

Issued Each Week—only One Dollar a Year

VOL. XXVIII

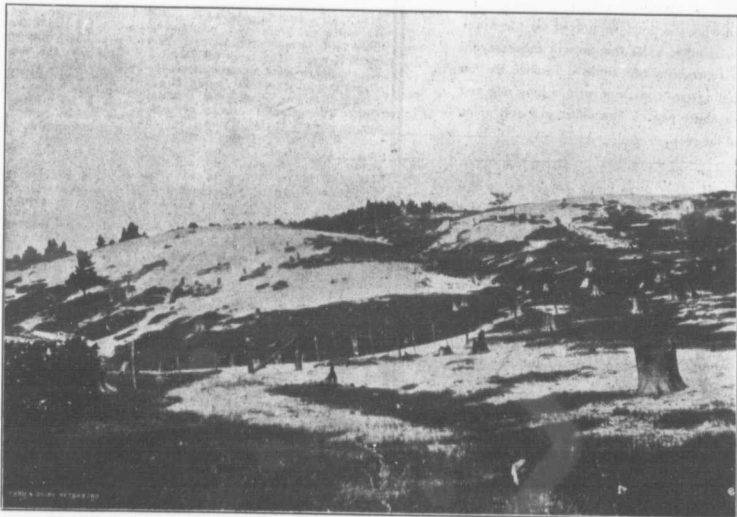
NUMBER 49

FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

DECEMBER 9, 1909



THE HILLS AS PICTURED ARE NOT SNOW-CLAD: THE WHITE AREAS ARE DRIFTING SANDS. A characteristic scene in June on the Old Pine and Oak Ridge in Durham County, Ont. The area in this county and Northumberland that it is proposed to reforest, comprises hundreds of acres of just such land as this. Note the pile of cordwood, the material in which is too small to have much value, and which has been ruthlessly cut from this area, so badly in need of trees. Note, also, that trees are still growing even on these now desolate wastes. A convention is being held in Cobourg this week to formulate ways and means of reforesting these areas.

—Photo by the Editor of Farm and Dairy.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

THIS IS WHAT DOES IT

The illustration shown is a sectional view of the important device which controls the free and easy running of the "Simplex" Self-Balancing Bowl. It is the



SELF-CENTERING BEARING

It is situated immediately underneath the bowl. The weight is carried on this bearing instead of on the lower end of the spindle. This in itself enables the bowl to run much more steadily and evenly than were the bowl supported on the lower end of the spindle, as is the case in other separators. It represents the same difference as you find in spinning two tops, one with a long peg and one with a short peg. The short peg top spins easiest and longest.

This bearing also allows the bowl a free, unrestrained motion, letting it spin on its own axis. The bowl will not wobble when coming up to speed or when running down, or even if it should be slightly out of mechanical balance. The ball bearings run between two hardened steel rings which are interchangeable and so cannot get out of place. The whole thing is so simple that anyone can take it apart to clean it and have no trouble in putting it together again. It is impossible to put the parts in wrongly.

Have our agent explain this and other good points about the "Simplex" Self-Balancing Separator, or write direct to:—

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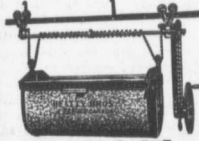
WE WANT AGENTS IN EVERY DISTRICT

A BT Litter Carrier and BT Feed Carrier

should be in your stable—

Let because they will save you more hard and disagreeable work than any other machine you can invest your money in.

But because they are the best machines made for handling Litter and Feed. Let us tell you what they will do and why they are better. We shall build Cow Stanchions, Steel Stalls, Hay Carriers, Forks and Slings.



BT stands for Best

BEATTY BROS., FERGUS ONT.

Value of Second Growth Timber

The question of reforestation is a very live one at present in the united counties of Northumberland and Durham. A small lot of second-growth pine in Northumberland county has been sold for \$2,000 standing. Another farmer has sold \$30 worth, and has trees standing which will bring an equal amount. This second-growth timber was produced upon land that is not especially adapted to grain-growing. A resident in the vicinity of Brighton has a fine lot of second-growth timber, upon ground which 11 years ago was sown to oats. There are trees 30 feet in height and from three to four inches in diameter. One oak has a diameter of seven inches. Another farmer has a fine wood lot of mixed trees upon ground which had a crop of wheat not long ago.

Practical results such as these are the things which appeal most strongly to farmers and land-owners, and if all the waste lands were reclaimed it would mean an immense increase in revenue to the farmers of the Province.

Distribution of Seed

By instruction of the Hon. Minister of Agriculture distribution is being made this season of samples of superior sorts of grain and potatoes to Canadian farmers for the improvement of seed. The stock for distribution has been secured mainly from the Experimental Farm at Indian Head, Sask., Brandon, Man., and Ottawa, Ont. The samples consist of oats, spring wheat, barley, peas, Indian corn (for ensilage only), and potatoes. The quantity of oats sent is 4 lbs. and of wheat or barley 5 lbs., sufficient in each case to sow one-twentieth of an acre. The samples of Indian corn, peas and potatoes weigh 3 lbs. each. A quantity of each of the following varieties has been secured for this distribution: Oats—Banner, Abundance, Danish Island, Wide-Awake, White Giant, Thousand Dollar, Improved Gigow—all white varieties.

Wheat—Red varieties: Red Fife (beardless); Marquis, Stanley and Chelsea (early beardless); Preston, Huron and Pringle's unclean (early bearded). White varieties: White Fife (beardless); Bobs (early beardless).

Barley—Six rowed: Mensury, Odessa, and McNeill. Two-rowed: Invincible, Standwell and Canadian Thorpe.

Field Peas—Arthur and Golden Vine.

Indian Corn (for ensilage).—Early sorts: Angel of Midnight, Compton's Early and Longfield. Later varieties: Selected Lewing, Early Mastodon and White Cap Yellow Dent.

Potatoes—Early varieties: Rochester Rose, and Irish Cobbler. Medium to late varieties: Gold Coin, Carman No. 1, and Money Maker. The later varieties are, as a rule, more productive than the earlier kinds.

Only one sample can be sent to each applicant, hence if an individual receives a sample of oats he cannot also receive one of wheat, barley, peas, Indian corn or potatoes. Applications on printed cards or sheets, or lists of names from one individual, or applications for more than one sample for one household, cannot be entertained. The samples will be sent free of charge through the mail. Applications should be addressed to the Director of Experimental Farms, Ottawa, and may be sent in any time from the 1st of December to the 15th of February, after which the lists will be closed, so that the samples asked for may be sent out in good time for sowing. Applicants should mention the variety they pre-

fer, with a second sort as an alternative. Applications will be filled in the order in which they are received, so long as the supply of seed lasts. Farmers are advised to apply early to avoid possible disappointment. Those applying for Indian corn or potatoes should bear in mind that the corn is not usually distributed until April, and that potatoes cannot be mailed until danger from frost in transit is over. No postage is required on mail matter addressed to the Central Experimental Farm, Ottawa.

The Chicago International

The tenth International Live Stock Exposition was again held in Dexter Park Amphitheatre, Chicago, during the first week of December. This year aided in making the Exposition a "Greatest Ever!" One of the greatest features of the Show this year, according to eminent stockmen is the great increase in steer showing. It is conceded to be better in quality and quantity than ever shown at any previous International.

To Canadians it is interesting to know the Canadian entries this year are much larger than last year, particularly in horses and sheep. This is no doubt due to less stringent regulations in the Canadian stock across the line this year.

This year the classes of Percherons Belgians contained many more entries than last. Shires remaining about the same. The Clydesdales made a far better showing this year than ever before.

Year quarantine regulations were more severe for horses, than they are this year. As a result Graham Bros., of Claremont, Ont., maintained the former reputation by carrying off a great many of the most valuable wins. The Canadian exhibitors in hors's were: Graham Bros, Claremont, Ont. and John Graham of Carberry, Man. Mr. Graham in 3-year-old Clydesdale stallions, and fourth in the 2-year-old, (No. 1297), formerly owned by Graham Bros., but now by Robt. A. Fairbairn, Westfield, N.J., was the champion stallion, any age, of the show. This horse won first in every class he was shown. He was (Continued on page 6)

The Taxation Question

Assessment on Idle Land

Ed. Farm and Dairy.—The following is from a Portland, Oregon, paper, the *Labor Press*, might equally well be a note warning Ontario, for the gravest concern should be to raise the percentage of the rural and farm population.

"Public sentiment in Oregon without any change in the laws can compel assessors and boards of equalization to assess idle lands three times what they are now figured at in the assessment rolls. It will reduce their price and bring many thousands of acres into use thereby. That in turn will make demands for labor and labor's products. Timber lands in some of our coast countries selling for \$6,000 a quarter section are assessed for \$5 and \$10 an acre. Boost the assessments on the idle landholder. He is of no use. If he wants the fun of holding land idle let him pay as much as others do who use it."

The proposed amendment to the Assessment Act granting municipalities the right to raise the rate on land values and lower it on improvements would be a perfect method of accomplishing the thing which the result. Over 325 municipalities have already signed it, including all the large cities save one in the province.—F.C.

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SOME ASPECTS OF AGRICULTURE IN NORFOLK COUNTY, ONT.

P. E. Angle, B.S.A., Agricultural Representative, Simcoe

What Cooperation Has Done for the Farmers and Fruit Growers of the County. Much of the So-called Useless Lands Known to Exist in Norfolk can be Utilized at a Profit.

THE county of Norfolk in common with all other counties has its own peculiar problems to grapple with. Mr. E. J. Zavitz in his reports on Co-operative Forestry has told of the sand lands of the county which have been robbed of their forests of giant pines and which are now said to be so poor that you cannot raise your voice on them. Part of these lands are only suitable for reforesting, but a certain proportion of them, which are commonly considered to be worthless for farming purposes and are being abandoned, are simply the result of a system of farming that is nothing less than robbery, and which is foolhardy in the extreme because of the fact that the robber robs himself.

In the great majority of cases on these lands, rye is grown year after year in many cases the owners have given up trying to seed the land to grass because they say they cannot get a catch. Of course they cannot get a catch when they burn their rye straw each year as soon as the threshing machine leaves the farm, and sell the rye at first opportunity; and this is done in very many cases.

But, it is not impossible to grow the legumes on these lands. Only last week I saw a wheat stubble which had been seeded down with clover but not a sign of clover was seen except on the hills. The reason for this was

evident. Scattered over these knolls was a fair covering of manure and wherever a particle of manure could be seen the clover was growing nicely. I know of two farms where a splendid crop of cow peas was grown and plowed under this year on these light sandy lands. I know of different orchards which have been planted within the last two years on land that was considered to be blow sand, and they were growing nicely

last summer. Therefore, it would appear that many of these farms may, by judicious cropping, be brought to a fair state of fertility and made to yield profitable returns in certain tranches of agriculture.

IDEAL FOR POULTRY

Professor Graham tells me that the soil and climate of this section is almost ideal for poultry culture. Surely with cheap land and present high prices for poultry produce available, this should be a profitable branch of agriculture. Of course

these farmers there is being successfully developed a system of co-operation that has thoroughly convinced me during the half year I have spent in the county, that the salvation of the farmer lies in co-operation. Although the subject is becoming almost hackneyed I feel its importance warrants my mentioning briefly some of the things which it has done for the farmers of the county and for the county as a whole.

THE APPLE CROP AND CO-OPERATION

Six years ago the apple crop of the county was meagre in quantity and poor in quality. Although an occasional orchard was producing a small amount of fruit of fair quality and yielding perhaps a small profit, under moderate treatment, the average orchard was a dead asset to its owner. To such an extent was this true that many men were cutting their apple trees for firewood. Not

only was this true but slowly and steadily the farms of the county were being abandoned. All branches of agriculture were backward.

IN THE winter of 1906 the Norfolk Fruit Growers Co-operative Association was organized with a membership of 17. The members began to co-operate to produce better fruit. Their old, unsprayed, unpruned, uncultivated, unmanured unprofitable orchards began to be sprayed, pruned, cultivated, manured and to become profitable. The membership increased to 52 in 1907, to 152 in 1908 and to 188 in 1909, and the quantity of apples in the county suitable for barrelling has been doubled in the same time. Then by co-operating to put up a uniform pack of fruit and by dint of diligent advertising, chiefly by putting

their fruit before the public, the price received for apples has been likewise doubled.

CASH RETURNS FOR APPLES

As a result the 188 members of this Association will receive about \$60,000 for their apples this year. Orchards will net their owners from \$2.50 to \$6.50 a tree. I know of one orchard of one and one-half acres which will net \$440.00, and another of five and one-half acres which will net



General View of Ontario Horticultural Exhibition in Toronto Last Month, showing Norfolk County Exhibit at Right.

No county in Ontario has come to the fore as a fruit growing district so rapidly as has Norfolk. Four years ago, Norfolk fruits were scarcely known; to-day they have a Dominion-wide reputation and are well-known in Great Britain. This change is due chiefly to advertising. The Norfolk Fruit Growers' Association, of which Mr. James E. Johnson, Simcoe, is manager, believes in letting people know that Norfolk fruit is good fruit, and that the association backs every package with its name and reputation. All over the exhibition, illustrated

above, the word, "Norfolk" was prominent.

it will require a considerable amount of care and expense and time in order to obtain results, but with land at \$5 to \$10 an acre it surely is a practicable proposition.

The land in the county of Norfolk is not all like this and the farmers are not all farming in the way mentioned above. There is land in the vicinity of Simcoe worth \$150 an acre and men farming it who are experts in their business. Among

\$1,000. Orchards are not being cut down now but thousands of trees are being planted each year.

Less farms are being abandoned. The value of farm property has increased enormously, and outside capital is being quite freely invested in the farms of the county.

IMPETUS GIVEN TO OTHER LINES

But of far greater importance than all these is the impetus that this co-operation has given to other lines of agriculture and the effect it has had in extending co-operation among the farmers. The members of this Association and their neigh-

bors outside have seen what can be accomplished by scientific methods and intelligent co-operation in orcharding (which by the way forms only a small part of the agriculture of the county, since only 10,201 acres of the 271,394 acres of cleared land in the county is devoted to orchard purposes) and they are beginning to awake to the need of a careful study of and the almost unlimited possibilities in any branch of agriculture in which they may engage.

It is not unusual to hear a Norfolk farmer say, "I have only been dabbling at farming till just lately. I am just beginning to farm and I want to learn as much from the other fellow as I can."

Last spring a farmer's club was organized at Simcoe with a membership of 100. They are just now resuming activity for the coming winter and in their outline of work is the perfection of a plan of co-operation in growing and selling potatoes. Thus the good work spreads!

ESSENTIALS FOR SUCCESS OF CO-OPERATION

Now I would not have you think that the way of the co-operator in Norfolk has been nothing but pleasantness and that co-operation there is perfect. The association referred to has had its drawbacks, chief of which have been the result of the old, old story of petty jealousies among members and a lack of faith in one another. These things are being gradually overcome however, and as each difficulty is surmounted it reveals once again the fact that for successful co-operation, a high sense of individual responsibility among the co-operators and competent management of the business are the prime essentials for success.

Diseases of the Horse's Foot—Canker

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

Canker is a diseased condition of the foot, much more serious than thrush and although it, like thrush, usually begins in the frog, it soon extends and involves the whole of the sole and sometimes even other parts of the foot.

SYMPTOMS

The frog becomes large and spongy and covered with matter of a cheesy appearance and of exceedingly offensive smell. Sometimes the discharge is watery but very abundant and always

TREATMENT

A novice should never attempt the treatment of a pronounced case of canker. It is the work of a professional man and even in such hands is often most difficult to manage. It is almost always necessary to cut away the whole sole of the foot and as the result of such an operation necessitates a protracted period of nursing as well as of professional attendance it will be found that in many cases the value of the animal would

not warrant the expense incurred and it would prove more profitable to destroy the patient than to treat him.

Attention to Horses' Teeth*

A veterinarian is needed to make a skilful veterinary dentist; it requires a man who thoroughly understands the anatomy of the mouth, and has the necessary instruments and skill to correct whatever is wrong. Few farmers have either and the so-called "veterinary dentist" who is not a veterinarian is usually an unscrupulous person who neither understands the proper arrangement and conditions of the teeth nor the proper manner of correcting faults, a man who lives by deceiving the horse owner. Hence, we think that it is better for the owner to get a qualified man to attend to his horses' mouths. There are few horses that have reached the age of six years or over (and often those of younger age) that would not be better if their teeth were dressed once every year. The reputable veterinarian does not tell all his patrons this and look in the horse's mouth and say that his teeth require attention. This looks too much like looking for a job, and horse owners are very apt to take it that way; and the veterinarian who has much respect, either for himself or his profession, is above it. He rightly thinks that if his services are worth having, they are worth asking for. All the same, the average horse will thrive better on the same food if his teeth are regularly dressed. There are many cases in which attention is not required, and the professional man who, for the sake of the fee, will dress a mouth that does not require it, is, we trust, rarely found.

