Whitley gave the following records of the milk production of two cows in the herd of a farmer at Bobcaygeon, Ont.

COMPARISON OF TWO COWS, SAME HERD

(BOBCAYGEON)

TOTAL YIELD OF MILK—SEVEN MONTHS

The Most Profitable Cow

Weight of Milk.....	5595 lbs.
Weight of Fat.....	138 lbs.
Yield of Cheese.....	509 lbs.

Value of Milk.....	\$55 95
Cost of Feed, (7 months at \$3).....	21 00

Profit.....\$34 95

The Least Profitable Cow

Weight of Milk.....	2790 lbs.
Weight of Fat.....	110 lbs.
Yield of Cheese.....	272 lbs.

Value of Milk.....	\$27 90
Cost of Feed, (7 months at \$3).....	21 00

Profit.....\$ 6 90

It will be noticed that one cow gave practically just double the amount of milk in seven months that the other cow did. Does this indicate that she is worth just twice as much? By some, it will be claimed that she is worth more than twice as much because she did not eat twice as much as the second cow, although she gave twice as much milk.

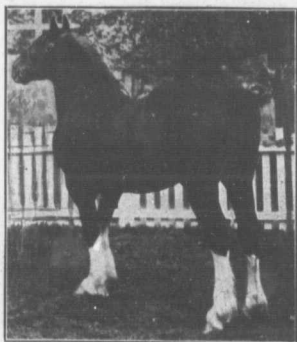
When, however, we look at the profit of the one cow compared with the profit of the other, we find that the first cow gave five times as great a profit as the second cow. Does this mean that she is worth five times as much? If it does not, then how much more is the first cow worth than the second cow?

These figures all go to show that the main profit in keeping cows lies in the amount of milk they can be induced to give above the actual cost of feed. The greater amount of milk the cow gives above the cost of feed, the greater is the proportion of clear profit in handling her. In the case of the second cow here referred to, it will be noticed that while the first cow gave twice as

much milk as the second cow, she yielded five times the profit. This was because once the cost of feed had been deducted, all the milk she produced above the cost of her feed, represented clear profit. For instance, it is infinitely more costly to keep five cows, each yielding a profit of only \$6.90, than it is to keep one that alone gives a profit of \$34.90. By keeping one cow instead of five, the feed of four cows is saved as well as the labor of milking and attending to them, and the space they occupy in the stables. We would like to hear from our readers as to how they think the value of a cow should be determined?

Care of the Horse's Foot

A horse's hoof grows from the top. A structure called the coronary band lies in a groove in the upper margin of the wall of the hoof just between the hair and the hoof which secretes the horny tissue. As a consequence the growth always takes place from above downwards. In a healthy hoof growth is continuously taking place. In order to maintain the symmetry of the foot the amount of wear from the bottom must equal the growth from the top. Anything which destroys the equilibrium which should exist between the growth and wear will injure the foot. If the wear is greater than the growth the hoof will become too



An Imported Clydesdale of Quality

Showing desirable conformation of shoulder, back and grove, with extra fine quality of bone, probably too light to suit all judges. Owned by J. Larkin, Lincoln Co., Ont.

short, hence the need of shoes. If the growth exceeds the wear the hoof becomes too long.

The latter condition is not infrequently met with in colts in winter quarters, especially during their first year. The growth of horny tissue is usually very profuse in young animals and as they are often running in barn yards or stalls which are covered with straw or manure there is practically no wear on the hoof, and it grows very long, sometimes approaching almost to the shape of a man's foot. This condition should never be allowed because the elongated foot throws all the tendons and many of the ligaments of the leg out of their proper bearings and predisposes to various blemishes. With a chisel and mallet the toes should be shortened as often as necessary to maintain a proper symmetry of the foot. When colts are at pasture no trouble will be experienced because there will be sufficient wear on the foot to keep it in proper shape.

Moisture is essential in keeping a horse's foot in good condition. Horses running at pasture every night are sure to have their hoofs very effectually soaked out by the action of the wet grass on the feet and no other application of moisture will be necessary. But when horses are kept in the stable and especially during the dry summer months it is a good practice to apply some moisture to the feet every day. It can be done in various ways such as standing in a tub of

water while they eat their dinner or by placing on the feet boots made out of heavy felt which have been soaked in water.

Some farmers have a puddle of mud in some stalls not used for the night in which their horses are tied every day while they eat their dinner. This is a dirty way of doing the job, but it will soak out the feet all right. Many horsemen will fill up the sole of the horse's foot every night with some moist substance such as linseed meal or sometimes even moist clay and the practice is all right, the only trouble being that while the sole of the foot is kept moist and cool the walls are not benefited at all by the application. Every man must exercise his own judgment as to how he will apply the moisture, but the careful horseman will see to it that it is done in some way for without it the feet of his horse will soon become dry and brittle.—"Centaur."

Winter Care of Sheep

The flock should be strong and in good flesh when winter sets in, and they will be, if reasonable provision has been made for fall feed. If in good condition they will be the more cheaply wintered. They can be kept doing well on clover hay and a few roots—say three pounds per head each day and a liberal feed of pea straw. If a little grain be fed for about four weeks before they lamb—one pound per head each day of mixed oats and bran is good—they will be in good condition when lambing time comes. The grain feed should be doubled after lambing and the quantity of roots (mangels or turnips) increased to nearly all they will eat. This will insure a good flow of milk, and it is during the first two months a lamb is sent on the road to profit or becomes stunted and small. After that age they can more easily be helped by other foods.

The reason for not feeding the ewes largely with roots before lambing is that they are bulky and cold, being largely composed of water, and when eaten in large quantities seem to affect the fetus so the lambs are born soft and weak and very difficult to save. Either turnips or mangels can be fed to ewes with safety, although very many prefer turnips before lambing and mangels after, because the latter are considered better milk producers. But mangels should never be fed to rams. They have the effect of producing stone in the bladder, and sometimes cause serious loss. Turnips do not have this effect and sheep should have more succulent feed when not on pasture. Ensilage is not a safe food, it often or generally is too acid, and will cause severe indigestion, which will in turn cause a loosening of the wool by feverish heat in the skin, and much of the fleece is often lost besides lowering the sheep's vitality.—"Sheep Industry in Canada."

Dealing with Bovine Tuberculosis

C. P. Baird, Vancouver, British Columbia

As yet there seems to be much talk and little action taken by our sister provinces in regard to the checking of that dread disease, tuberculosis. Tuberculosis causes a great annual loss to stockmen, and also causes many deaths among our fellowmen.

There is absolutely no use of any government trying to force upon the people a system for checking this disease, when so many people do not understand what the disease is and the dangers which they and their neighbors are subject to, by keeping animals which are tubercular. The people will not stand for compulsory rules laid down by governments. A policy that is needed is one of education. Bulletins pertaining to various phases of this disease and its control should be published. This subject should be spoken on by competent men at public meetings through the rural sections.

A campaign against tuberculosis has already

been started in British Columbia. The work has been conducted along the right lines; namely, that of education. Last fall the Agricultural Department sent a veterinary inspector to nearly every section of the province where cattle are raised, to hold meetings for the purpose of dis-

cussing the various phases of the disease and methods of combatting it. Teaching of this nature is just what the people need and want, and when they fully understand the dangers of tuberculosis they will then work hand in hand with the government for the eradication of this fatal disease.

"The rural mail service that we are enjoying is highly satisfactory. We have had our mail delivered four times a day coming from both Ancaster and Hamilton. A letter posted in North Dakota at 8.30 p.m. on a Monday reached me by 5.30 p.m. on the following Wednesday. This system of mail delivery is a very great convenience."—J. J. Lyons.

FREE RURAL MAIL DELIVERY IN CANADA

It is now several months since the first, free, rural mail delivery route was established in Canada. It runs between Hamilton and Ancaster, Ont., and is proving a great success. The farmers are delighted with it as their letters published in this article show.

A number of other routes are now in operation in other parts of Canada. Hundreds of Canadian farmers now enjoy the benefit of having their mail delivered and collected at their doors each day. In some cases they have their mail delivered to them twice a day.

It is less than a year since Farm and Dairy started its campaign for free rural mail delivery in Canada. When some 15 months ago we sent our special representative to the United States, to go thoroughly into the question of free rural mail delivery at first hand, we had little expectation that some of our Canadian farmers in less than a year would be enjoying this service. Our representative, who interviewed the Hon. Rodolphe Lemieux, Canadian Postmaster-General, was informed by that gentleman that he was opposed to the introduction of free rural mail delivery into Canada. After we had been publishing our special illustrated articles on rural delivery for several months, the government began to change its views. It saw that the farmers were becoming aroused on the question. By the time the Dominion elections were approaching the government had completely changed its position and announced that it intended introducing free rural delivery in Canada. This shows what the farmers of Canada are able to accomplish through an influential farm paper like Farm and Dairy.

DELIGHTED FARMERS

Knowing that our readers situated throughout the Dominion are greatly interested in this question of Free Rural Mail Delivery that is being enjoyed by a few of their more fortunate brethren,

a convenience rural mail delivery is to me. Our mail carrier starts from Ancaster, a distance of seven miles from Hamilton, in the morning, collecting all letters from the boxes that are turned

OTHERS WILL WANT IT

"So far our rural mail delivery has been quite satisfactory. As our home is situated only a couple of miles from the city and as we have hourly communication by electric railway there



Free Rural Mail Delivery in Canada

Hundreds of Canadian farmers now enjoy the benefit of having their mail delivered and collected at their doors each day, last October. Read the adjoining article.

towards the road, posting them in Hamilton before 9 o'clock. At 11 o'clock he brings the mail from Hamilton, putting the letters and papers in our boxes, and turning them towards the houses. Thus when the boxes are empty they are parallel with the road. At 2 p.m. the letters are collected again and we get another delivery at 5 p.m. A letter posted in Toronto at 7 o'clock in the morn-

ing, with, we do not feel the improvement quite so forcibly as those living at a greater distance. The furnishing of free delivery to those long established mail routes will be only a meagre instalment of what the people would like to have. Should it stop at that the service will, in all probability, cause jealousy and dissatisfaction in the minds of those without the pale. The question is can the government do more at the present time unless they curtail expenses in other directions."—John S. Rowman.

"I have had the pleasure of having the service of free rural mail delivery for some two months. I consider it a great boon to the farming community in this section. The mail is delivered twice daily and does away with the inconvenience of going to Hamilton for expected mail when duties call for us to be at home. I consider the service a great benefit to the farming community in this township."—William Renton.

"We find the rural mail delivery service very convenient and now think we could not do without it. We now receive our letters in good time whereas before they would be two or three days in the post office before we could get them."—Richard Stroud.

"I am well satisfied with the mail delivery and find it a great convenience. We get two deliveries a day from Hamilton instead of having to go three miles to get our mail."—J. Allen Binkley.

GET MAIL TWICE A DAY

"I can speak only in terms of the highest praise of the new free mail service that we are enjoying on the Hamilton and Ancaster route. You can imagine what a convenience it must be to us to have our letters and daily papers brought right to our door twice a day, 11 a.m. and 5 p.m., whereas in former times we had to go to the city, which is three miles distant. We have enjoyed the service now for about three months. It works like a charm and we especially thank the Hon.



Rural Free Mail Delivery—The Post Office at the Front Gate

The photo was taken on the first rural route to be established in Canada. It is between Hamilton and Ancaster. It shows Mr. John A. Brown receiving his first mail from a rural mail box at his gate on Saturday, Oct. 10th, 1908.

we have secured a number of letters from farmers living on the first route established, that from Hamilton to Ancaster. Here is what a few of them have to say in regard to the benefits of this service.

"It gives me much pleasure to tell how great

ing is delivered to us at 11 a.m. the same day. We are perfectly satisfied with the rural mail service. Our letters are posted quickly and delivered promptly. This service has proved itself a great boon to all farmers of this section."—John Buttrum.

Rodolphe Lemieux, Postmaster-General, for honoring the county of Wentworth with the first service."—Jas. Forsyth.

A 50 PER CENT. INCREASE IN MAIL

"We are enjoying the free mail service to the fullest extent. We find it most convenient, receiving our mail and sending it right from our door four times daily. The mail carrier informed me that since the inauguration of this service, the mail matter on this route has increased 50 per cent. This goes to show that people are taking advantage of the service. This mail carrier could serve twice as many people at the same cost by making a circuitous route, and make two deliveries on each route."—E. J. Guest.

The evidence to hand regarding Free Rural Mail Delivery as outlined by the foregoing letters is right in line with the testimony of the farmers in the United States who were interviewed by Farm and Dairy over a year ago and much of which was published in these columns. The service is popular wherever it has been tried and is an unqualified boon to the farming community.

The question of free rural mail delivery will not down. We must have not only the service as at present outlined by the post office department, namely, along existing mail routes, but in all sections where the population is of such a density as to warrant its establishment. Now that the thin edge of the wedge of rural free delivery has been introduced in Canada, let us not fail to utilize every opportunity to agitate for the extension of this service to all parts that can justly claim it. At the same time we must have patience that we may allow the government opportunity to introduce it in the most economical manner possible that we may avoid the costly mistakes that were made by the United States government in connection with the inauguration of the service in that country.

What the Trap Nest Shows

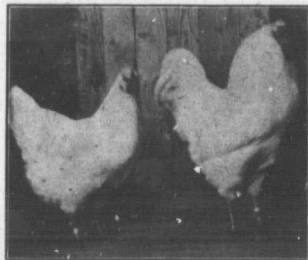
Prof. F. C. Elford, Macdonald College, Que.

Trap nests are to the poultryman what the weigh scales and the Babcock test are to the dairyman. For accurate results they are just as important.

Trap nests tell which hens are doing the work and which are merely boarders or "thieves and robbers" as Mr. Stevenson, of Ancestor, calls certain cows. The trap nest showed that in a flock of 230 hens at Macdonald College one hen gave

there are signs that point towards a good layer, they are not infallible. Very often the hens we think are doing the laying when put under the trap nest prove otherwise. I know of one hen that had all outward indications of a persistent layer but when tested with the trap nest failed to lay a single egg in six months.

For the one who wishes to know what hens are worth keeping the trap is advisable, as it is also for the one who wants to breed up a good laying strain. True, to use the trap nests requires a considerable amount of extra work and some people



Favorites from a Favorite Breed

The White Wyandottes illustrated are the first prize cockerel and the second prize pullet at the recent Peterboro Poultry Show. Note the blocky type and the graceful curves which are characteristic of Wyandottes.

are not so situated that they can install the system, but the results are worth an effort and those who can might do well to try it.

A trap nest is just what the word implies, a trap so attached to a nest that a hen on entering the nest springs it and shuts herself in. The purpose of it is to confine her there until she is released by the attendant, when her number is taken and marked on the egg. A record is kept of the flock on a record card for the purpose. A combination trap nest suitable for farmers' use is shown and described on page 13 of this issue.

Breeding and Feeding Poultry

N. C. Campbell, Brant Co., Ont.

Statistics tell us that the average hen in Ontario produces but 80 eggs in a year. The average hen in experiment stations produces approximately 100 eggs in a year.

The great room there is for improvement in the matter of the laying proclivities of our average hen is well demonstrated when we learn that individual hens have been found, by means of the trap nest, to have laid 250 eggs and more in a year. It is an old saying that the hen that lays is the hen that pays. As farmers we need to pay more attention to the egg producing capacity of the hens kept upon our farms.

But how can we bring about this increase in egg production, desirable as it would be? It is granted by all that such an increase would be a great stroke of business. The surest way to bring about this desired increase is to breed from stock that we have records of. These records to be obtained by the use of the trap nest. To the average

farmer, however, the trap nest is impracticable on account of the labor involved. Their advantage, however, has been vouched for by users of trap nests when they have expressed their surprise at the large percentage of poor layers and drones, and the small percentage of really good layers, that their flocks contained.

Fortunately there are several outward signs whereby we can judge more or less accurately as to the laying ability of the average hen without resorting to the trap nest. A hen, over-fat with internal fat, is sure to be a drone. Kill her at once for use on the table. The hen that matures early is usually a good layer. A large crop is also a good indication. This may be determined by feeling them at night when the hens are on the roost. The pullets that laid well last year will usually repeat the same performance this year. The hen that is broken-down behind had better be disposed of, as the little boy well knew when he said to his father: "Pa, kill the hen with the crop behind."

Much depends upon the selection of the male. A good deal that applies to the hen as outlined above is equally applicable here. Get a male bird of strong constitution, of good size and bone, that matured early and if possible one that crowed early.

The feeding is not a difficult problem when the breeding and the housing are right. Most attention should be given to the breeding, selecting and the housing. A variety of foods should be fed, as well as considerable animal material. Be sure that all food fed is wholesome and clean, and fed in sufficient quantities to produce eggs. This latter is an important point as many do not feed their hens enough to get eggs.

Successful Experience with Incubators

Geo. Pazman, Peterborough Co., Ont.

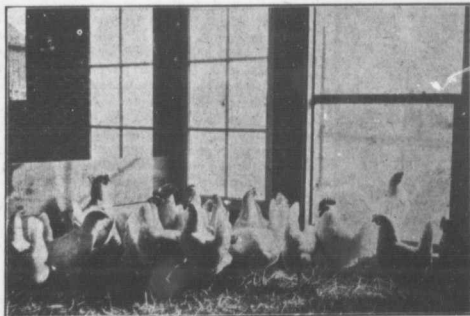
Artificial incubation, as applied to the poultry industry, is one of the cases where artificial means has nature beaten in many ways. I make this statement of my own opinion after many years of successful experience in hatching chickens by means of the incubator. One can never depend upon the hen. He never knows when she will quit. With the incubator it is quite different.

Most breeders look upon a 60 per cent. hatch as a good one; to me a hatch would be "rotten" if it were not at least 75 per cent. In all my experience I never obtained less than 80 chicks from 120 eggs set and I have gotten as high as 107. In this latter case on the seventh day, I tested out eight infertile eggs, leaving 112 and from these 107 chicks were hatched and every one lived through until the time of marketing.

At the outset one must have hatchable eggs before chickens can be obtained. The fertile egg is not always a hatchable egg. On one or two occasions, when hatching eggs for neighbors, the truth of this was amply demonstrated, as I did not get the same measure of success as when eggs from my own flock were set. The breeding stock must be in the best of shape in order to obtain hatchable eggs. They must be exercised and made to work for every bit of food which they obtain. This can be done by burying all the grain in a litter and by feeding green stuff tied up to the ceiling in such a way that they must jump for it. Plenty of fresh air in the house is absolutely essential.

CHOOSE A GOOD MACHINE

In selecting a machine nothing but the best should be chosen. It is advisable to get one of a capacity not smaller than 120 eggs. With the machine that I have (The Chatham) I can hatch anything that can be hatched with a hen. There is a wonderful difference in machines, even in machines of the same make. It is absolutely necessary that the machine be heated evenly in



Healthy Birds in a Healthy "Cold Air" House.

In order to insure success in winter egg production we must provide a suitable poultry house. One that is dry, free from draughts, and in which there is no smell of hens, is the ideal. Another photo of this same house, and a description of it by its owner, Mr. Barlow Cumberland, appears on page 15 of this issue.

four dozen eggs while another gave over eighteen dozen. It showed that ten hens averaged 140 eggs while another ten averaged 14. One hen laid just as many as 14 hens.

In most of these cases there was very little difference in the appearance of the birds. Though

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all parts. This is sometimes difficult to obtain in some incubators.

My incubator was sometimes set in a small room on the ground floor, but most generally in the cellar. The cellar is the best place for it, provided it be not too damp. Before placing the eggs in the machine at all, I heat it up to about 100 degrees and run it at 100 degrees for a day or two making sure that I have it regulated so that it will stay at that temperature. A machine regulated at 100 degrees when empty will register 103 degrees, with the bulb of the thermometer on the eggs, after the eggs are in and have become warmed up. I have set my machine after it has been regulated. I and have never touched the regulator for the 21 days of the hatch, being content all the time that everything was all right.

COOLING IMPORTANT

Cooling is one of the most essential points of artificial incubation. This constitutes one of the great troubles with the average person in running the incubator. They are timid about cooling. The eggs will stand much cooling after the 10th day and up to the 19th. They require lots of fresh air. The chicks are much stronger when the eggs have been properly cooled. Many operators are inclined to shove the eggs back into the machine, fearing to cool them enough.

It is difficult to injure the eggs after the 10th day of incubation. I have frequently attended to my incubator in the morning, putting the eggs out to cool, afterwards feeding 100 head of stock and partook of my breakfast and then went back and put them in. The eggs should be cooled once a day. The hen knows her job, so we should stay as close as possible to her way of doing things. She will get off the nest once a day and thus cool them; if not she should.

Moisture is another important point in incubation. In fact it is the rock on which many incubators have gone to pieces. The amount of moisture is regulated according to the size of the opening of the ventilators. An addition of moisture is seldom necessary. Many are too quick to put in their moisture trays. We must be governed by the size of the air cells. Moisture should never be put in until needed. Each day as the eggs are taken out of the machine to cool it is well to test them, say half a dozen. In this way one is familiar with the state of the air cell at all times. If it is seen that they are drying too quickly or that the space in the air cell is becoming too large, as determined by the diagram furnished in the instructions that accompany the incubator, then it is time enough to add the moisture tray.

THE FIRST EGG PIPPED

When you discover the first egg pipped close up the incubator and leave it until the hatch is through. This is the time that the moisture is most required. Every time you open the door, you will let it out, the chicks thus becoming dried in the shell and unable to extricate themselves. The machine should be left closed for 24 to 36 hours after the first chick has been hatched. This length of time will not hurt them a bit. The chicks are not hungry by any means as the whole of the yoke is in them and this is ample to provide for all their wants. After this period place the chicks in the brooder which has been previously warmed and prepared to receive them.