WHEN THE FIRST TROUBLE APPEARS

The first trouble likely to result from the teeth appears in many cases between the ages of two and four years. As from two years and three months to three years of age, the first and second molar teeth in each row (which are temporary teeth) are shed and replaced by permanent ones. At from three years and three months to four years, the third molar in each row (also a temporary one) is shed and replaced by a permanent one, and the sixth molar in each row ap-

*In order that Farm and Dairy readers may be warned against the so-called "Veterinary Dentist," and receive instructions as to the requirements of horse teeth, this excellent article is reproduced from Rider and Driver.

pears. It is not at all uncommon to observe a colt between two and a half and three or between three and a half and four years old to become unthrifty and have a persistent difficulty in masticating. He does not appear sick, but becomes dull and listless and does not eat well. During the growth of the permanent molars, which are to occupy the space previously occupied by the temporary ones, the fangs or the roots of the latter gradually disappear by the absorption as the new teeth grow. In normal cases by the time the new tooth has reached the level of the gums the fangs of the temporary ones have become so absorbed that the crown drops off, but in many cases, on account of incomplete absorption this does not occur and the new tooth, continuing to grow, forces the temporary one above the level of its fellows, and, as a consequence, mastication becomes very difficult or practically impossible, and unless the animal be fed on food that requires little mastication he will fail in flesh and energy. When unthriftness, without apparent cause, is noticed in colts or these ages, the molar should be carefully examined, and if any of the crowns are not shed, they should be removed with a forceps.

THE TROUBLE IN OLDER HORSES

In older horses, the trouble is usually the presence of sharp points on the outer edges of the upper molars, and the narrow edge of the lower ones. The lower jaw of the horse is narrower than the upper jaw, hence the rows of molars are closer together, and as the motion during mastication is lateral it can readily be seen that the molars in the upper jaw will be worn without inwards and upwards, leaving the outside of the teeth longer, and the lower molars will be worn from within outwards and downwards, leaving the inner side of the teeth longer.

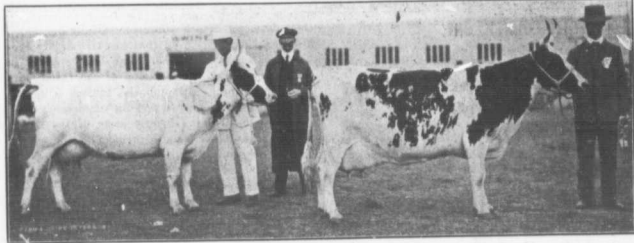
The teeth are irregular in outline in each side; hence, on account of the manner in which they are worn, and the degree of inconvenience or inability to masticate properly will depend upon the size and direction of these points, but in most cases, they interfere to some extent. Treatment, of course consists in removing with a rasp these points. In the performance of this operation, a mouth speculum to keep the mouth open and rasps of different shapes are required and care must be observed to not remove too much tooth. Special care should be observed to not rasp the bearing surfaces of the teeth. These surfaces are normally rough or serrated in order to grind the food, and if made smooth by the rasp, the horse will be in a worse condition than before.

In other cases, from various causes, one or more of the molars become longer than their fellows, the opposing tooth being abnormally soft and wearing more quickly or their roots decaying, and allowing the tooth to be forced further into the socket; the long tooth or teeth after a while attain such length that they come in contact with the opposite gums and render mastication impossible. In such cases the long teeth must be shorn and rasped down to a level with their fellows. A horse whose molars are in this condition, will, of course, never again have a good mouth, but after the teeth are shorn he will be able to masticate fairly well.

REMOVE DECAYED TEETH

Decaying teeth are not uncommon in horses. This condition is usually indicated by a fetid discharge from the nostril or a fetid breath. In some cases difficulty is experienced in locating the diseased tooth, but when the disease has advanced to that stage in which it can be located it must be extracted.

Wolf teeth (these small, supernumerary teeth which appear in front of the first molars in the upper row) are generally supposed to have an injurious effect upon the eyes. This is a mistaken idea. They seldom do any harm unless they are large and in such a position that they interfere with mastication; but being supernumerary and having no function they should be extracted. The



Two Prize Winning Ayrshire Cows at the Alaska-Yukon-Pacific Exposition

"Heatherflower 1st of Bircheshire" and "Burnside Nellie Burns 4th," 1st in their respective classes, and grand champion and Reserve Senior Champion. "Willermoor Farm" is the owner of the former, and Mr. R. R. Ness, Howick, Que., of the latter. Judge W. F. Stephen stands between them.

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somewhat common habit of knocking the crowns of should not be followed. They should be drawn with a pair of forceps. We repeat that sufficient attention is not given to horses' teeth, and that a dollar spent for having them dressed is usually a good investment, while a bungling job does more harm than good.

Packing Bees in Winter Quarters

R. F. Whiteside, Victoria Co., Ont.

Sometime during November bees should be placed in the cellar or provided with double hives outside. If your cellar is under the parlor and poorly ventilated or cold and muggy, a small stove may be used allowing the pipe to connect with the parlor stove pipe by means of a "T" and elbow. If the cellar is below the winter kitchen cook stove and is well ventilated and dark, the prospect is better. The hives can be placed on shelves not less than three or four feet above the floor, the higher the better as long as they don't touch the joist and feel the jar from the floor above.

One bee keeper, Mr. A. Noble, the secretary of our local organization, lost as he thought many stocks by raising the hives in front about an inch above the bottom board. However, if there are two or three warm quilts on top of the hives, the consensus of opinion seems in favor of raising them up. All agree in having the cellar dark, especially during a long warm spell in winter or after the first of March.

OUTSIDE WINTERING

As to outdoor wintering with chaff or leaves for packing, except the clamps be absolutely mouse proof, bad results may follow, but if very dry sawdust is used, the mice do less damage. One inch of sawdust is as good a non-conductor as four or five of chaff or leaves. Two inches of dry sawdust in front and under the hive and three inches of the same material at the sides, back and top are ample. Where two or four or six or eight hives are placed in one clamp, an economy of heat, lumber and packing is secured, but this brings them to face both south, east, west and north, a serious consideration with some. If the clamps are mouse proof, large loose cushions about half full of sawdust are handier for the top covering than simply the loose dust poured over the hives. Bees usually winter fairly well when thus protected, if the clamps are not entirely covered with drifting snow. If it drifts over the top of them strong colonies are liable to get too hot and sometimes even the combs melt down. Those outside clamps should be placed on four stones six or eight inches thick and left either level or tipping a little forward (if the combs run lengthwise as in the Langstroth hive).

If the hives have no sawdust below them, close fitting banking boards should be used to prevent cold winds from circulating beneath the clamps. Long narrow clamps with fly holes all south or east prove clumsy and are usually soon discarded. A four-holed mouse trap for every eight or 10 hives should be provided for mice are almost sure to find their way into some of the clamps.

All fly holes should be at least five square inches, either one half inch by 10 or one inch by five. Some provision is needed for contracting these in winter. One way is to use a piece of tin an inch longer and one inch deeper than the fly hole and have this nailed at one end so that the other can be raised as needed. This tin should have a fly hole in the centre of it one inch deep and three-eighths wide.

Many evidences of great value of systematic selection of seeds on the farms of Canada are recorded in the office of the Secretary of the C.S.G.A. at Ottawa while the Annual Reports which are distributed also contain much information as to what is being accomplished and of the possibilities for future work.—L. H. Newman, Secretary Canadian Seed Growers' Association.

Some Remarks on Corn for Silage

Henry Glendinning, Victoria Co., Ont.

Silos have never been so much talked about before as is common this fall. Those who have been opposed to silos and have been for years, now say, "Well, I guess we will have to come to a silo after all." Where winter dairying is practised, we must provide winter feed. The silo furnishes the cheapest means of furnishing a large part at least of a winter ration.

Corn is the one crop that is ensiled in this part of the country. I have had use opportunity of seeing the most of Ontario during this past summer. There is one mistake that the farmers, especially in Peterboro County, make in growing corn; that is in planting it too closely. They get lots of fodder, but it is not a good kind of fodder.

Corn should not grow thickly. It is not a fine stalk that is required, but rather a big, stiff stalk with two big ears each as big as one's arm. Such is the kind of corn that when ensiled and fed to cows will make them give milk. The rows should be 42 inches apart instead of 36 as commonly planted. The stalks should be about one-third less in thickness than commonly planted and then it would produce much better fodder. True, there are some ears on it as it is produced, but these are only rubbish. The cob on the ear is the most valuable part of the corn. It is the part that we want. We can get ears by growing the corn thinner. Corn is often grown in hills 36 inches square. This is all right provided there be not too many stalks in a hill. Six or seven stalks to the yard is about the proper thickness.

While some argue, and their contention is well founded, that it is better to plant in squares, we now plant ours entirely in drills. We never use a hoe on it and we get as clean corn as ever we did. We grow it 42 inches apart in drills planted with the disc seed drill. We harrow before and after it comes up. Part of this harrowing is done with a "Breed's" weeder which is very effective in killing small weeds. Cultivating, after this harrowing, is done with a two horse cultivator. After the third cultivation we put the mould boards; these force the soil up over the small weeds in the row but do not damage the corn. The oftener one cultivates the better will be the crop of corn.

Corn gives us a succulent food for feeding cows in winter. We have had our cows stabled now for three months. They are being fed corn silage and alfalfa hay and they are giving most excellent results.

The doctors of Toronto say that there is a market in Toronto for certified milk at 10 cents a quart to start with.—W. F. McLean, M.P., York Co.

Farm and Dairy deserves the support of every Canadian farmer. Its staff is to be congratulated upon the excellent matter and valuable information that Farm and Dairy brings with each issue.—J. R. Hutchison, Thunder Bay District, Ont.

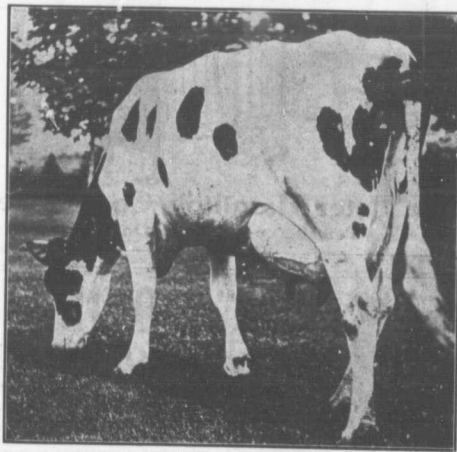
Winter Feeding of Dairy Cows

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

By winter feeding of dairy cows one means, of course, the feeding of cows producing milk. In feeding cows to milk, the primary object is to get the cows to produce as much milk at as low a cost as possible. To secure such results, cows must be fed as much as their digestive powers will permit. The milk cow eating all that she can handle of the right kind of food is sure to be producing milk at a profit.

Certain foods are more particularly advisable on account of their wholesomeness or easy digestibility. As among the best might be mentioned clover, roots, bran and oil cake meal. Good ensilage made from corn, clover or mixture is difficult to surpass. Roots of almost any kind stand unequalled. Animals receiving a fair amount of any of the above are practically sure to be in a condition to consume large quantities thereof. The man who has learned that plenty of food must be eaten to produce much milk and who knows how to make his cows eat food in large quantities has come very near to solving the difficulty.

The fitness of the feed for milk production is an important thing. Milk contains a large percentage of protein or flesh forming material. The food destined for milk production should be rich in that element. Certain foods such as clover, alfalfa, roots, gluten meal, bran, oil cake, cot-



A Cow that is Milking 50 lbs. a Day at Six Months Since Calving

Daisy Pieterje Johanna 6196, a four-year-old Holstein, calved May 19, 1909, made 19.88 lbs. of butter in seven days. She has given 10,000 lbs. milk, of an average test of 3.94 per cent. fat, in just six months since calving. She is owned by D. C. Platt & Son, Millgrove, Ont.

ton seed meal, are rich in this constituent and these feeds should enter as largely as possible into the composition of the ration for the dairy cow.

The dairy cow should be persuaded to eat all she can. To this end succulence is probably the cheapest and most satisfactory aid; and if to such a succulent ration the additional good quality of easy digestibility and richness in protein be added, then the dairyman's problem is solved.

Concentrates for the dairy cow consist of bran, ground oats, barley and oil cake. All of these may be mixed or separate though it is preferable to feed them in mixture and to every four or five pounds of milk produced. The grain ration should be increased with any cow as long as she is increasing in her milk flow.—N. J. Kuneman, M.A.C., Winnipeg.

The Chicago International

(Continued from page 2)

Champion stallion at the last Royal Highland Show and also at Madison Square Garden, New York, a few weeks ago. In aged stallions Graham Bros. also won second with Royal Choice and fifth with "Horland Chief" with "Coniston" they won second in 3-year-olds while "Alley Galt" won third in 2-year-olds. In yearling stallions, first and second was also awarded Graham Bros., with "Penrich Maid." Graham Bros., won first in

yearling mares. Many of the special prizes donated by the Clydesdale Assn. association were also won by Graham Bros.

CATTLE

Entries in Shorthorns, Herefords, Aberdeen Angus and Red-pollled and Grade cattle outnumbered those of last year by far. The Grand Champion steer of the show was "King Ellsworth," a pure-bred Angus steer. He was bred by Lyman Mitchell at Danvers, Ill., and is now owned by Kansas Agricultural College, King Ellsworth is a 2-year-old and as a

yearling last year won 2nd in his class. He is a steer of remarkable quality and smoothness and weighs 1,750 lbs. He was sold at 18 cents per lb. Judge Wm. Heap, of Manchester, England, was the officiating judge.

In carload lots the Grand Championship went to yearling Shorthorns. The Champion Shorthorn Bull was a roan two-year-old, weighing 1,760 lbs.

Canadian exhibitors were James Bowman of Guelph, Ont., in Angus cattle and A. A. Barber of Guelph, Ont., in Shorthorns.

Mr. Bowman won 5th in fat class with a pure-bred Angus yearling and 4th on a 2-year-old heifer in breeding class. A. A. Barber was awarded 4th and 5th in yearling Shorthorns.

SHEEP

Less stringent regulations re quarantine permitted the Canadian exhibit in sheep to be exceptionally good, both as to quality and quantity. Canadian exhibitors were D. and D. J. Campbell, Woodville, Ont.; Hamner and Hodgson, Brantford, Ont.; Lloyd-Jones, Burford, Ont.; A. and W. Whitlaw of Guelph; James Bowman, Guelph; L. Parkinson, Guelph; John Rawlings of Forest, Ont.; and Geo. Allen of Paris, Ont.; and Sir Geo. Drummond of Beacomfield, Que.

The warmest competition was in the Shropshire and Southdown classes. Breeding Shropshires, in Aged Ram American Shropshire Association special, Lloyd-Jones won first and Campbell, third. For yearling ram, Lloyd-Jones won third while 3rd and 4th was awarded to Campbell in American Shropshire Association for the same class. Ram lambs under one year old, Campbell won third, while in the special for this class, Campbell won first, Lloyd-Jones, third. In special prize for St. yearling ewe, Campbell won third, while for ewe lambs under one year, special prize, Campbell won 2nd and 5th. For flocks, Lloyd-Jones won three thirds. Campbell won 1st in one flock class, and same place in special prize of same class.

In Suffolk Mr. Bowman of Guelph was awarded all firsts and seconds in various classes besides having champion Ram and Champion ewe of the

breed. John Hawling won first on a pen of four yearling Cotswold ewes, Parkinson of Guelph, won several firsts besides several special prizes and also The National Lincoln Sheep Breeders Association Special for Champion ewe.

In Southdowns Lloyd-Jones won third for aged Ram third for St. yearling ram, and 4th for yearling lambs. In Leicester, Whitlaw Bros. won first in every class and second, twice. Awards for Champion Ram and Champion ewe were to Whitlaw Bros.

Canadian breeders made a very creditable showing in the sheep fat classes. Competition was exceptionally keen. Campbell of Woodville won 2nd on St. yearling wether and second for wether lamb. Campbell also won second on "pen of 5 wether lambs," while Lloyd-Jones won third. In Oxford, W. West, Simcoe won second with St. wether, first and third with wether lamb and first for "pen of 5 wether lambs." In Cotswold Geo. Allen, Ont. won second for St. wether; 1st and 2nd on wether lamb and 1st on "pen of 5 wether lambs."

SWINE

Quality was the outstanding feature of swine this year, particularly among Berkshires. The classes were all well filled and competition very keen. Mr. Cox of Brantford was the only Canadian exhibitor and exhibited Berkshires only. He won 4th in Aged Boar class; 2nd for St. yearling Boar and 2nd for yearling male pig, eighteen months old. He also won 2nd for Boar under one year old. Mr. Cox won 3rd in aged sows; second and fourth for St. yearling and fourth for sow under a year old.

In the two classes Mr. Cox won second and in another herd class, he won third and fourth. Second also went to Mr. Cox for "four pigs" under 6 months, produce of same sow, and fifth place for "four swine, get of same boar." The Grand Champion, 6th pen of 4 pigs, was a pair of Berkshires, owned by Iowa State College. There were no Canadian entries in fat classes.

STOCK JUDGING TEAM

Especially clever work was accomplished by the O.A.C. stock judging team last week when second highest standing in the judging competition was awarded to Ontario. The Ontario boys obtained 160 points more than any previous second, being only a few points behind Iowa State College team which won first. Prof. G. E. Day and Prof. Wade were the trainers. In general proficiency O.A.C. stood second in sheep and cattle; third in horses and swine. In individual standing, O. C. White, O.A.C., was second best man while W. R. Reek, O.A.C., stood ninth. The Ontario Government would certainly be justified in donating more money for stock judging teams in order that a better acquaintance may be made with American stock.

The Canadian judges at Miller's were Prof. W. J. Rutherford, Winnipeg, Man., and Rolt. Millers, Stouffville, Ont.; Shropshire Sheep; Prof. G. E. Day, O.A.C., Guelph, Oxford Down; C. E. Waple, Fremont, O.; Ontario H. B. Hart, Low, Highgate, Ont.; Lincoln; Geo. Allen, Burford, Ont.; Suffolk; Tom Graham, Claremont, Ont.; horses (Clydes) in students contest.—R. J. C.

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Very Satisfactory.—The pure bred pig which Farm and Dairy sent me from Mr. W. T. Elliott of Coleman, for securing a club of seven new subscribers, is well satisfactory. I am much pleased with it. Wish Farm and Dairy much success.—D. C. McGregor, Lambton Co., Ont.

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The Feeders' Corner

The Feeders' Corner is for the use of our subscribers. It is interested are invited to ask questions and receive prompt attention. All questions will receive prompt attention.

Skim Milk and Ration for Colts

Would it pay to feed skim milk of which we have an abundance, to ordinary farm colts? Would a better use of it, say, than calves or pigs? I am told that most breeders of pure bred heavy horses force their colts a long in this way. How much skim milk would be safe to give them? Would it not need less grain when fed on skim milk? Would you advise us of a suitable ration including skim milk for a colt—R. S. S., Westminister Co., B. C.

Skim milk is an excellent feed for colts provided it is fed in moderation and always care being taken to keep it sweet and free from contamination of any kind.

A colt would not be likely to make better use of it than calves and pigs except in this that it would likely be as effective in inducing gains in the colt as in a calf or a pig and a pound of increase in the colt's weight is probably worth more than a pound of gain in either calf or pig. It is not common to feed skim milk to colts. Colts three to six months of age might safely be fed from 10 to 15 lbs. skim milk daily. It would be wise and probably necessary however to start with quite small quantities. Feed in three feeds per diem. Less grain would be necessary if getting skim milk.

A good ration for a colt the first winter would be as follows:—Clover hay, what it will eat; say 6 or 7 lbs.; corn meal, 2 or 3 lbs.; bran, 1 lb.; oats, 2 lbs.; mangels or carrots, 2 lbs. skim milk 10 lbs. This would be for a colt of one of the larger breeds.—J. H. Grisdale.

Carrier vs. Blower Ensilage

While filling my silos we used a blower attachment on the cutter and I observed that the kernels of the corn (which by the way were softer than I would have liked) were not only knocked off the cob but were either bruised or broken. I observed corn that went into my methuen's who used the carrier instead of the blower, was not even knocked off the cob, although the corn was even greener than mine. In the smothering of the kernels of corn by the blower is there any loss of the nutriment or feeding value of the corn lost thereby, or in other words would you prefer the carrier or blower attachment to the cutter?—J. R. D. Egin, Ont.

The more finely cut the more closely will the material pack, the less fermentation will occur and the better, in all probability, will be the quality of the ensilage. The kernels of corn being stripped from the cob and for the most part broken up means more perfect digestion of the grain part of the ensilage. The smashing of the milk and the mixing of the grain with the rest of the material means more palatable, hence more valuable, forage—palatability being one of the most desirable and most valuable qualities of a food. Shredded corn silage is where every part of the plant is torn into small pieces is considered to be much better than cut corn ensilage. Corn cut by the blower approaches in some measure the fineness of the shredded article.—J.H.S.

Turnips Flavor Dairy Products

I wish to make enquiries regarding the feeding of turnips to milk cattle. Last season I fed quite a number, and did not find any turnip taste or aroma in the butter, although some say it did. We have a reputation for our dairy products and wish to retain it. I have a few silos that grow the following turnips, which is a beneficial effect, both on the cow and on her products when she is being stall fed.

I always feed after milking and in moderate quantities. No doubt your experience and experiments will be extensive and authoritative.—J. S. B. Summerside, P. E. I.

Turnips fed to cows are sure to have more or less injurious effect upon the flavor and aroma of the milk and butter produced. A small proportion of the turnips mixed with other feed may often be given without any very objectionable effects being noted. The amount likely to have no serious effect will depend upon the quality of the turnips and the individuality of the cows and the method of feeding.

The Swedish turnip is much more likely to affect the flavor than the white turnip. Some cows, for physiological reasons I suppose, seem to incorporate considerably more of the turnip flavor into the milk than do others. Turnips fed in moderate quantities immediately after milking are not so likely to affect the flavor of the milk or butter as if fed only a short time previous to milking. Hence it is often found possible to feed turnips without injuring the quality of the milk by giving two small feeds a day immediately after milking. Turnips are an excellent food for milk production and are also most acceptable to the cattle as well as most wholesome.—J.H.G.

Balanced Ration for Cows

Would you be good enough to give me a balanced ration for milk cows from the following product, viz., corn meal, white middlings, bran, cottonseed meal and linseed meal? I have also mixed hay and oats which I did not let ripen together, and which I intend to cut up with hay cutter. Kindly give me what proportion to use, and quantity to feed for an average cow for milk as I am in milk business, and to feed in such a way that it will pay. I feed the medium quality of the brewers' grains also.—A. D. B. Norton Bay, Ont.

I would suggest we follow as a suitable ration for your cows in milk. The following ration for an average sized cow in 24 hours.

- Brewer's grains (wet) 20 lbs.
 - Corn meal 2 lbs.
 - Bran 2 lbs.
 - Cottonseed meal 1 lb.
 - Oil cake meal 1 lb.
 - Pea and oat hay cut and mixed with brewer's grains 3 lbs.
 - Mixed hay 12 lbs.
 - Straw, what they will eat, say 6 lbs.
- For cows in full heavy flow of milk a somewhat larger amount of meal would be necessary while less would do for cows giving very much milk. The best plan would be to mix 200 lbs. corn meal, 200 lbs. oil cake, 100 lbs. cottonseed meal and 100 lbs. bran. Also give all the rate of about one pound meal for three and a half lbs. milk produced. The brewer's grains if kept sweet are excellent feed.—J.H.G.

Feed Silage After Milking

J. H. Blair, Carleton Co., Ont. Complains are often heard that silage taints the milk with an unpleasant flavor. Where milk of the purest flavor is demanded, silage must not be fed. This is not the case with those dairymen supplying confectioneries. While it is possible to use a cleaner flavored milk can than is now fed, it is possible to get milk from cows that will pass all the tests of high-class trades. It appears on my part only where the cows are fed before or during milking. Milk when warm from the cow is very susceptible to taint and naturally it is not surprising that if the cows are fed silage while being milked or if the odor is pronounced in the atmosphere during milking time.

The time to feed silage is after milking. Remove the milk quickly from



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the stable before feeding, then it will receive no such taint. There is never any complaint about milk when silage is fed in this way and by far the greatest quantity of milk sold and used is produced from cows which are regularly fed silage. Many feed it in summer when pastures become dry and at all times when a big flow of milk is desired.

To avoid the silage taint on milk it is wholly a question of 'feed it at the right time.' Silage is here to stay, and were it not for the fact that it can be near the quantity of milk and butter available to meet the demand of the markets.

Feeding Dairy Cows

J. F. Clark, Victoria Co., Ont. Farmers in our locality that have silos, feed silage, hay and roots to their dairy cows. Those who have alfalfa use it in place of hay. Many of us have no silos and for the most part, we feed corn, roots and chop, straw and hay, in my own practice, as I have no silo, I cut the straw and corn and pulp the turnips. This mixed together 24 hours ahead of feeding time. The corn is allowed to heat which seems to make it more palatable and the hay like it better. The feed is mixed by putting it into alternate layers. A handful of salt is sprinkled over each and then the silage is mixed over with a fork. The cows are fed twice a day, morning and evening with this mixture and some chop sprinkled on it. We have no set amount for each cow as some require much more than others, so each gets just what it will eat up clean.

For their noon feed, they get straw or hay. The cows are let out to work and are left out in the morning and in the evening. The hay that is being cleaned up just while the stable is warm, then they stay out until noon. Punctuality is very essential if one would make a cow profitable. Our cream, as well as that from other farms in the neighborhood goes to a creamery every day and has contracts with different confectioneries in Lindsay.

Received the pure bred Hampshire pig in Al condition from the Hastings Bros. Crosshill, Ont. The pig was given to me by Farm and Dairy as a premium for securing seven new subscriptions.—Noah Brooks, Wentworth Co., Ont.

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HORTICULTURE

Killing-Back of Fruit Trees

W. T. Macoun, Central Experimental Farm, Ottawa

Killing-back or the elimination of inherent tenderness of the variety or of immaturity of wood. Plants which need a long season in which to mature their wood will go on growing so late when cultivated in a climate having a shorter season that their wood is not matured and the young wood or the whole trees may be killed. When the wood of a tree which would otherwise prove tender is well ripened it will often survive, but there are fruits and varieties that will stand only certain minimum temperatures, after which are apparently hardy will die until after a heavy crop followed by a severe winter when, owing to levered vitality, they will be destroyed by frost. The Ben Davis apple is an example of this. As has been said, killing back may be due to the immature condition of the wood and it may be due to the death of the protoplasm.

When winter killing is due to immaturity of wood it may be prevented to a large extent by methods of cultivation. From experiments conducted at Ottawa by the chemist, Mr. Frank T. Shutt, it was found that varieties of apples which were known to be tender had usually more moisture in the twigs in winter than those which were harder, partly owing, no doubt, to the fact that they were more immature than those of trees which were harder. When trees of certain varieties are killed after heavy bearing, thinning of the fruit should be practised in order to prevent the lowering of vitality. In trees which to branches of shrubs or herbaceous plants can often be prevented, as is well known, by thawing them out gradually, when the same can be done when the wood is frozen in the intercellular spaces, will return to the cells, whereas if thawed out quickly the cells might break down.

Plum Trees Not Fruiting

I have some plum trees five years planted that have not yet set fruit. Last spring they were loaded with blossoms, like bunches of snowballs, but no pium came.—L. L. Gray Co., Ont.

Your plum trees may be self-sterile; that is, they may not be susceptible to pollination by pollen from their own flowers. It will depend upon the variety. It is very common among plums. Send the name of variety and we will suggest another variety to plant alongside as a pollinizer. The trouble may have been also to do with the weather at time of blossoming which would prevent the transmission of pollen. Insect pests may have had something to do with it.

Protecting Trees

What is the proper way to put building paper around young trees? Should there be one lap or two? Should it be bound tight? How high up should it come on the tree? Should it be banked with earth around bottom of paper? Should manure be put around trees before or after the ground is frozen? Should manure be close to tree or not? Would white-washing the trees before putting on paper be of any benefit?—J. K. Frontenac Co., Ont.

Over-lap the building paper about one-third. Bind it closely but not too tightly. It should be about 18 inches high from the ground. Bank with earth to prevent entrance of pests from below. Manure need not be put around the trees until after the ground is frozen. It makes no difference whether the manure touches the trees or not provided that it is

removed or worked into the soil as soon as the ground is fit in spring. White washing the trunks before putting on the paper, will not aid in the protection against mice or sun scald but will help to destroy eggs of cocoons and insects. White washing the trunks and branches of trees in winter always is more or less beneficial, particularly on trees that are infested with the oyster-shell scale.

White Grub in Strawberry Bed

White grubs destroyed many of my strawberries last summer. How can they be controlled?—A. W. Brant Co., Ont.

In its mature form the white grub is the common May Beetle or June bug. It is troublesome only in strawberry beds that have been planted on sod and sometimes on the edges of old patches that have sod near them. This beetle lays its

and have good results in killing the scale. Thoroughness of spraying is necessary, and it will be easier for you to do a complete job after the trees are pruned than before. Also, pruning helps to put vigor into that part of the tree which remains."

Growing Mushrooms

Please give some information on the culture of mushroom.—A. S. Peel Co., Ont.

In the growing of mushrooms strict attention to all details is necessary. English brick spawn commonly is used and can be purchased from any seedsmen. There are several different methods of culture. The following is one of the simplest:

Mushroom beds may be made any time in fall. Prepare the compost in a shed. Use fresh horse manure and

the bed at intervals of eight inches each way. Smooth the bed with a spade and add a thin layer of loam if desired. In a week or 10 days the bed may be sprinkled with water, not much being necessary until the crop begins to show.

The bed should be kept at a normal temperature of 70 degrees. If it becomes dry, apply tepid water to the surface; but do not saturate the bed. Should the heat decline apply a covering of hay or other material to keep up the warmth.

Small Fruit Culture

The history of small fruit culture in Ontario during the past 50 years was told by Mr. A. W. Peart of Burlington at the convention of the Ontario Fruit Growers' Association. Fifty years ago there were few strawberries grown in Upper Canada and altogether only about 50 or 75 acres of small fruits. The speaker referred to some of the old varieties that have gone out of date. "There is no part of the province where some varieties of small fruits cannot be grown. Mr. Peart reviewed the history of small fruit culture in the province. Mr. Peart's estimated acreage in 1909 is: strawberries, 4,600; raspberries, 2,000; blackberries, 1,000; currants, 1,000; gooseberries, 500; total 9,000 acres and a value of \$3,150,000.

The following varieties were recommended by the speaker: Strawberries, Bederwood, Splendid, Warfield, Grenville, Williams, Sample, Saunders, Irene, Buster; red raspberries: Hilborn, Borden, Progress, Sibley; Golden Queen; white raspberries: Columbian, Shaffer; white raspberries: Golden Queen; red currants: Fay, Cherry, Pomona, Red Cross, Wilder; white currants: White Grape; black currants: Victoria, Champion, Lee, Naples; Saunders; blackberries: Agawam, Snyder, Kittatiny; gooseberries: Pearl, Downing, Red Jacket. The adaptability of some of these varieties is very local.

"Many questions are pressing for solution," said Mr. Peart. "These include varieties best adapted to certain soils and localities; proper care in cultivation and pruning; how to dispose of injurious insects; lowering the market. The outlook is promising, however. Better systems of distribution, the increase in population and the advancing tide of immigration into the northwest are creating a demand for our fruits, both fresh and canned, the potentialities of which are unlimited."



Mr. H. V. LIVINGSTON
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Some of the Apples at the Ontario Horticultural Exhibition, at Toronto, in November

In the foreground of the illustration is shown the display of the St. Lawrence Experimental Fruit Station, and in the background on same table is the exhibit from Leeds-Grenville counties. Both of the exhibits were collected and staged by Mr. Harold Jones of Mattiand, who is the director of the St. Lawrence Station. They contained some of the best apples at the exhibition.

eggs in sod land and requires two years to come to maturity. It is wise, therefore, not to plant strawberries on sod land unless other land cannot be secured. When these grubs are present about the only thing to do is to dig them out from below the plants when the latter commence to wilt.

turn it over every second day for 8 or 10 days, when it should be dry. It is difficult to dry, add a little dry loam. Take care that the manure does not burn.

When the compost is in a suitable condition, prepare the bed in the cellar. The latter should have a minimum temperature of 60 degrees, and a good, dry bottom. Place a 10-inch plank in the desired position and fill in with manure. The bed must be made in successive layers, each being spread thinly and thoroughly packed to prevent injury to the spawn from heating. A depth of 12 inches at the back sloping to 10 at the front is sufficient.

It is safe to spawn when the temperature does not exceed 90 degrees. Should it go above 100 degrees, the manure may be cooled with water. Break cakes of brick spawn into pieces the size of a hen's egg, and place the same two inches deep in

Propagating Spruce Trees

Are young spruce trees propagated by seeds or slips?—S. T. Huron Co., Ont.

Spruce trees usually are grown from seeds and sometimes by layers or grafts. The Norway spruce and the balsam fir make good stocks to graft on. Veneer grafting under glass in winter succeeds better than any method of outdoor work in this climate.

Fall Spraying and Pruning

A number of requests for information in regard to fall spraying and fall pruning reached Professor H. A. Surface, State Zoologist of Pennsylvania recently the following reply to one of the letters received will be of interest to owners of orchards everywhere.

"It is not necessary to spray in the fall for scale insects, but if your trees are much infested, it is better to spray both fall and spring. If my trees were not badly infested, I should spray only in the spring when the buds are swelling. I consider this the best time of the year to spray, and, of course, the time when labour is either commercial or homestead, is my choice of material.

"In regard to fall pruning I can say that this is as good as spring any time when the leaves are off. If you will prune your trees this fall, you can then spray them at any time during the fall, winter or spring,

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POULTRY YARD

Seasonable Poultry Notes

S. Short, Carleton Co., Ont., in Canadian Horticulturist

Frequently the question arises as to which are the best times to keep for winter laying. In weeding out sometimes it is either the hens or pullets that have to go for lack of room. Experience has taught the writer that the best winter layers are yearling hens that have moulted early and that were late-hatched pullets of the preceding season. Next comes early-hatched pullets. As a rule the yearling hens will lay larger eggs. The late-hatched pullets rarely lay before the middle of winter. In any event, if yearling hens and pullets are available, they are likely to be more profitable than older hens. This applies to the heavy utility breeds such as Brahmas, Cochins, Plymouth Rocks, Orpingtons and Wyandottes. Hens two and three years old sometimes prove exceedingly profitable of such breeds as the Minorcas, Leghorns and Andalusians.

Care should be exercised not to overfeed the laying stock when they are first shut in their winter quarters or in fact at any time. Enclosed fowl will not get the exercise they have been enjoying when running at large and are more susceptible to crop hindering and going off their food. Keep them fairly hungry for the first week and then increase allowance. By feeling their crops at night, a good idea may be obtained as to whether or not they are getting enough or too much. When feeding in the morning a general inspection of the fowl may be made and any birds that appear morose and indifferent about eating should be caught and the crops felt to see if they have indigestion. If so, they should be put in hospital for a day without food and plenty of water. If no change has taken place, the bird should be treated by feeding with lukewarm water from a spoon and the crop kneaded until the contents are soft and the fowl returned to the hospital for another day. Usually one treatment of this kind will effect a cure.