All the chicks that I have hatched from incubators have always been healthy from the start. I have never had any of the white diarrhoea which we hear so much about. I have not lost a half dozen chicks in all my experience with artificial incubation. I attribute my success to the vitality of the eggs, and to my breeding stock. I have always had good luck in obtaining good hatching eggs, which luck came about by giving the very best attention to that part of the business.

After the chicks are removed to the brooder, the first thing I give them is grit. Grit must be



An Ideal Summer Location That Is Available on Most Farms

Farmers' birds that have an abundance of free range, make the best returns in the feeding crates. Photo taken on Mr. Foley's Place in Durham Co., Ont.

given into the chicks at the start else they cannot grind their food. Lots of chicks are killed by feeding them too soon and from failure to recognize that the great need of the chick, is that of grit from the start. *Once they have been properly started with plenty of grit, one can feed almost anything without danger of killing them.

In addition to anything said in the foregoing, one must follow the instructions sent with the incubator, mixing in with such some good common sense and good judgment. If one would meet with the greatest measure of success in artificial incubation, he must produce the eggs he sets. One cannot depend on others. With eggs from your own stock, which have been properly cared for, you will be sure of what you are setting, and success is practically assured.

Agriculture in Europe

While comparing farm life in Europe with farm life in Canada, in an address delivered at the convention of the Eastern Ontario Dairymen's Association, held recently in Prescott, President G. C. Creelman, of the Guelph Agricultural College, stated that when he left Canada with the

remembrance of a year's record of 20,778 lbs. of milk, that had been given by a cow in the college herd, he was not prepared to find, when he landed in Italy, goats being driven from door to door and milked in front of each house to supply the needs of the people. Neither did he expect to find the people spading the land for crops. Labor in Italy was so cheap, in some sections costing only 25c a day, and being poor in proportion, it was possible for the farmers to spade their fields with spades made in blacksmiths' shops and yet make a profit from land for which they paid a rental of \$5.00 an acre.

Mr. Creelman claimed that in Canada, our farmers are inclined to work too much land. This prevented them from working the land as systematically and thoroughly as they should and as is done in many sections of Europe. The difference between the average production of the farm lands of Ontario and the possible production is over 100 per cent. This, President Creelman claimed, showed what a great improvement we could make in the working of our lands.

Pea Weevils

Eunice Watts, Kings Co., N.S.

Now is the time to pick over and select the peas for seed, many of which will be found bored by the pea weevil, *Bruchus pisi*. This insect is a small ash-gray beetle barely three-sixteenths of an inch long. It's wing cases are cut off squarely which leaves the end of the abdomen unprotected. Like other weevils this pea-bug is armed with a snout which is somewhat blunt.

These beetles weaken the seed peas by eating the stored food which sometimes destroys the germinating power. In the spring-time the beetles emerge from the peas and later lay eggs in the young pods where the larvae grow slowly.

In order to prevent these ravages all peas should be gathered in from the field. After they are threshed the punctured peas should be picked out and burnt or, better still, boiled for the pigs or hens; but they must not be planted or left undestroyed. Another remedy is to subject the infested peas to the fumes of bi-sulphide of carbon in a tight box, care being taken to remember that this colorless liquid is highly inflammable.



Don't Be Afraid of That Honk on Wheels, Dear, I'll Protect You

Alberta has developed into one of the best Dairy settlements in Canada. The production of milk in Alberta last year showed an increase of about 30 per cent. It will soon be the principal industry for a large portion of the people of the Province.—Dairy Commissioner, J. A. Ruddick,

NAMES OF INTENDING BUILDERS

We will send a handsome present to those who **First** send us the names of people who intend to erect or repair **SHINGLES, CORRUGATED SHEETS, SIDINGS or CEILING**s. The buildings may be barns, houses, school houses, churches or town halls, etc.

We will also give **THREE CASH PRIZES**, as follows:

- \$5.00 in Cash for the list which brings us the best business
- \$3.00 in Cash for the list bringing the second best business
- \$2.00 in Cash for the list bringing the third best business

All lists are to be sent in by the end of February

Names may be sent in at different times, and the person sending in any name first gets the credit for it. So rush along at once the names of intending builders whom you know of now, and make enquiry so that you can send in more names later on.

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if you count the results it gives.
Livingston's Oil Cake is just what cows need.
It tastes good—is easily digested—keeps stock in prime condition all the year round—actually increases the percentage of Butter Fat by 16% over Pasture Grass. The richer the cream, the more money you make. Livingston's is the feed that pays for itself.



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**"Hitch up" to
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"Tandem."** It will pull
Big Business your way. And
you desire more money.

Every ambitious man desires to earn more money. If you are in that class, here is your golden opportunity. "Hitch Up" to the "FROST" Fence "TANDEM." It will "Pull" big sales your way.
The leading horse represents "FROST" WOVEN FENCE. The New Fence that holds the record for big sales. That created such a big sensation last year. The fence with the greatly improved and absolutely secure tie. The ONLY Woven Fence with necessary provision for expansion and contraction.

The second horse represents "FROST" FIELD ERRECTED



FENCE—the "old reliable" that was the choice of those who indulged in the use of Wire Fence eleven years ago. It has been their choice every year since. Built with Coiled Wire Horizontals, No. 7 Hard Steel Uprights and secured with "FROST" Galvanized Metal Binding. Fences built eleven years ago are still the pride of the farm.

We are largely increasing our manufacturing capacity and new

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"Frost" Fence

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Record of a B. C. Herd

Ed., Farm and Dairy—I include herewith a summary of the work done by the dairy herd of Messrs. Halliday Bros., Sandwick, B. C., near the northern extremity of Vancouver Island. This will show your readers that good returns from dairy cows are not confined to the eastern provinces, nor to districts adjacent to large cities.

Name	Total lbs. milk.	Total butter fat.
Edna	6131	263.76
Sophie	7262	320.68
Maida	1837	107.25
Maida (aborted twice)	1837	107.25
Pop-sar	6928	347.18
Kirsty	7088	317.54
Blackie	7707	384.40
Lilly	7026	342.98
Brdie	8745	352.11
Sanson	4509	198.16
Ethel	7230	306.25
Daisy	5570	262.32
Maad	5324	325.31
Crazy	5940	260.90
Prizie	6002	247.85
Cle	5558	282.26
Mary	6564	282.89
skippy	6037	328.99

Estimated butter	4773.82
Average per cow	\$569.45
Average price for butter	6210.
Average returns for butter	\$310.04
Average price for skim milk, 15c.	
Average returns for skim milk	9.00

Estimated cost for feed	70
Total profit per cow	\$70.04

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

Results of Co-operation

"The foundation of the success of the cheese industry in Ontario is co-operation," said Mr. Elmer Lick of Oshawa, in a discussion at the Experimental Union meeting in Guelph recently. "Co-operation made possible the grand results of this branch of Dairying. We are inclined to forget the co-operation which was practised

by our first settlers, in times of trial of house and barn building and of clearing.

"The poultry industry could be developed along co-operative lines as much as has been done in apples at Oshawa. By handling poultry in a co-operative way, we would have more poultry and that of better quality to sell and it would bring a better price.

"Co-operation," the speaker concluded, "is a subject that we are only in the beginning of. We must learn from our mistakes—and keep at this great work until we make Ontario a much better country than any other."

The Feeders' Corner

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

Gluten Feed—Feeding Calves

I notice in many feeding rations, particularly those intended for official testing is feed called "gluten feed." From what I know in this district, I am sure it is commercial value. I asked my millman about it, but he was unable to tell me. Is there any scientific reason or is it a mere whim for the theory that heifer calves are injured for heavy milk production by becoming fat?—R. Miller, Welland Co., Ont.

1. Gluten feed is a by-product from starch or glucose factories. These factories use immense quantities of corn. The starch is extracted and treated so as to make either heavy starch or edible starch, or else it is converted into glucose or sugar. The residue from these factories is dried and ground into a preparation called "gluten feed." Sometimes the starch and certain other parts of the residues are not mixed with the starch residue proper. This starch residue is then ground and called "gluten meal." Gluten meal is fairly free from fibre and should show from 33 to 36 per cent. protein. Gluten feed is likely to show anywhere from 14 to 18 per cent. protein. It is cheap, comparatively poor feed, made of gluten meal, Corn-bran, and corn oil-cake, are other preparations from such factories. Gluten meal is one of the best feeds for dairy cows and beef production that can be found. All these feeds should, however, be bought subject to guarantee of composition.

2. Heifer calves are indubitably injured by being fed such a way as to fatten them rather than induce growth. To state the reasons fully would involve a very long article. It may be summed up by saying that getting fat is a habit in animals. Do not form such a habit in your dairy cows because it is milk, not fat or heavy flesh you want from them. Do not starve heifers, keep in good condition and keep growing rapidly. Feed very heavily for four or five months before cropping first calf.—J. H. Grisdale, Agriculturist, C. E. F., Ottawa.

Crushed Grain—Feeding Cattle Sheaves

1. In grain that has been crushed for some time equal in feeding value to newly ground grain. Am told that when the hard shell enclosing the kernel has become broken through the process of crushing the meal loses its strength by being in contact with the air, etc.

2. In feeding cattle would cut oat sheaf give better results than threshed oat straw with the grain crushed?

Grain that has been crushed for some time does not lose in feeding value appreciably. Its general composition remains practically the same as before crushing. These statements require qualification and modification to some extent, because although the chemical composition is not materially altered, the flavor of old crush-

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

3d grain is not so marked nor apparently so liked by cattle as the flavor of newly crushed grain. Further there is danger of more or less fermentation or heating; the meal is apt to become musty, moulds may grow and thus though the chemical analysis may show practically the same composition, results from feeding are not so good on account of unpalatability. Palatability of a meal counts for much in the results to be expected from it.

2. In feeding cattle cut oat sheaf is likely to give somewhat better results than threshed oats and straw. The reasons are as follows: (1) In harvesting for such a method of feeding the cutting is usually done on the early side and the straw retains a considerably greater amount of food, and is more palatable than if cut later for threshing. (2) When feeding meal and straw the meal is not like-ly to feed the crushed grain in such liberal proportions as would be the case when feeding cut oat sheaf. (3)

Clydesdales. It removes the character of the animal and it is very doubtful if it would prevent scratches. In fact the presence of the hair is claim-ed to be a preventive. Make a lotion of one ounce each of sulphate of zinc and acetate of lead mixed with a pint of water. Dress three times daily with this. If the parts become too dry and hard dress for a few days with carbolic acid one part, sweet oil 25 parts. It is good practice to purge with ten drams aloes and two drams ginger and follow up with two ounces Fowler's solution of arsenic twice daily for a week.

SWOLLEN LEGS—WORMS.—Yearling colts legs are swollen, his blood is out of order, and it passes worms.—Subscriber, Simcoe Co., Ont.

Take 1 oz. each sulphate of iron, sulphate of copper, tartar emetic and calcium mix and make into 34 powders. Give a powder every night and morning, after the last powder has been taken give 12 oz. raw linseed

Our Legal Adviser

BACK WATER FROM DAM.—A miller has a dam on a creek, which creek averages ten feet wide, and the foot deep, and flows across my farm. The dam breaks the water on to me, and floods the flat be-tween the high banks. The flat is valua-ble to me for pasture and hay. The pond is situated partly on my land, and crosses a road allowance not yet opened between the high banks. The pond, when the mill and dam are situated. About 25 years ago, when the mill was being built, my father who then owned my property, objected to the water being backed up on his property. As no legal proceedings were taken, the mill was built, and run till about ten years ago. Since, nothing was done until last summer, the mill was sold, and when the owner said he was going to fit it up, I notified him that he would have to pay damages, but he said he had a right to the land it flooded, and that I could do nothing. When the water was first backed up, the land was not cleared, but since I became owner, about five years ago, it has been cleared. Can I hinder him from backing the water on to my land? If so, how should I proceed? Can I force him to pay rent or damages? If so, how should I proceed?—Agriculturist, Tekumseh, Ont.

The person owning the mill is not entitled to back the water upon your land unless he has either, (1) an express grant from you or your predecessor in title giving him that privilege, or, (2) has for a period of twenty years continuously, and as of right, backed the water up on the land. From the facts stated in your enquiry, we are of opinion that he is not entitled to do so in the manner spoken of, and you have a right to bring an action, asking for damages, and for an injunction to restrain him from interfering with your rights.

PAYING LOST TIME OF SURVEYOR.—Two farmers in North Hastings employ a Provincial Land Surveyor to run their lines. The surveyor loses two or three days in finding the Township line which is almost obliterated. I have the farmers a right to pay for this part of twenty years. How should the surveyor collect this after paying the surveyor? Can the farmers collect from the township for the surveying of side road lines?—W. R. W. Hastings Co., Ont.

The farmers who employ the Provincial Land Surveyor are responsible to him for the work which he did, and there is no legal obligation upon the township to pay the surveyor, nor have the farmers any claim over against the township. We would suggest an application to the township to assist in meeting the expense, as no doubt the services rendered by the surveyor, will prove useful to other ratepayers.

I am much pleased with the fountain pen I received from you for securing one new subscriber to Farm and Dairy.—Thomas Phelan, Blyth, Ont.

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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 rail-way rates, etc.

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

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A Record Breaking Cow Sold for a Record Price

Sara Jewel Hengerveld 1rd has a record of 30.39 lbs. butter in seven days; 121.37 lbs. butter in 30 days. This Holstein-Friesian cow was recently sold by Brown Bros., Lynn, Ont., to F. F. Field, Brockton, Mass., for \$2,000, the highest price ever paid for a Canadian Cow, at the same time for \$1,200. FARM AND DAIRY has seen the papers confirming these sales and the prices paid.

The mixing of the grain and straw so intimately as is the case in feeding cut oat sheaf insures perfect digestion of the grain, and (4) the palatability of oat sheaf is greater than oat straw and meal or crushed oats.—J. H. Gris-dale, Agriculturist, C. E. F., Ottawa.

Our Veterinary Adviser

SCRATCHES.—A Clydesdale mare has broken out with scratches on her heels. What is the best thing to do for this trouble? Would you advise clipping the long hair off her legs in the fall, in order to prevent this trouble?—H. O. Bruce Co., Ont.

It is not considered good practice to clip the feathering of the legs of

oil. Turn out for exercise for a few hours daily.

FARDEL BOUND.—A cow does not eat well. She has a gaunt appearance, and for the last couple of days has been grunting in a way which makes me think she is farfel bound. What can I do to alleviate this trouble?—J. C. Middlesex Co., Ont.

You are in all probability correct in your diagnosis. This trouble frequently proves fatal. Give a brisk purgative of two lbs. epsom salts and one ounce ginger. Follow up with two drams nux vomica three times daily. If purgation does not occur in 36 hours give one pt. raw linseed and one pt. treacle. Repeat this dose twice daily as long as necessary. If she will not eat anything drench her with a sufficient quantity of boiled flax seed to sustain her.

RAW FURS and HIDES
Write for Weekly Price Lists. Shipments Solicited.
JOHN HALLAM TORONTO, ONT.

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HORTICULTURE

British Columbia Fruit

A. H. Hudson, *Duncan, B.C.*

As reported in a recent issue of Farm and Dairy, British Columbia did exceedingly well at the apple show in Spokane, securing with practically only two exhibits, \$3,000 worth of prizes out of \$35,000, and this in the best apple section of the United States, and in competition with the most advanced growers.

In Farm and Dairy's report, mention was made of the three prizes won by Mrs. Smith, of Spence's Bridge, for apples and packing. This fruit was put up and packed by W. Palmer, a son of R. M. Palmer, Deputy Minister of Agriculture for British Columbia, a most creditable achievement especially considering the fact that the fruit was packed in Vancouver and shipped about 500 miles, whereas a large proportion of the exhibits for packing prizes were packed in Spokane itself.

Bark Splitting

W. T. Macoun, *Central Experimental Farm Ottawa*

Bark splitting is a form of winter injury to fruit trees which usually occurs on young trees. It is due to the expansion caused by frost when trees are in a very succulent condition. It occurs when trees have grown late in the fall and there is a sudden low drop in temperature. It will occur when trees have grown late and there is a heavy fall of snow before the ground freezes. The soft snow appears to soften the bark of the tree and when the temperature drops suddenly the moisture under or in the bark expands and loosens the bark from the trunk or kills the cambium.

In Nova Scotia, the Gravenstein and other apples are affected with what is known there as "Crown Rot," which apparently destroys the bark about the tree near the ground. From what we can learn of this injury, which occurs mostly in well-cultivated orchards and in moist ground, we believe that the cause is that the Gravenstein grows too late and is subjected to the conditions just referred to, of being too full of sap. Traces of disease have been found at these injured parts but we believe that the disease is secondary rather than the principal cause, though we have not had an opportunity to study the injury there.

Bark splitting can be prevented to a large extent by having the wood of the trees well ripened when winter sets in, and this can be brought about, usually, by stopping cultivation in good time. When young trees are injured by bark splitting, they may be saved if not too badly hurt by covering the injured parts with grafting wax.

New Brunswick Fruit Meeting

At a recent meeting of the New Brunswick Fruit Growers' Association the president, Mr. Isaac Stephenson, of Sheffield, in his opening address, outlined the work of the association and gave much valuable advice on fruit growing with special reference to the growing of apples and shipped them direct from St. John to England.

The revised prize list was criticized but no amendments were made. A committee was appointed to confer with the Nova Scotia Fruit Growers' Association with a view of establishing a uniform score card for judging fruit. Another committee was named to wait on the Government and ask for an annual grant for the association. The secretary was asked to correspond with barrel manufacturers and to impress upon them the neces-

sity of improving the quality of their stock.

The subject of small fruits was discussed by Mr. W. Teed Inch, Mr. J. C. Gilman and others. The discussion was led by Mr. W. T. Macoun and brought out many valuable points particularly in the matter of varieties of strawberries. Hardy varieties of fruits also were discussed by Mr. Macoun. An address on "Evolution" was given by Dr. Hamilton and one on "Insects" by Mr. Wm. McIntosh, of St. John. The principal prize winners in the fruit exhibit were: J. C. Gilman, Fredericton; Norman Hallett, Douglas; J. W. Clarke, Maugeville; Isaac Stephenson, Sheffield, and S. B. Hatheway, Fredericton.

Co-operation.—At the convention of the Quebec Pomological Society, held a short time ago at the Macdonald College, Mr. Harold Jones, of Maitland, Ont., touched on co-operation. He said that this system of growing and handling fruits attracts buyers because they can get what they want. It widens the market. It brings higher prices because complex cars can be filled at one time with the stock that the buyers want. It economizes in the buying of material for spraying, marketing, and so forth. Most important is its influence in improving the pack. Growers that pack co-operatively can pack more uniformly.

The practice of spraying does not consist of simply throwing spray materials on the trees. It does not mean spraying six or seven times a season, but means spraying correctly at the right time.

Protect the strawberry patch with a covering of straw or dry manure. If the winter is mild, it may mean the difference between a good crop next year and a total failure.

FENCE TALK No. 6

The Page "Empire" Fence (White Brand)—there's a fence that outclasses them all, at every point of fence-value. It's the strongest wire-fence made on earth, and it will outlast two—yes, three—ordinary wire-fences.

It is not an expensive fence, although every upright and every horizontal wire is made of 9-gauge steel. Not expensive even though its horizontal bars are High-Carbon Galvanized Steel wire guaranteed to stand 2,400 lbs. tensile strain without breaking. (Other fences use "hard drawn" wire, that breaks at 1,800 lbs. and less.)

Not expensive, even though it's coated with a permanent white that defies weather and rust and makes it slightly enough for a palace lawn.

Decidedly not expensive, just as any Page Fence is not expensive, because the toughness of the wire, the springiness and the solid-joint lock-knot, insure that this fence will stretch tighter, stand up better, and never sag, even though but two posts are used as against three on any other fence.

With all its betterments, that no other fence even approaches, a Page "Empire" Fence costs less, in the first place and in the long run once it's up, than any fence made.

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"PAGE FENCES WEAR BEST"

THE MOST IMPORTANT FARM MACHINE

THE MANURE SPREADER

Are you Saving Money, or are you Losing it by being without One?

You believe that money spent for a mowing machine or a binder is well invested. Still you use these machines only a few days in the year.

You use the hay rake, because it saves you time and labor.

These are valuable machines. They are now counted indispensable by most farmers, even though they stand unused over eleven months in the year.

But a manure spreader is a still more valuable machine. Its purpose is to keep up the fertility of the soil. It is the machine you use *all seasons*, and the one on which the real usefulness of all your other farm machines depends.

If you have not already done so, you should consider now the advisability of having an I. H. C. manure spreader on your farm.

You will have choice of two different spreaders in the I. H. C. line—the *novate* apron spreader, and the *Corn King*, return apron spreader. Each of these spreaders handles the manure in all conditions perfectly and will give you long satisfactory service.

These spreaders are not ordinary. Their frames are made of air dried wood stock. They have serviceable, *patented*, power producing wheels, beaters that are unsurpassed for tearing the coarsest manure into the smallest pieces and applying it uniformly, aprons that deliver the manure to the beater with the least possible friction and

in a uniform manner. Any one of these machines will, if given proper care, last a lifetime.

The labor of spreading manure is greatly lessened by using one of these I. H. C. spreaders. Not only is the labor lessened, but it is changed into agreeable work.

But the strongest reason for using an I. H. C. spreader is the increased value you get out of the manure. The best authorities agree that manure spread by an I. H. C. spreader has at least double the value of manure spread by hand.