CURTAIN FRONT HOUSES

Government authorities and others advocate the curtain front house as being the best adapted for this climate. Descriptions and plans tell us they are easy and cheaply built and results from fowl so kept are better than any other method. They are made with one thickness of board so do not cost much. The curtain front is cheaper than glass and the fowls are better housed and appear better and lay better because the air is fresher. These statements bear some explanation. Any curtain front house I have inspected and I have seen a good many have especially constructed sleeping rooms with double ceiling, either sealed under the rafters or else a small loft between the slatted wood and the space filled with straw. The roof is stuffed with six or eight inches of dry hay or straw. The fowl, therefore, sleep in a warm and most comfortable sleeping apartment. This kind is absolutely necessary for laying fowl. The curtain front is on the scratching pen adjoining which is sometimes very small and made of one thickness of first-class lumber so that there are no cracks or crevices for the cool wind to get through. The fowl go out into these whenever they are disposed to stretch and stretch themselves. On the whole the arrangements are good and comfortable and better than some of the old time double boarded houses which were air sealed and which admit of no air and are damp and deadly. These curtain houses seem especially suited to small combed fowl. I have not

seen Minorcas or Leghorns kept under these conditions nor do I think the scratching room would be warm enough for them in zero weather for their large combs easily freeze and frost bites will stop hens from laying.

Early Pullets for Fall Eggs

Prof. F. C. Eiford, Macdonald Coll'ge

About the middle of July we put into laying pens a few extra early pullets of the following breeds: Barred Plymouth Rocks, white Wyandottes, Rhode Island Reds and white Leghorns. These pullets were all hatched from the 24th of May to the end of the month and were, therefore, between four and five months old. The first egg laid was from a Rock pullet, that celebrated the day she was five months old by laying her first egg. The first Wyandotte egg was laid on August 4, and the first egg received from the white Leghorn was August 10. No egg was received from the Red pullet until August 25.

Into each pen was put 25 pullets, or 100 in all. Up to the 1st of November only 68 of these have laid as follows: Rocks, 19; Wyandottes, 15; Reds, 12; Leghorns, 11. The average yield to date, same time with the egg number laid by each pullet that was laying is: Rocks, total 482 eggs, average 25 eggs; Wyandottes total 208; average 14 eggs. Reds total 182, average 13 eggs. Leghorns, total 142, average 13 eggs. The best individual records for the pen is: Rocks, 46; Wyandottes, 34; Leghorns, 33; Reds, 27.

For the 68 pullets that laid, the total eggs laid was 1021 or an average of 15 eggs for each pullet. At 25 cents a dozen it means that each pullet gave 30 cents worth of eggs in the three months. In reality they paid better for new laid eggs being so scarce and price was much higher but for one who was a constant supply the experiment may be worth considering.

The Rock pullet that laid the 46 eggs is the pullet that laid first, commencing the day she was five months old. By the time she was six months old she had laid 28 eggs. She then quit for five weeks, and started in again and laid 18 eggs during October and 6 eggs up to the 6th of November. This was a little experiment. We wanted to see if we could get eggs from early pullets during the fall months, when eggs are usually low. Just how these pullets will lay during the winter remains to be seen.

Profitable Pure-Bred Poultry

C. Murray Smith, Brant Co., Ont.

With eggs at 40 cents already and going up (likely as high as 60 cents before long) the wise farmer will be likely to sit up and take notice if never before of the profits to be made in the egg industry. The cold storage houses in the height of the egg season paid 23 cents a dozen, a record price for them.

Millions of eggs are shipped from Russia to England. There they are cleaned, canned up, frozen and hence shipped to York where they are used by bakers and confectioners. There is no danger of eggs ever becoming cheap again if only on account of the ever-increasing demand for their use in the Arts and Trades to say nothing of the growing consumption for table use.

TO SECURE THE BEST PRICE

To realize the best prices one should not only furnish the choicest grade, but see that the advantage in such is not lost by carelessness in marketing or in shipping. Eggs of all sizes, shapes and colors in one basket never

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bring the fancy prices that a lot of uniform size and color does. The same applies to marketing poultry, the poorest specimen lowers the price on the lot.

The better way would be to grade them all, fat hens in one lot will sell on sight, poor hens and late chicks will not bring good prices at any time.

This uniformity in eggs and birds is only one of the many advantages in keeping a flock of pure-bred poultry. Now it is a curious fact that many farmers who would be ashamed to sell a single hen, sheep or swine will cheerfully tolerate mongrels in the poultry yard. The time for contempt of "chicken raisin," has gone by. It can be proved that fowls pay better and pay quicker than any other farm stock; an account book showing sales and receipts will soon convince anyone of that.

Blooded birds cost no more to raise or keep than the mixed flock does and there is this difference that there is always a demand for settings of eggs at a good price from them, the same cockerels and pullets find a ready sale at one dollar apiece and upwards.

Peterboro Poultry Show

The officers of the Peterboro Poultry Association have issued the prize list for the forthcoming exhibition to be held in the Peterboro Hotel, Peterboro, on Jan. 4, 5 and 6. The exhibition of this association last year was a decided success, and the one this year promises to surpass it in every way. A large number of special prizes have been donated. Eight silver cups, \$5 gold pieces and other valuable prizes are in the list, besides special ribbons given by the Barred Plymouth Rock Club and the Canadian White Plymouth Rock Club.

One class which should be of special interest to farmers will be the exhibition of dressed poultry, which will be judged by a competent man from the Guelph Agricultural College. Turkeys should be starved and withdrawn, with head, flight and tail feathers left intact. The prizes will be \$6, \$3 and \$1.

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FARM AND DAIRY

AND RURAL HOME

Published by The Rural Publishing Company, Limited.



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FARM AND DAIRY

PETERBORO, ONT.

CONTROL SOW THISTLE

Farm and Dairy readers, from their own experience, as well as through the timely articles and discussions that have been featured in these columns in recent months, are more or less familiar with the nature of that great farmer's foe, sow thistle. The need for checking the spread of this pest is generally and freely admitted. The well known agricultural authority and Farmer's Institute speaker, Mr. Henry Glendinning, at the recent annual convention of the Dominion Grange, said that in Wellington County he had seen fields of grain so infested with sow thistle that had he been offered the crop free with the taxes on the land paid by the owner, he would not have accepted it.

When conditions on a farm, even although such conditions are exceptional, have reached such a climax, surely it is high time to curb a foe that could be the means of bringing them to such a pass. Unless a systematic effort is put forth to improve the situation, thousands of other farms will be

fore long be equally as badly infested. Mr. Glendinning advocated a campaign of education as a means of checking this pest. Farm and Dairy believes with Mr. Glendinning that a campaign of education in regard to sow thistle will, and has already proved, in part, effective in checking sow thistle. But the educational campaign as suggested needs something to back it up if it would have that efficiency needed to effectually check the spread of sow thistle. That something needed is a stringent weed law in the province of Ontario which will make provision for having all sow thistle prevented from seeding.

Manitoba has enacted such a law. That province finds it decidedly beneficial. Mr. J. J. Golden, Deputy Minister of Agriculture for Manitoba, when writing to Farm and Dairy in regard to the advantage of their stringent weed act, said, "We find this 'Act, while of course not enforced in all cases on account of lack of machinery, to be very beneficial. It results, not so much on account of its being stringent in compelling the cutting of weeds, but because it helps the farmers to realize that 'sow thistle is dangerous. They are 'more alive to the necessity of detecting weeds than they were before this Act came in force. If it does no more than make our farmers 'more careful, the Act has accomplished 'plished much good for the district."

When such results have followed the passing of a weed law in Manitoba, we may expect that similar benefits would be derived from a law seeking to check sow thistle in Ontario. The Ontario Legislature can rest assured that such a law is in the best interests of Ontario agriculture, and that it would have the support of the greater proportion of our Ontario farmers. This matter should not be further delayed. It should be dealt with effectively at the forthcoming session of the Legislature.

FOR A CLEANER MILK

The Milk, Cheese and Butter Act in force in Ontario provides that all dairy instructors appointed under the Act shall have free access and admission to the premises of all persons supplying milk or cream to any cheese factory or creamery, or for sale in cities, towns or incorporated villages. A large part of the work performed by dairy instructors of both Eastern and Western Ontario is in visiting cheese factories and creameries. Any milk producer who neglects to take proper care of his milk is liable, however, to be called upon at any time. Possible embarrassment, not to mention the imposition of penalties, can be avoided by keeping premises in such condition as one would like the instructor to find.

In view of the instruction that has been given through the agricultural press, bulletins, farmers' institutes and other mediums, there are few, if any, who do not know how to obtain clean milk. Cheese makers and dairymen generally report that milk has been received this past year in better

condition than ever before. Much of this improvement is due to the work of the dairy instructors in visiting patrons. The last report of the Chief Dairy Instructor for Eastern Ontario, Mr. G. G. Publow, shows that in a single year, as many as 500 patrons had been visited by one instructor. This was in the case of Instructor R. W. Ward, in the Peterborough District.

Other instructors made as many visits as 300 in one case, down to as few as 20, and even to 11. Since this latter form of instruction has proved so beneficial, it would be well to extend it still further. Visiting patrons should be more generally practised by many of the instructors. Patrons who send poor milk to a factory lower the price paid to their brother patrons for their milk. These offenders need to be hunted out and persuaded and, if necessary, forced, to make the needed improvements in their methods.

FRENCH-CANADIAN HORSES

Our warning to those who are interested in French-Canadian Horses that it would be well for them to exercise much care when buying or breeding animals of this breed, on account of their composite breeding, has brought forth a letter from a breeder in Quebec. This breeder says: "You are 'perfectly right in your contentions 'that breeders should be very careful in buying French-Canadian 'horses. A few days ago a farmer 'of St. Anne de Beaupre offered for 'sale a so-called French-Canadian 'horse, registered, he said by The 'Canadian Horse Society. He acknowledged that the sire of that 'horse was an Anglo-Norman. 'I sold some years ago, by Mr. R. R. 'Ness, and owned before he died 'one Cloutier in Montmorency county. In other instances, the sires of 'so-called French-Canadian horses 'will be a Clyde, or a Thoroughbred, 'or a horse of some other breed. 'The registration of these horses is 'in many cases, the greatest 'bug that I ever saw. These horses 'are mostly half-breeds."

The commission that was appointed by the Dominion Government to establish a standard for the French-Canadian horse has accomplished much good work in their efforts to standardize this breed. The commission has visited the different counties in the province of Quebec, and has inspected all the French-Canadian horses presented for inspection, and for registration in the new record book that has been started by the Dominion Government. Last year about 4,000 horses were examined by the commission. Only about 1,500 were accepted. A lot of horses that previously had been registered, were culled out and refused registry in the new book.

The French-Canadian breed is not a nonentity as some people suppose. In view of the incidents cited, however, it is apparent that it is well to be exceedingly careful in buying or breeding from animals of this breed. The Dominion Government is to be commended for having undertaken to

improve the standing of this breed of horses.

NATIONAL COUNCIL OF AGRICULTURE

A movement has been started in our western provinces, favoring the formation of a National Council of Agriculture. Its objects as given are, in part: "To organize the farm population for the study of social and economic problems; to collect and disseminate such material from scientific and literary sources... as are necessary for the proper information of our people; to formulate our demands for legislation, and present them... to the notice of 'Parliament and our different legislative bodies; to encourage the entry of our farmers into active membership of one or other of the political associations... as a means to make the political parties responsive 'to and representative of the demands 'of the people who form the bulk of the population; to urge the adoption 'of co-operative methods by our 'members (but outside our Association) in the purchase and sale of 'commodities..."

It is hoped that the proposed National Council will unite the farmers of Ontario, Manitoba, Saskatchewan and Alberta in one body and thereby have the weight necessary to make itself felt on all questions of importance to farmers and for the good of the country as a whole. A national organization, such as is proposed, might accomplish much for the benefit of agriculture, and Farm and Dairy therefore views the proposition with commendation, although we are conscious that there are great inherent difficulties in all movements of this kind.

It is patent to all that in the past farmers have had very little to say in matters of legislation, notwithstanding the fact that the rural population forms the major part of the population of Canada. This is due to the fact that while strong in numbers, we have exerted our influence only as individuals. Through a National Council of Agriculture, the machinery would be provided that is needed, and without which united action is impossible.

In the West there are three provincial organizations. The Grain Growers' Association of Manitoba, the Grain Growers' Association of Saskatchewan and The United Farmers of Alberta. These three organizations are already linked together in an inter-provincial council. Here in the East, we have the Grange. A linking of these four bodies would give a national organization.

This National Council of Agriculture, it is expected, will be completed in the first months of the new year. The movement deserves support, but it will have to be managed with great care. Its management will be expensive and there will be many local jealousies to be overcome. The difficulties, however, should not be insurmountable. Such an organization is needed.

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Creamery Department

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

Cream Gathering vs. Whole Milk Creameries

A most profitable discussion relative to "Cream Gathering versus Whole Milk Creameries" took place at the recent dairy meeting held in Peterboro. Mr. E. Hawthorne of Warsaw stated that their factory ran as a creamery in winter time. They had invested about \$800 in a separator and now agents were going through the country selling separators to such an extent that there would soon be little whole milk coming to the creamery. He believed that within two or three miles of a creamery, hand separators should not be used as by their use it was impossible to get a good quality of butter and particularly butter of a uniform quality.

Replying to Mr. Hawthorne, Mr. J. F. Singleton, assistant to Mr. P. F. Patten at the Kingston Dairy School, said that at one time there were separator agents that in his estimation should have been killed, but that they and their work, one would think, should be things of the past. "At that time, there were separate agents," said Mr. Singleton, "Who would say our separators only need washing once a day."

HERE TO STAY

"There is no use of one getting up in front of the train and letting it hit you," continued Mr. Singleton. "There are only three or four whole milk creameries in the whole of Eastern Ontario, the cream gathering creamery evidently is here to stay and we may as well make the best of it. Milk will sour much more readily than will cream and therefore, from a theoretical standpoint, the cream gathering creamery should make a better quality of butter. The trouble is that patrons do not take enough care of their cream. They take it too thin about 26 per cent. on the average although some of it will only test 19 per cent., and some is lower. With such cream there is a great loss of skim milk, it sours readily, there is more to cool and when you get it to the creamery the less water will stay in the butter made from it. Butter in this respect is not like cheese. With cheese, the more water you put in, the poorer the quality will be. With butter, it makes not so much difference what amount you put in as how you incorporate the moisture, providing you do not exceed the limit of 16 per cent. set by law."

SEPARATORS IN BARN

"Fifty per cent. of the separators are in barns. Some of them are a credit to the barn, to the dairy business, and to the men who own them. The separator at the barn is more convenient. There is much less work in carrying the milk to it and the skim milk to where it is to be fed. When separators are in the barn they should be placed in a separate room situated against the outside wall where an outside window is available. The room should have a cement floor in order that it will not absorb the milk. I have seen separator rooms set up on staves in the stable. Often we see separators placed in an empty stall and to keep the dust off of the machine, its owner has put an old horse blanket over it, the blanket having been used for years for other purposes is well laden with dust and objectionable odors."

THE PEOPLE KNOW BETTER

"Too many separators are washed only once a day in summer and less in winter. People know better than this. The women of the house know

better. They will not leave their pails without washing. It is 10 times more important that they wash their separators. So lax have people become in regard to washing their separators that 75 per cent. of them are washed only once a day or less. Some explain that their separator has a self emptying bowl, therefore it does not need washing, others that they leave water standing in it, etc. One cannot get over the need of washing the separator each time it is used. All the dirt contained in the milk is sticking in it," concluded Mr. Singleton, "and it will stay there, where it will contaminate the milk and cream that passes over it unless such be removed by actual washing."

Creamery Co-operation in the Winter Season

"There is a splendid chance for co-operation in the creamery business where the creamery is run in the winter and cheese is made in summer," said Mr. Hy. Glendinning at the Dairy meeting recently held in Peterboro. "The creamery business requires a great many more cows to run profitably than does the cheese, and as the creamery can reach out much farther, there is no reason why the patronage of several cheese factories could not be handled in one central creamery during the winter. As Mr. Singleton has aptly pointed out, 'there is no use standing in the way of a train that is going along and it is a sure thing that in cream gathering creamery business is sweeping everything before it. Home separation is the only system practicable where large areas have to be covered for a single creamery.'"

"The Cannington creamery, which we patronize, is a whole milk creamery. It went nearly bankrupt before the farmers put in separators. The great difficulty with the whole milk creamery is that the skim milk has to be hauled to and from the creamery. It costs too much to do this. With the cream gathering creamery, the cream only has to be hauled. This plan should apply to the Warsaw district as discussed by Mr. Hawthorne."

"Cream needs to be cooled down at this time of year just the same as at any other time. We have ice on hand and we use it all along. Some imagine that cool air will cool it down, but there is nothing like water for this purpose."

A Tribute to the Creamery

The following tribute to the creamery is going the round of the press:

Butter worth 30 cents a pound is made from the same milk that grease worth 4 cents a pound is made. It takes as much milk to make the one as the other. The one is the result of ignorance, the other of intelligence. The one goes begging in the market, and brings poverty upon the producer, the other is in demand and brings wealth and honor to the maker. The one honors the cows, the other disgraces her! The one builds hovels and sheds, the other builds mansions and costly barns. The one covers the farm with mortgages, the other removes them! The one brings ignorance to the children, the other knowledge and respectability.

In no way are ignorance and knowledge more plainly brought in contrast than in the manufacture of butter. Ignorance sits in poverty and is clothed in want and disgrace, while knowledge is clothed in plenty and respectability. In the last 10 years the knowledge has struck a terrible blow, cracked its skull and laid it up for repairs. This knowledge had its birth in the west, and the creamery is its legitimate offspring.

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



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Don't miss this golden opportunity to secure seed of this special strain of barley that is being talked of and is in great demand wherever barley is grown. Show FARM AND DAIRY to your friends and get them to subscribe and send in your subscription at once and claim your share of this "greatest ever" premium offer before the supply is exhausted. Write:—

CIRCULATION DEPT. FARM AND DAIRY PETERBORO, ONT.

Cheese Department

Makers are invited to send contributions to this department, to ask questions of matters relating to cheesemaking and to suggest suggestions, and to send notices to the Cheese Maker's Department.

Factory Meetings Successful

Through the advice and influence of Messrs. G. A. Cuthbert and Henry Gummeling, the district representatives for Peterboro and Victoria counties, respectively, and the aid of the Eastern Ontario Dairywomen's Association, the annual meetings in connection with a large number of cheese factories in these counties have been addressed by Mr. Geo. H. Barr, assistant dairy commissioner, Ottawa, and Mr. Jos. Burgess of Woodstock, Ont. Mr. Barr has given his highly instructive illustration of the "Care of Milk for Cheese Making." Mr. Burgess who has charge of the cow testing work for Ontario has addressed lessons meetings on matters pertaining to the cow testing work.

Messrs. Barr and Burgess, while in Peterboro last week, called on Farm and Dairy. The meetings have proved popular and have been exceedingly well attended, the lowest attendance at any one place being 40. At an evening meeting held at Rosemeath, fully 250 were attendance while at Westwood, over 100 turned out to take advantage of the instruction offered.

As a result of their efforts, the membership in connection with Cow Testing Associations in Peterboro County has been fully doubled. The means adopted of getting this instruction to patrons were very effective, namely, that of having these addresses delivered at the annual factory meetings is a most commendable one. The work of Messrs. Barr and Burgess in this connection should result in a great up-lift to the dairy industry in Peterboro and Victoria Counties. This week, Messrs. Barr and Burgess are attending meetings in the Lindsay district.

Dairying in Western Ontario

Frank Hens, Chief Instructor,
London

In Western Ontario we made 394 tons of cheese more in 1908 than in 1907, or 17,221 tons. The returns are not yet in for 1909, but indications point to a larger total. The returns for the amount of butter made this year will be in shortly and a larger make is expected, although considerable cream is being shipped to Port Huron from sections West of and near London, 300 more patrons sent milk to these factories this year than in 1908, or 5,689, and 132 more patrons have been engaged in supplying cream to the various creameries, or 15, 307 making a total of 32,392. Eight new factories have built at a cost of about \$19,000. A number of factories pasteurized the whey this year, with very good success. Some factories have not done the work properly. The majority, however, have done excellent work and have sent home the whey with an average acidity of .37 per cent. and an average net per cent. of 4.04, while the factories not pasteurizing the whey sent home the whey with an average

acidity of 1.12 per cent. and an average fat of only 1 per cent. These figures confirm those of last year and it is well established that by proper pasteurization of whey and a reasonable amount of cream before the whey tanks, comparatively sweet clean whey in good condition for feeding can be sent home from our cheese factories in a very small cost for pasteurization compared with the benefits derived. The patrons seem to appreciate the effort that is being made in trying to send them home sweet, clean whey.

One of the difficulties in regard to securing effective results from pasteurization lies in the custom of some factories to allow the wash water to run into the whey tanks. This should not be, even if the whey is not pasteurized. Many of our factories not having natural drainage are beginning to see this and are arranging to put in septic tanks to handle this wash water. Several have already been put in and more are to follow. This is a movement in the right direction, and the cost is not great. One of the main points for success in operating these septic tanks is that they should be large enough to handle all the wash water. One would suggest a tank for an average factory to be built of cement 15 feet long, five feet deep, and six feet wide, with three compartments, when the wash water after it has been treated in the tank.

Since January 1st, up to October 31st, some 145 annual district meetings have been held, with a total attendance of 10,057. These meetings are reaching a large number of patrons. Some of the District Meetings that were held during November were very well attended, while others were not.

The instructors are attending some Farmer's Club meetings in their respective districts and are reporting good attendance. Applications are already coming in for speakers to attend annual meetings during the coming winter.

The Dairy Exhibition for the coming convention to be held in St. Thomas, Jan. 12th and 13th, promises to be large as a good list of entries are already in. Some entries are also in for the Dairy Herd Competition which is held in connection with the convention but not as many as we had hoped would take advantage of the fairly liberal prizes.

Factories that Pay by Test

J. F. Singleton, Kingston Dairy
School

Out of 1,177 cheese factories that are in operation in Ontario, only 107 pay by test—less than 10 per cent. The advantage of paying by test is that each patron gets the best milk that he can get. It prevents dishonesty. It has been said that the proper way to deal with crime is not to punish, but to prevent it. The method of paying by test is within the reach of every factory.

It has been found that where milk is paid for by test it is given better care. Where paying by test has been adopted, ice houses become more common and greater care is given to the milk in order that it will be delivered in the best possible condition.

Dairying in Woodstock District

The annual report of Dairy Instructor Hart as read by him at the recent district dairy meeting at Woodstock showed that there were 26 factories in the Woodstock and Ingersoll section, with a total of 2,000 patrons. The past season saw a great improvement in the milk supply, despite the cool and wet weather. There was a fine quality of milk. A large number of patrons got rid of their rusty cans, and also made improvements in their tanks. Twenty-one factories have gone into

the pasteurization of whey. There were also more patrons cooling their milk than ever before by using water and ice in cement and wooden tanks. The makers have also used better judgment than ever before in the selection of their milk. The factories should all stand by one another and when milk is rejected by one factory it should not be taken in by another.

From the cheese standpoint there was also a marked improvement. The spring cheese was all good, but in the hot weather some of the factories had a little trouble with their curd. Regarding factory equipment, the report stated that all the proprietors had made considerable improvements during the past season. After reading the report, Mr. Hart gave the makers present some advice. He urged them not to use old wire curd knives at they make poor cuts. He recommended a quarter inch knife for the cutting of curd.

Regarding whey tanks he advised the makers not to use a cement tank as in time they crumple away. He said that in this section there are a number of cement and wooden tanks and one steel tank being used. He said that they are quite an expense at first, but are cheap in the long run.

Dairy Instruction in Brantford District

R. H. Green, Dairy Instructor,
Cayuga

During the season of 1909, I spent 100 full days in the factories and made 106 call visits. There are 28 factories in the group, make 284 curd tests, found 62 of these samples tainted; and I visited 80 patrons.

The average per cent. of fat in the milk was 4.05 per cent. The average loss of fat in the whey for season was .22 per cent; the highest .32 per cent; and the lowest .15 per cent. I always find the higher loss in the whey when the curd is cut with the coarse one-half inch knife, cut several times, and raked with the common rake. The lowest loss of fat in the whey when the curd is cut once with the quarter inch knife and once with the ordinary knife, and raked with a McPherson rake or handled with agitators. Would strongly advise the manufacturer to use used where there are no agitators, but would always prefer agitators. Sixteen factories have agitators; seven of these are equipped with the common hay rake. Eighteen factories use ¼ whey knife, five use the 3-8 inch wire knife, and only five use the ½ inch knives.

Sixteen factories pasteurized the whey, 11 more than last year. The majority have done a good job, while a few have not done poor work. The reason for this is that a sufficient number of cups to make curd tests of all the patron's milk at one time.

All the factories now have elevated tanks for all factories to have such old pumps. Two of these are going to put up elevated tanks next season. Five years ago there were 19 factories with tanks in the ground, only very seldom cleaned, and with the old hand pumps. A great improvement is shown here so far as the whey tanks are concerned.

I made 60 laboratory tests and 155 Babcock tests. Seven patrons were fined from \$10 to \$50 for sending deteriorated milk to the factory. One patron appealed the case to the county court. The magistrate's conviction was sustained. Only two factories make whey butter.

All the 28 factories use the acid-fast method. They also use the pure culture. Five years ago only three were using a pure culture. Would suggest however that the makers do not entirely discard the hot iron and rennet test but use them along with the acidimeter.

The improvements amount to \$700 consisting of new boilers, engines, vats and elevated whey tanks with

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Sharpley Dairy Tubular Cream Separators are unlike all others.

Common separators have heavy, complicated side-tipping bowls that are hard to handle, hard to wash, cannot show their balance, sure to get shakily. Then they waste cream, run hard, wear out. That is because common separators are built wrong.

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other small utensils. There has been a great improvement this year in the quality of the milk and also in the cheese, less cheese being rejected than in any former year.

We have had less trouble with gassy and greasy flavors particularly where the whey was properly pasteurized. I can see also improvement in the milk at the factories where speakers have been able to attend the annual meetings and give the patrons a short talk on the care of milk. Two factories pay by test, and two factories are equipped with a sufficient number of cups to make curd tests of all the patron's milk at one time. Would consider it would be a good plan for all factories to have these curd test cups.

Mr. Jas. A. Sanderson of Oxford, Ont., has been re-elected by acclamation a director for Greenville county of the Eastern Ontario Dairywomen's Association.

100. The latest success.

Black Patch
The big black plug chewing tobacco.

COURTSHIP PROMISES

THE things that annoy you and make you feel sad, You scarcely would notice at all when you're glad; So when you are crossing Life's uneven ground, Look pleasant and wait till the bright side comes round.

The Tragedy of the Farmer's Wife

(From *The Delinquent*)

WHERE the six millions of farmer's wives in the U.S. placed in a child, fused into one homogeneous mass, enough of it crowded out to make one woman—the typical farm woman—and were she depicted to the people as she is there would be the greatest tragedy of American civilization.

Yet so commonplace is this tragedy, so often recurring, so long portrayed, that the senses of the people are dulled to it. The masses do not realize its presence, and the very star performers in it are unaware of the parts they play. The cause of it all—the farmer himself—does not know the thing that is going on in his very household. So subtly and gradually has it borne down upon the victim that neither she nor any of the other members of her family have realized her crushing.

But this typical farm woman! Let us take a look at her as though she were a creature seen for the first time of a first impression. As a representative of a hardware dealer in the adjacent town we have called on her husband. It is spring and soon the rattle of the moving-machine is to be heard in the land. The fields are just beginning to show the tassel of the barley, and the oats coming to head, and the farmer needs a new machine and we are here to sell it to him. Hale and hearty and prosperous, he asks us to dinner and we accept the invitation.

We see the farmer's wife for the first time. It is but a fleeting glance as she passes our doorway, while we wait in the bare sitting-room. We catch the dark hair combed straight back and knotted, then the blue calico dress falling unbroken in one piece and tied about with a checked apron. Such a slim and gaunt figure, we think. We look at her more closely when we come to the table. This farmer's wife is thirty-five years of age, and, knowing the manner of rural marriages, the wife must be two years younger. Yet she looks a woman past the prime of life, and broken. Her thinness is apparent. Not an ounce of flesh shows on her stooped and wiry frame. There are no signs of the feminine tendencies to adorn the person, nor is there a vestige left of the softer qualities that go to make up the appeal of woman to man. There is the one characteristic, that of activity, for she is intensely busy. Yes, and one catches a look of hunger in the eyes and a hanging on the words of the stranger when he talks of the things of the outside, the things of which she has so little opportunity to know.

Yet we know that this woman is not an individual, but a type. We have

seen her in the railway trains where two seats were turned together and many children sucked striped sticks of candy. We have seen her with the same children about the counter in the country grocery. Swarms of her lend a somber element to the gay throngs that turn out in rural communities on circus day. Come to think of it, our mothers looked like this when we first remember them in the boyhood days when we were so happy and care-free back on our farm. How thin she has always been!

There is a lot to be found out about this woman, and it is vital to know of

Remember Your Friends

It is time now to decide your Christmas gift to your friends. It is becoming more popular every year, to send to our loved ones, remembrances that will constantly remind them of you and love—all through the year to come. What better gift, than one that will remind them every week of your interest in them? Let us suggest a novel and choice gift.

A year's subscription to Farm and Dairy should be a most valuable gift for your neighbor and one that will result in much good to him and his family. Send us the name and address of the friend to whom you desire to send Farm and Dairy for one year, together with \$1 and we will send them, so that they will receive them on Christmas morning an attractive Christmas card, showing that you are sending them Farm and Dairy for one year, as a Christmas gift. We will also at the same time renew your own subscription FREE for 6 months.

For two such gifts we will renew your subscription FREE for a year. Decide at once. Avoid the rush at Christmas. We are busier then, and so are you. Send us the name to-day and we will do the rest. Address Christmas Editor, Farm and Dairy, Peterboro, Ont.

It is she who bears the brunt of feeding the multitude for which the farmer receives so much praise. It is she who gives birth, and before her vitality is sapped, to the men who make history. It is she who is martyred even in the times of peace and plenty. It is a useless martyrdom, for it is easily preventable, and for this reason it is especially important that her condition and the causes of it should be known.

In the first place you will be told that it is all both about the unfavorable conditions on the farm; that the farmers last year raised seven billions of dollars' worth of produce and that they have given themselves the uplift. Conditions are not at all like they used to be on the farm, you are told, for these men are now riding in automobiles and running water has been put in the house.

There is a lot of truth in some of your statements, for the farmers have made a great deal of money, and in some communities there are hundreds of comfortable arranged as ideal homes on the farms. We are glad you mentioned these ideal homes and that there are so many of them, for they prove the possibilities of farm life. They should be provided for all the farms, and they may be provided, but

they are not. The consensus of opinion of the greatest authorities in this country upon farm conditions is to the effect that probably ten per cent. of the farmers are grasping their opportunities for better living in so far as the home is concerned, and that the condition of but ten per cent. of the women is improved. Strange to say, with the vast majority there has come a worse condition with the development of the farm, and the advent of prosperity. The Country Life Commission, appointed by the President, has traveled the country over and found this to be a general practical statement of the Department of Agriculture state the condition as a fact.

The tale of the way the wife got the worst of it is the simple tale of the development of the farm. A young farmer and his wife, for example, went west twenty years ago to carve out for themselves a future in a new land, or moved on to a new farm adjoining the one on which they grew up. They were young and strong and courageous and laughed in the face of the difficulties they met. They staked out their farm in the forest primeval and felled the trees and built themselves a cabin. The man labored in the clearing all day and the wife sang merrily about the house. Her inland duties were, however, simple and easy and she found plenty of time to make a garden, care for the chickens and often lend a hand in the work of the field. Her task was lighter than her husband's in the fight against the pioneer difficulties.

The husband worked persistently and the clearing grew. As the years passed, the crops covered a greater and greater acreage, and the harvests brought more money. A large house was built and its care required more

labor. A hired man was necessary in caring for the farm, and his meals must be cooked. The old cow had developed into a herd of eight or ten, and there were milk and butter in abundance to care for. At the end of seven years three children had come into the family, and the mother must attend to their rearing, and the time and strength. Things were growing complicated for her.

Yet for the husband there was but the necessity for man's work each day, for, with the advent of prosperity, he had added to his working force. His was the business of getting money out of the farm, and these broad hands were profitable. Hers was the business of keeping the house in order, and the additional burden had come so gradually that there was no realization of their increase. Anyway, there was no hired help to be had, for there were no hired men, or, if there of course, it was not the man's work, and the farmer, like the warrior of old, draws the line very closely in these matters.

The conditions under which the division of labor in this family developed are almost universal. They would vary slightly on a New York dairy farm or on the prairies of Kansas or in the wheat-fields of California. Yet

they are the conditions of the average prosperous farmer. The woman's lot is better where there is less prosperity, and is quite simple where there is poverty. But the increase in the production of the farm, in its size, in its value, will tend to make the burdens heavier on the woman. This matter of work—tolsome, tedious, monotonous, never-ending work, is the decreasing burden of the woman on the farm.

Setting down the program of the woman's day at her duties may show the work more graphically than anything else.

From 4 to 6 a.m.—Breakfast for the men and getting them off to work.

From 6 to 8 a.m.—Washing dishes and milk-buckets and putting away for milk.

From 8 to 9 a.m.—Getting children off to school, churning, working the butter.

From 9 to 10 a.m.—Getting in vegetables, brooding poultry and odd jobs.

From 10 to 11 a.m.—Getting a boiled dinner for the family and hired men.

From 12 to 1 p.m.—Serving dinner and cleaning up.

From 1 to 3 p.m.—Sweeping, cleaning house and making beds.

From 3 to 4 p.m.—Ironing, scrubbing and odd jobs.

From 4 to 5 p.m.—Gathering eggs, care of poultry.

From 5 to 6 p.m.—Getting supper for family and hired men.

From 6 to 7 p.m.—Serving supper for family and hired men.

From 7 to 8 p.m.—Straining milk, washing utensils, preparing for breakfast.

From 9 to 10 p.m.—Mending clothes for children and men folk.

This practically completes the woman's eighteen-hour day, when there are no extras. Interspersed with the other tasks are those of taking care of two or three small children. There is often extra work, as the washing must be got in some place, the clothes of the children made, fruit in season put up, extra lunch for the men in the extra time prepared, and countless other such possibilities. The baby may break the mother's rest in brief respite of sleep. There is often illness in the family, and the burden falls on her. The illness peculiar to women sap her strength, and the bearing of children undermines it. Yet the husband, with his man's strength and non-physical demands upon it, does not realize that she is doing more than her share.