The I. H. C. spreaders pulverize and make the manure fine, and spread it evenly over the ground just as thick as you wish it may be required. The manure spread upon the ground in a condition that is at once available for plant life. All is washed by the first shower into the soil—none is wasted.

The good effects upon the crop are immediate and the permanent benefit to the land is greater than when the manure is spread by hand. There is no question but that land manured by an I. H. C. manure spreader will give an increased yield of from two to ten bushels per acre over land where manure is spread by hand.

Consider the labor saved, the more agreeable work, the better crops, the more fertile condition of the land—is not an I. H. C. manure spreader the machine you should have?

Are you not losing money instead of saving money by being without one?

Call on the International local agent and investigate one of these machines. He will supply you with catalogs and particulars, or if you prefer write nearest branch house.

CANADIAN BRANCHES: Brandon, Calgary, Edmonton, Hamilton, London, Montreal, Ottawa, Regina, Saskatoon, St. John, Winnipeg.



INTERNATIONAL HARVESTER COMPANY OF AMERICA (INCORPORATED) CHICAGO, U.S.A.

Natural Hatching and Artificial Brooding

J. H. Callander, Peterborough Co., Ont.
The early chicken is one of the things desired by the poultryman. The problem of getting them hatched and to keep them growing till warm spring weather comes is a source of endless study. The plan that I followed with my last pen of pure-bred fowls proved a most gratifying success. It was not the result of any special line of study. I was on the other hand forced to adopt it or lose a season's benefit from an expensive pen of imported birds. I herewith give it for the benefit of readers of Farm and Dairy.

My fowl house was in a corner of a barn with a big door opening to the south. The roosting pen was airy but not draughty, the door being closed at night. First thing every morning, storm or shine, all doors were thrown open. Under these conditions, with the run of a dry barn floor and a snow covered yard outside, sheltered by the house and high board fences from all winds, and fed on a well balanced ration including plenty of cut bone, the pullets began laying shortly after their arrival from the States. They kept it up at a record making rate till I became alarmed at the thought that they would all be broody when I wanted eggs in March.

HATCHING WITH "CLUCKERS"

With this in mind the neighborhood was scoured for "cluckers." Three or four were secured that stood the move, and settled down to incubate from nine to 11 eggs each. I set them in a stall that had been partitioned off for their exclusive use. While the hatching was going on, preparations were made to care for the chicks that were expected. These duly arrived. In the meantime I ordered a 120 chick brooder for out-doors. Next I got a piano box, laid it on its back and re-

moved the slanting part of the cover and replaced it with a glass sash.

SETTING TWO HENS AT ONCE

Two hens being set at the same time, the chicks were taken from one and given to the other, the one hen being reset, and the other put in the piano case with all the chicks. The hen brooded the flock closely for several days. They were then strong and lively and were put in the brooder out doors. As fast as a hatch arrived, they were handled in this way, and the way they thrived was a surprise and delight to me. The hatching was all got over in a short time and as soon as the number of chicks were out that were wanted, no more eggs were set. In this way the entire flock of nearly 100 chicks were hatched inside a period of six weeks, and were thus of a very uniform age, a fact that meant a great deal when they were half grown. The big ravenous crowd would have left a single brooder for little fellows to get a living amongst them.

FEEDING THE CHICKS

The chicks had food and water constantly before them from the day they were hatched till they were full grown. The hopper and fountain methods of feeding were followed. Meat meal, (dry), granulated charcoal, and grit, were also kept within reach, and were made good use of by the birds.

This was my first experience in hatching with hens, and raising the brood with a brooder. To me it was the most successful season I had ever had, except when engaged in the business on a larger scale. The birds were as early as could be desired, and my yard in May and June, with a uniform flock of pure bred Columbian Wyandottes was a sight that attracted the attention of passers by whether interested in poultry or not.

Renew Your Subscription Now.

The Raising of Geese

W. D. Card, Northumberland Co., Ont.

Geese are very profitable to raise as they require but very little attention and very little feed. This is especially true of the large breeds of geese. I have been raising geese for 14 years. I started with the Brown China Geese, afterwards trying the white Toulouse variety with which I secured much better results. Not being quite satisfied with these, I purchased a



A First Prize Embden

At the recent Peterboro Poultry Show. Owned by W. D. Card, of Northumberland Co., Ont. Read his article in this column on Raising Geese.

trio of the Large Embden. These latter have proved the most profitable of any, as they are very quiet, lay more eggs and produce more feathers than other varieties.

During the breeding season, I mate two ganders with six geese and have received good luck in getting hatchable eggs. Each old goose will lay from 25 to 30 eggs. The young geese will lay from 20 to 25 each. The first

laid eggs I set under hens, giving five eggs to each hen. The eggs must be turned twice a week. During the third and fourth week, I sprinkle them with water. I have always secured good luck in hatching with hens when following out this practice. After they are hatched I put them in small coops where there is plenty of good green grass. I make a small run for each hen by means of three boards in which paddock the goslings are kept until they are a few days old. This precaution is necessary as the goslings do not understand the cluck of the hen as well as they do the call of the old goose.

I feed the goslings bread crumbs and rolled oats for about four days, after which all they require is plenty of grass. They prefer red clover and will grow faster if provided with it. If a creek is not convenient for them, provide plenty of water in a long shallow trough. They will do just as well with this latter.

Most of my geese are sold for breeding purposes. They bring from \$4 to \$5 a pair. I pick out the poorest ones and sell them at Christmas time for from \$1.50 to \$1.75 each, after they are picked and drawn. The young geese will average about 18 lbs. in weight while the old geese will average from 20 to 24 lbs. each. To some this may appear large, but my geese will weigh that about three weeks before I want to kill them. I commence to feed with mixed grains, namely peas, corn, barley, and buck-wheat. When shut up they fatten very fast and take less feed than if allowed to run at large.

Raising Chickens

Jorden Main, Wentworth Co., Ont.

From my own experience in the poultry business, I am of the opinion that where a person is raising less than 200 chickens, it can be done successfully by means of natural incubation.

DO YOUR
HENS LAY
IN WINTER?

COOPER'S FLUID

IS UNRIVALLED. READ WHAT MR. DURHAM SAYS

TESTIMONIAL

MESSRS. WM. COOPER & NEPHEWS,
506-507 Manning Chambers, Toronto.

Dear Sirs,

It affords me great pleasure to testify to the merits of your **Cooper's Fluid** as a disinfectant for poultry runs and pens. For some time I was troubled with mites and lice amongst my hens, and in consequence they were off laying considerably. I was at a loss to know how to remedy this till I tried your fluid, and I was delighted with the results. After a couple of sprayings my hen house, nests, boxes, and the whole pens were absolutely clear of vermin of every kind, and the birds at once showed better condition and laying capacity.

Yours very truly,

(Sgd.) W. H. DURHAM.

ISLINGTON, ONTARIO,
December 1, 1908.

ON SALE AT DRUG STORES AND SEED STORES

WRITE FOR OUR BOOKLET A

WILLIAM COOPER & NEPHEWS, TORONTO, ONT.

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

tion with hens. If a person is raising more, the incubator is the best solution for hatching them where they are wanted in larger numbers. We raise between 100 and 200 chickens every summer, hatching them in April by means of hens.

We yard our chickens and feed them by means of the hopper system, the hopper which contains a mixture of chopped grains is before the chickens at all times and they may eat whenever they choose. They seem to grow much quicker when fed by this system.

As soon as the chickens are old enough and of proper size, we put them in a fattening coop for about two weeks. They fatten much nicer when fed in coops. We sell our chickens before the cold weather comes on. Barred Rocks, with which all are familiar, are the best all-around hens for the farmer, although we keep other kinds as well as Rocks. We take good care of our hens and generally succeed in getting eggs the year round.

A Marked Improvement

Ed., Farm and Dairy—Looking back over our past season's business we are glad to say there is a marked improvement in the general condition of the poultry we have received. We have been better off than for some years past to educate the farmer to dry-pluck their fowl. Until the past two or three years three parts of the poultry received used to come in scalded, the result being we had to sell it for from three to four cents a pound less than we could realize for the dry plucked stock. After scalding, poultry turns dark very quickly, and it is very hard to sell.

A gradual improvement has taken place; this season we are safe in saying 75 per cent of our receipts have been dressed according to our instructions. The farmers have received much better prices, and could profit still more if they would pick out the thin birds and fatten them up before scalding them to eat.

We might also add that if these people would only starve the birds for at least 24 hours before killing, and take the trouble to kill by bleeding at the mouth or throat, it would give them a much nicer appearance. The W. W. Davies Co., Limited, per Jas. W. Atherton.

The Management of Turkeys

Ed., Farm and Dairy—Replying to your enquiry as to how we managed our flock of turkeys last year which won the prize of a silk umbrella offered by Flavell's Ltd., of Lindsay, for the best flock of turkeys of over 30 birds, sent to their establishment. In the first place we always endeavor to select well-bred birds to breed from, using the Mammoth Bronze variety. During the winter time we feed the hens a moderate ration so as not to unduly fatten them.

When possible we have them lay where they are going to set and hatch their brood. When practicable each bird is given her own eggs. When the hens are hatched we keep them indoors for three or four days on a dry clean floor in a well ventilated building allowing them to run out only when the day is sunny and clear. They are put back, invariably, to their dry clean floor every night. They are never allowed to sleep on the ground for a single night. This sometimes requires unremitting care and attention. In a few weeks the old hens will be so trained as to return of their own accord to their accustomed place of shelter. As soon as the young turkeys are old enough, suitable roosts are fixed for them in this shelter.

After the poulters two weeks old they are allowed to run out at will, except in the rain. They must come back every evening, otherwise we bring them in. They are allowed to

roost out in mid-summer, but they must roost in the yard. When the nights get cold in the fall, we bring them under well ventilated shelter to roost.

The young turkeys are fed bread soaked in sweet milk at the start gradually changing them on to a ration of small wheat, after which they receive two more soft feed nor roots, but simulate a liberal supply of small rich grain. We continue feeding some grain all through the season, then it requires no extra feed to finish them. Clean water is furnished them at all times.

The worst thing we have to contend with in raising turkeys is the foxes. We have lost more through their depredations than from all other causes.—M. D. Sullivan, Peterboro Co., Ont.

Trap Nest For Farmers' Use

F. G. Elford, Macdonald College, Que. The chief difficulty to installing the individual trap nest is the labor it involves. On this account, those who do not specialize in poultry are apt to think the results do not compensate for the extra work. There are a number of devices intended to overcome this objection, some of which may be good. We had what we called a "combination" that gave fairly good results last summer. The nest, or the

combination of nests, are so arranged that a visit twice a day is all that is necessary. Figure 1 shows the front of this.

The combination of trap nests are six in number. Each nest has an

top of the nest. See figure 2. As the hen enters at 1 the door that is hung at the top with hinges on the inner side, allows her to enter and then falls shut again, and keeps her from coming out. When she has laid, the

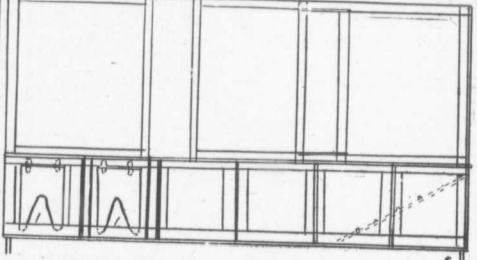


Fig. 1.—Front View of Combination Trap Nest

opening about nine inches square that leads into a box 12 inches square and 18 inches deep. At the back of these there is an alley about ten inches wide running along the full length six ft. At one end there is a small gangway or staircase leading to the

only way out is along the passage way at the back and seeing daylight up the stairway, she walks up and finds herself in a pleasant wire cage, the full size of the nests. Here she finds water and plenty of grain in litter.

As many hens as care to can enter

Mounted by a Student



LEARN TO MOUNT BIRDS AND ANIMALS!

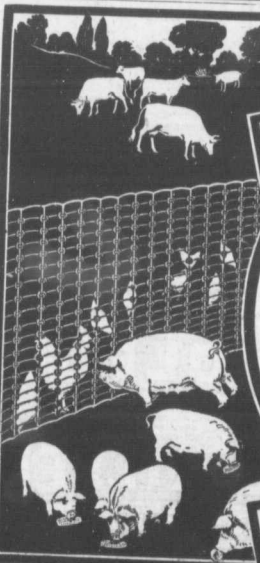
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TO HUNTERS AND TRAPERS! Mount your own trophies, with beautiful mounted specimens. Have Taxidermy bills. Many of your home and den you can turn and throw away can be turned into CASH. You will buy of the birds and animals you kill and sell them at a profit. Thousands of successful students—men, women and boys make it your wish. You can learn to do perfect work in a few weeks.

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 For a limited time only our beautiful Illustrated Book on Taxidermy, Sample Copy or the TAXIDERMY MAGAZINE, Sample Diploma and full information how we teach this fascinating art by mail. **POST YOURSELF** on this wonderful opportunity. Your name and address on a postal will be sent for the free books at once. Don't delay—send right now, today.
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One Student says: "From October to March I made \$1,000.00 out of my Taxidermy work and attended to all my work besides. Your lessons are fine and I would not make \$100.00 for them if I could not get another set. Every specimen in the country should know Taxidermy. I recommend your school heartily to everyone."



Peerless Jr. Poultry Fence

will turn as large an area as well as small poultry. The top and bottom wires are No. 9 hard steel wire—heavily galvanized to prevent rusting. No top or bottom boards necessary because the heavy wires take the place. PEERLESS JUNIOR Poultry Fence almost pays for itself in the saving made on fence posts makes of poultry fencing. Peerless Junior Poultry Fence is

Close enough for Poultry
Strong enough for Stock

Don't let your chickens eat your hog feed nor permit your hogs to tramp all over the garden. The same fence serves both purposes. PEERLESS JUNIOR Poultry Fence can be used as an all around General Purpose Fence. The wires are held together by the famous PEERLESS lock that cannot be slipped. PEERLESS JUNIOR Poultry Fence adds greatly to the appearance and value of the property it encloses. Write today for Free Fence Book which tells all about Fences—and how to choose fencing.

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The Fence That Saves Expense

don't crowd one another to death and besides they have room to grow.

Your chicks are old enough to feed when from 36 to 48 hours old. Give them a little fine chick grit to pick—something to grind the food that follows. A little pin head oatmeal or millet is best at first. Don't give sloppy food to chicks. At the end of a week or more one might feed a little bread and milk squeezed quile dry. One of the best forcing feeds for young chicks is a boiled liver (beef is preferable) cooked till it crumbles. Just add a little salt to the liver in cooking. The young chicks will scramble over one another when the liver is thrown in.

There are a few points to remember in running a brooder. 1st. Always keep the brooder clean and well ventilated. 2nd. On a bright sunny day the temperature climbs up very fast; regulate it accordingly or dead chicks will certainly follow. 3rd. Never forget to see that the lamp has enough oil and is clean. 4th. It is a good plan to have a thermometer set in the top of the hover in a manner to register the degree of heat on the inside of hover. 5th. After the first week, except in extremely cold weather, the heat may be gradually reduced. 6th. Sometimes after one has cut off the heat altogether it is a good plan, on a very cold night, to start the lamp again. 7th. Lots of clean water and clean litter which is positively dry; sometimes the water gets slopped over the sand; mucky chicks will not thrive. They must be kept dry and clean. An old fashioned coffee mill makes a splendid thing to crack wheat for brooder chicks.

While your chickens are coming on you must remember they can't stay in the brooder all summer, besides there may be another hatch coming off in a few weeks. It would be a good time to make a house. A large matched lumber making box—one that is sound and free from air holes answers well. Build a sound tight roof on it. Put in a door with a light of glass. When such a house is set up off the ground, say six inches, it makes a fine place for chicks to run

try Food in it. As soon as the turkeys get good and strong, I leave them to ramble where they please.

They are given very little feed from this time on until fattening time. Then we feed them mostly on soft feed also mixing the aforesaid poultry feed with their rations until they are fit to kill—Mrs. Barth Condon, Peterboro Co., Ont.

A Satisfactory Poultry House

Barlow Cumberland, Durham Co., Ont.
Before building my poultry house I had visited the Government Poultry plants at Ottawa and Guelph, and corresponded with many poultrymen in order to find out what would be a practical and yet not an over expensive poultry house. After gathering all the information possible, I built my poultry house and I think I have got a good one. It has worked out to my complete satisfaction. The house is after all only a common shed with properly placed windows and doors in front, and the little loft above. Any farmer of fair means could have one similar to mine and his women folks would then attend their poultry in comfort.

My poultry house as shown in the illustration on this page, is 50 x 16 ft. It faces the south. It contains four pens 12 x 13 and a three-ft. continuous passage along the north side. A small feed lean-to is located at the east end. The building is single sheeted with plain undressed lumber with two-inch battens. The roof is shingled. The floor is raised one and one-half feet above the surrounding level by means of broken stone and gravel on which is a layer of earth and on top of all three layers of sand. This latter is taken off and renewed each summer.

There is one solid partition in the centre of the building which prevents any through draughts. The other divisions are made with two-foot bottom boards, the balance of the space to the ceiling being wire. The ceilings of the pens are boards set loose with six or

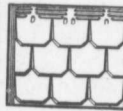
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You are the one who must take the chances. There are no "perhaps" about



"EASTLAKE" METALLIC SHINGLES

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They have defied lightning and fire—resisted snow and rain—protected against leaks and rust—for 24 years. You buy certainty—not supposition—when you buy "Eastlake" Shingles. Because "Eastlake" Metallic Shingles have proved, by 24 years' wear on the roofs, that they are practically indestructible.

Don't buy "a pig in a poke." Don't take chances. Get "Eastlake" shingles, which are sold with a guarantee worth having.

Write for catalogue, which tells about the "Eastlake" side Lock, the new Cleat and other exclusive features, as well as explaining all about the Shingles themselves.

The Metallic Roofing Co., Limited
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Agents wanted in some districts. Write for particulars naming this paper.

60



A "Cold" Poultry House That Has Given Complete Satisfaction
The four-colony poultry house pictured above, has a "cold" house; it is simple, inexpensive, and conveniently arranged. Read the adjoining description of this house.

under. It is, however, a nuisance at night, as they will run under and try to stay there. The attendant will have to round them up every night till they have been properly educated to go up the runway.

Raising of Turkeys

Editor, Farm and Dairy:—The turkeys, with which we won the reward of a silver-plated tea pot offered by Flavells, Ltd. of Lindsay, for the best group of dressed turkeys, were of the Hamstead Bronze variety. We have kept this breed for a number of years and find them the most satisfactory.

After the turkeys are hatched, we leave them for 24 hours without food, then we begin to feed them with soft feed mixing a little of Dr. Hess' Poul-

seven-inch spaces between. The gable is filled with straw through the top door at the end. This gives ventilation and absorbs all moisture. The straw is pulled down through the ceiling as it is required.

The doors of the pens are made in half to be used according to the state of the weather. They have half wire fronts on which cotton is tacked in winter. The cotton being fastened on with buttons is removable for cleaning out purposes, etc.

The roosts are enclosed in a box on the innermost side of the pen. They are boarded in on five sides and have a canvas front to let down at night. The floor of this roosting compartment is two feet above the floor of the pen, thus giving the whole interior to the

chickens for scratching space.

The building is a "cold" house; it contains no system of heating. We have never had a comb touched with frost. The birds have had no colds, no lice, and the hens lay from November on, depending upon the time that they were hatched in spring. The cost of the building was \$210.00. It carries 100 hens, is simple in construction

and gives the largest amount of floor space, which latter could be increased if the passage were done away with and doors fixed to open through from one pen to another. Such an arrangement, however, would not be so handy for the workman, as the chickens are fed, the roosts cleaned and the eggs collected all from the passage way.

Nitrate of Soda

Nitrate of Soda applied as a top dressing, produces not only more tons to the acre, but cleaner and higher grade

TIMOTHY

Test It for Yourself Entirely Free

Let us send sufficient Nitrate of Soda for you to try, asking only that you use according to our directions, and let us know the result. To the twenty-five farmers who get the best results, we offer, as a prize, Prof. Voorhies' most valuable book on fertilizers, their composition and how to use for different crops. Handily bound, 329 pages.

Apply at once for Nitrate of Soda by post card, as this offer is necessarily limited. "Grazing for Profit," another book of useful information, will be sent free to farmers while advertisement lasts, if paper is mentioned in which this advertisement is seen.

Send name and complete address on post card.

W. S. MYERS, Director, John Street and 71 Nassau, New York

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AND RURAL HOME

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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 30 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 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 paid-in-advance subscriptions to Farm and Dairy exceed 8,000. The actual circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and sample copies, varies from 5,000 copies to 12,000 copies. Some options, upon no arrears, 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 they can deal with our advertisers with our assurance of our advertisers' reliability. We try to admit to our columns only the most reliable advertisers. 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 entitle you to the benefits of this Protective Policy is that you include in all your letters to our advertisers the words, "I am your ad. in Farm and Dairy." Complaints should be sent to us as soon as possible after reason for dissatisfaction has been found.

FARM AND DAIRY

PETERBORO, ONT.

TORONTO OFFICE:

Room 306 Manning Chambers, 72 Queen St., West, Toronto.

SPECIAL ISSUES FOR OUR READERS

With this issue we present our special poultry number. At certain seasons, we find a greater demand from our readers for information along special lines than it is possible for us to publish in our regular issues. We have arranged, therefore, to publish eight special magazine numbers of Farm and Dairy during 1909. This week's issue is the first of these numbers. Over ninety per cent. of our readers keep poultry, and we hope that they will enjoy the extra attention that we have given this week to seasonal articles relating to the busy hen.