Her tasks must be performed three hundred and sixty-five days in the year. The family and the hired men must be fed on Sunday and holidays. There is no variety in the work as there is with that of the men outside, with the change of seasons. It is the same every day, and the same tasks to be done in the same way. Even the boasted health opportunity of the country is denied her. There is little fresh water in the house and no sanitation. There are no trees on or near the premises, and the wife lives always among its odors. Another of the current mistakes about farm life is the belief that it is far healthier than that in the cities.

It is healthy only in proportion to the number of hours that are spent in the fields away from the house. The farm house is a reservoir of disease. Dr. Stiles, of the Public Health and Marine Hospital Service, has just made an exhaustive study of rural conditions in the South and reports that there are five million farm people in that section who are daily wrecks from disease caused by lack of sanitation.

As a general rule, there are no women who can be employed for wages in farmhouses. Who ever heard of a farmer who would pay a girl more than three dollars a week? His mind is made up to the effect that she is worth no more, and he will pay no

more. Who ever knew of a girl who would put up with the monotonous isolation and long hours of farm work for three dollars a week when she could get six dollars a week for the asking in town, for less work, where she may have abundance of opportunity for association with her kind?

Then there is a sentiment back of it which the women themselves hold and which militates against them. Their mothers ahead of them have handled the tasks of the home, and they are sacred to the wife. She feels that they are hers alone and rather resents the presence of a hired woman in the house. The farmer girls who hire out are young and strong and buxom, while the wife is thin and worn and unattractive. An instinct forbids the presence of the other woman in the house.

In addition to these naturally accumulating hardships on the farm woman, there are peculiar characteristics of the farm which need great care to accentuate them. As has already been seen, he is averse to turning his hand to anything in the house. In the pioneer days the line was closely drawn between man's and woman's labor.

(Concluded next week.)

The Upward Look

"If ye then, being evil, know how to give good gifts unto your children, how much more shall your heavenly Father give the Holy Spirit to them that ask Him?"—Luke 11: 13.

When we ask God for the gift of His Holy Spirit we should do so reverently. We should realize that we are asking for the wonderful gift of "power from on high" and we should make certain that the impulse that leads us to ask for it is a worthy one that will be pleasing to God. If it is a selfish motive that impels us then God will not listen to us nor grant our requests.

The one point that we must never lose sight of is that God has promised to give us this great gift if we will but ask Him. It is something that we may all have if we will but do our part and ask for it earnestly and in the right way.

What is the gift of the Holy Spirit? It is the gift of power from God to accomplish things that ordinarily would not be possible to us. In most cases the Holy Spirit gives us power to lead others to Christ. But it

works in other ways as well for "there are diversities of gifts, but the same Spirit." * * * But the manifestation of the Spirit given to every man to profit withal. For to one is given by the Spirit the word of wisdom, to another the word of knowledge, by the same Spirit. To another faith by the same Spirit. * * * But all these worketh out that one and the self-same thing, which is to edify the man severally as He will.—(1 Cor. 12: 1-14).

If we desire to serve God as Christians should make our lives as fruitful in good works, (we are to be judged by our fruits), then we should ask God for this gift of His Holy Spirit without which we cannot accomplish anything for His glory. Christ, Himself, did not commence His ministry on earth until after He had received the baptism of the Holy Ghost. (Luke 4: 1-14). The disciples were commanded to wait for this baptism before they were permitted to give their testimony unto others. (Luke 24: 49) and he was to wait several days before he was given this power. We should wait and be sure that we know what God wants us to do for Him before we undertake to seek Him even in the most humble way.

We must desire this power in order that we may use it for God's glory. It is a power that even after it has been granted to us, we will lose the second we permit sin to enter our lives. There are certain definite steps that each of us must take before we can obtain this power, as they are described fully in the Bible. We can all take them. What they are will be told later.—L.H.N.

About House Furnishing

M. C. Bell, Peterboro, N. H.

(Concluded from last week.)

Why is it that our boys have no such rooms? Some boys very likely have, but their number is so small that the exception proves the rule, that a boy is not considered as worth having a room of his own. Or, if that is putting it rather strongly, that he doesn't care enough about one to make a room while to fix it up for him.

Boys are unlike girls in many ways, but they like something "all their own" quite as much as their sisters do. We do not really realize this fact, because we take it for granted, from our superficial way of studying our children, that boys have no such desires. We train them so that they must go without any place of their own except one to sleep and keep their clothes in. We treat them very much as the farmer treats his cattle, in this respect, by providing a shelter for them at night, and the rest of the time they must get along as best they can, on the principle that "anything'll do for a boy."

Now, this is all wrong. If parents were to study their boys a little more they would make the discovery that they are not the careless, indifferent creatures they have supposed them to be. They are really, and in fact, because they have been so treated, that they are not considered of much account, and this cultivates in them a habit of repression which leaves us in ignorance of their real natures. The fact is, most parents and boys of the household, are to a great extent, strangers. It is worth while for fathers and mothers to make an effort to become better acquainted with them. If we were to make ourselves familiar with their thoughts, we would discover that, in many respects, they are not unlike girls as we have been in the habit of considering them, and we would speedily arrive at the conclusion that they are entitled to as much consideration as the girls of the family.

I know of boys who have rooms of their own, and who take much pleasure in them. Some of them are fitted up in a manner that speaks well

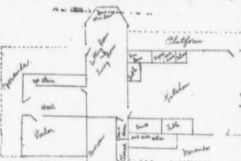
for the taste of the owner. You may not find in them the little feminine touches which make a girl's room so charming, but there is neatness, orderliness, and an expression of individuality growing out of the idea of ownership. There are times when a boy likes to get away by himself to think about some of the little problems of his young life, and with such a room to go to, he feels independent, in a way. It's a room where he intrudes on no one, and gets in no one's way.

Such a room every boy in every household ought to have. But there is another kind of room that ought to be provided for the boys of the family—a workshop, in which a thousand and one things can be done that cannot be taken into the dwelling to do.

An Attractive Farm Home

We are able to publish in this issue, a ground plan of the home of Mrs. Frank Webster, Victoria, B. C., Ont. Mrs. Webster writes us, as follows, regarding the plan.

I like my kitchen very much, as everything is so convenient. I have no real "work" pantry, although the closet under the front stairs and off the dining room are nicely shelved, as is also the cellar way from the kitchen. One side the kitchen is all taken up with drawers for flour,



sugar, oatmeal, etc. Above these drawers, are two shelves for dishes, which are all enclosed. This keeps everything in the cupboards, free from dust. Over the south table in the kitchen, is another cupboard, very handy, an able to do all my cleaning much easier than if there were a separate pantry.

I have also taken much comfort out of our down stairs bedroom. I think such a room adds to the coziness of a great many steps, especially where there are small children in the family range. My opinion is that every model farm home, should also have a large sized range boiler attached."

We are pleased to publish the interior arrangements of Mrs. Webster's home, and her kitchen. We would invite other housekeepers to send us plans of their homes, together with descriptions of their conveniences.—(Editor).

Study of Music at Home

Marion Dallas, Frontenac Co., Ont.

All through the country, in villages and towns, there are young girls and women improving their spare time by the study of music.

Many of these have a teacher come once or perhaps twice a week to guide and inspire them in their work, but sometimes, owing to bad weather, poor roads, or other reasons, weeks elapse between the visits of the teacher. To aid in such times as these, and to help and entice the girls who are nobly struggling alone, without the countenance of any teacher, we have purely for their love of music, this article is written.

The study of music should be undertaken with an intelligent comprehension of its nature and worth of melody. It should never be studied in the listless fashion, adopted by so many young people. By that, I mean the careless playing of airs with varia-

tions, the murdering of beautiful songs, and the strumming of cake walks and popular tunes. The object of the study of music is to give pleasure, not only to ourselves, but to others.

It must be from the heart. Every player must study thoughtfully and with an earnestness which convinces the listener. Even the simplest, but can be rendered to give pleasure, not only as the player throws her soul into her music, will she influence her audience.

To thoroughly enjoy the practice of music I would recommend the student to master, first, Cumming's book on "Rudiments," and then to turn to Stainer's "Harmony." A study of harmony, although it may seem uninteresting at first, gives an insight into music which can be derived in no other way. It is a great help in memory work. It is not an easy study alone, but many of the teachers and professors in our colleges of music will, for a very nominal fee correct exercises in "Rudiments," and give a great deal of help in that way.

STUDY MUSICAL HISTORY gives a glimpse into the inner life of the great composers, and helps to interpret some of their thoughts and ideas. Following this, the history of music will teach the student to appreciate music as a great art and especially as a national history. It opens up a new world, and might inspire the young to make some musical history of their own. Canada, themselves, for we know our musical and national history is only in its infancy.

Whenever great artists come to your town or near you, go and hear them. Be encouraged if they play some of the pieces you are learning better than you do. Remember, although you can not be a virtuoso, you can give out the best of your own playing.

Let the great player be an incentive to you to work harder and more faithfully. Do not keep your practice every day, and allow nothing to interfere with your plan. Divide your practice hours. Practice technical exercises, but even in these watch the rhythm or accent. Make a study of time. Practice your pieces slowly. Slow practice is the foundation of all good piano or organ playing. Learn to practice not long, but thoroughly, and keep the mind and fingers under control.

Learn to memorize each piece thoroughly. When the first piece has been mastered, you will find the second much easier. It is really distressing to spend an evening in company with perhaps twenty young ladies (many of whom you know are paying out hard-earned money to their teachers), when a request is made for some music, to hear one girl after another refuse, saying, "Oh, I can't play without my music." After hard coaxing some girl will give up and play "something," and it is usually just a "something."

Play every time you get an opportunity to play for father, and mother and some of your friends. Be a favorite and play them as carefully as if you had a large audience. Seize every chance to play before an audience. The more you play, your music is largely the result of nervousness and lack of memory training. The only cure for nervousness is constant appearance in public. An excellent way for a girl to get confidence in herself is by duet playing and playing with accompaniments. In this way you feel you are not alone, but unless you do your part well the performance will be a failure.

Another thing in your practice, include the study of simple hymns. The other night I heard of a meeting of seventy-five people, when the chairman asked for volunteers to sing. No one responded. He repeated his request three times, and finally started

the hymn. C. The devotion was spoiled. The audience to sing, she said she would require studies we find. Surely it is not giving a little for the time.

Love your work. What you do can be done better by you. You can be a success in your own work. You can be a success in your own work. You can be a success in your own work.

force will be lost. He will be a success in your own work. You can be a success in your own work. You can be a success in your own work.

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Tone Is Always First

Tone is the most important feature of a piano—because, on the quality and permanency of tone, depends the value of the piano.

The magnificent, singing tone of

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unapproachable in sweetness, mellowness and majesty—is so essential, that the New Scale Williams Piano not only is more heavily strung, but also has a more massive case and scale than other Pianos, but also because of the Harmonic Tone Prolonging Bridge which prevents the introduction of faulty and imperfect tones.

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the hymn. Of course, the result was, the devotional part of the meeting was spoiled. In speaking of the circumstance to one lady who was present, she said, "Well, I never could be bothered studying hymns." They do require study, and in many of our times we find a wealth of harmony. Surely it pays. The satisfaction of giving a little pleasure amply repays for the time spent.

Love your work and believe in yourself. What a satisfaction and pleasure can be derived from the piano-forte while you pursue your studies, led to all else save the beautiful melodies and harmony. The sense of growing power gives us keenest pleasure as we study the compositions of the masters. New beauties gradually reveal themselves, and light and happiness breaks over our lives. The mission of music is to lighten toil, comfort in sorrow, sweeten the lives of all mankind. Let your part be to cause sweet music to be felt in your own life, your home, and your community, no matter how small, so that the lives of men and women may be strengthened, refined, and lifted nearer to God.

"Let knowledge grow from more to more,
But more of reverence in us dwell;
That mind and soul according well,
May make one music as before."
—Tennyson.

OUR HOME CLUB

THE MONEY QUESTION

"Aunt Faithie" has spoken of the money question. I have made observations there, too. I know a family where the sons, though nearly grown, have never been allowed the pleasure of making and spending a cent they could call their own and very often they dread to ask for it because of the question, "What did you do with the last?" I gave you that father would be shocked if told that was no way to treat his sons. He has only forgotten he was a boy once and enjoyed the very independence he denies them. This does not breed a manly spirit. How much more must the store clerk enjoy the money he spends. I think it a good subject for debate, "Which has the worse effect on a lad's nature, the temptations of the city, or the dull, dissatisfied spirit of many a country boy?" If home life is bright and there is time after six o'clock to change one's clothes, brush the cologne from one's brain against bright-er minds, enjoy some music, books, games, etc., or better still be able to hear orators and musicians of fame so that one may think and converse intelligently on the interesting topics of the day. Will that boy brave the street, the lar-room or worse places more than the boy under the conditions before mentioned? My argument is that country life is beautiful to the cultured mind but to make money and take time for the necessary necessities to besideen one's nature seem almost impossible and conditions such as we see around us every day cannot train boys to help make those ideal homes our Women's Institute women are trying to prepare their daughters for.—"Dot."

THE SPIRIT OF CHRISTMAS

All the members and readers of the Home Club are wishing away down in their hearts for the wealth of King Midas as we realize that Christmas is fast approaching. We think of all the people we could make happy with gifts. Many of us can only wish. Because we cannot give easily things, we think of other things we can give? Life is not all a question of money. Don't let us think because we have not means, we possess nothing that others would care to have.

We are richer than we think. If the truth were known, we all possess something for which others crave. I do not mean money—money without the love of the giver is far from the spirit of Christmas.

In the bustle and preparation for Christmas we often forget the little things that give a sweetness to life. If you have a sympathetic nature, all around there are hearts aching for sympathy. Give it to one of these. Can you make friends easily? How many are longing to be someone's friend. Perhaps you always find sunshine in your life. Many think their sky forever overcast. Turn on the lights for some of these.

You know just when to say the right word. Say it out firmly and kindly. Men have gone under for the lack of encouragement at the proper time. This may not be the right word in the right place, but am sure I voice the sentiments of all the "Home Club" when I express my sympathy with "Cousin Eya" in her very serious illness, and I sincerely trust ere long we will have the pleasure of reading her kind letters once again.

We may not have money, but we have looks others would like to read. Let us share our blessings. We will be happier, we need not wait till Christmas but begin to practise right now for Christmas, keep it up all next year.—"The Pastor's Wife."

THE SECOND WIFE

I have read with much interest the different letters in our Home Club column from week to week and after each perusal have determined to write a few lines, but so far have failed. The different questions have all been pertinent and well handled.

The letter from "Sister" a few weeks ago brought quite vividly to my mind the unevenness of the material things of this life. Why should a husband have the sole right to dispose of his money, etc., which his wife has helped earn and save? Take for instance a farmer; he begins with very little in life, expecting a good wife. They work, plan and save together and when they are into the "fifties" have a nice farm clear and a little money in the bank. The wife takes sick and dies without being able to say, "Divide the money evenly between my seven daughters and give the farm to our boy." She has no power to will it thus. If the husband depart this life first, he can will everything excepting his wife's small share. Now does that seem just or right? If the wife departs first, the husband will as soon as it seems seemly, choose another life partner and unless she is a just woman, the first wife's hard earned money will not be seen by her children.

I am not in favor of Woman's Suffrage, still it seems to me this question should be righted and will be if we women insist on it. It is a very unjust law to be in force in this enlightened age.

Perhaps when the "Doctor" becomes Premier and the "Father" a member of our Dominion Parliament, we will look for great advantages to the weaker sex. Hasten the day!—"Mother" ***

Use cast-off suspenders for making weather strips for doors and windows. They may also be put to economical use by sewing them across the ends of carpets, matting, or rugs, which will keep them straight and firm at the same time protecting the ends from wear and tear.

HINTS FOR THE HOLIDAYS

Why not send for one of our New Premium Lists and make a selection of several premium which you would like to earn for the Holiday Season. You can earn them in a short time, and save buying gifts at Christmas time. A club of new subscribers for Farm and Dairy is easily secured.

CLUBBING OFFERS THAT WILL INTEREST YOU



No. 1 FARM AND DAIRY

A paper for farmers and dairy-men. It is published every week in the year and is an all round strong agricultural and dairy paper. It has departments for all lines of farm work, including the cultivation of the soil, live stock, and a strong household department. Its market reports and letters from farmers, are two of its best features. Subscription price, One Year \$1.00

No. 2 THE CANADIAN HORTICULTURIST

Is the only paper in Canada devoted to Fruit, Flower and Vegetable Growing. It is issued monthly, is profusely illustrated, and numbers among its contributors the leading Horticultural Authorities in Canada. Its fruit crop reports are a special feature. Subscription price, one year 60c

No. 3 THE CANADIAN POULTRY REVIEW

Is the acknowledged peer of all American and Canadian Poultry Journals. It is published punctually on the first of each month. Contains from 48 to 72 pages choke full of live poultry lore. Full reports of all shows, engravings from life photos, etc. Practical, newsy, down-to-date. 32nd year of publication. One year 50c

No. 4 THE HOME JOURNAL

A Canadian illustrated paper full of practical, useful suggestions, stories, household hints, etc., clean, patriotic and equal in appearance to the best foreign magazines. One year \$1.00

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Farm and Dairy, 1 year	\$1.00	
and choice of Poultry Review or Canadian Horticulturist60	Combination Price \$1.10
	\$1.60	

FARM AND DAIRY, Peterboro, Ont.

Enclosed find \$..... send magazines (cross out magazines not wanted).

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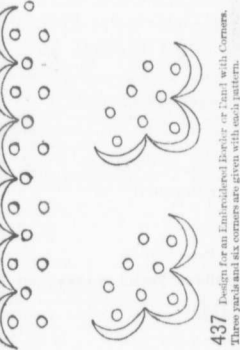
Designs illustrated in this column will be furnished for 10 cents each. Readers desiring any special pattern will confer a favor by writing Household Editor, asking for same. They will be published as soon as possible after request is received.

FANCY APRONS 6480

Fancy aprons are always in demand. Here are four, all of which are charming, yet each of which is simple. In the illustration the pointed apron with bib is made of dotted Swiss mullin with handkerchief and frills of lace. The others are made of plain white lawn with trimming of lace.

Both the pointed aprons are cut in sections, for the bib, the centre section extends above the waist line. The round aprons are made in one piece each, and the one to the right is trimmed on indicated lines. The ties and a belt finish the upper edges of all.

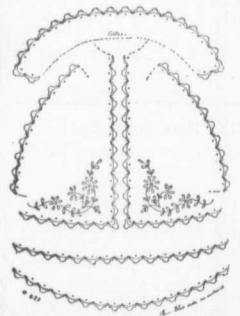
The pattern 6480 is cut in one size only and will be mailed on receipt of 10 cts.



437 Design for an Embroidered Border or Band with Corners. Three yards and six corners are given with one pattern.

Design for an embroidered border suitable for large collars, frills, cushion covers and decorative objects of the kind, especially adapted to a sailor collar.

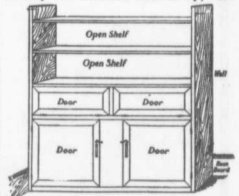
Three yards and six corners are given, four of which are especially suited to the sailor collar of May Manton pattern 6266, two of which are right angle corners suitable for the cuffs and for any corners of the sort. The scallops are designed to be padded and buttonholed and the dots to be worked either in solid embroidery or as eyelets.



428 Design for Embroidering the Collar, Cuff and Cuts of a Child's Coat.

Space Saving Cupboard

For a good cheap kitchen cupboard this design was carried out at a total cost of one dollar and eighty cents. We have a small kitchen and require every inch of available space, hence the necessity of having something that could be built up against the wall in some corner, taking up a space of only about ten inches by three and one half feet. In this case there were already two common shelves up, fast-



ened to the wall about five feet from the floor and draped with curtains. The cupboard was built directly beneath them, the curtains coming down and covering the top shelves of the cupboard. It a little care is taken in the work, you will have a sightly piece of furniture that has the appearance of solidity and of being built with the house. The bottom compartments are large and give a good space for the unsightly utensils, such as frying and dish pans, coal-oil and gasoline cans, etc, which are always hard to find a suitable place for.

A Boy's Bad Temper

The boy with a temper is the boy who has had rough handling at home. He is like a horse that has been in the care of a stable-boy.

The boy with a temper is the boy who has been fretted into a fever. There is the type of child with a temper who has been spoiled by indulgence; who learned before he was two years old that he could have things that he wanted if he cried with enough persistency and with good vocalization. In extreme cases he held his breath. But such a boy has always abandoned this policy for public service long before he reaches a second year school.

What he needs is an association, steady and cool, which will serve him as a lightning conductor. He needs to see others keep cool when times are hot. He will learn one habit, as he has the other, from the people with whom he is. "Children," Mrs Wiggs would say, "are like castings. You take out what you put in."—The New Idea Magazine.

Have you won any of our new premiums? If not, better send for Premium List at once.



Ball Bearings insure easy running. Strong Spiral Springs reverse the motion, and ready for use. Wringer Stand is strong and rigid—and so attached that it is always in the right position.

Price \$9.50—delivered at any railway station in Ontario or Quebec.

Write for free book.

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THE COOK'S CORNER

Recipes for publication are requested. Ingredients should be cooking, fresh, etc., gladly answered upon request. To: Household Editor, Farm and Dairy, Peterboro, Ont.

Our New Cook Book free for only two new subscriptions.

The Baking of Bread

In the baking of bread, you want a very hot oven, about 450 degrees. When you open the oven door, you want the air to feel hot to you. The yeast plant has to be killed, and if your oven is not hot enough as sometimes in the summer) it will be sour in the middle. The bread wants to continue rising about 15 minutes after you put it in the oven, until it is about two inches above the tin, so that you will have a nice, rounding loaf. The loaf wants to rise about its bulk before you put it in the oven. It is better before you put it in the oven to prick it with a silver fork, so that it will rise evenly.

After being in the oven about five minutes, if you find it is not rising perfectly smooth and nice, turn it around. It begins to brown too quickly, check your heat. It should not begin to brown before 15 or 20 minutes.

COOLING BREAD

Always take bread out of the pans to cool at once, for if you don't it will sweat. Cake racks are very nice to cool bread on. Never put bread on boards. If you don't happen to have a cake rack, simply turn over a couple of your bread tins to brown the bread against the edge. Spread a little butter on the crust, not enough to make it greasy, but to keep the crust nice and smooth.

SCALLOPED HAM

Chop fine two hard boiled eggs. Chop fine cold lean boiled ham; there should be one half cupful. Roll common crackers—there should be two thirds of a cupful—and add three table-spoonfuls of butter, stirring lightly with a fork when mixing; that the crumbs may be evenly coated and light rather than compact. Then have at hand one and one half cupfuls of white sauce. Sprinkle the bottom of a buttered baking dish with crumbs, cover with one half the eggs, eggs and with one half the sauce, and sauce with one half the ham; repeat, then cover with remaining crumbs. Place on the centre grate of the oven, and bake until the crumbs are brown.

For the white sauce, put three table-spoonfuls of butter in a granite-ware sauce pan, and melt and bubble; then add three table-spoonfuls of flour, and stir until well blended. Pour on gradually, while stirring constantly, one and one half cupfuls of scalding milk, using a little wire whisk of which I use often wire. Bring to the boiling point, and season with one fourth of a tea-spoonful of salt.

APPLE MOULD

Simmer 1 1/2 lbs. sugar with 3 lbs. sliced apples and the juice and grated rind of 3 lemons. When thick pour into a wet mould, and let stand till cold. When ready to serve, turn it over and serve with cream.

COOLED APPLES

The early apples are best for this. Pare and core them, allowing to each 1/2 pk a scant pt of brown sugar, and 1/2 pt of water. Cover and simmer till tender.

Most cakes, sponge cake especially, are done when they stop "singing." Place your ear close to a half-baked cake and listen, and you will soon detect the music.

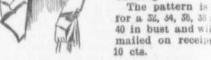
The Sewing Room

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

BOUSE WITH VEST 6488

The blouse that gives a vest effect is always in demand. The essential feature is found in the cut of the front and the vest effect. The blouse has a fashionable but not essential. Material required for medium size is 4 yds 24 or 27, 3/4 32 or 1 1/4 yds 44 in wide with 1 1/2 yds of banding.

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



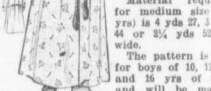
BOY'S BATH ROBE 6384

This bath robe is simple, roomy and satisfactory. It can be made of such material as bordered flannel, flannel, or from fannette, or from other material.

The robe is made in one piece. It is finished with hems at the front, edges and is laid in one pleat at each side of the front.

The material required for medium size (3 yrs) is 4 yds 27, 3 yds 44 or 2 1/2 yds 52 in wide.

The pattern is cut for boys of 3, 4, 5 and 6 yrs of age and will be mailed on receipt of 10 cts.



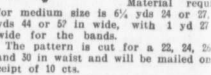
STRAIGHT PLAITED SKIRT WITH POINTED DRAPEY 6487.

Short or apron drapey are very fashionable just now and this one is extremely becoming. It is arranged over a plaited skirt and the skirt is attached to a smooth, straight waist line. It can be made either with a slightly raised or the natural waist line.

The skirt consists of the foundation of the plaited portion and the drapey. It is founded on a gathered and snugly fitted.

The material required for medium size is 6 1/2 yds 24 or 27, 3 1/2 yds 44 or 57 in wide, with 1 yd 27 in wide for the bands.

The pattern is cut for a 22, 24, 26, 28 and 30 in waist and will be mailed on receipt of 10 cts.

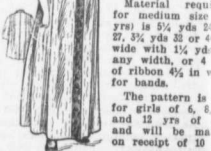


GIRL'S KIMONO 6487

Simple kimonos are always the best. This one can be made with or without a seam at the back and can be short or long as liked. One of the advantages of one trimmed with ribbons makes the one illustrated.

The material required for medium size (3 yrs) is 5 1/2 yds 24 or 27, 3 1/2 yds 44 or 57 in wide with 1 1/2 yds of any width, or 4 yds of banding 4 1/2 in wide for bands.

The pattern is cut for girls of 6, 8, 10 and 12 and will be mailed on receipt of 10 cts.



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OUR FARMERS' CLUB

Contributions Invited.

NOVA SCOTIA
COLCHESTER CO., N. S.

LOWER TURNO-The past season has been a peculiar one; cold and wet weather in June and July. Root crops suffered the most; root seed, especially turnips, did not germinate readily. Many fields were plowed up and sown later. In such cases the yield was small, but on an average the turnip crop was good considering the season. Some fields yielded from 80 to 90 bushels to the acre. Turnips do well in this province, as high as 1500 or 1500 bushels per acre have been taken off one acre in favorable years. Corn for silage is not a success here. We do not need to worry about corn grow roots of all kinds so readily. With mill feeds at their present almost prohibitive prices,

more roots should be grown, and some of the concentrates bought to balance up a ration.

Potatoes were a splendid crop. Grains are turning out very poorly. Whilst the straw is heavy, it is not so good as the light. Hay in the centre of the province was a good average crop; in the eastern and western counties it was small. We are having a very mild open autumn and at the present time (Nov. 29) there has not been a frost. It is too late to stop the plow, and a lot of fall plowing is being done. Some strawberry and dandelion blossoms are still in bloom. A great aftermath of grass covers the fields to protect the roots through the winter.

Stock is scarce and high; new milk cows bringing \$50 to \$55 at auction; young stock bring double what they did some years ago. Poultry and eggs are high in price; dairy products also, as well, except milk in the towns, which retails at two or three cents less than in upper Canadian cities. Mill feeds cost here about \$5 a ton more than in sea, Toronto or Montreal. Horses are high in price, good 2500 to 2700 lbs. teams sell for \$50 to \$60.

Quite a large number of English and Scotch immigrants have settled in Nova Scotia this year; there is prospect of more in the future. The Government has a good live immigration department and it is trying to induce the tenant farmers to come out and settle on the small farms. These can be had for about what rent they pay annually in the Old Country. As Lord Northcote says, many of this class could come here and make a financial success of farming, and they would make good agricultural citizens.

The Agricultural College opened a few days ago with an increased attendance. Farmers are beginning to realize the benefit of an agricultural education, and are sending their sons to this college. If the farmers of this and many other provinces and states are to take the right places in business and society they must educate the boys and girls who stay on the farm. The Northcote says, "The knowledge of the so-called learned professions. No one needs an education more than a farmer, and he can rest the more on his knowledge at the institution that we have at Bible Hill, Truro."

In Nova Scotia, it is said, that parents' fondest hopes are realized when they have educated one of their sons for the ministry. The farmer's parents of Nova Scotia have the same object in view. Let the boys who stay on the farm an agricultural college education.—A. H. C.

ONTARIO

DURHAM CO., ONT.

BLACKSTOCK—Winter seems to have ones more set in although we are having very nice weather. The recent storm did considerable damage to fruit trees, as also to shade trees. The Ontario Cattle have gone into the stable in rather thin condition, and although feed will be fairly plentiful the majority of farmers will have none to spare. There will probably be an average number of cattle fed for the market. Those who have had feeders to sell have been able to get a fair price for them. Hogs are bringing in the neighborhood of \$75 a cwt., and are doing better on the market. The good. The majority of farmers got their plowing all done and are in pretty good shape for the winter. There is a number of cases of distemper among horses but none that are very serious.—R. F. P.

NORFOLK CO., ONT.

SOUTH WILKINGHAM—The passing of November, left our level-headed, up-to-date farmers with their farm work in good condition. Corn is harvested and put away into winter storage. Clover threshing is finished; the crop gave a fair yield of seed. Fall plowing is about half done; the other half will be finished on the bright warm days of December. Wheat looks fair, but the heavy rain that it takes it look more thrifty. Cattle are being stall fed for Christmas beef. Butcher's hogs for home consumption have become the order of the day with our husbandry farmers. Christmas turkeys are already ready put up for extra markets. The farm boys and girls are selecting good stock and reading to fill in the long winter evenings.—B. B.

WILKINGTON CO., ONT.

ELORA—The rain and low water was one of the most destructive in the memory of the oldest inhabitant. The village has seen a week without electric light. The telephone service is rural, has been a week out of business, and the loss to the company must have been great. In the country, the loss to

LIVE HOGS

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

THIS WEEK'S PRICES FOR HOGS DELIVERED AT FACTORY
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THE GEO. MATTHEWS CO., LIMITED
PETERBOROUGH, - HULL, - BRANTFORD

farmers will be considerable, many of the farms having their front adorned with large maples, and those who have suffered more than the smaller ones. This suggests the advisability of planting young trees between, and then removing the larger and unsightly ones. Also the cattle suitable for the Christmas market have been bought up at high prices, and this shows that the encouraged feeders to invest in deer stock, which after a month or two may not look like a profitable investment.—G. W.

METZ—The severe ice storm on Monday, November 1st, did great harm to trees, also to the telephone lines. There are a great number of auction sales this fall, some of which are due to the number being gone west. They have continued to nearly all wound up before it froze up. Hay is selling at \$14 before and \$12 and \$13 pressed; cattle, \$6 good cattle bring \$6 and 60 pound, and hogs \$7.30 a cwt. There seemed to be more work put on the land this fall than usual on account of the snow trouble. All farmers would follow this practice it would help some to lessen the cost of the seed.—H. E.

MIDDLESEX CO., ONT.

BYRON—Much labor is being expended on the roads in cutting down hills, and filling up the lower places. Several concrete and steel bridges are also in course of construction. These no-ded improvements will add greatly to the value of all property and to the convenience of the people.—J. E. O.

TEMPO—More than 100 years ago, Sir Thomas Talbot, an old country gentleman, secured a grant of land from the British Crown for settlement. This included Middlesex and Elgin Counties. Sir Thomas brought from his old home, "Malahide Castle," Ireland, among many other things, some small apple trees. These were planted at Fort Talbot, on the shores of Lake Erie, an ideal situation, and, of course, soon began to produce fruit. When the early settlers went to Canada, they took with them some of their deeds. Sir Thomas would give them a few apples. He also gave them explicit directions as to how to care for the seedlings. The settlers did so, and thus saw their orchards blooming and bearing fruit to their pleasure and joy. So that from 70 years down, there has not been any scarcity of apples all around here. The first fruit produced was of natural variety, but on account of being grown on the rich virgin soil, the apples grew large and juicy. These old orchards are all gone and have been replaced by the newer and more up-to-date varieties, though no more appreciated than the old varieties were in their day.—J. E. O.

GREY CO., ONT.

MAPLE LAKE—Although October was in part very disagreeable, November was very fine and gave good opportunity to plowing and to sowing. Those who owned plenty of rape had good success side feed up till November 20. One's had a stable feed for the winter this date. It is a good idea to provide plenty of feed for late fall. Threshing is just being completed and the stock is being threshed. The majority of farmers manage to thresh a spell in or just after harvest, and leave the rest. There will be plenty of feed for all demands. Hogs are very scarce, weanlings sell at rates from \$2.50 up to make them generally have gone into winter quarters in good condition.—J. B. P.

The Hospital for Sick Children

COLLEGE ST. TORONTO.

THIS APPEALS TO YOU!

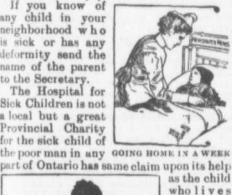
REMEMBER That Every Sick Child in Ontario Whose Parents Cannot Afford to Pay for Treatment is Treated Free.

The Hospital for Sick Children has last year in its costs and beds 1,155 patients—383 of these were from 237 families in the Province. Thirty-five per cent. were children of poor people who could not afford to pay.

Since its organization the Institution has treated 15,613 children; 11,550 of these unable to pay and were treated free.

If you know of any child in your neighborhood who is sick or has any deformity send the name of the parent to the Secretary.

The Hospital for Sick Children is not a local but a great Provincial Charity for the sick child of the poor man in any corner whom as a member of Ontario has some claim upon it.



who lives within the limits of its walls in Toronto.

There were 49 cases of Club Feet treated in the Hospital last year and 67 had perfect correction.

Just think of it—Your money can help the Hospital to do the good work of straightening the crooked limbs and club feet of little children. Please help us.

Please Send Contributions to J. Ross Robertson, Chairman, or to Douglas Davidson, Sec.-Treas., The Hospital for Sick Children, College St., Toronto.

BEFORE AFTER

BEFORE AFTER

BEFORE AFTER

BEFORE AFTER

BEFORE AFTER

animals was 2,446 lbs. of milk containing 25.1% of butter-fat; equivalent to 815 lbs. of milk, and 359 lbs. of butter per day. No breed of dairy cattle, other than the Holstein-Friesian, has ever been able to show such averages.

The cows in the full aged class gaining honorable mention by production of over 15 lbs. fat are as follows: Maid Zee De Kol, 15,919 lbs. fat from 23.65 lbs. milk; White Daisy, 13,749 lbs. fat from 54.09 lbs. milk; Snowball, 13,671 lbs. fat from 486.1 lbs. milk; Johanna De Kol of Green Meadow, 12,444 lbs. fat from 481.2 lbs. milk; and Hero De Kol 2nd's Freda, 18,946 lbs. fat from 472.3 lbs. milk. The best among the senior cows is Pieter's Mechtildie Beauty 13,202 lbs. fat from 511.4 lbs. milk, with Coloma Canada 2nd, 17,007 lbs. fat from 426.9 lbs. milk, holding second place; while the junior four-year class is led by Barbara Pirania Mechtildie, 16,558 lbs. fat from 419.1 lbs. milk, with Catrina Koradky Beets, 15,383 lbs. fat from 419.2 lbs. milk.