Our Garden and Orchard number will appear on March 4th. It will be replete with special articles, il-

lustrations and diagrams that will deal with tree planting, seeds for farms and gardens, fruit and vegetable growing, pruning, spraying and other subjects of a like nature. It will be followed by our Dairy number on April 30th, Farm Improvement number, May 3rd, Farm Machinery number, June 3rd, Exhibition number, September 2nd, Household number, October 7th, and Breeders' number on November 4th. All these issues will be enlarged in size. They will be gotten out with colored covers and they will contain illustrations and articles having a direct bearing on the special subject named for each issue.

Although these eight special magazine numbers will entail much additional expense on our part, Farm and Dairy, including these enlarged magazine numbers, will go to our subscribers for the same old price—only \$1.00 a year. That this idea of magazine numbers is a popular one, and that it is appreciated by our advertisers, is proved by the fact that already advertisers have contracted for many of the important positions in these issues. Our front inside cover and our back outside cover have been sold for months ahead. Advertisers wishing special space in these magazine numbers should write us now in order that space may be reserved for them.

STUDY THE POULTRY

Vexatious indeed is the hen that will not lay. Many flocks this winter have not yielded an egg to go towards paying for their keep. Their owners lose no opportunity to complain about their hens, and all that pertains to the poultry industry.

To gather eggs when they are high in price is a pleasure that to many is denied. If we fail to do this does not the fault lie largely with ourselves? Do we give our flock the study, the consideration and the food and housing that is their right? Many of us, in all probability, have done the best we knew how, but our efforts have been of little or no avail.

While stopping at a farm recently an editorial representative of Farm and Dairy paid a visit in the early morning to the hen-house as the attendant went to feed the poultry. The subject of winter eggs had been discussed previously, and the usual information was given that the hens were not laying though they were well cared for. The building was a stone one, and contained some 60 or 70 fowl. It was closely sealed to protect it from the frost. Dampness in the building was perceptible. The atmosphere was close and ill-smelling.

Under such conditions, the feed was largely being wasted. Had a cheaper building and some ventilation been provided, there would have been some chance for winter egg production. Suitable housing is the one factor to which we may attribute a large measure of the secret of getting eggs in winter. The hen house must be dry, free from draughts, and one in which there is no smell of hens. Such a house need not be expensive. Where

these desirable conditions prevail, it is a much simpler matter to get eggs in winter.

GOOD COWS IN B. C.

The summary of the results from the herd of Halliday Bros., of Sandwick, B. C., given on another page should be interesting to the dairymen of the Eastern Provinces. It should prove an incentive to those, who have not already done so, to introduce on their farms, some system of testing their cows individually.

The keeping of cows should be taken more seriously by our dairymen. Our cows could, and should, be made to produce larger returns for the labor and feed that are expended on them. We must not let the Danes continue to beat us in the production of milk by their thousand pounds of milk a cow a year.

THE DEADLY LEVEL CROSSINGS

The announcement made recently, that at the request of the Minister of Railways, the Board of Dominion Railway Commissioners will try to frame a policy for the adequate protection of level crossings, is welcome news. The Board has been asked to make a thorough investigation of the problem. Inspectors are to be sent out to make a report on all dangerous crossings. As soon as full information is received the Board will take action to remove, as far as possible, the danger connected with these crossings.

This action is largely the result of the recent tragedy at Grimsby. The danger of level crossings to life and limb has been amply attested in the past. It is well that, at last, action is to be taken to remove, as far as possible, this peril which has taken the lives of so many farmers and others in the past. The recent accident at Kingston, where a farmer and his son were instantly killed, and his wife terribly injured, is but another instance of the toll exacted by the deadly level crossing.

FINANCIAL INSTITUTIONS AND THE FARMER

The general depression of a year ago, is now largely a matter of history. The period of prosperity which Canada enjoyed until about a year ago, led to extensive, and in some cases unwise expansion, on the part of many capitalists and business men. The resources of all financial institutions were taxed to the limit of their capacity. The depression that followed, resulted in the withdrawal of capital from business undertakings, and a subsequent increase in the amount of comparatively idle money. Owing to this fact, last year was not favorable to financial operations. It is interesting to note, therefore, that banks, such, for instance, as The Traders Bank of Canada, as will be seen from their report on another page, experienced very satisfactory results from the business of the year.

The trade depression probably affected Canada less than almost any other country. This is accounted for

by the healthy growth which she is experiencing and her unbounded resources, both of which tend to give her great recuperative powers.

To the large yield of grain and other crops, throughout the Dominion in 1908, can be attributed the fact that the wave of depression is lifting. We have commenced the new year with a general return of normal conditions. The financial institutions, as may be concluded from the report of the Traders Bank, look on the farmers as the foundation of prosperity. We find them vitally interested, not only in the returns of the past year, but in the probable crop returns of the future. Yea, upon the farmer depends the prosperity of our country.

OUR POULTRY INDUSTRY

There is money in poultry. What we need to learn is how to get it out. Poultry keeping is a science. It demands thought and study. The time has passed when any person could raise poultry. People who fail to make a success of the business they are in, and then embark in the poultry industry, are not, as a rule, the kind we want in the poultry business. Those not having common sense and intelligence to mix with the food they give their poultry, had better stay out of the business and undertake something easier.

An unique feature of our present day market for poultry, is the fact that though our exports of poultry products have fallen off, we are getting increased prices for our increased production. The decline in our poultry exports has not been due to a lessened demand on the part of English consumers. Our eggs and poultry, of first quality, were never in greater request or in better repute than now. In spite of increased home production and decreased exports, we have increased prices. This is something to be proud of. We have produced the poultry, and produced it so well, that it has been sold in our own country and, therefore, we have a lessened quantity to send abroad.

Consumers of eggs and poultry must look to the farmers of the Dominion to produce it. The farmers must furnish the foundation for our poultry industry. Poultry specialists, often, have not proved successful. Some specialists have put \$3,000, \$4,000 and even \$6,000 in poultry plants, and have practically lost it all. When we consider how, and under what considerations, these plants were started, it is little wonder that they failed. There may be a place for the specialist, but it is to the farmer we must look for the future of the poultry industry.

We as farmers are peculiarly adapted to the poultry industry. We grow the food at first hand and feed it without other people having profits thereon. A great deal may also be fed that would otherwise go to waste if it were not for the poultry.

The bane of the poultry business on our average farm has been that the hen is honest enough—with some exceptions—to pay for her keep, even when neglected. She, therefore, has

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SHORT

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One of of the es Dairy, has tion given farm paper in Western and beef considered champion given this readers a far in a re is was "How gratit to learn th nizes the interests and henceforth Dairymen's we will ex dairy departu its horse, stock depa position in erto has not news. Not dairyman.

Should yo of Farm an to that effe rectified.

been neglected. No branch of live stock yields so readily to improvement in increased production, as does poultry. Realizing this, let us make the poultry the best paying branch on our farms.

The machinery for successful poultry raising is already installed on most farms. There are but few of us that have no hens and some place to shelter them. In some cases a slight expenditure would bring the poultry department up-to-date. Give the fowls the care and attention that they merit, and that other live stock on our farms receive, and the faithful hen will do her part in providing us with eggs and poultry in abundance for the table and for sale.

SHORT COURSE IN AGRICULTURE

Those of our readers who are in close enough proximity to one of the short courses in seed and stock judging, conducted by one of the district representatives of the Department of Agriculture, should avail themselves of the opportunity of attending. It is not enough to attend this course oneself. If there is a boy on the farm get him in touch with one of these short courses.

If a boy is going to stay on the farm, he should have as good a chance as the boy who is leaving. Preparation for work always pays. A short course in agriculture at an Agricultural Collegiate Institute, is intended to suit the boy who is staying on the farm. Give that boy a chance. That "the boy is the father of the man," has been truly said. As he is to be the farmer of the future, prepare him for his work.

One of the most gratifying results of the establishment of Farm and Dairy, has been the increased attention given to dairy news by other farm papers. One agricultural paper in Western Ontario, that the horse and beef cattle breeders have long considered to be their special champion and advocate, must have given this influential portion of its readers a bad job when it went so far in a recent issue, as to claim that it was "The Dairyman's Paper." How gratified the dairyman must be to learn that that paper now recognizes the importance of the dairy interests and that, therefore, it wants henceforth to be known as "The Dairyman's Paper." From now on we will expect this paper to put its dairy department to the front, to feature its dairy news, and to relegate its horse, beef cattle, farm and live stock departments to the unimportant position in its back pages that hitherto has been occupied by its dairy news. Nothing else will satisfy the dairyman.

Should you fail to receive your copy of Farm and Dairy notify us at once to that effect. We have no means of rectifying errors of this kind unless notified.

Renew Your Subscription Now.

Poultry Diseases at a Glance

The following hints will, perhaps, help in the prompt detection of the most difficult or disease which may be troubling a fowl.

Administering Medicine.—Too often is a profitless expense. Avoid the necessity for it by maintaining the healthiness of the flock.

Abdominal Dropsy.—Abdomen distended with liquid, hangs down. Fowl loses appetite, becomes weak and pale.

Anaemia.—Poor blood or poverty of blood from lack of proper nourishment, pure air, and sunshine.

Apoplexy.—Bursting of blood-vessel in the brain prostrates the bird; comb purple.

Asthenia.—"Going light," due to starving, digestive disorder, vermin, blood poison.

Liver.—Stupor and possibly convulsions may indicate wasting of the liver, induced by lack of exercise, over-feeding, and unbalanced rations.

Breakdown.—Abdomen hangs down at rear from excess of fat, fatty degeneration, or disorder of the oviduct.

Broken Bones.—Unless the fowl is killing for the table, it is better to kill for the table.

Bronchitis.—Cold or catarrh may lead to inflammation of the throat, whistling or rattling breath due to exposure to cold, foul air, draughts, irritating dust.

Bumble-foot.—Cushion of the foot has a corn with abscess. Joints of leg may also be affected. Usual cause, narrow perches, alighting on hard floor from high perches, embedding of pebble in sole of foot.

Canker.—Painful attempts at swallowing, white, grey, or yellow patches develop on the membrane lining the mouth or throat. Due to cold, catarrh, roup, exposure to cold dampness, draughts, foulness.

Catarrh.—A common cold may continue until breathing is hindered by inflammation and mucous secretion collected in nostrils and mouth. There is drowsiness, loss of appetite, ruffled feathers, wheezing.

Surprising Results

The replies we have received from our half-inch advertising columns of calf feed in Farm and Dairy have surprised us. They have been received from places as far apart as the Maritimes Provinces and Manitoba. They show the wide circulation of Farm and Dairy and indicate that our advertising columns of calf feed must be read closely when such a small advertisement brings such a numerous response.—White & Gillespie Peterboro, Ont.

Chicken Pox.—Yellowish pimples on the head and underside of wings. Loss of sight, weakness, paleness.

Choking.—Shaking of the head, straining and jerking of the neck in trying to swallow.

Cholera.—Diarrhoea, with yellow discharges, rough plumage, drooping wings, contracted neck, great thirst, pale comb, exhaustion; contagious.

Colds.—Inflammation of the nostrils and throat from catching cold is shown by sneezing and running at the nostrils, due to exposure to chilling temperature, dampness, draughts.

Congestion of the Liver.—Over-taken and sluggishness sometimes accompany congestion of the liver, due to over-feeding, starchy rations, lack of exercise, and digestive disorders.

Congestion of the Lungs.—Over-charging the blood vessels of the lungs, followed by a sudden or severe chill, may occur in young chicks or moulting fowls. There is rapid, labored respiration, stupor, and purple color of comb and wattles.

Constipation.—Stoppage of the bow-



All Right Ahead?

The milk flow will soon be on. When it comes, are you ready for it, and so that there will be no loss of time, butter fat, or patience? The blarney of cheap cream separator advertising is cold comfort when you need performance and not promises.

Use the DeLaval Cream Separator

and you won't have to take the milk over to the neighbours to separate it.

Durable Efficient Easy Running

THE DE LAVAL SEPARATOR CO.

173-177 William St.

WINNIPEG MONTREAL VANCOUVER

els or clogging of the vent may result from digestive disorders, due oftentimes to lack of green food and failure to exercise.

Consumption.—Wasting and weakening of the body may be accompanied by foetid diarrhoea. The breathing may be somewhat rasping, and there is paleness of the comb and wattles.

Corns.—Hardened and thickened cuticle of the sole of the foot, due to narrow perches, alighting from high perches on hard floor, pressure of embedded pebble.

Crop-bound.—Impaction and enlargement of the crop from gorging or stoppage.

Depraved Appetite.—Gorging with food, or swallowing substance unsuitable to the digestive tract, causing indigestion or stoppage. May result from lack of grit.

Diarrhoea.—Looseness of the bowels, caused by sudden chilling or digestive disorders.

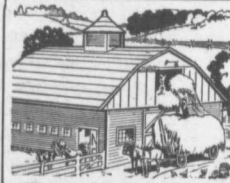
Diphtheria.—See roup.

Dysentery.—Excessive and persistent diarrhoea, due usually to filthy food or drink or foul conditions.

Eczema.—White pimples show on wattles, increase in size, run together, discharge, and become crusted.

Enteritis.—Inflamed condition of the mucous lining of the stomach and intestines, resulting from acute diarrhoea, and caused by poison, internal parasites, over-eating, fermented food, condiments, filthy drinking water, especially liable to attack growing chickens and moulting fowls.

Eversion.—Protrusion of the inflamed oviduct from the vent may result from straining in laying an egg which is malformed, extra large, or broken within the oviduct or cloaca.—F. C. E.



ROOFING

Nothing under the sun has to stand such severe tests as a roofing. Therefore, you should look for quality and permanency first.

It is easy to buy ordinary materials and make roofing that looks as good as PAROID, but it takes many years of roofing experience to learn how to make the kind of felt, saturation and coating—a complete roofing—that will last as long as PAROID under all climatic conditions.

PAROID is backed by our paper manufacturing experience of 92 years.

You run no risks with PAROID ROOFING. PAROID is sold by dealers everywhere. PAROID is proof against water, cold, heat and wind, and it also resists fire.

Ask the man near you who has used PAROID for his opinion of it, or the dealer who has been selling it for years to satisfied customers.

PAROID ROOFING

Write for free plan book "Practical Farm Buildings," and sample of PAROID ROOFING. PAROID is sold by dealers everywhere. Branch Office: F. W. BIRD & SON, Dept. 121 Hamilton, Ont. Winnipeg, Man. If you require only a temporary roofing ask about NEPONSSET RED ROPE ROOFING.

Creamery Department

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

The "Fishy" Flavor in Butter

An American authority claims that the "fishy" flavor in butter originates in the churn. He claims also that this flavor is never found in dairy butter, and gives instances where such butter has been kept in cold storage for two years but no "fishy" has developed. He claims that the birth-place of fishy taste germs is in the creamery churn. A new churn has been known to cure the "fishy" trouble for a season. One of the causes is the churn getting water-logged by keeping water in it over night. This is done to save time. This authority claims that he has known "fishy" flavor to develop in ten days in the finest-textured butter from this cause. The yellow scum in the out-of-the-way corners of the churn develops the "fishy" flavor, the germs of which will resist a temperature of 220 F.

If this authority is correct in his assertions, then butter-makers should look to their churns and have them thoroughly cleaned and dried after churning.

Whey Butter in Eastern Ontario

Considerable whey butter is being made in factories in Eastern Ontario. The proprietors of the factories the makers, and the patron have different agreements as to the basis upon which the butter is made. In the E. W. No. 16 factory, at Kenmore, the proprietor, Mr. Eger, has made whey butter this year in an experimental

way. He arranged with the patrons to equip the factory for the manufacture of the butter at his own expense, with the understanding that he would give them \$100 for season's production of butter. Whey-cream was drawn to this factory from the Marvelville factory in order that there might be a larger make of the butter.

Ault Bros., of Winchester, equipped one factory this season for the manufacture of whey butter and drew whey-cream to this factory from three other factories in their combination. Butter was made three times a week. It was arranged that Ault Bros. would receive all the returns from the sale of the butter during the first four months and that the patrons would receive half of the proceeds during the last two months.

Mr. J. D. McPhail, of Russell, Ont., the owner of some ten factories, has tried the manufacture of whey-butter this season in three of his factories. Two of the factories were equipped with the necessary machinery and the third was furnished with an auxiliary equipment. Our representative, while in Dundas county recently, was informed by a leading dairyman that the results obtained up to that time in the manufacture of whey butter indicated that it was practical and profitable in large factories, but not in small factories where the amount of milk handled would not warrant the cost of securing the necessary equipment.

Harwood (Ont.) Creamery

At the annual meeting of the Harwood, Ont., creamery the report of the secretary treasurer was as follows:

Lbs. of cream received.....	159,329
Average test for season (oil test), per cent.....	29.54
Total lbs. butter fat.....	53,932.10

Total lbs. butter made.....	64,737
Total cash received.....	\$15,377.71
Total expense for manufacture, turing.....	2,467.92
Total amount paid patrons \$12,809.69	
Average net price for butter fat.....	26.46
Average lbs. butter per lb. butter fat.....	1.20

Russia's Butter Exports

The rapid increase in the export butter trade of Russia is simply marvellous. The lately published official reports of that country show that the value of its butter exports for the year 1907 amounted to rather more than 47,000,000 roubles as compared with 6,116,000 roubles in 1898. Butter now holds the fifth place in Russia's leading articles of export. The production of butter in Siberia is increasing at a remarkable ratio and is bound to become a still greater competition with Canada for the British trade during the summer and fall months of the coming years. The great increase in the population of the Dominion, however, will, no doubt, absorb a much larger portion of our make every year, so that as our exports diminish, the home market will require the quantities that were formerly dependent upon the foreign market for disposition.—Trade Bulletin.

Pay by the Test.—Dairy Instructor R. W. Ward has been urging the patrons of the cheese factories throughout the Peterborough district to pay for their milk by the test instead of by weight. He claims that every cheese factory should pay for milk by the test. Those factories in his section which adopted the principle of paying by test some years ago, are continuing it as they have found that it is the only right and fair way.

New Warerooms at Winnipeg

The Sharpless Separator Co. in response to urgent requests from their many local agents in the West, have recently opened offices and warerooms in the McRae Block, corner of King and James Streets, Winnipeg. A full line of Sharpless Tubular Cream Separators will be kept in stock at the new quarters, which are commodious and situated in the heart of the business section of Winnipeg. The expenditure of a good deal of money has been incurred in fitting up the new offices and warerooms so as to make the new establishment conform to the high standard of Sharpless ideals, and the many dealers in the Prairie Provinces who are handling the Tubular, as well as those who are not, are invited to call whenever they have occasion to visit Winnipeg. The rapidly increasing popularity of this line of Separators throughout Western Canada has really made this additional office almost a necessity, and needless to say the transaction of business in Western Canada will be enormously accelerated as the result of the opening of this new and thoroughly up-to-date establishment in the Western metropolis.

Mr. L. D. Logan, who has acted as Assistant manager of the chief offices at Toronto, where the Canadian factory is located, for the past four years is in charge of the new branch, and this fact offers a sufficient guarantee that the best interests of the dealer will at all times be considered paramount. Before coming to Canada, Mr. Logan was associated with the Chicago offices of the Sharpless Separator Co. for several years, and his long experience in this line renders him well fitted for the discharge of his new duties.

Renew Your Subscription Now.

The Sign of Quality

QUALITY has made the Sharpless Separator Works the largest factory of its kind in the world. Quality has made the sale of Tubular cream separators greater than that of any other separator. Quality will be found in every part of Tubular Separators and will place Tubular cream separators still farther in the lead.

We wish every Dairyman who reads this could come to our factory and see for himself the difference between Tubular separators and other separators, thousands of which come to us every year in exchange. We would like to demonstrate to every dairyman the many points of superiority in Tubular separators, a few of which we mention below:

**Perfection in skimming,
Extreme simplicity of construction,
Remarkable ease of cleaning,
Most convenient oiling arrangement,
Low, convenient milk supply tank,
Freedom from complicated bowl parts,
And twenty other especially desirable features.**

Our free catalog No. 253 will tell you all about it. Ask for it.

The Sharpless Separator Company,

Toronto, Canada. Winnipeg, Canada.



Tubular gears run in a mist of oil. A spoonful of oil, once or twice a week, is all it needs.



29
Yrs

The Sign of Satisfaction



The Suspended Tubular bowl makes Tubulars the lightest running cream separators.

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.

Responsibility of the Maker

"Remember this is cheese maker's day and you have the privilege of firing all the questions you like at Mr. Barr and Mr. Fublow," said the chairman at the recent meeting of Dairy-men at Prescott after these gentlemen had delivered their addresses. "We will, k.c., them here on the platform, so that you can ask them for any information you desire." The following are some of the more important questions and their answers:

A Member.—Has there not been more gassy curds this year than usual?

Mr. Fublow.—No, we have had less gassy curds this year than we ever had, generally speaking; the main difference was the flavor, we had more objectionable flavor.

Q.—What size factory would you advocate to equip for the manufacture of cheese and butter?

A.—I would not advise the manufacturer to put in such an equipment, unless he had 10,000 pounds of milk a day.

Q.—Why you made any experiments of the sediment at the bottom of the have to ascertain the amount of butter fat the sediment holds?

A.—No, I sent a sample to Kingston and found from Mr. Walker's report that they found quite an amount of casein in the whey.

Mr. Fublow.—I might say that the average loss in Eastern Ontario is 22.

We carried on tests and we found that some factories were leaving as high as 4.10. We also found during the months of September and October, we had a very warm fall, and the loss in fat was very heavy.

A Member.—We got twice as much butter in October as we had in May and June.

Mr. Pood.—If the milk is delivered in a good condition, cool and sweet milk, it would never pay to skim the milk. We had a number of factories that only had a loss of 15.

A Member.—There are a lot of them attain great ability in getting fat out of the whey. (Laughter).

Another Member.—Don't you think the tendency is for a great many makers to lead themselves to believe that they can save a great deal of fat by careless handling?

Mr. Fublow.—I think if you have large losses in the fat, you will also have large losses in the casein. When you have sediment of fat in the can it is due to one of two causes; you have lots of casein or you are running out curds in your strainer. Your milk was working fast and the only way for you to do, would have been for you to have knocked it about and give it rough handling. There is a greater loss of fat in the whey where you have over-ripe milk. I would like to know if many makers have much complaint to make in the milk in May and June last year? I never saw better cheese in Ontario, than there was in May and June of last year. Take the Compton bellford district, a few years ago they were noted for acidic cheese of poor quality, and last season during the worst part of the season, I inspected nearly every factory in the district, and with the exception of two factories, no man could point to any fault with the goods, the people in that district were simply sending milk in good condition.

That is not due to any one man, but

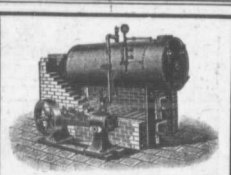
it is due to the individual effort of the people themselves, and I would say right here that the makers of this country can do a great deal more than they are doing. There is a lot in the man in charge of the factory. It is not because the factory is small, you can make just as good cheese in a small factory as you can in a large one, but invariably the man in charge is not as skilled as he should be and the competition is so great that they take in milk that they should not. I would say to the people that are taking good care of their milk to hold the maker responsible for the defective cheese.

Put the "Ban" on Soaked Curd Cheese

The United States Board of Food and Drug inspection is getting after the makers of "soaked curd" cheese. This is made by soaking the curd at a certain stage in the process, in cold water. After draining, the curd is then salted and put to press. This treatment is claimed to be fraudulent.

It introduces an undue amount of water in the cheese, thus increasing the weight. It gives a soft texture and an appearance of superior quality which deceives the purchaser as to its real nature. Less of the desirable cheese flavor is developed and it deteriorates greatly in quality before the curing process is complete. Under the laws of the United States this product cannot enter interstate commerce under the name of "cheese" unless the name is further characterized. In the opinion of the board this product should be labelled "soaked curd cheese."

New Up-to-date Factory. — The Frankford Cheese Co., of which Mr. C. Gallagher is president, has erected an up-to-date factory costing in the



ENGINES AND BOILERS FOR CHEESE AND BUTTER FACTORIES

The largest output of any factory in Canada

E. LEONARD & SONS
LONDON, ONTARIO

FOR SALE AND WANT ADVERTISING

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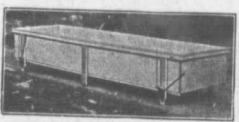
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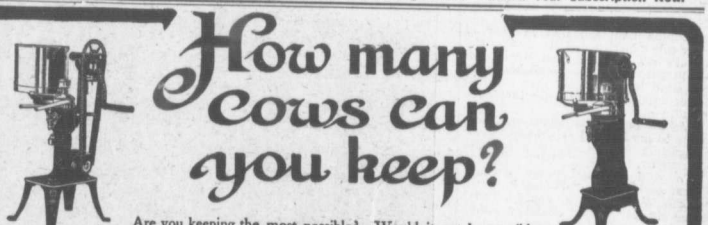
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BE resolutely and faithfully what you are; be humbly what you aspire to be. Man's best gift to man is his sincerity, for it embraces his integrity also.

Henry D. Thoreau.

The Domestic Adventures

By Joshua Dakam Bacon

(Continued from last week)

"Of course I shall stay with you till the day before I go," she said, with her most martyr-like air, though I shall have a great deal to do. But I would not leave without proper notice.

"Indeed, Mary, we couldn't think of such a thing," I assured her heartily; "it would be inhuman. You will need all your time."

I added further that it would be a great change for both of them.

"For me, yes," she answered, "but not for Mr. Stroker. He has been under similar circumstances, once, to Africa. But he decided to try a more prepared field. He says that Africa is not ready for him yet."

Sabina remarked that in view of her sole experience of Mr. Stroker she could not but feel that Africa, all unprepared as it had proved, was more open to congratulation than she had ever supposed possible for that dark continent.

As for me I have added one more line to my book of experience: Never engage a servant of whom you are unworthy.

Why don't you engage Mamie's aunt permanently?" Sabina inquired, munching her toast appreciatively; she always enjoyed Mamie's aunt's toast.

"Because I cannot afford to pay her a dollar and a half a day," I replied.

"Ah," said Sabina, and returned to her morning paper. Chloe said nothing. Indeed, her silence was so very silent that it was positively alarming. She might be a polite visitor from another planet, so complete was her detachment.

I don't know why I should have felt so aggrieved, but I did. I hadn't a shadow of reason to resent Sabina's lack of interest; she was paying for it, and paying well. Sabina attributes her success largely to the fact that she has never dissipated her nervous energy in the ceaseless attempts at domesticity that even professional women persist in. She never seizes on a button, nor presses out a waist, nor does her own nails. And all these things are far better done for her than they would be if she did them with her mind on something else, she says.

As for Chloe, heaven knows her well-meant assistance had not proved of such value that I should object to the lack of it. But I did. I resented unaccountably their sitting there, Sabina business-like and newspapered, Chloe dreamy and decorative, both of them washing their hands (in the finger bowls that Mamie's aunt filled to overflowing) of my difficulties. If they had been men, now, it would have been different; I remember I said this obstinately to myself,

though my conscience reminded me of Sabina's assurance that for all domestic purposes they must be regarded precisely as if they had been members of that exempt sex. Of course she was logically correct; she always is. But it seemed unbearably bitter to me just then that simply because they were what Mary used to call "wage earners," they should be sitting there



Another progressive Children's Shelter at St. Thomas, Ont., where many poor and neglected little waifs wait for homes. See article by Rev. W. J. Shaw, of St. Thomas, on page 21 of this issue.

in skirts as long as mine, unconcerned, though the finger bowls resembled bath tubs. I might have been a wage earner, too, if it had not been for my grandfather; it was the first time I ever regretted the few hundred a year he left me!

"Folly," I said defiantly, riding over all my good resolutions, "I don't see what I am going to do. The servants will not come out here from town—not to this style of establishment, anyway—and there are no decent ones here. I don't like to bother you, either of you, but the matter is growing very serious. It isn't just a question of hunting about a little; it's simply in no available supply."

"I lost my control," Sabina presently, her eyes on her paper. Chloe buttered toast; her eyes were fixed over my head, apparently on her native and regretted planet.

"I snapped, distinctly snapped," Sabina I snapped, distinctly snapped. Sabina dropped the paper and regarded me contritely.

"I beg your pardon, my dear—I'm sure," she said apologetically.

"I might as well have been married!" Of course what you say is perfectly true," she agreed, "it's a national question, apparently; I appreciate it fully—we get enough of it at the office; everybody sends us queries, and remedies and articles."

I see Wilkinson gets the assistant editorship of the Four Seasons; that will mean a great change in the policy of that magazine, I can tell you!"

I never felt so strangely about Sabina. I understood then why married people bicker and bother each other so.

Of course there is no marrying in heaven; a very little consideration enables you to perceive that the object of marriage is the founding of a family, and families must live in homes, and homes require housekeeping, and no angel could keep house—and her reputation as an angel—at the same time.

And yet there is simply no excuse for my writing so bitterly. No one could expect to keep house in more suspicious circumstances than mine have been for two weeks past. I have had time for the nursery, time for my Character Study, time to accustom myself to the changes that must come.

I suppose this is the real reason—the changes. It must be the knowledge of them that takes away my interest in the other things. I have no objection to acknowledging this; it is surely only natural to resent the jolly times we have had together, now that they are so nearly over. For of course they are.

dullness without her—I am afraid with some reason, now!

You see, what hurts me a little was that Sabina should have known and not told me immediately. I don't know how long she had known, and I don't believe Chloe told her; she would sooner tell me, I think. Mr. Van Ness probably told her himself, and I suppose that it was only honorable, under the circumstances, for her to have kept it—Sabina would always do the "honorable" thing. But four months hence there would have been no such circumstances, and she would have known it to herself.

I brought it on myself in rather a queer way. The situation was growing somewhat strained at the breakfast table that morning, and Sabina awoke to the fact, though a little late, and applied her mind directly and with her usual practical clearness to the problem in hand.

"It seems to me, she said, in her most judicial manner. "That you have made one basic error in your selection of servants. (My selection, indeed. Is it possible she didn't realize who had selected the servants?) I think I understand the psychology of your choice; you reasoned, perhaps unconsciously, that since this was not quite a normal menage—not a regular family—we should be better, or at any rate quite as well suited, with an unusual sort of servant. In other words, you engaged servants to whom the normal family would not want. Mamie, for instance, had no experience; now we needed some experience. May had too much; we didn't need quite so much. Mary—Bare—had a good deal and cleared her throat. She has never been able to discuss Mary."

"Mary was not a servant at all," said Chloe.

"But if you experimented with her in that capacity," Sabina urged.

"Pooh," Chloe interrupted calmly, "she experimented with us, Sabina—and awful failures we were, too!"

Sabina smiled indulgently at her. You see, she knew even then.

"It proves my point, either way," she said. "Now, the work of a family of average means, unless it is a doctor's, or a night watchman's, or—or an aeronaut's, ought to be about the same. What you want is a good, fairly well-trained, average servant; not an ignoramus, nor a housekeeper, nor a—a scientist; just one who is accustomed to work under a reasonable amount of direction. If such an one costs more than we have hitherto paid, we must manage to pay a little more, that is all. It would be poor economy to wear you out entirely, you know."

I must have been growing very irritable or late for I replied to this quite ungratefully.

"Is it possible, Sabina," said I, "that you are so ignorant of what the housekeepers of your country have to contend with as to suppose that there is such a thing as the 'well-trained, average servant'?"

There was a trying pause, which Chloe broke up suddenly with a reminiscent giggle.

"It's a pity we're all so moral!" she said airily. "or we might get Anna Stuyvesant's Penitentiary Paragon."

She was so evidently in jest that I was willing to inquire perfunctorily. "What is that?" Sabina didn't even pretend an interest.

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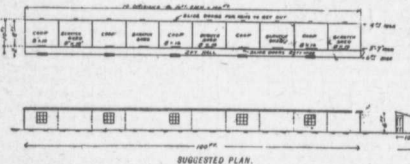
Chickens for Profit and Pleasure

Mrs. James Knox, Hastings Co., Ont.

A woman wants extra money for a hundred and one things that do not enter a man's head. This is why they cultivate mushrooms, raise small fruits or attempt to make ends meet by enlarging their flock of chickens. The chicken proposition was, according to my mind, the easiest solution of how to make some money on the side, and it is to help other women along the same line that I write these articles, showing, or trying to show, that you cannot "get rich quick," and possibly not get rich at all, on chickens. Yet, you can do a great deal to help the financial end of the domestic concern.

PLAN FOR CHICKEN HOUSE

So many write asking for plans for chicken houses that it has seemed



SUGGESTED PLAN.

best to present a plan giving time to all to have the house built like the illustration, or with such changes as each may desire. This house, with outside runs, will accommodate 200 chickens, 40 to the pen, but it would be better to have only 25 in each pen.

There is one change that I would suggest to tall people, and that is to build the house six feet in rear and eight in front, as, according to this plan, the nests, roosting boards, and so forth, are in the back and it would necessarily mean a good deal of stooping for tall people. The object of building it this height is to keep it warmer than a higher one would be. It should be built facing the south if possible, and where the climate is not too severe, I would suggest a canvas front, or, at least, canvas instead of windows.

Experience with a house built upon this plan, but with doors opening into the narrow hallway, convinced us that the sliding doors were a necessity, and they will well repay for the extra work. If you have lumber have a house built of that and cover the outside with tar paper or even use it inside. It will keep the house free from vermin. The only drawback is that it is very "smelly" and hot in the summer, yet, where you have the canvas front, it can be used with good results.

The plan of this particular house is so simple that the illustrations explain themselves.

In reference to ventilation for the chicken house—and no other point is more important—I want to say that the house with the canvas is far better ventilated than the one with closed windows can be.

SANITARY METHODS NECESSARY TO SUCCESS

Close, warm air is what causes many diseases among fowls, but if you make them hardy by not keeping their houses too warm, and not having drafts instead of ventilation, you should have a good egg yield at the time when eggs are high and money is made on them.

The first object of your hen house is that it be sanitary and be kept so. If you have a house that has been used for years, make an extra effort, as soon as the weather will permit, to clean it thoroughly. Remove everything that is not permanently fastened to the place, then sweep the ceiling and walls, pushing the broom into cre-

vices, and so forth. After that begin your scrubbing and do it so well that you would be willing to eat off of the walls. Then you will know they are clean. If you have a dirt floor, have all the sweepings and several inches of the earth taken up and carried to the garden, where it may be spread with profit to the garden. Put fresh earth on the floor to the depth of three or four inches. Get clean, fresh boxes for the nests and fresh hay or straw to put in them.

If the floor is of boards, scrub clean after all dirt and litter has been carried out and scatter chaff, straw or cut hay on the floor, into which throw their grain feed. Don't think you have finished when the chicken house is cleaned unless you have also cleaned

the yard around it. This should be well cleaned before the warm weather.

ANYONE CAN RAISE CHICKENS

Children can raise chickens, and any woman can who makes up her mind to do it. It doesn't matter how small her place; you can have some chickens unless her neighbors object.

I would advise against anyone putting a large sum of money into the chicken business, unless that one understood it thoroughly from A to Z, and having had chickens on the farm does not mean that you know all about them. People know that chickens must be taken care of in an intelligent way if they are to become a paying investment, and the more profit and pleasure will be the result.

If you don't intend to build a house and yet want to try to raise some chickens do not despise dry goods boxes and be glad if you can secure a piano box. A piano box will accommodate seven chickens. Put in one nest and a roost, and there you are.

If you are going to use your old chicken house this spring, then clean it. Most diseases among chickens come from filth and neglect of sanitary conditions surrounding them. This is especially true of chickens on a farm where often the refuse of the kitchen, the entrails of fowls killed for the table and milk and other things that are tainted are thrown where the chickens get them.

MAKE IT A PLEASURE

Chicken raising is a pleasure. It grows on one and before you know it you will announce the first egg of some favorite pullet with some pride that you would announce that the baby had a tooth.

Unless you feel that you can like chickens, can handle them and talk to them in the voice that soothes them when frightened, don't attempt to raise them for profit, as you will most likely fail. Many troubles that arise with chickens on a farm are because, as a rule, they run in the stable yard where manure is piled and where they pick up worms (magots) and where mix with other vermin bred. We have never permitted manure to accumulate where the chickens could get to it.

My advice to beginners is to get a pen of the best birds that you can afford. Make up your mind as to

the breed by what you intend to make a specialty of, eggs or broilers or both. If either of the latter you had better select one of the larger breeds like the Rocks, Rhode Island Reds, Wyandottes, Orpingtons, and so forth. If you want them for eggs alone, then select the Leghorns, Minors, Hamburgs, or one of the Mediterranean breeds. The small, nervous chicken that is a non-sitter is the best layer; yet, the other breeds run them a close second. Climate should have something to do with the selection, also—the Rocks, Reds and Wyandottes are hardy and can stand more cold than the lighter breeds.

MAKE YOUR PREPARATIONS NOW

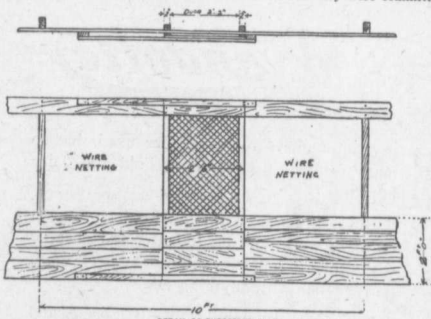
To all your planning and preparing this month for you should try to get some hatches out in February in order to have early laying pullets. Where the place is thoroughly clean, chickens can stand a good deal of cold, provided it is not in the form of a draft.

If you buy a pen of good birds now and when they come they have a cold don't blame the breeder you bought them from but take measures to cure the cold. If there is a discharge from the nostrils, inject with a medicine dropper a few drops of camphorated oil night and morning for a day or two and if the cold seems a heavy one give a two-grain pill of calomel at night and a one-grain quinine pill the next morning and the next night. Great care must be taken while so treating the chickens that they may be kept warm and not take fresh cold.

Often it is not necessary to take such measures as frequently the camphorated oil alone will effect a cure; then again the calomel and quinine has to be resorted to. It is well to add a solution of copperas to the drinking water when the birds are so affected. These are old-time remedies and easily obtained.

CAUTION ABOUT STIMULANTS

If your hens are healthy and kept in the right way you do not need stimu-



DETAIL OF SUGGESTED PLAN.

lants, and if they are not healthy the stimulants will not make them so. What is needed when they do not lay is to look them over for lice, then the forcing method with I have tried—it doesn't pay.

This is the hardest time of the year, so far as feeding the chickens is concerned, but you can get turnips and cabbage they can get turnips green food necessary for them. Unless you do furnish green food you will find it hard to keep them singing and laying. Also give them the table scraps and some ground bone or beef meal. Make up to them for the bugs and worms that they cannot get at this time of the year, and your egg yield will be all right without stimulating powder.

REMARKS

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

More Neglected Children

The Children's Aid Society of St. Thomas and Elgin County was organized in 1894. At the outset good work was done, but after a time the enthusiasm subsided and for a few years very little was accomplished. However, of late revival of interest has taken place and the society is fulfilling its mission in affording protection to neglected children, in finding good homes for homeless children and such as have their homes in the resorts of the vicious and depraved, and in upholding the rights of children in general.

During the fourteen or nearly fifteen years of the society's existence a good deal along these lines has been accomplished, many children have been taken from dens of vice and cared with good people under whose care they are growing up in happy homes and being prepared for lives of usefulness. In a few years several of them will have reached the years of maturity and will take upon themselves the responsibilities of life.

The St. Thomas Society has children placed in foster homes in widely distant parts of the country, several being on Manitowish Island and northern part of Ontario, others in eastern and western localities.

While there often comes to the work in behalf of children a feeling of sadness as he views the conditions in which many are living, there are also times when he is made to feel thankful for the opportunity to do something in helping the great work for which the Children's Aid Society exists.

An instance of this sort that seems worth mentioning occurred a few years ago in the case of five children who were taken from one of the worst dens of vice in the city. Their ages ranged from two and a half to ten years. Their mother died about a year and a half previous and their father and grandfather had charged to them. When they were committed to

the Society, the matron was cautioned against allowing any person who frequented their old home to be near precaution which was found to be necessary. About a week after their removal to the Shelter, the eldest, a girl of ten years, was supposed to be her father's housekeeper and the writer of this, being consulted by the matron at once gave his approval. In her childish way the little girl wrote:

"Dear—
"Why don't you go home to your babies in Michigan and stay with them and your husband, where you will have good meals and a clean bed the same as we have here?"

G. S.
A couple of days later the matron was surprised when a woman called and asked permission to see the children. She said she had received G's letter and now wished to see them to say good-bye before going home to

her own children. Of course her request was granted and with tears streaming down her face she kissed them and left for her own home.

We are sometimes assisted in our work, by receiving information from unexpected sources. Several times the writer has been called on by women who wished to have some child or other removed from improper environment and they have generally used about the same words in urging their plea. "Mr. S. I am not good and don't pretend to be, but for God's sake save those children and don't let them grow up to live a life like mine." is the way they usually wind up.

When those who admit that they are in the paths of evil, so strongly desire that neglected children should be placed under good influences, should not good citizens everywhere

encourage and support the Children's Aid Society in its noble mission on behalf of children?

One method of helping in the child saving work may be easily adopted by those who do not enjoy the sunshine of life which goes into a home with a young child.

The adoption of a homeless child will result in much good to both the child and the foster parents. The letters received from foster parents and from children, give an idea of the blessings which in that way are brought to many homes. The writer has had the privilege of visiting many children who have been adopted and has been delighted with the relations found to exist between children and foster parents.

At present there are two bright and healthy boys in the St. Thomas Society's Shelter. One is nine years of

age and is big for his years. The other is eleven years old. Both have lived in the country and homes with farmers are desired for them. Further information regarding these two boys can be obtained by writing to Mr. W. J. Shaw, of St. Thomas, Ont.

During the past year a creche or day nursery was established in connection with the Shelter in St. Thomas to provide for the proper care of young children whose mother have to go out to work by the day, and must otherwise neglect them. The children may be left at the creche in the morning and taken out at the end of the day.

Profit in Poultry

At a recent meeting of the Women's Institute at Ennismore, Mrs. Colin Campbell, of Windsor, Ont., gave two very interesting and instructive addresses. The one in the afternoon, was a most entertaining one, on "Poultry Raising, is it a Profitable or Losing Business?" Mrs. Campbell showed that she had a wide knowledge of her subject, as indicated by the many phases she touched upon. She talked on a great many phases of the poultry business, and at some length on all of the various points advanced. Among them were the site for a henhouse, housing poultry, the various methods to keep and the care and feeding of hens for egg production. The hens that she considered best as general purpose fowl were any varieties of the following breeds: Plymouth Rock, Wyandotte and Orpington.

CARE AND FEEDING FOR EGGS

There should be a good supply of green food, meat food and grain, the latter both ground and whole. It is necessary to feed so as to induce birds to take exercise. In winter green food is supplied by feeding cabbage, turnips or other roots, pulped or whole and by feeding steamed mash.

Meat food is supplied in the form of ground green bone, such as beef heads, livers, etc. Animal meat and dried blood, etc. are good foods, but in many cases are more expensive than the others mentioned. However they are very useful during the hot weather when it is impossible to use fresh meat.

Partially decayed meat should not be used as it is not healthful. Wheat is undoubtedly the most popular grain food for fowl. Corn is rather large and conspicuous and when in the litter does not give enough exercise. Corn is heating and fattening and is therefore best adapted for winter use. Oats should be a first-class food for poultry, but owing to the large percentage of hulls are not relished by chickens, and for this reason are also somewhat indigestible. Barley, either whole or ground, is good. It too, has rather a much hull but otherwise is satisfactory food. It is next to wheat in point of value. Shorts and bran are excellent foods to use in maintaining the health of the flocks. The general method of feeding is to give a mash of mixed ground grains moistened with water or milk in the morning, a little whole grain scattered in the evening on the floor at noon and all the whole grain the fowl will eat at night.

The objection to feeding the mash at night is that it becomes quickly digested and the bird has not sufficient food to last it during a long winter night. There should be a plentiful supply of good, pure water within easy reach at all times.

Other essentials are grit, which may be given in the shape of sharp gravel, broken shell in small pieces, oyster shell, etc. Lime should always be before the poultry in the form of either oyster shell, old mortar or cut bones.

Fowls which have acquired the habit of eating each other's feathers

or picking at each other's flesh are suffering from a depraved or vitiated appetite and it is useless that they are in a diseased state. A food too stimulating a nature such as oatmeal, too much meat, hot mashes, and other forms of rich food, as well as the absence of exercise, are some of the causes of this habit. To cure it the fowl should at once be supplied with green food and sulphur should be given in the feed. One tablespoonful of sulphur stirred in four quarts of soft feed should be given once every 24 hours. Give them a place in the henhouse, where some can dust themselves at will, and on the bare places rub compound sulphur ointment or carbolized vaseline. Do not feed them more than they will eat quickly, leaving none, and avoid giving them hard grain, such as corn and wheat in the middle of the day.

EPSOM SALTS FOR FOWL

Many fowls are often peppy. They stand about in a drooping fashion and do not lay or press forward. It is that they are overtat. As an antidote to both conditions nothing is better than Epsom Salts. They clear out the bowels, break up the drooping ones and reduce the fat. One-half a teaspoonful to each fowl every other day for two weeks produces good results. Mix it with the soft appetizing food. Add the salts in proportion to the number of fowls.

POULTRY RAISING PROFITABLE

Many farmers look upon poultry raising as an unprofitable undertaking, the few chickens they keep being a small item of their business, but this is a great mistake. If the farmers and all poultry raisers were to keep accurate account of incomes and expenditures as a merchant and another man of business does, they would find that the sale of eggs and poultry would amount to a considerable sum at the end of the year.

The Wife's Allowance

Eunice Watts, Nova Scotia

Why call it an allowance? We no longer live in the baronous ages when men hunt their wives with clubs and take them by sheer force. In those days women were kept as a species of slave and it would then be permissible to call what the husband gave her, whether rations, or what not—an allowance.

Now we live in an age when it is generally acknowledged that the husband and wife take each other for better for worse, for richer for poorer, not to mention "all the worldly goods with which the man endows his better half." In this reason it is better if they are both socially and financially of equal stations; but circumstances alter cases, and the matter of the wife's portion depends upon the husband's position and the kind of wife he possesses.

When a wife is a bad manager, or not interested in her husband's work, she deserves to be put on the same plane as the child, and the money which she receives an allowance. However, as a rule Canadian women are excellent housekeepers and thrifty managers, whose merits should place them on an equal with the men they marry.

FARM LIFE BEST

Perhaps there is no life better adapted to the division of profits, (or better still, the union of two purses), than on the farm where man and wife carry the divided weight of the burden. They could be more reasonable than for a husband and wife to share equally the money which they have both equally earned by sharing the work and the struggle of gathering a home together.

Many farmers and their wives often begin life with nothing and in that case it is impossible to give the wife a stated weekly allowance. If the wife is a true partner, she will strive

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it would be hard to answer because it has so many valuable uses for household and dairy purposes.

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her level best to be economical, and to help her husband invest what they can in the farm, for it is impossible to get money out of land without putting money into it.

Still, all work and no play is not strict economy. Recreation is necessary at times, both for the farmer and his wife, in order to give them fresh energy to continue "the daily round, the common task."

In cities where the husband goes to business, or has a regular salary, perhaps it is better to allow a certain sum for household expenses, putting the balance by for a rainy day; but on the farm this system will not always work. The farmer's income varies from month to month and from year to year, and there are good years and bad years, but whatever the income may be, it should be the joint property of both partners.

Just as a farmer's income is incomplete without its glass globe, so is the farmer incomplete without his wife. The farmer may bear the burden and heat of the day, but who bears the burden and heat of the kitchen? Is not the woman in the house the pivot on which things turn?

If the man does not intend to share equally with his life partner, but woman would be wiser to "hire out" as a domestic help, for she would not only be free to do as she chose, but be paid for the work she had done; also she would escape the worry of a household where it has been said, "that it is cheaper to keep a wife than a servant."

The wife's allowance can only be settled by the individuals themselves; still it is to be hoped that these discussions will open the eyes of some men to see the true value of those wives who give their all and ask for nothing but a bare living in return.

A Cure for Canker Sores

One of the best and mildest remedies for canker sores when they first appear in the mouth is red vaseline. Anoint the sores well with the vaseline just before retiring at night, and if they are not gone by morning, repeat the treatment several times during the day and they will disappear as if by magic.

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The Upward Look

Be Honest

Be not deceived: God is not mocked: for whatsoever a man soweth, that shall he also reap.—Galatians 6, 7.

How easy it is to look at the lives of some of those around us and thus become dissatisfied with our lot. There are so many who seem to be having a much more enjoyable time than the rest of us. They have all plenty of help and leisure for reading and travel. They do not seem to know what the cares of life mean.

In some cases it is all the more trying to know that there is reason to believe that much of their money seems to enjoy so much has been gained by questionable methods. Not long ago a mother told me of a girl acquaintance of hers who had married a contractor. This contractor has been accused, in the press, of having obtained wealth through contracts obtained from the government by dishonest means. His wife appears to have all that her heart can desire. This mother seemed to think it unfair that she should have to work hard every day attending to the numerous needs of a large family while her friend had nothing to do but enjoy life.

It is dangerous to allow such thoughts to enter our minds. They are like ugly bats. If they can once gain a footing they will drive out all our better and most elevating thoughts and leave us discontented and unhappy. We must remember the words of our text and not be deceived. While God, for reasons that we cannot fathom, may allow such things to be, we have assurance that He is not mocked and that in due time He will see that whatever people sow they shall also, reap. If, therefore, instead of allowing ourselves to become discouraged and resentful we will go about our duties each and every day, asking God to help us to be bright and cheerful and loving and kind, we will have the pleasure of helping those around us. We may know that God has promised to reward us for our good deeds no matter how simple and unimportant they may be.

Then, also, we should remember that things are not always what they seem. Many a man who has amassed a fortune by dishonest methods would

gladly give all his ill-gotten wealth to gain a quiet conscience. The days of such men are spent in a ceaseless effort to forget their past which makes life a misery, while to others it may appear to be nothing but one long round of pleasure. Many a woman, surrounded by wealth, would give it all for the love that crowns much more humble homes. We must remember that He is promised to give strength that He is promised to give us, if we will ask Him, and which we require if our lives are to be truly successful, according to God's standard, not by those of the world.—I. H. N.

THE COOK'S CORNER

Send in your favorite recipes, for publication in this column. Inquiries pertaining to cooking are solicited, and we will be glad to reply as possible after receipt of same. Our Cook Book sent free to new ready subscribers at \$1.00 each. Address, Homehold Editor, this paper.

COCONUT COOKIES

Cream 1 cup butter with 2 cups sugar, add eggs, and 2 cups rich cream. If sweet cream is used add 2 teaspoons baking powder to the flour, but if sour cream is used dissolve in it 1 teaspoon soda and omit the baking powder. Flavor with 1/2 teaspoon vanilla, and sift in flour enough to make a very soft dough, using only as much flour as is absolutely necessary. Be able to handle the dough. Roll out, cut, and bake. Meanwhile, prepare the following: To 1 cup confectioner's sugar add just enough rich cream to make it of the consistency of frosting. Flavor with 1 teaspoon vanilla, and beat till smooth. Spread over the cookies and sprinkle thickly with coconut. Pleasing variety may be had by separating the frosting and coloring with different fruit colors.

SOUR CREAM CRULERS

To 1 cup sugar add 1 cup sour cream, in which dissolve 1 level teaspoon soda, 1 beaten egg, and flour to roll.

CREAM FRIED CAKES

To 1 well-beaten egg add 1 cup sugar, 1 cup sweet cream, and flour enough to make a soft dough, sifted with 1/2 teaspoon soda, 1 teaspoon cream tartar, 1 teaspoon cinnamon and some salt. Roll about 1/8 inch thick, cut in any desired shape, and fry in deep, hot lard.

HICKORYNUT DROP CAKES

To the well-beaten whites of 4 eggs add 1 pt. white sugar, 1 pt. hickorynut meats, and 4 tablespoons sifted flour. Beat lightly for a few moments, then drop by teaspoonful on greased cake tins, allowing room for spreading. Bake about 15 to 20 minutes.—N. W. Surth, Ontario Co., Ont.

CHICKEN BROTH FOR INVALIDS

Cook the chicken, season with a little pepper and salt. When done, take out the bones, pour the liquid into a large bowl. Cut a piece of brown paper the size of the top of the bowl, and put on the top of the broth while warm. The grease will raise and adhere to paper, leaving the broth free from fatty substances. This will be relished much better by the patient.—Mrs. J. W. Robbins, P. E. Co., Ont.

FRUIT COOKIES

One and one-half cup sugar, 1 cup butter, 2 eggs beaten, 1 cup raisins, 1 cup currants, 1 teaspoon soda, 1 teaspoon each of cloves, nutmeg, mace, and cinnamon, 1 tablespoon milk, 4 cups flour.—Marion Dallas, Frontenac Co., Ont.

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Health Hints

When the stomach is out of order, or you have just recovered from a siege of stomach trouble, and you cannot easily retain ordinary food, try drinking a glass of milk with one teaspoon lime water in it. Sip it slowly.

Teeth need exercise to keep them in good condition. A noted dentist once advised a patient to chew beeswax—just a little once a day. Beeswax is pure and harmless, will resist the teeth gently, and its use will aid the teeth to become white, and clean, and strong, and the gums firm.

Some toothaches can be relieved by bathing the gums with hot vinegar and filling the cavity with vinegar as hot as it can be borne.

In cases of cold or over-fatigue, hot milk, as hot as it can be drunk, is the most refreshing stimulant. Its action is quick and grateful.

To relieve indigestion, drink about a quarter glassful of hot water, in which dissolve as much baking soda as will cover a ten cent piece.

Some children have soft and brittle teeth. Get them a dessertspoon or tablespoon syrup of lacto-phosphate of lime before each meal, and let them eat whole wheat bread.

Nine O'Clock, and the Washing Done

The "New Century" Washing Machine washes a tubful of clothes in five minutes. And washes better than you can possibly do the washing by hand.

New Winger Attachment allows water to drain directly into the tub. Price \$9.50 complete—delivered at any railway station in Ontario or Quebec. Write for free copy of our new book.



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Her Majesty

It was one of Catherine's "make believing" days.

"I'm the Queen of England," she solemnly announced at dinner time. She had a stiff cardboard crown atop her pretty curls, with glittering gold paper stars bespangling it.

"You must say 'Your Majesty' to me, every time, or else, 'Your Royal Highness.'"

Papa was serving the Monday "picked up" dinner. He put a generous portion of Queen Catherine's plate, and extended it gravely.

"Will your majesty have some hash?" he asked, with a low bow.

"Do queens eat hash?" Catherine whispered aside to mamma, a doubtful tone in her voice.

"If I were a queen, I think I should," whispered back Mamma.

Catherine took the plate with a lofty inclination of her head and topped the crown off indignantly.

"What will your majesty have on your rice?" questioned Mamma later.

"O, m'lasses," her majesty said promptly. "I always want m'lasses. There's two jugs of it in the royal pantry for purpose, both of them brimful."

Papa lifted his hands in wonder. "Two jugs!" he murmured.

Well, the "make believing" went on all afternoon, until Queen Catherine's big blue eyes grew droopy and the grey crown wore out. And all the time she was "her majesty" to everybody.

"O, deary," she said softly at last. "I'm homesick for me. It don't agree with me to be Queen of England when it's most bed time."

She went up to Mamma's chair and tilted up and down on the rocker.

"Mama," she whispered shyly. "Yes, your majesty."

"I don't want to be 'her majested'! I guess I don't want. Her majesty's gone back to England to bed. I'm Catherine, come to stay with you, and be your little common every-day girl."

"Oh, I'm so glad you've got home, Catherine; mamma cried delightedly. "I'm so glad to see you."

"So'm I," Catherine said, breathing long, cozy breaths and cuddling up to mamma.

Sure Way to Remove Ink Stains

Ink stains are often very difficult to remove from linen, especially when they have been allowed to dry into the material. The following method of effectually removing ink stains from table linen or any other white material has proved the most satisfactory in the range of my experience. It will remove the stain whether old or fresh and will not injure the most delicate fabric if done right.

First apply a strong solution of bi-chloride of lime to the stain and wash out immediately in soft, cold water. A brownish yellow spot will remain where the ink has been. You may have to repeat this process two or three times before all the black is faded out of the material. To remove these discolorations which remain after these applications apply a strong solution of oxalic acid and wash out immediately, the same as when using the bi-chloride of lime. One application of the acid is all that is needed. Rinse thoroughly in plenty of cold, soft water that all trace of the chemicals may be removed from the fabric. Not a trace of the stain will remain. Of course, this method must not be tried on colored goods.

The Sewing Room

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

INFANT'S ONE-PIECE KIMONO 6228



Kimonos have come to be much in demand for the tiny infants. They are easy to slip on and off and they mean perfect comfort to the baby. This one has a little sacque.

For the long kimono will be required 2½ yds of material 24, 2½, 27, or 32 yds; either 32 or 44 in wide with 8½ yds of banding; to make the short kimono ¾ yds any width.

The pattern is cut in one size only, and will be mailed on receipt of ten cents.

TUCKED BLOUSE WITH FANCY YOKE 6227



The blouse that is made with a combination of wide and narrow necks is a very charming one, and peculiarly well adapted to the fashionable frock materials. When washable materials are used, the blouse is designed to be made unlined, but it is just as well adapted to net and to silk as it is to lawn, batiste and the like, and a fitting lining is included in the pattern.

Material required for medium size is 5½ yds 21 or 24, 3½ yds 22 or 2½ yds 44 in wide, with ½ yd of all-over lace.

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

COMBINATION CORSET COVER AND KNICKERBOCKERS 6225



This garment combines a closely fitting corset cover with knickerbockers. It can be made from any of the materials with trimming of beading and frills, but batiste and all the materials that are used for underwear are appropriate.

Material required for the medium size is 3 yds 36 or 2½ yds 44 in wide, with one yard of wide heading, 2½ yds of edging, 3 yds of narrow heading.

The pattern is cut for a 32, 34, 36, 38, 40 and 42 inch bust, and will be mailed on receipt of ten cents.

CIRCULAR SKIRT 6226



This skirt can be made either with or without the seam at the front and with or without seams over the hips, so that it is adapted both to narrow and to wide materials.

Material required for medium size is 5½ yds 24, 5 yds 32, 3½ yds 44 or 3 yds 42 in wide. It is made with seam at the centre front; 4½ yds 44, 4 yds 52, if made without seam.

The pattern is cut for a 22, 24, 26, 28, 30 and 32 in waist and will be mailed on receipt of ten cents.

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THE LARGEST POULTRY PLANT IN CANADA

What The Poultry Yards of Canada, Limited, are Doing for the Advancement of the Poultry Industry of the Dominion

THAT the Poultry Industry of Canada is growing in proportions that are not realized by farmers in general, is proven by the following figures compiled by Prof. F. C. Eloff, of Macdonald College.

The Canadian year book shows a total increase of poultry during the 10 years 1891-1901 to have been a little over 3,800,000 head. Taking the same percentage of yearly increase to have continued to the present and Canada has to-day 22 million head of poultry. Granting that 2-3 of these are laying hens and we have about 14,700,000 producing eggs. According to the same authority each hen in 1901 laid seven dozen eggs and the total sale of eggs gave a gross annual revenue to the country of nearly 50 million dollars.

If the Canadian hen laid the same average in 1908 that she laid in 1901 there would be for this year about 103 million dozen eggs which at 25 cents would mean a gross revenue of 25 3/4 million dollars.

But a good honest hen should lay more than 7 dozen eggs in 12 months. No class of farm stock will respond so readily to good treatment. Providing she get this care and that one dozen more eggs per hen is the result the increased revenue from the extra dozen eggs would amount to 3 3/4 million dollars. Give the hen yet a little more selection and care so that the average yield would be 10 dozen or equal to the Macdonald College hen last year, which is by no means large, and the increased revenue would be 11 million dollars or a gross income from the poultry yards of Canada of 36 3/4 million dollars.

A company that has had much to do with this great increase, that is helping the poultry industry by example, instruction, organization and general development of table-poultry production and marketing, is the Poultry Yards of Canada, Limited, in the thriving town of Pembroke, Ontario.

The objects of this organization are: 1. The breeding and distribution of high-class utility poultry of the general-purpose breeds. 2. Dealing in live and dead poultry, eggs and poultry products (this includes an extensive business in the buying and crate-feeding of market fowl.) 3. They are chartered to manufacture and handle poultry supplies, and engage in general warehousing and cold storage.

The principal object of engaging in the breeding business is to develop the poultry industry by disseminating the right kind of breeding stock, to the end that by improving the stock they will make it possible to purchase in large quantities the right kind of table-poultry. The farm has capacity stocked with choice specimens of the following breeds and varieties: Barred, White and Buff Plymouth Rocks; Wyandottes; Buff, Single-comb, Brown and Rose-comb White Leghorns; Rhode

Grand Trunk Railway divides the property. A general idea of the layout of the plant may be obtained from our illustration. To the left of the railroad track, as one stands on it facing north towards the town, are three buildings, forming the sides of a rectangular enclosure for fattening fowls, 70 x 114 ft. The fattening shed is 24 x 114 ft.; at right angles to it is the feed store-room, 20 x 24 ft., and the killing-room and plucking-room, 20 x 56 ft., with a fine incubator cellar, 20 x 76 ft., underneath. The third side of this group is a breeding house, 20 x 140 ft., with its windows towards the south. Across the track, and end to end with the latter, is another long building of breeding pens, 20 x 40 ft., for the farm superintendent. Beyond this are two other

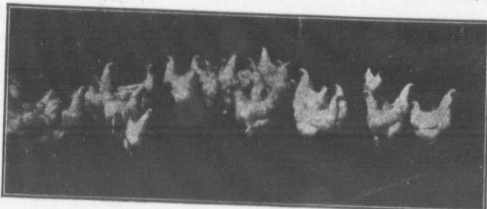
not the least trace of droppings are the nests, while at the side of each pen is a self-feeding hopper with four compartments, containing grit, oyster-shell, and charcoal. A tin drinking fountain, set in each alternate partition, provides water for the two pens. In the front of each pen is a good-sized glass window, with a curtain space above and one below thus securing plenty of light and ideal ventilation without drafts. These curtains together with a straw loft overhead, go to maintain a dry, genial condition of the interior atmosphere. Exercise is enforced on the hatched wheat, buckwheat and oats on the littered floor. The floors are made of concrete, laid over thick cobble stone and bricks, not a trace of moisture being seen. Meat is kept before the fowls, and a vegetable pinned on the wall where it may be easily reached.

It was after careful tests of all the leading incubators, and the desire to produce an incubator that was adapted to Canadian climatic conditions that the experts connected with the Poultry Yards of Canada produced the incubator which is now used on this plant. After many tests of this incubator under all kinds of conditions in all parts of Canada a company was formed to place it on the market.

Mr. Thomas W. Lee, managing director of the Poultry Company was made managing director of the company to manufacture the incubator. The company is known as the Lee Manufacturing Co., Limited, and the incubator is the "Peerless."

Now, the Lee Manufacturing Co. have joined with the Poultry Yards of Canada in encouraging and helping the farmers of Canada to raise more and better poultry. As a means of accomplishing this object they have formed the Peerless Poultry-for-Profit Club. Every user of a Peerless Incubator is a member of this club and entitled to the advice, instruction and help of the experts of the company without charge. These experts are thoroughly equipped to solve any problem that is submitted, and to put those interested on the right track to make a real success of poultry-raising.

The company has published a book called "When Poultry Pays," which contains a large amount of poultry information, and explaining the way to go into poultry-raising without much capital. The company has kindly consented to send to each reader of "Farm and Dairy" a free copy of this book, provided a request is sent before the present edition is exhausted.



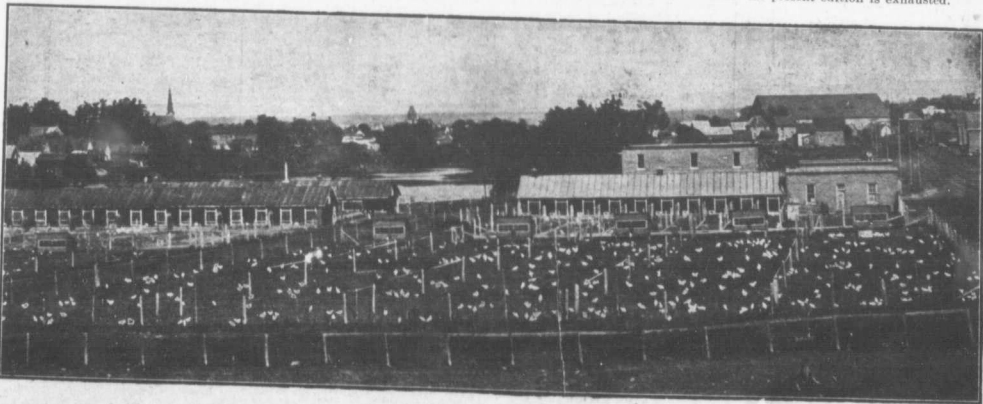
Money Makers of the Poultry Yards of Canada, Limited, Pembroke

Island Reds, and Buff Orpingtons. Vigorous stock, housed and managed on rational principles, are bound to produce healthy birds, which were a delight and surprise to the representative of "Farm and Dairy," who did not expect to find on a large plant such a high level of thrift and uniform excellence of type. While the Poultry Yards of Canada Company never figure in the show-ring—it being their policy to abstain from exhibition—they have bred many birds that have won prizes in other hands. In addition to the stock reared at home, their business is extended by a system of auxiliary yards, breeding stock that is sold to farmers, with provision for the purchase price to be repaid in young stock selected by the company. Probably 1,000 birds have been let out in this way.

The plant covers 12 acres of land, admirably situated on the high bank of a small tributary of the Ottawa, half a mile from the heart of Pembroke, and within the corporation limits. The Pembroke spur of the Canadian Atlantic branch of the


brick buildings—one a commodious and elaborately-insulated cold storage, which at the time of our visit was stocked with poultry for the Christmas trade, the other a large warehouse.

The two houses of breeding pens are provided with long yards, divided by wire netting. Beyond this are a row of small colony houses, also provided with a range of yards similarly about two and one-half feet off the ground, affording shade and protection to the poultry in summer. The facilities and appointments about the plant are the simplest and the best that ingenuity could devise or money obtain. In the breeding houses the pens are 10 x 16 ft., with a four-foot passageway extending the full length of the building. In the back of each is a roosting compartment, which may be enclosed on cold nights by a hinged curtain door. At the side of each roost is a double cock-pen, providing for the housing of two male birds, one being confined while the other is allowed with the hens. Under the roosts on or under which there was



A View on the Farm of the Poultry Yards of Canada, Limited, Home of the Peerless Poultry-for-Profit Club.

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As a Remedy for Rheumatism, Sprains, Burns, Itch, and Itchings, Gombault's Gaustic Balsam sold in two bottles, each containing Price \$1.00 per bottle, charges extra, sent by registered mail, on receipt of the enclosed testimonials, etc. Address

The Lawrence-Williams Co., Toronto, Ont.

ers of similar breeding, they decided to sell, knowing that they had others that would fill their place near future. They have also recently sold to Mr. J. Caskey, Madoc, "Sara Jewel Hengerveld's Son." This young bull is sired by "Count De Kol Pieterje Paul," whose dam has a record of 18½ lbs. made when a few days over three years old—a record that will undoubtedly be increased this breed to sire two daughters with records over 32 lbs. each. He is also sire of the World's Champion milk cow, De Kol's Creamline, 119 lbs. milk in one day, 10:07 in 300 days, Sara Jewel Hengerveld, 1004 lbs. in one day, 665 lbs. in seven days, and 73 other A.R.O. daughters. Count De Kol P.'s sire is Mutual Pieterje Paul whose dam has a record of 25½ lbs. butter over 27 lbs. each; his sire De Kol 2nd's sire a thirty-pound cow, and he will notice the blood of Pieterje Hengerveld's Count De Kol, the grand sire of his breed. A.R.O. breeders will not be found the great bulls Paul Beets De Kol, who has 85 A.R.O. daughters, De Kol 2nd's Paul De Kol 2nd A.R.O. daughters, and Pieterje Alban 2nd's Butter Boy, who has 19 sons that are 32 A.R.O. daughters. His dam has not only proven herself a great producer but, what is of more value, has shown those qualities to a great degree so her young will be of a similar character. Brown Bros. have a great producer, bulls sired by Sara Hengerveld Koradyk, who has a record of 30.3 lbs. butter in seven days, and records of his grand dams over 28 lbs. each.

There are also offering five sons of Count De Kol Pieterje Paul out of the A.R.O. cows, one of them is from Inka Josephine who has a record of 22 lbs. She also has a record of 15½ lbs. butter, eight and a half months of age, with within three and a half months of age freshening. This is the third largest record ever made eight months or more after calving.

HOW TO SAVE INCUBATOR CHICKS

All engaged in poultry raising are interested in solving the problem of bacterial incubation. The experiments conducted for several years by Prof. W. R. Graham, of the Ontario Agricultural College, resulted in establishing the fact that the percentage of live incubator chicks can be increased to that of the hen-hatch and under ordinary conditions. The incubator hatched chicks generally die from white scours, a germ disease, from Prof. Graham's research, a germ disease, from his experiments, practically points out how to prevent the attacks of this scourge on the newly hatched chicks. The Professor says:

"For two years we have been making a study of how a hen hatches eggs, and we have been trying to apply what we learned to artificial hatching. We have also been trying to find out the cause or causes of white diarrhoea in young chicks. We have succeeded in hatching chicks that will sell well by washing the machine with a ten per cent. solution of Zenoleum before putting in the required temperature. It is heated to the required temperature, it is washed all over the inside, including egg tray and everything."

The poultry manager of the Quebec Agricultural College, Father Lignon, corroborates Prof. Graham as to the results of using Zenoleum in the incubator. Zenoleum is not only an effective germicide and disinfectant, but destroys all parasitic and insect foes of poultry, and live stock generally. It is non-poisonous, can be given internally in solution, and is the safest, surest and cheapest aid to the poultry raiser in preventing and stamping out on the market. All the general stores sell it. Send for a free copy of the Zenner Disinfectant Co., 119 Sandwich street, Windsor, Ont.

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

HOLSTEINS

FOR SALE—One Holstein bull, two years old; one cow, 6 years old; two yearling heifers and bull calf—SAMUEL LEMON, 0-4-09. Lynden, Ont.

BERTRAM HOSKIN

Mount Pleasant Farm, The Gully, Ont. Breeder of Choice Yorks, Tamworth Swine. High-Class young stock for sale. Long Distance Phone 6-10-28-9

FOR SALE—30 HEAD OF HOLSTEINS If you are wanting a choice young cow or heifer I will show you before making your selection, or better come and pick them out. GORDON M. MANHARD 5-5-4-09 Manhard & Co., Ltd. 7 miles south of Brockville on C.P.R. (Clark's Crossing)

HILTON STOCK FARM R. O. MORROW & SON, Milton, Ont. Breeders of Holsteins, Tamworths, and Cotswolds. Present offerings, 3 young bulls, 6 years for service, sows bred. Also young pigs, all choicely bred. 10-11-10-09 Telephone connection. Brighton, G. T. R.

LYNDALE HOLSTEINS

Head your Herd with a son of Sara Hengerveld Koradyk whose dam was recorded for \$2500.00. His 3 nearest dams average 29.12 lbs. butter each in 7 days. Only 10% of his sons left. We still have a few sons of Count De Kol Pieterje Paul, and a number of Heifers for sale. BROWN BROS., LYDN, ONT.

SPRINGBROOK HOLSTEINS AND TAMWORTHS 32 Choice Young Tamworths, from imported sows and sired by imported Knower King. Very rich bred Holstein bulls and several females. Bargain sale to quick buyers. A. C. HALLMAN, 5-31-09 Breslau, Ont.

NEIL SANGSTER

ORMSWORTH, QUE. Four bull calves, 6 to 10 months old, from record of Merit cows, one from a 2 year old heifer with a record of performance test of 878 lbs. of milk in a year. They will improve your herd. Write for prices. 0-4-28-49

SUNNYDALE HOLSTEINS

FOR SALE, two bulls, 9 months old, with official record dams, price \$40 each. Also a few good cows in calf by Duchard Sir Hengerveld Maplescroft, 27 lbs. Pieterje Hengerveld's Count De Kol, champion bull of the breed, 100 lbs. in 7 days, two daughters with records of over 32 lbs. butter in 7 days. Prices reasonable. 0-2-0-0 A. D. FORBES, Steamfield, Ont. Denton Farm and Dairy when writing.

HOME-BRED AND IMPORTED HOLSTEINS

We must sell at least as good 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 have out of our young bulls, Pontiac Herms, Imp., son of sire, head of herd. Come and see the greatest. H. E. GEORGE, CRAMPTON, Ont. Putnam Stn., 1½ miles—C. P. R. 5-4-0-9

SHEEP AND SWINE

BERKSHIRES AND TAMWORTHS Choice Berkshire Boars fit for service and sows ready to breed, by imported sows, choice Tamworth pigs by a Toronto and London prize winning boar. Prices low, constant supply. Write for prices. J. W. TODD, E-2-17-09 Maple Leaf Stock Farm Corlith, Ont.

YORKSHIRES

A number of young boars from a 12 months old imported large English stock. These are an excellent lot of young pigs and will be sold at a low price on request. Write for prices. BULLS using a year. Also 3 AYRSHIRE Apply Manager, FAIRVIEW FARM 0-3-1-09 LUMSDEN'S MILLS, QUE.

PINE GROVE BERKSHIRES

For Sale are my winners at the late Winter Fair, Guelph. Sows bred and ready to breed, 1000 lbs. for service. Young ones with two scores, quantitated as represented. Also choice Tamworths. 0-6-9-09 W. W. BROWNIDGE, Ash Grove

NITHSIDE STOCK FARM

Large English Berkshires; Southdown Sheep and S. G. Dorking cockerels. Present offerings, two choice young boars, fit for service, sows ready to breed, a lot of S. G. Dorking cockerels, \$2 each. E. E. MARTIN, Prop., Paris station, Oxford Co. Canning P. O. 0-15-10-09

AYRSHIRES

NEIDPATH AYRSHIRES Bull Calves dropped this spring. By imported Bull. First prize Ontario, Ottawa, and Halifax. Long distance phone. 0-3-30-09 W. W. BALLANTYNE, Stratford, Ont.

SPRINGBROOK AYRSHIRES

are large producer of milk, taking high in butterfat. Young stock for sale. A few choice cows, good ready to ship. Prices right. Write or call on 0-4-1-0-09 W. F. STEPHEN, Huntingdon, 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. Long distance phone. Maxville, Ont. 0-5-23-09

BURNSIDE AYRSHIRES

Are in such demand I will make another importation. Will attend great dispersion sale of the world renowned Berkshire Herd of Mr. And. Mitchell, Kilmadrig, Scotland, where some of the best Ayreshires ever offered will be sold. Orders on advantage will be carefully attended to. Take your good ones. Correspondence solicited and satisfaction guaranteed. R. HENWICK, Que. 0-5-15-09

STONECROFT STOCK FARM

Harold M. Morgan, prop. Six, Anne de Belle, Choice young Ayrshires, 28 lbs. milk Imported for sale. Yorkshire pigs from March litters. Largest selection. Write for prices. 0-5-26-09 E. W. BJORCKLAND, Manager.

JUST BULLS

For sale 1 to 10 months old. Holstein and Ayrshires. Great milking strains. GEO. RICE Tillsonburg, Ont.

HUME FARM AYRSHIRES

On hand young bulls for service. Several very choice August, 1908, also heifers in calf, young sows and Duroc-Jersey pigs. See family cows, and cows any desired in calf, young sows, and Duroc-Jersey pigs. Looked for Yorkshire pigs, orders for importing Ayrshires solicited. Those in residence. Hoards Station, G. T. R. ALEX. HUME & CO., Menlo P. O.

Unless otherwise advised, purchase a first-class single fare ticket to Montreal, and ask your station agent for a standard convention railway certificate. H. B. News, President, Howick, Que. Huntingdon, Que.

HIGH PRICE FOR A HOLSTEIN COW

The most important sale ever made from the Lyndale herd of Holsteins owned by Brown Bros., of Lyn, Ont., has just been completed by which the cows, Sara Jewel Hengerveld and her daughter, Sara Jewel Hengerveld 3rd, became the property of the F. F. Field Holstein Co., Brookton, Mass. It will be remembered that these two cows broke the Canadian record last summer, the first mentioned cow having 100.4 lbs. milk in one day and 665 lbs. in seven days, which contained 23.12 lbs. butter. Her daughter made 32.39 lbs. butter in seven days, and 123.17 lbs. in 30 days. The combined butter records of these cows is the largest combined record of any mother and daughter in the world. It was with a good deal of reluctance that Brown Bros. parted with this pair of cows which as the price was a tempting one, the largest ever paid in Canada for a pair of a daughter and two grand daughters of the older cow also a son and daughter of the 30 lb. cow, and an option on her next calf, and prospects of a number of grand-sons and grand daughters this coming spring, as well as a large number of heifers.

FOR SALE AND WANT ADVERTISING TWO CENTS A WORD, CASH WITH ORDER

HOLSTEINS FOR SALE—Thirty females from one to seven years. Six young bulls from advanced registered stock. Justice H. Mc'can, Inverness, Ont. G. P. R. E-2-27-09

ENGLISH FARMER'S son desires permanent situation on good farm. Address with full particulars—Harry Gregory, Widdow, P.O. Ont.

Breeders' Director

CARDS under this head inserted at the rate of \$6.00 a line a year. No card accepted under two lines, nor for less than six months.

SHEEP

ABRAM EASTON, Appleby, Ont., Leicester sheep. Show ring and breeding stock for sale. 0-5-25-09

R. H. BARDING, Mapleview Farm, Thorndale, Ont. Dorset Sheep a specialty. Telephone. 0-2-17-09

SWINE

JOS. FEATHERSTONE & SON, Streetsville, Ont. Large Yorkshire Hogs for sale. E-11-09

CATTLE

JAS. BEGG, ST. THOMAS, AYRSHIRES, Standard for sale. His herd is 40 lbs. milk per day. No culls. 0-9-10-09

J. A. GOVENLOCK, Forest, Ont. Herefords, Canada's greatest winners. Toronto and London, 1907-1908. Stock, all ages, for sale. E-2-10-09

HARRISON BROS., Mt. Albert—Hereford cattle, Oxford Down sheep. Stock for sale at London. 0-5-23-09

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

IMPERIAL STOCK FARM

Present offering 13 grandly bred Holstein Bulls, 10 to 12 months old, sire Tidy Sires dam, Merceon 3rd, 27.65 lbs. butter in 7 days. D. A. Berkley Merceon 3rd (1901) 28 lbs. Sire G. D. A. 13½ lbs. 4 lbs. 28 lbs. butter in 7 days. G. D. A. 13½ lbs. butter in 7 days. D. A. 13½ lbs. butter in 7 days. Tidy Pauline Dekol, 2nd, 23 lbs. butter in 7 days. 43 lbs. in 30 days. 100 lbs. in 100 days. 100 lbs. in 100 days. Prices \$60.00 to \$100.00 on each quick sale.

Harley Sta., G. T. R. W. H. SIMMONS, New Durham P.O. It is desirable to mention the name of this publication when writing to advertisers

INCORPORATED 1885.

The TRAVELERS BANK of Canada

Capital & Surplus \$6,850,000

80 Branches in Canada.

Proceedings of the Twenty-fourth Annual General Meeting of Shareholders

HELD AT BANKING HOUSE IN TORONTO

Among those present were: Messrs. C. D. Warren, Hon. J. B. Stratton, O. Klopfer, W. J. Shephard, Alex. Stewart, Seneca Jones, W. J. McAllister, George Watson, E. Galley, H. R. Playtner, J. E. Williamson, L. Bauer, H. H. Strathy, K.C., Frank Hannel, James Young, J. P. Steedman, A. M. Scott, George Mail, Harry G. Horton, J. B. Fairgrieve, Dr. Garrigue, J. L. McMurray, A. T. Love, J. A. M. Alley, A. D. Robertson, F. W. Bain, R. P. Shurris, C. S. Wilcox, E. F. B. Johnston, C. O. H. S. Strathy, Jas. Linton, A. H. Brown, Geo. Leitch, Archibald Filshie, H. M. Gilkison, Thos. E. Parker, Albert Kleiser, R. Dillon Mills, J. A. Halhams, Joseph Morris, J. E. Niven, J. Wallace, M. D. J. P. Hodgins, A. G. Knowles, F. W. Winlow, M. Garvin, G. Beld Simpson, E. Cork, N. Ross, J. A. Laird, N. Hillary, L. W. A. P. Durie, A. B. Ord, and Frank W. Strathy.

Moved by Mr. Seneca Jones, seconded by Mr. J. S. Williamson, that Messrs. E. Galley and J. E. Niven be appointed Secretaries.—Carried.

The chair was taken by the President, Mr. C. D. Warren, and Mr. Stuart Strathy was requested to act as Secretary.

The General Manager then read the following Statement—

Statement of the Result of the Business of the Bank for the Twelve Months Ending 31st December, 1908.

The net profits for the twelve months after making provision for bad and doubtful debts and reserving accrued interest, amounted to \$56,217 00

Premium on New Stock 100 00

Balance at Credit of Profit and Loss last year 25,364 39

Appropriated as follows, viz.:

Dividend No. 45, quarterly, at the rate of 7 per cent. per annum..... \$76,168 29

Dividend No. 46, quarterly, at the rate of 7 per cent. per annum..... 76,174 11

Dividend No. 47, quarterly, at the rate of 7 per cent. per annum..... 76,178 44

Written off Bank Premises and Furniture 20,000 00

Transferred to Officers' Guarantee Fund..... 5,000 00

Transferred to Officers' Pension Fund 5,000 00

Balance at Credit of Profit and Loss new account 190,382 49

GENERAL STATEMENT, 31st DECEMBER, 1908.

ASSETS.		LIABILITIES.	
Capital Stock paid up	.....	\$ 4,353,592 00	
Reserve	.....	2,496,999 00	
Dividend No. 45, payable 1st January	.....	76,178 00	
Former Dividends unpaid	.....	406 27	
Interest accrued on Deposit Receipts	.....	8,796 00	
Balance of Profits carried forward	.....	190,382 49	
Notes of the Bank in circulation	.....	\$6,429,946 22	
Deposits bearing interest, includ- ing interest accrued to date.....	.....	2,609,985 00	
Deposits not bearing interest.....	.....	\$21,285,065 90	
Balance due to other Banks in Canada	.....	4,209,132 02	
Deposits from Banks in U. S.	.....	335,385,117 02	
	.....	14,621 88	
	.....	229,609 21	
	.....	28,229,644 11	
	.....	34,509,339 43	

ASSETS.

Gold and Silver coin current	.....	406,327 80
Dominion Government Demand Notes	.....	25,512,671 83
Notes and Cheques on other Banks	.....	21,285,065 90
Balance Due from other Banks	.....	771,318 85
Balance due from Foreign Agents	.....	685,242 80
Dominion and Provincial Government Securities	.....	1,219,465 86
Railway and other Bonds, Debentures and Stocks.....	.....	416,884 83
Call and Short Loans on Stocks, Bonds and other Securities.....	.....	953,872 83
Bills discounted current	.....	15,849,147 17
Notes discounted (less estimated loss provided for)	.....	25,512,671 83
Loans to other Banks secured	.....	21,285 83
Deposit with Dominion Government for security	.....	23,522 66
Real Estate, the property of the Bank (other than the Bank Premises)	.....	148,770 49
Bank Premises (including safes, etc.)	.....	5,925 66
Mortgages on Real Estate sold by Bank	.....	1,991,268 99
	.....	3,900 00
	.....	25,708,747 16
	.....	\$24,858,528 33

STUART STRATHY, General Manager.

Toronto, 31st December, 1908.

The General Manager, having read the foregoing report, made the following comments:

From the statement submitted, it will be observed that the results of the year's operations have been satisfactory, notwithstanding the severe financial disturbance, which was felt more or less throughout the world during the period under review. The wave of depression is apparently lifting, and we face another year with good prospects of a general return to normal conditions and we face another year successful. The consideration of the yearly statement will readily show how interest-bearing accounts, amounting to \$50,217.60. Adding to this the balance carried forward from Profits and Loss of previous year, with one or two small additional amounts, makes the sum of \$525,621.97, which was available for distribution. This amount was apportioned to pay four quarterly dividends at the rate of seven per

cent. per annum, amounting to \$304,699.50. \$200,000 has been written off bank premises and Pension Fund, leaving the substantial sum of \$190,922.49 to be carried forward to the credit of Profit and Loss new account.

The paid-up Capital Stock of the Bank amounts to \$4,353,592 and the Res. Account \$2,496,999, nearly one-half of the Capital.

The total deposits of the Bank now amount to over \$25,000,000. Of this sum over \$4,000,000 is non-interest bearing, and the total deposits of the Bank have increased \$2,000,000 during the year. The assets, which are immediately available, amount to over nine millions of dollars, being about thirty per cent. of the liabilities to the public, a condition which Attention should be called to the excellent character generally of the assets of the Bank, as set forth in the statement.

During the year seven new Branches were opened and two were closed, making a total of eighty-one Branches open at the end of the year.

The Bank continues throughout the year to increase both in volume and character of its business. It is interesting to note its growth by comparison with the figures of ten years ago:

	1898	1908
Paid-up Capital	\$ 700,000
Surplus	\$ 4,653,592
Deposits	2,609,999
Circulation	4,530,817
	671,680
	2,600,995

The general depression of a year ago has resulted in a contraction of business throughout the country, and that it would appear that the period of depression is passing away, and provided the income of the country, which is in a natural tendency to move in commercial lines will ensue, followed by a recovery ready for early seeding. We find again this year, a considerable larger acreage will into these lands of a most desirable class of settlers, principally from the Country to the south of us, the effect of which must benefit this Country at large. The alone in the temporary large expenditures, which continuation on the part of the great increases in transportation facilities will also prove an important factor, not count, but by this very large extension of our Railway system, making it possible with the least possible expense the steadily increasing crops of our great Northwest, this field, and, as the Country grows, extension in this direction, no doubt, will meet with your approval.

Before concluding, I wish to express my appreciation of the cordial cooperation of all the officials of the Bank in the work of the year. All the books and documents have been carefully examined and the affairs of all the branches, had been looked into, and reported upon in a manner permitting the Board to Mr. C. D. Warren, President, in moving the adoption of the Report, said:

I have much pleasure in moving the adoption of the Report, which has been presented. The Management and shareholders may well congratulate themselves on the result of the year's business. The Report affords strong evidence of the progress of business. The period of depression, which continuation on the part of many capitalists and business men, and the resources of all financial institutions taxed to the limit of their capacity to meet the demands of this abnormal enterprise. Depression followed, resulting in a withdrawal of business until all detakings and increase in the amount of comparatively idle money yielding the average return for money. Last year was, therefore, not to be regarded as one very satisfactory. The results have nevertheless been

A growing country, like Canada, with untold resources, naturally has great power of recuperation. Trade depression consequently affected Canada less than almost any other country, and as a result, commercial and manufacturing interests are rapidly recovering from the embarrassment which retarded their progress for the past two months. The probability is that in the immediate future the requirements of various legitimate undertakings, which are already beginning to show renewed vigor and vitality.

The agricultural returns from the Dominion for 1908, indicate a large yield of grain and other crops, and this condition tends materially to create business confidence. With the prospect of fair prices and an increase in the wealth of the country from its natural products, commercial undertakings must receive a great impetus of this increased wealth rests largely with Banking Institutions, and whilst the rate of interest may be somewhat lower than it has been for a year or two, the same level of business, will, it is believed, maintain the earning power at the same level.

The lumber industry, one of the great National sources of wealth, is rapidly receiving a new impulse to iron and steel works. Our mining interests have called for good ground for the hope that Canada in a short time will more than make up for the temporary delay in her course towards the highest point of commercial greatness.

The employment of money is absolutely necessary for current operations, and as these are now extending in all directions, it is not unreasonable to look forward to To meet the demands involved in the interests I have briefly mentioned as well points may expect a larger increase volume of business, and a ready and safe outlet for all their surplus money during the present.

The Northwest is extending its cultivated area, and is being opened to the people by means of great trunk railway lines, and many local extensions. Here we have the true source of wealth. The mere interchange or investment of money does not add materially to the general wealth of the country, but the products of the soil, the forest and the mine create new and additional capital for most of the lar institutions. By keeping a constant and energetic look out, we hope to obtain a fair share of the handling of this increased wealth, and with this object in view, for other openings, and advantage of this fact should be taken as occasion arises under circumstances permit.

Whilst the value of money chiefly depends on the conditions of the great financial centers of the world, there are many local demands which affect the money market here. It is true that more, and more, practically, find a market in abroad, but more, and more, practically, find a market in Canada. The large sale show the practical value of the cash resulting therefrom reaches our banks over and over again, and Corporation Bonds of the country, sold in Great Britain in 1906, was one Million Dollars worth, but the total of over One Hundred and Ten Millions likely to find its way, to be used for Local and National Development. In

view, therefore, of the growth of our transportation and transmission lines, and the development of municipal works, in every town and village in the Dominion, and the large foreign capital which will be brought into this country in the future, and the deposits, but a greater need for these local needs which cannot be supplied through foreign Agencies. The great industries of the country must be carried on, and these look to our Banking facilities for assistance, and with the return of property the avenues of investment will materially increase. Your Directors have availed themselves of every favorable opportunity to meet this demand, but always having in mind that prosperous times demand greater care and watchfulness than periods of depression.

Instead of being sufficiently strong reserves to meet all probable demands and thereby locking up a large amount of unproductive money in the treasury, we have invested considerable sums in high-class municipal debentures and other bonds, yielding the Bank a profitable return and being almost as available as cash if occasion should arise in the future. The price of these securities was unaffected by the local market, the purchasers in Great Britain practically controlling value, and it was felt that no better or safer investment could be made with surplus or reserve funds than to invest them consistently and immediately available in every well managed banking institution.

In call loans, we pursue a very conservative policy, so that no large amount of any particular stock shall be held as security by the Bank at any one time. The margin of safety is always large, and the fluctuations of the ordinary market do not affect the security.

Your Directors examine practically all credits and accounts in the books of the Bank. No advance of any moment is made without their sanction, and whilst this method entails a large amount of work, we feel it to be the only safe way to discharge our duty. The various agencies have been carefully inspected, the returns scrutinized, and the nature of investments thoroughly considered. In this work, we find the services of the Directors' Auditor, the most valuable, and through him important information regarding the Bank's transactions is readily available to the Board.

Our inspectors are competent and efficient officers, and it affords me much pleasure to be able to testify to the great care and ability which they bring to bear in the performance of their duties.

I am glad to be able to state that every part of the Head Office building is rented, yielding a large return, and thus does not appear as a liability as to this condition being continuous. The same satisfactory state of affairs exists in regard to the Yonge and Bloor Streets Offices.

We hope that the result of the careful attention and assiduous efforts of your Directors and the management may reach the shareholders in substantial and gratifying manner.

I move the report adopted.

The Vice-President, Hon. J. E. Stratton, seconded the motion, and said:—The ground has been pretty thoroughly covered by the remarks of the General Manager and the President; but I can at least re-echo the congratulations and repeat the thanks of the Board for the report presented.

I have personal knowledge that the directors have all devoted themselves faithfully to the service of the Bank during their tenure of office. This was to be expected from their high standing, high sense of duty, and ability. Beside, they are among the largest holders of stock, and are, therefore, the most directly and largely interested. Any indifferent or perfunctory performance of service or duty on their part would naturally more prejudicially affect them than shareholders at large. It is certain, therefore, that when the responsible officers of the Bank so directly and personally interested, there exists a guarantee of careful and effective administration. The Bank has more than 1,500 shareholders, many of whom are prominently associated with important industrial enterprises. The character of these shareholders, and the rapid increase of the Paid-up Capital of the Bank, testifies to the confidence which its stability and excellent management inspire.

The business of the Bank is expanding in every direction; and it is the aim of the Directors to keep the Traders Bank abreast of the great progress this Dominion is making. Of this, its past is a guarantee, which the year just closed strengthened. To see gratifying results achieved, and to see business and profits satisfactory, to see securities strengthened, and assets increased, is the aim of the Directors to see how they have prevailed during the greater part of the year, seem to be indications of good and efficient management. A financial institution which comes so creditably through a difficult year, can, with improved conditions in every important national interest, reasonably anticipate a prosperous future.

It affords me great pleasure to second the motion for the adoption of the report.

The motion for the adoption of the report was carried unanimously.

Moved by Mr. E. M. Gilkinson, seconded by Mr. George Watson, that the thanks of the shareholders are due, and are hereby tendered, to the President, Vice-President, and Directors of the Bank for their attention to the interests of the Bank during the past year.—Carried.

Moved by Hon. J. E. Stratton, seconded by Mr. E. F. B. Johnston, that the thanks of the Directors and Shareholders are due, and are hereby tendered, to the General Manager, the Assistant General Manager, and the staff of the Bank, for their diligent attention to the interests of the Bank during the past year.—Carried.

Moved by Mr. Alex. Stewart, seconded by Mr. Jas. B. Brown, that the ballot be now open for the election of Directors, and to be kept open until five minutes elapse without a vote being cast, when it shall be closed, and until that time, and for that purpose only, this meeting be continued.—Carried.

Moved by Mr. H. A. McEwen, seconded by Mr. B. F. Fairgrieve, that the scrutineers cast one ballot in favor of the following persons as Directors:—C. D. Warren, Hon. J. E. Stratton, C. Kleopfer, W. J. Shepherd, C. S. Wilcox, E. F. B. Johnston, H. S. Strathly.—Carried.

E. Galley, J. Niven, Scrutineers.

The Scrutineers reported the following gentlemen duly elected to act as Directors for the ensuing year, viz. C. D. Warren, Hon. J. E. Stratton, C. Kleopfer, (Guelph), W. J. Shepherd (Wauwasau), G. S. Wilcox (Hamilton), E. F. B. Johnston, C. H. S. Strathly.

The meeting then adjourned.

At a subsequent meeting of the newly-elected Directors, Mr. C. D. Warren was re-elected President, and Hon. J. E. Stratton, Vice-President, by a unanimous vote.

STUART STRATHLY, General Manager.

The Traders Bank of Canada, Toronto, 26th JANUARY, 1909.

GOSSIP

RAISE YOUR CALVES WITHOUT MILK

It is very important for the dairy farmer to be able to sell as much milk as possible. It is also equally important that he should be able to build up his herd of dairy cattle by breeding suitable animals himself and thereby getting a good strain of good milk cows. Experience has shown that it is impossible to make a satisfactory substitute for milk out of certain hay, timothy, clover, etc. A satisfactory substitute for milk must, as a matter of course, resemble new milk as nearly as possible in chemical composition.

It must be well balanced, it should be a complete food, and most of all it must be easily digested and assimilated by the tender stomach of the young animal.

Blatchford's Calf Meal has been on the market a very long time, it has been thoroughly tested and tried. The manufacturer is so sure that no expense and trouble has been spared in the making up of it, and that from their new plant at Waukegan, Ill., it is being shipped in better quality than ever before. We recommend our readers to give it a trial. Let them or postals addressed to The Steele

Briggs Seed Co. Limited, Toronto, Ont., will procure a valuable pamphlet for the farmer entitled "The Calf's Calves Cheaply and Successfully without Milk," and every farmer should have one.

HOLSTEIN FRIESIAN NEWS

The Canadian Dairyman and Farming World is the official organ of the Canadian Holstein-Friesian Association, all of whose members are invited to send their names to the members of the Association are invited to send them of interest to Holstein breeders for publication in this column.

Ed. Farm and Dairy.—In noting the results of the Dairy Herd Competition, it seems to me that the following facts stand out plainly and should be heeded.

In the cheese competition there were six competitors, the first four in the prize list were Holstein, the fifth herd was of graded cows, and the 6th and last, graded Short horns. The first herd, Holsteins, averaged \$64.50 a cow.

In the creamery patrons' competition, the first herd were just graded, and the last, grade Short horns, with earnings of \$370 a cow. I suppose the three Short horn herds were supposed to be good herds, too, or they would not have been entered. What does it mean? For the sake of a possibility of \$100 extra (which is decidedly doubtful), at the end of a cow's life, say eight years \$750 a year, or for six milking years \$750 a year, or \$2500. Singular, isn't it that any person after realizing these facts, will use the so-called milking Short horns.

This is not the first time that such results have occurred, as it has been the very same thing every time there has been a competition. I suppose, however, the large increase in the use of Holsteins, and the great increase in membership of the Holstein-Friesian Association (last year nearly 150) is due largely to tests of this kind. Probably even the dual purpose Short horns man may, at some time when he has a few more of these open-sens, consider what Holland is doing, and sees the Holsteins milking 15,000 lbs.

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A manual of practical information on poultry keeping. It aims to cover the farmer's needs in poultry raising, and takes up every detail of this business thoroughly and systematically. The book tells in a plain and simple manner how to keep poultry at a profit. It tells what to do, why to do it, and how to do it. Profusely illustrated.

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to 20,000 lbs. in the year.—F. E. Caine, Sault au Reclout, Que.

Remedy for Lice.—The existence of lice or vermin on our domestic animals and poultry is one of the most frequent causes of ill-health. These little pests appear on Water is not plentiful in spite of the horses, cattle, hogs, sheep, hens and chickens of all sizes and under all conditions, unless something is frequently done to prevent their increase. Farmers as well as fanciers ought to keep their stock free from lice. This is especially true of the poultry. The farmer in days gone by did not worry about his fowls being lousy so long as he picked up an egg now and then. It does not pay to keep anything that is lousy. Dr. Williams' Fly dressing for lice, on horses, cattle, pigs and poultry as advertised elsewhere in this issue, is an effective remedy for lice.

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GOSSIP

HARRISON BROS' HEREFORDS

A visit to the stables of Harrison Bros., at Mt. Albert, Ont., on the Grand Trunk and Canadian Northern railroads, is enough to convince anyone that the Herefords are an ideal beef breed. This herd which has won numerous prizes and gained credit for its owners was founded a few years ago by careful selection from

the herd of Mr. Asa Warnock, Palanwick, Ont., of the prize winning bull Lord Playful 4th, and the noted show cow, 4033. Since then they have made some important purchases from Mr. J. A. Govan's champion herd, General Brock, an extra high-class two-year-old bull, for which they have refused some handsome offers and which has won many first prizes, now heads their herd. Their young

stock is from the massive 2,550 lbs. bull Lord Rosebery. At present they are sold to young bulls fit for service but have some promising young ones coming on, and betters they have a nice choice of females and cows in calf, which they are offering at reasonable prices. Herofords are rapidly gaining favor throughout Canada and any one having good animals for sale in a few years will find a ready market at good figures. Harrison Bros. are

also offering some good young breeding Oxford Down ewes and a few choice rams.

SURE DEATH TO LICE.

Wm. Cooper & Nephews, Toronto: We received your sample tins of fluid which we have tried in many ways, and find it very strong as a disinfectant. The fluid is sure death to lice on cattle. We shall send you an order as soon as our supply runs out.—H. E. George, Crampton, Ont.



EVERY Canadian farmer who expects to build or re-roof his house or barn should write us to-day for details of our Free Lightning Insurance Policy in connection with Safe Lock Metal Shingles.

We give it to you without any conditions whatsoever, except that you roof with Safe Lock Shingles.

Such an offer is unprecedented, but we can afford to make it because we know absolutely that Safe Lock Shingles will insure safety from lightning.

It is absolutely free. You do not have to pay one cent for this protection, either directly or indirectly.

Insurance records show that nearly one-half the fire losses on barns in Canada result from lightning. This loss, running into the hundreds of thousands of dollars, can be entirely prevented if Safe Lock Shingles are used.

We know this, and we back up our statement with a Free Insurance Policy payable under its terms in cash. Safe Lock Shingles are sold at the same price as shingles known to be inferior in quality of steel, galvanizing and construction.

We have been manufacturing Safe Lock Shingles for ten years, and roofs laid when we started in business are still "as good as new," to quote from hundreds of letters we have on file in our office from our pleased and satisfied customers.

In all this time these roofs have not cost one cent for repairs of any sort. In all these years no building covered with Safe Lock Roofing has ever been destroyed by lightning.

Do you know that Safe Lock Shingles fully meet the rigid requirements of the British Government for Admiralty and other public service. Think what that means. Let us illustrate.

Every farmer knows from experience that ordinary galvanized fencing seldom lasts longer than two or three years without showing signs of rust. On the other hand, galvanized wire for Government use gives years and years of service, owing to the splendid galvanizing insisted upon.

Safe Lock Shingles are galvanized the same as Government wire, and therefore may be depended upon to give long service. We really do not know how long they will last. Safe

Lock Shingles in use for more than ten years show no signs of wear.

To-day we are using better material in their construction than ever, galvanized in higher grade, and the steel is of much greater quality. We have enjoyed several improvements in manufacturing. For instance, every shingle is cut accurately to size before it is galvanized, thus protecting the edges of the shingles instead of leaving them raw and exposed to the degrading action of moisture.

We want you to remember the

thus causing a leaky roof.

Safe Lock Shingles cannot be blown off, nor can they be pulled apart by warping of the sheeting, or any other cause.

Study the small illustrations on this page, and you will be convinced of the truth of this statement.

FIG. 1

In Fig. 1 the solid black line shows the top lock, the shaded line the bottom lock. Notice that a

contraction due to heat and cold. They cannot unhook.

Illustrations 3, 4 and 5 show the construction of other metal shingles.

FIG. 3

No. 3 is the old-fashioned cleat shingle now almost entirely driven from the market by the Safe Lock. These do not always shed water, and it is almost impossible to keep them from leaking after they have been on for a season or two.

FIG. 4

Note in No. 4 that the nail is only about half way driven into the sheeting, leaving a large surface exposed to the weather. This makes a very insecure fastening for a roof, and this is still further weakened by the springiness of the steel, which has a tendency to pull out the nails, causing a loose, leaky, rattling roof.

FIG. 5

No. 5 is a side slip pattern, similar to many now on the market. The one shingle slips into the other, but does not lock. Shingles constructed in this way pull apart easily and must not be confused with the positive lock in our Safe Lock Shingles, as shown in Fig. 2.

Safe Lock Shingles are absolutely uniform. We have spent time and money to perfect their construction, which is fully protected by patent. They are now easier than ever to lay, and a Safe Lock roof cannot leak, if the shingles are laid in accordance with our printed instructions.

SAFE LOCK SHINGLES are the only shingles that—

1. Give you a positive guaranty against Lightning, backed up by a policy signed and guaranteed by the manufacturers.
2. Meet fully the rigid requirements of the British Government for Public work.
3. Lock on four sides, and cannot be pulled apart.
4. Have three (3) thicknesses of metal along upper edge at point of greatest strain.
5. Completely protect nails from weather.
6. Have edges galvanized after being cut to exact size.

name Safe Lock. No other shingle has that name.

No other shingle is a Safe Lock Shingle.

Safe Lock Shingles lock positively on all four sides. Other shingles grip only on two sides. This is not enough for a permanent, durable roof. We know of many instances of buildings covered with these shingles being entirely unroofed in a stiff breeze. Another objection is that these shingles are apt to spread apart owing to the warping of the sheeting to which they are nailed,

double fold forms the top lock instead of a single fold, thus giving twice the strength at the point where the greatest strain comes.

With Safe Lock Shingles the nails are driven full length into the sheeting, and are protected by the positive lock construction from any possibility of water backing up and starting rust.

FIG. 2

Fig. 2 shows the side locks. Note the deep firm grip which allows ample room for expansion and

The Metal Shingle and Siding Co.

Limited. Refers to the Farmers Co Canada. Cover St. Factory Preston, Ont. Branch Factory Montreal.

THE METAL SHINGLE AND SIDING COMPANY Limited. Dover Street Factory, PRESTON, ONTARIO. Please send me your booklet "The Truth about Roofing," with full particulars of our Safe Lock Lightning Insurance Policy.

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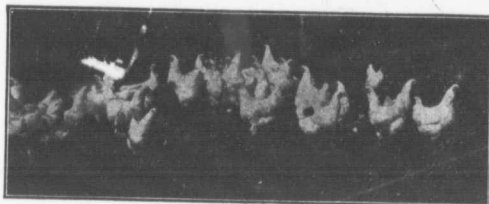
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Every Owner of a Peerless Incubator and Brooder gets the Free advice and help of the Peerless Poultry-for-Profit Club and a chance to compete for the \$510.00 in Cash Prizes



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EVERY farmer in Canada should raise poultry.

You will never realize what big money there is in this department of your farm until you start raising poultry right.

It has been estimated by an authority that the value of the table poultry and eggs produced by Canadian farmers during the year 1908 amounted to \$25,750,000.

Yet the supply was not sufficient to meet the demand.

You should get your share of this money. You can if you raise poultry right—raise poultry under the advice and with the help of the Peerless Poultry-for-Profit Club.

Every purchaser of a Peerless Incubator—every one who owns a Peerless Incubator now becomes a member of the Peerless Poultry-for-Profit Club without paying one cent and is entitled to advice and help absolutely free.

This advice deals with every problem that may come up in poultry raising and is given by experts who are raising poultry now and making money out of it.

The first step towards becoming a member of the Peerless Poultry-for-Profit Club is to write for our booklet "When Poultry Pays." Write for it to-day and start raising poultry right—profitably.

The Peerless--the most successful Incubator because it is built to suit Canadian conditions and climate



WE who make the Peerless Incubators are closely allied with the largest and most successful poultry farm in the Dominion—the Poultry Yards of Canada, Limited.

It was raising poultry on this farm, looking for every means to make it more successful, more profitable, that induced us to produce the Peerless Incubator.

We tested every incubator on the market—gave each one a thorough and careful trial.

Not one of them came up to the standard which we were looking for. The best United States machines failed because they were not built to suit Canada's climate. The Canadian incubators were mere copies of obsolete United States machines—built to sell not to hatch chicks.

So we built the Peerless Incubators and brooders out of the knowledge and experience which actual poultry raising in Canada taught us.

Write for our booklet "When Poultry Pays"—it tells the whole story.

Why don't you try for one of the 103 Cash Prizes which we offer Canadian farmers?

WE want to help the farmers of Canada raise more poultry and make more money out of it.

We want them to investigate the poultry department of their farms and see what big money they can make out of it if they go about it right.

For this reason we offer 103 prizes to the farmers of Canada who meet with the best results in poultry raising.

The prizes are as follows:

First prize \$100.00

Second prize \$50.00

Third prize \$25.00

Ten prizes of \$10.00 each, twenty prizes of \$5.00 each, twenty prizes of \$3.00 each, twenty-five prizes of \$2.00 each, and twenty-five prizes of \$1.00 each, making a total of \$510.

Professor A. G. Gilbert

Chief of the Government Poultry Department at Ottawa, has kindly consented to act as judge and when the winners are decided upon the names will be published in this journal. This competition is open to every owner of a Peerless Incubator. Write to-day for full particulars of the contest.

We ship the Peerless Freight prepaid.

LEE Manufacturing Co., Limited, 384 Pembroke St., Pembroke, Ontario, Canada