Sixteen pounds of butter fat used to be counted a good record for a full aged cow; and the senior three-year-olds of the year have three records in excess of that amount. Mutual Koradky Segie produced 16,635 lbs. fat from 515 lbs. milk. Princess of Oakdale, 16,553 lbs. fat from

471.3 lbs. milk and Valor Overlooker, 16,163 lbs. fat from 497.8 lbs. milk. The Junior three-year-olds have in the lead Maggie Diantha De Kol, 15,731 lbs. fat from 375.1 lbs. milk, and Mabel Johanna Pieter's De Kol, 15,194 lbs. fat from 410.2 lbs. milk; while the best showing among the senior two-year-olds was made by Lucy Pieter's Concordia Vale, 13,875 lbs. fat from 345.5 lbs. milk, and Star Farm Mercedes Pieter's, 12,664 lbs. fat from 346.9 lbs. milk.

Among the junior two-year-olds, Copia Hengerveld 2nd's Buttercup is so far in the lead that it is not necessary to mention any other heifer. This remarkable animal, beginning the official test 17 days—almost six months—after calving, produced in the seven consecutive days 353.5 lbs. of milk, containing 14.39 lbs. of butter-fat; nothing like it ever before having been accomplished by a heifer of that age. Her semi-official test was not begun till 25 days from calving, although she was entitled to begin it on the fourth day, and there is no record for these 20 days' production; but counting from the 25th day after calving to the end of October, a period of 181 days, she is credited with producing 16,193.5 lbs. of milk, containing 1,956 lbs. of butter-fat. In order to most thoroughly authenticate this

wonderful record, the official test periods never some 61 days out of the 181 mentioned.

Pontiac Pleione has completed her semi-official test with record greater than any other Holstein-Friesian cow, except Coiantha 4th's Johanna. It will be noted that this great record of 24,820.2 lbs. milk containing 380.45 lbs. fat was made in a period of but 346 days; and that the cow milked right up to calving, giving birth to two calves within that one year. If the Gernsey method had been followed in this case, the cow would have been credited with record greater than the second lactation period, and would probably have produced over 26,000 lbs. of milk, and still more of butter-fat. Therefore, in comparing Holstein-Friesian records with Gernsey records, it must be borne in mind that the Holstein-Friesian record is a lactation record and that the rest of the second lactation period is never added.—M. H. Gardner.

CALVES Raise them without Milk Booklets Free.
STEEL BRIGGS SEED CO., Toronto, Ont.

MISCELLANEOUS

TANWORTH AND BERSHIRE SWINE—Bears and sows for sale. J. W. Todd, Corning, Ont. Maple Leaf Stock Farm.

SUNNYSIDE STOCK FARM
Chester White Swine, Shropshire Sheep and Mammoth Bronze Turkeys of the choicest breeding for sale at the lowest prices.
O-3-3-10 Glanworth, Ont. Proprietor

AYRSHIRES

AYRSHIRES.—Record of Performance work a specialty; young bulls from E. of P. cows, and cows that will go on at next freshening. Milk reports of dams, for everything.
JAMES BEGG, Box 88, St. Thomas

FOR SALE—AYRSHIRE BULLS

From one month to two years old; all bred from large, good milkings stock. Also Yorkshire pigs. Apply to

DANIEL WATT or to **HON. W. OWENS, Manager, Proprietor,**
P.O. 10 Riverside Farm, Montebello, Que.

"La Bole de la Roches" Stock Farm

Here are kept the choicest strains of AYRSHIRES imported and home bred. Also of the best of the following: YORKSHIRE WHITE ORPINGTON, WHITE WYANDOTTIS, BARRED ROCK, PENNY, NON. L. J. FORGET, J. A. BISEAU, Proprietor, Manager
R-5-26-10 Ste Anne des Bellevues, Que.

SPRINGHILL AYRSHIRES

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

ROBT. HUNTER & SONS
Maxville, Ont. R-7-14
Long Distance Phone.

IMPORTED AYRSHIRES

Having just landed with 50 head of choice Ayrshires, mostly purchased at the great Barchinche sale in France, I have all orders for herd heading bulls, selected from the best dairy farms in Scotland; fit for service to choose from. Also show females of all ages. Cows with milk records up to 70 lbs. are available. Write me now your wants. Long distance phone.
R-5-18-10
R. REEB, Hawick, Que.

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OUT OF RECORD OF PERFORMANCE COWS

PRICE 1—\$35 when one month old

GUS. LANGELIER
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CHERRY BANK STOCK FARM

FOR SALE—Bull calves, sired by North-Oral Milkman, the champion Bull of Canada. One bull and one heifer, also sired by Morton Mans Guesbury, of Champlain at Toronto, 1909; and by North-Oral Double J's, a grand 1½ year heifer, and a good milker. Also females any age. Satisfaction guaranteed. Nothing but the best, in our motto. Visit us in person.
P. D. McARTHUR, North Georgetown, Hawick Station. [4-23-10] Que.

HOLSTEINS

MAPLE LEAF STOCK FARM

GORDON H. MANHARD
Manhard, Ontario
Breeder of Choice Holstein-Friesian Cattle.

At present I will sell 10 young cows, due to freshen in the early part of the winter. Also a few young bulls. E-11-10

FOR SALE, HOLSTEIN BULL CALF

Born, Dec. 31. Dam's official record at three years old was 18,400 lbs. milk and 181 lbs. of butter. Bull calf, born August 18th, dam Canadian Champion of her age; official record at two years, 454 lbs. of milk and 20 lbs. of butter. Also my two year old stock bull, grandson of Sarcenetic Lad. Euf. DAVI GAMBELL, Yarmouth Centre, Ont.

RIVERVIEW HERD

FOR SALE, 2 Bull Calves, sired by Sir Aagie Beets Segie, son of King Segie, woman's greatest 5 year old sire, dam Aagie Lily Pieter's Paul, champion Jr. 4 year old—52 lbs. butter 7 days. Dam of calves a 2½ to 2 year old, and 23 lbs. 4 year old. Price reasonable, considering breeding.

P. J. BAILEY
Lachine Rapids, Que.
E-10-10

LAKEVIEW HERD

Herd headed by Count Hengerveld De Kol, son of Pieter's Hengerveld of De Kol, who has five daughters averaging over 30 lbs. butter in 7 days and whose dam (23 lb.) in 7 days and whose dam with a record of over 55 lbs. butter in 7 days; and his bull calves, from 9 months old down, from this sire for 7 days. In 7 days, Hamilton Radial close to farm. Visitors most welcome.
E. F. OSLER, Bronte, Ont. E-TF

SUNNYDALE

Offers Hengerveld De Kol Keyes. His dam is now under yearly test; his two nearest grand dams have 7 day butter records averaging over 33 lbs. in 7 days. He is nicely marked and is a good individual of choice breeding. Write for particulars.
A. D. FOSTER
Bloomfield, Ont. E-5-10

LYNDALE HOLSTEINS

Head your Herd with a son of Sam Hengerveld Koradky whose dam was recorded at 72 lbs. in 7 days. His 2 nearest dams average 50 lbs. in 7 days. His mother was a 7 day 52 lbs. 2 of his sons left. We still have a number of 2½ to 2 year old stock of Paul, and a number of Heifers for sale. 4-27-10
BROWN BROS., LYON, ONT.

HOMI-BRED AND IMPORTED HOLSTEINS

We must sell at least 45 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 stock of Holstein-Friesian cattle. Henderveld DeKol, world's greatest sire, head of herd. Come and see them.
H. E. GEORGE, CRAMPTON, Ont.
Putnam Stn., 1½ miles, C.P.R. E-4-21-10

HOLSTEIN CATTLE

If you are thinking of buying a choice young cow or heifer in calf, come and see our herd. We'll sell anything. Have a dozen beautiful heifers safe in calf to freshen in 7 days. Some of the best are the sisters averaging 37½ lbs. butter in 7 days and one of our 7 day world's record sires averaging 52 lbs. in 7 days. Write us what you want. We will guarantee the best average 7 day milk test records met at Hamilton by appointment.
D. C. FLATT & SON, Millgrove, Ont.
L. D. Telephone 2471, Hamilton

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WINNERS IN THE RING
Gold Medal Herd at Ottawa Fair

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See Our A.R.O. Records
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Bull and Heifer Calfs for Sale from Our Winners

"LES CHENAUX FARMS"
Vaudreuil, Que.

Dr. Harwood, Prop. D. Bodes, Mgr.

DISPERSION SALE
OF HOLSTEIN CATTLE

Andrew Boa, of Lachute, Que. will sell by public auction, on THURSDAY, DEC. 23RD, 1909, his entire herd of 21 head of High-Class, Pure-Bred Holstein-Friesian Cattle, and the remainder Grade-30 head in all.

Parties coming by train will obtain excursion rates. Parties intending to come to this sale will be met at depot previous to sale. Descriptive circulars on application.

Lachute is situated 40 miles west of Montreal and 80 miles east of Ottawa, on C. P. Ry. and the Canadian Northern. Catalogue on application.

AND. BOA, Prop., M. SMITH,
Genoa P.O., Argensteuil Co. Box 10, Lachute, Que.
Licensed Auctioneer

DISPERSION SALE
OF 45 HOLSTEIN-FRIESIAN CATTLE

AT RIVERSIDE FARM, CALEDONIA, ONT.
ON THURSDAY, DECEMBER 27th, 1909

Twenty-eight females, all ages, 17 bulls, including the two great stock bulls, Sir Pieter's Posch De Boer, whose two nearest dams average 58.7 lbs. the butter, Prince De Kol Posch, dam 27.2 lbs. butter in 7 days.

The Riverside Herd represents several of the greatest families of the breed, including the following: Prince De Kol, Johanna, Sarcenetic Posch, Wayne, Grandy, Aagie, etc., etc. Caledonia is on Buffalo and Goderich, Hamilton and Pt. Dover. St. Thomas Branch of C. T. R. Trains stop at farm. Reduced Rates. Sale at 1 p.m., under cover. Time up to 10 minutes on approved notes at 5 per cent. per annum.

ST. ALMOS, Brantford, Ont. Auctioneers
E. J. WIGG & SON, Cayuga, Ont.

To whom bids may be sent. A Catalogue ready by December 15th.
J. W. RICHARDSON, Caledonia, Ont.

Dispersion Auction Sale

40 HEAD REGISTERED HOLSTEINS, also Horses, Pure-Bred Poultry, Implements, etc. At Auction of Land, situated within the Corporation at HESPELER, ONT., Waterloo Co.

THURSDAY, DECEMBER 23rd, 1909

Among the Holsteins are 30 cows and heifers in milk; ten with calves at side. RECORD OF MERIT COWS, with records from 12 to 22 lbs. butter in 7 days. COUNTY CANTON MERCEDES, the most prominent sire in the sale, dam's record, 4 years, butter 7 days, 33.5 lbs.; sire's dam, 22 lbs. testing one 4 year old sire, the champion sire of the county, sire's dam's record of Canada, record 2 years, butter 7 days, 30 lbs.; milk, 7 days, 454 lbs.; milk 1 day, 65 lbs. He is sire of the two highest testing two year olds sired by same bull in Canada. Their records at 2 years, average butter 7 days, 12.9 lbs.; best day's milk, 60 lbs. Twenty cows and heifers bred to him of the leading strains with good official backing, their calves will be valuable at the opportunity to buy choice stock. Sale of cattle commences at one o'clock, so buyers can get evening trains home.

TERMS.—Time up to ten minutes on approved notes bearing 5 per cent. interest.

Farm within the corporation; five minutes walk from C. P. R. and G. & T. R. stations. Good hotel accommodation three minutes walk from barn. Catalogue on application.

JAMES McDONALD DAVID RIFE & SONS
Guelph, Auctioneer Proprietors

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

You Cannot Afford Any Roofing Which is Not Guaranteed for Twenty-five Years

Oshawa-shingled roofs are guaranteed for twenty-five years. No other roofing is guaranteed for five minutes.

SO put it squarely up to the next fellow who tries to sell you some roofing "as good as Oshawa Steel Shingles." Ask him to agree in writing to replace the roof free if it gives any trouble within the next quarter-century.

Then watch him dodge. See him evade. Hear him tell about Mr. Somebody, of Someplace, who roofed a barn with his roofing in 1884 and it's a good roof yet. Hark to him ask if that doesn't make you feel safe.

Tell him it doesn't prove what the Pedlar Guarantee does prove. Because that guarantee is your absolute protection against roof troubles for twenty-five years to come.

There is your roof-insurance for the future. There is a binding promise to give you a new roof entirely free, to put it on the building for you free, and to guarantee it for another twenty-five years, if your roof of Oshawa Galvanized Steel Shingles gives any roof trouble within twenty-five years from the day it's on. There is \$250,000 capital back of that guarantee. There are 48 years of honorable reputation back of that guarantee. And there is the biggest business of its kind in the British Empire back of that guarantee.

So it is plain common sense for you to refuse to buy any roofing that is not guaranteed. And the only kind that is guaranteed is this kind we make—Oshawa Galvanized Steel Shingles. Guaranteed for 25 years. Actually good for a century.

This is the Roofing For Your Money

Oshawa Galvanized Steel Shingles make the roof you can best afford for any building. They cost but five cents a year per square. (A square is 100 square feet). They are stamped from heavy sheet steel—28 gauge steel. Then they are thickly galvanized. That means they are coated with zinc—the rust defying metal—in such a way that the zinc is driven right into the steel. It cannot flake off, as it would if this galvanizing were done the ordinary way.

Thus these Oshawa Shingles require no painting. They will not rust. They cannot possibly leak.

So you are sure you will have no bother with your Oshawa-shingled roof, once it's on the building. You can depend on that and you can doubly depend on it because you have the guarantee. Hand it to your banker or lawyer to keep for you; and know that it is good for a new roof right up to the last day of the twenty-fifth year—if the first one gives any trouble whatever.

Cost Far Less Than Wood Shingles

You must pay about the same price per square for ordinary wood shingles. They will cost you more to lay, because it is a quick and simple job to roof with Oshawa Steel Shingles—and it is no easy job to lay wooden shingles right.

And the wood-shingled roof will need repairs every year or two. Probably it will leak from the start. And it will be no real roof at all at the end of ten years, at the most.

You can be certain that an Oshawa-shingled roof will outlast a wood-shingled roof ten to one. Thus it costs but one-tenth as much.

Send to-day for Sample Shingle and "Roofing Right" Booklet No.

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Oshawa-shingled roofs are not merely weather proof roofs. They are fire-proof roofs. They are wind-tight roofs. They keep buildings cooler in summer and warmer in winter.

And the building covered with Oshawa Steel Shingles is safe against lightning—far more so than it would be if it fairly bristled with lightning rods.

Put these Oshawa Shingles on a building, following the simple, plain directions that come with them, and you have a roof that is handsome enough for a city hall and that absolutely protects.

Practically an Oshawa-shingled roof is one seamless sheet of tough galvanized steel. Not a crevice for moisture to get through. No way to set fire to it. No chance for the wind to worry it. Dampness cannot gather on the under-side of it. It needs no painting. And you need not worry about it needing any repairs, for twenty-five years at least.

Isn't that kind of a roof the roof for you? Isn't that kind of a roof worth more than it costs? Isn't it the only roof you ought to consider?—since it is the only roof of which all these things are true.

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Send your name and address to the nearest Pedlar place. Tell them you want your free copy of "Roofing Right."

When you have read that book through, you will know more about roofing than a good many experts know. It gives you facts, proofs, figures.

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With the book will come a copy of our Guarantee. Study that, too, and see how fair and square and straightforward it is. See what positive protection it gives the man who buys Oshawa Steel Shingles.

Sample Shingle Free

WITH the book will come a sample of the Oshawa Shingle itself. It will interest you to study it. You will see the actual construction. You will see that the Pedlar Improved Lock, on all four edges of the shingle, makes it certain that moisture never can get through any Oshawa-Shingled roof. You will see how the Pedlar process of galvanizing drives the zinc right into the steel so it never can flake off. You will be no doubt about which roofing after you have studied this shingle.

Send for it and the Book and Guarantee—Send now.



I know, of course, that some salesmen for some other roofing material is liable to tell you there some "catch" about Pedlar's guarantee.

And you can't wonder at his saying so. How else could

he meet the great, big, dollars-and-cents value that guarantee has for the man who buys Oshawa Shingles?

But you know right well that a concern cannot stay in business unless it does business strictly on the level. Our business was founded by my father in 1861. To-day this is the biggest factory of the kind in the British Empire. Our capital is a quarter of a million. You can easily find out our business standing.

So, seriously, do you imagine for a minute we would dare issue a guarantee that wasn't square?

Take my personal word for it—the Pedlar guarantee is exactly what this advertisement says it is.

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G. H. Pedlar

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"To Pedlarize" means to breathe your whole home with handsome, lasting and beautiful steel—ceilings, side-walls, outside, roof. It means to protect yourself against cold; against fire; against much disease; against repair-bills. Ask us and we will tell you the whole story. Just use a postcard and say: "How about Pedlarizing my house?" State whether brick or frame. Write to-day. 9. Address nearest place: