

Issued Each Week—only One Dollar a Year

VOL. XXVIII

NUMBER 44

# FARM AND DAIRY

## RURAL HOME

PETERBORO, ONT.

NOVEMBER 1, 1909

Grisdale 1st Pr. C.E.F.



### A TYPE OF CLYDESDALE MARE WELL SUITED FOR FARM PURPOSES

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FIG 0

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

### The Provincial Winter Fair

In view of the high position now taken by the Ontario Provincial Winter Fair in the scheme of agricultural education, it is of interest at this time to review the past history of the Fair. Like every other great movement that has had its beginning in advance of public opinion the early days of the Fair brought many disappointments to those who had its welfare at heart.

In 1883 the Fair started under the name of the Provincial Fat Stock Show. The first show was held under the joint auspices of the Agricultural and Arts Association and the Toronto Electoral District Agricultural Society. Each contributed \$500 towards the prize list and each was to share alike in the profits or losses. The Show was held at Toronto in the stables of the Commercial Hotel. The result was considered to be a success as there were 134 entries and \$1,300 were paid in premiums.

Following this the Show was held in successive years at Guelph, Woodstock, Guelph and Toronto. Each year the results appeared to become less satisfactory until at Toronto in 1887 the entries were down to 81 on which \$500 was paid in premiums. No shows were held in 1888 or 1889 but in 1890 a start was again made and the show was held at Guelph where a successful show had been running for a number of years under the management of the Guelph Fat Stock Club.

In 1892 the entries were 171 and the prizes paid, \$1,453. By 1895 the entries reached \$11 and the prizes \$3,491. Previous to this time little had been done in the way of giving practical lectures, but in 1896 the lecturer's Lecture a feature which has increased in popularity each year since that time.

The next great advance was made in 1901 when permanent quarters were secured for the Show in the City of Guelph. Previous to this time the Show had been moved from place to place but it had long been felt that the work could not be carried on to do the most good unless permanent buildings, properly fitted, were secured. A splendid stone building of two stories was erected on the market square, the ground floor space enclosed within the walls being about one acre. Previous to this Show arrangements were completed for the amalgamation of the Provincial Fat Stock and Dairy Show and the Ontario Poultry Show the combined exhibition being named The Ontario Provincial Winter Fair. When the new building was planned it was thought ample accommodations were being arranged for to provide for the growth of the fair for fully 10 years. Within three years, however, the building was found to be uncomfortably crowded by exhibitors and visitors. Since 1900 the attendance has increased from 10,000 to about 25,000. The entries at the last Fair numbered 5,603 and the prize money won by the exhibitors amounted to \$9,518.00.

During the past summer a magnificent addition was erected beside the old building which will not only provide for the expansion of regular departments but will enable a horse department to be added to the Fair. With horses added to the exhibits the Fair will be representative of all classes of farm stock.

Aside from this direct educational value that the Fair has been to the farmers of Ontario its influence has been very wide-spread. Fairs modeled along similar lines have been established in Eastern Ontario, in the Maritime Provinces, Manitoba and all the other provinces of the Dominion are planning to soon have winter fairs of their own. The Fair has demonstrated that an exhibition can be successfully conducted solely for educational purposes with all the so-called "attractions" eliminated.

### The National Dairy Show

Ed., Farm and Dairy.—Two things that impressed me most in the Milwaukee Dairy Show were...

The freely expressed opinion of many prominent dairymen that the dairy industry of the United States was on the eve of the greatest development in its history. There are people who think that the dairy industry in the United States has declined because their exports have become almost nil, but as a matter of fact it is claimed that the industry over \$800,000,000 worth of dairy produce every year.

Looking around the Dairy Show I was, in the second place, impressed with the great improvement which has been made in the character of the dairy machinery exhibited. This was particularly noticeable in connection with apparatus for the pasteurization of milk. The improvement consists chiefly in more durable material and better workmanship, with more attention paid to facilities for perfect cleaning.—A. Ruddick, Dairy Commissioner, Ottawa.

### Re the Establishment of a Navy

Ed., Farm and Dairy.—It is expected that the Canadian Government will, at its next session, bring forward legislation providing for the establishment of a Canadian Navy. It must be apparent to all that the Government has received no mandate from the people to do this, and that such a momentous change in the traditional policy of this country as is involved in the Government's proposal should not be made without long and serious consideration.

In such a matter it is only fair that something tantamount to plebiscite be taken; and it would be morally a criminal act for the Government to decide such a question hastily and involve Canada in everlasting obligations without referring the whole matter to the country. All citizens can at least unite in this one demand; that the country be not involved in the military and naval system of the Old World without due consideration.

Parliament meets shortly, and if anything is to be done, it must be done quickly. Farm and Dairy readers who think that the proposal to build a Canadian Navy should be voted on by the people before adoption should write a letter to the Premier to that effect, and see or write their local members. The responsibility rests on each citizen, let him see that he does not shrink it.—W. C. Good, Brant Co., Ont.

### Sand Lands as They Used to be

Ed., Farm and Dairy.—An elderly lady, whose home is in Chicago, was lately paying the writer's home a visit. Knowing that her father once owned the farm in Durham Co., from which the picture in your June 10th issue was taken, showing the effects of the blowing sand, on Mr. John Davey's farm, we showed her the picture, and she remembered the place very distinctly, having as a girl played around there more than 60 years ago. Once she saw a bear, and at another time a flock of deer came running over that spot. She said that the deer had long horns, and that the ram "hunted milk-er," when they saw her and some other children.

Beautiful timber then grew all around, and nobody thought of such a thing as sand over blowing there.—James E. Orr, Middlesex Co., Ont.

Mr. W. W. Ballantyne of Stratford, Ont., the president of the Canadian Ayrshire Breeders' Association, has returned from a trip to Springfield, Ill., and to New Westminster, B.C., he having judged the Ayrshires at the former exhibition and the dairy cattle at the latter.

Issued  
Each Week

Vol. XXVII

Three reasons w  
Ger

**T**HE movement to eradicate spruce not too early. There are three reasons for this: 1. It is that it is possible to have lands lying fallow. There is no need to argue this point, that, extensive as they are, they are really exhausted. 2. It is that extensive plantations of the wood will be that it takes a long time especially consideration; here

**TO MATURE THEM**  
On this point the best ignorance prevents cause some singing on the lawn has most rapid progress must not believe forest of trees will the same manner.

Just to show you the kind of trees will grow well of lands are doing, I give you the figures on growth of Red L. ascertained by our agents last spring on Lake Nipissing. The best soils this tree for the first 100 years well as the White in 50 years you may 13 inch trees that inch growth of diam 30 years, but in the 50 years it grows an additional five in diameter, or at the of one inch in 10 years one inch in 20 years in six or seven years in 12 to 14 years for that, the rate sinks to and more. Indeed, a meter on this class

# FARM AND DAIRY & RURAL HOME

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Vol. XXVIII.

FOR WEEK ENDING NOVEMBER 4, 1909.

No. 44.

## WASTE LAND PLANTING AT HOME AND IN FOREIGN COUNTRIES

Dr. B. E. Fernow, Dean of Forestry, Toronto University

Three reasons why the waste lands of Ontario should be reforested. Some facts as to what France and Germany have done and are doing in the matter of reforesting their waste areas

THE movement that has been started to recuperate some of the lost ground is begun not too early, and, let us hope, not too late.

There are three reasons for beginning now, the recuperation of the waste lands of Ontario. One is that it is poor policy for any community to have lands lying waste instead of producing. There is no need for a rationally thinking citizen to argue this proposition. Another reason is that, extensive as our forest resources seem to be, they are really quite limited, and will soon be exhausted. Hence, by the time these contemplated plantations have grown to useful size, the wood will be needed. The third reason is that it takes a long time for trees to grow to log size especially on such poor lands as are under consideration; hence the need of early beginning.

### TO MATURE TREES

On this point the greatest ignorance prevails. Because some single trees on the lawn have made most rapid progress, you must not believe that a forest of trees will grow in the same manner.

Just to show you what the kind of trees which will grow well on waste lands are doing, I can give you the figures on the rate of growth of Red Pine, as ascertained by our students last spring south of Lake Nipissing. On the best soils this tree grows for the first 100 years as well as the White Pine. In 50 years you may have 13 inch trees that is one inch growth of diameter in 3½ years, but in the next 50 years it grows only an additional five inches in diameter, or at the rate

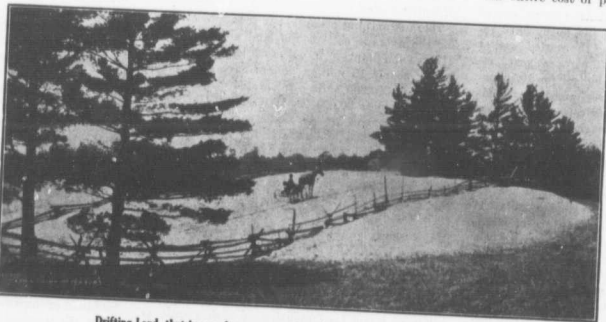
of one inch in 10 years. Then the rate drops to one inch in 20 years, one inch in 30, and finally one inch in 40 years, so that the trees, which a lumberman looks for, of say 20 inches, will be 180 to 200 years old, and the average growth will have been one inch in nine to ten years.

This is on first-class soil. If you investigate the rate on the poorer, not yet the poorest, gravelly soil, where this species is specially at home, you will find that it takes 100 years to make a 12 inch tree having grown at the rate of one inch in six or seven years for the first 50 and one inch in 12 to 14 years for the second 50 years and after that, the rate sinks to one inch in 25 to 30 years and more. Indeed, a lumber tree of 20 inch diameter on this class of soil will have taken 250

to 260 years, or one inch in 12 to 13 years on the average to attain its size.

### TAKES 60 TO 80 YEARS

The White Pine grows very much like the Red Pine for the first 100 years, but on good soil keeps up the better rate beyond that age. Although in plantations they have grown one inch in three years and even in two years for the first 25 years, one inch in four to five years is nearer the average, and not many trees of this species, will exceed 12 inches in 50 years. Well grown trees, 100 years old average at best 19 inches, or one inch in six to seven years, and 20 inches at 110, then the rate falls to one inch in 12 years and stays there for a long time. By good management, however, log trees may be produced in 60 to 80 years.



Drifting Land that is a real menace to Mr. Tebble's Farm in Durham County, Ont.

One of the worst features of the whole situation in the sand lands of Clark Township, Durham Co., Ont., is the way in which good productive soil is being covered up and destroyed for agricultural purposes by means of the drifting sands. The sand shown has come a considerable distance, has filled the roadway where the horse and rig may be seen, and is rapidly approaching on the field in the foreground, covering up and utterly destroying the grain crop sown there. Pea straw has been placed on the west side of this highway, but it has not been effectual in checking the course of the sand. Five years ago, Mr. Tebble states that this area shows in the photo was all grass, now it is working destruction everywhere. Mr. Tebble says that these sands will be his ruination.

—Photo by the Editor of Farm and Dairy.

It stands to reason that such a "long winded" crop is not attractive to private enterprise, but indirect benefits from government interest to be started, as a work of internal improvement are or ought to be sufficient argument for the government to undertake it, I do not undervalue the financial result which promises in the end to repay the undertaking with good interest. On this score we have the best proof in the experience of others.

### WASTE LAND PLANTING IN FRANCE

The history of waste land planting in France, which has been done there on a larger scale than anywhere else, is most illuminating. While we may concede that labor conditions especially are

very different in France, nevertheless we can feel pretty certain that results in this country if the work is rationally financed and properly done will be of a like character.

The waste land planting in France refers to five different localities and comprises over two million acres of plantations, the result of a persistent policy for 60 years. The first region are the sand dunes in south western France—250,000 acres—and the so called Landes adjoining, some 2 million acres of shifting sands and marshes like those of Norfolk County, Ont. The fixing of the dunes was begun in a small way as early as 1786 with appropriations of \$10,000 to \$15,000 and finally \$100,000 per annum. By 1817 some 14,000 acres had been secured. Fifty years later, in 1865, 200,000 acres had been reforested, the total expense for planting, administration, etc., having amounted to nearly \$2,700,000 or \$13.60 an acre. Of this area 95,000 acres were then ceded to private and municipal owners for \$2,745,000 (\$30 an acre) and only 105,000 acres remained in the hands of the state. The sales have reimbursed the entire cost of planting and left a profit over and above of \$120,000 and the present value of the State property—these useless sand dunes—secured by the persistent expenditures up to less than three million dollars is estimated at ten million dollars. In 1901 the first cutting was made and yielded \$92 an acre; better than 3 per cent. on the investment. The improvement by ditching and planting of the adjoining Landes of nearly two million acres was begun in 1837 by private individuals, who by 1853 had reclaimed 50,000 acres. Then the government stepped in with a broad gauge plan, building roads, railroads, drainage systems, and assisting the municipalities in reclaiming the land, making planting plans free of charge, the State and private individuals buying some 390,000 acres of the land to enable the municipalities to accomplish the improvements. This once poverty stricken district which a century ago was hardly inhabited—is now traversed by the densest net of railroads in France.

By 1907 with an expenditure of around \$10,500,000 (\$6.50 an acre) 1,750,000 acres were reclaimed, 85 per cent. in forest, of which the state owns somewhat over 100,000, municipalities 185,000 and private owners the bulk of 1,500,000 acres. In 1898 the value of these holdings created from nothing was estimated at over \$96,000,000. In 1892 the average net yield was \$2.40 an acre, and since then has been rising, so that now an annual income of \$8,000,000 is the result. This from an

expenditure of ten million dollars. The trouble is to keep the fire out, which with the large private forest property is difficult.

#### REFORESTING BY PRIVATE ENTERPRISE

The third region of extensive waste land planting is that of the Sologne near Orleans, a sandy poorly drained plain on an impenetrable, calcareous subsoil, giving rise to swamps. This district was once densely wooded, but by the end of the 18th century some million and a quarter acres had been devastated as fully as much of Western Ontario. A committee of private citizens undertook its reclamation, and some 200,000 acres have been planted at \$5 an acre. An estimate of the value of these plantations places it at \$18,000,000 so that lands which 50 years ago could hardly be sold for \$4.00 an acre now bring over \$3.00 as an annual revenue.

The fourth district lies on the arid limestone wastes in the province of Champagne. Here since 1830 by private enterprise over 200,000 acres were planted at a cost of less than \$10 an acre. The present stumpage value is figured at from \$50 to \$100 an acre, and yielding \$2 an acre revenue, this property is estimated at \$10,000,000.

We have then 2 1-3 million acres, recuperated by an expenditure of less than 15 million dollars to now represent a capital of 135 million dollars and an income of around 10 million dollars or say at the rate of 7 per cent.

The fifth and last phase of waste land planting, which has been going on for the last 50 years, the most noted, the most expensive and the most troublesome is to repair the damage done by destroying the forest cover of slopes in the Alps and Jura mountains. Here the destruction of an area of 1,000,000 acres of mountain forest by axe, fire, and grazing during the revolution has, by the resulting floods destroyed some eight million acres of agricultural land in the valleys. Here so far only expenditure and little returns, except the indirect one of reducing the floods have resulted. The State is acquiring the wasted land at the rate of 25,000 to 30,000 acres a year, reforesting it by degrees. The budget for 1902 contains \$1,000,000 for this purpose, and annual budgets amounting to between \$500,000 and \$600,000 are the rule. Altogether by the year 1900 the State had secured over 400,000 acres at a cost of \$5,000,000 and had planted 218,000 acres at a cost of \$8,000,000, the total expense at that time being \$13,000,000 outside of subventions to municipalities and private owners for similar work. It is estimated that with the expenditure of \$600,000 per annum the work of recuperating these waste lands and controlling the devastating torrents may be finished by 1945.

Here, then, is a nation, and under republican form of government at that, which has not been afraid to pursue a consistent and persistent policy of internal improvement by waste land planting, with most satisfactory financial results.

#### REFORESTING IN GERMANY

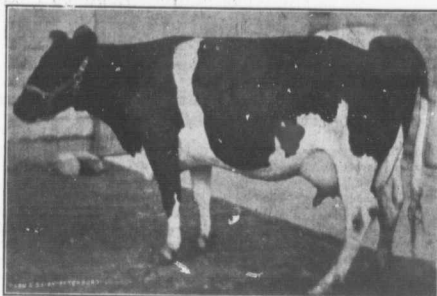
That these policies find favor not alone in republican France but are also practised by monarchical Germany may be learned from investigating conditions, especially in Prussia.

It is well known that the German governments have for more than a century practised rational forestry on their State forests and have during that period recuperated the waste areas and slash of former wasteful times so that now these State forests pay annually from \$2 to \$5 an acre net, and the revenue is increasing yearly, Prussia from her seven million acres of State forest deriving a net revenue of 18 million dollars.

Private forest owners, on the other hand, as anywhere else have been wasteful and neglectful and have created waste areas. The extent of these, capable of reforestation, in 1900 were estimated for Prussia alone at around 1,800,000 acres. The government 40 years ago entered upon the policy of acquiring by purchase or exchange such

waste land areas, mismanaged forests, abandoned pastures and farms, and reforesting them.

Just as their naval program which frightens Great Britain and the colonies so needlessly, proceeds on a well digested, long sighted plan, which was conceived in 1801 and is to hold good until 1912, so did Prussia set aside from time to time large sums to carry out its waste land policy. In 1902, when already some 320,000 acres had been acquired and all but 90,000 of this acreage reforested at a cost of over \$6,000,000, a further appropriation of \$25,000,000 was voted for the continuance of this policy. In the five years from 1902 to 1908 some 68,000 additional acres were



"Molly Baws," grade, 12,160 of milk in 10 months

A living example of the possibilities of grades. A herd of such cows is worth striving after. The cow pictured is owned by Edmund Laddlaw & Sons, of Egin Co., Ont., whose farm is a competitor in the Dairy Farms Competition.

acquired, and about the same area reforested; that is to say annually 12,000 acres are turned into productive areas.

There is nothing cheap about these proceedings, for the average cost of the land alone comes to \$17 and the planting to not much less. Altogether so far nearly 10 million dollars have been spent and some 300,000 acres recuperated.

In 1907 some 20,000, in 1908 some 13,000 acres were added and in the two years 25,000 acres planted. In the budget and for the forest administration for 1909 there are found \$1,825,000 for planting in general of which it is estimated about \$400,000 will be devoted to waste land planting, there being still 70,000 acres of the purchases remaining unplanted.

This shows you how far sighted statesmanship grapples with the problem of waste lands.

#### THE PROBLEM IN ONTARIO

Nobody, will of course, expect that the government of Ontario should at once enter upon a policy of waste land planting on such a scale as this. On the contrary, it is wise to start slowly and learn first how to handle such problems, but it should be begun at least with adequate means even for experimenting, and with the realization that it is as worthy a piece of internal improvement as that laid out for the Hydro-Electric Commission or the Railway Commission, or any other great provincial or national undertaking.

#### Wintering Bees

R. Lowe, Prince Edward Co., Ont.

Our bees are wintered in a repository above the ground. We prefer an underground place if it can be kept dry as it is difficult to keep the temperature low enough above the ground, especially in a mild winter such as last winter. The bees are placed in their winter quarters as soon as we think they have had their first flight for the season. This is usually about the 8th or 10th of November in Prince Edward Co., Ont. We keep the temperature about 45 degrees

F. though sometimes it gets up to about 50 degrees. The bees should be troubled as little as possible throughout the winter. From the 25th of March to the 10th of April, as soon as the weather is suitable for them to fly, 50 degrees in the shade on a calm day, is the proper time to place them out for the season.

#### The Renewal of the Herd

G. H. Blair, Carleton Co., Ont.

There are two methods in vogue for replacing cows that have died or outlived their usefulness. The farmer may either buy his cows freshly calved whenever he needs them or he may breed his own heifers for the replacement of his old or unprofitable cows. The advantage of the former method lies in the fact that the farmer does not have to incur the trouble and expense of rearing and feeding his heifers before they have reached their period of usefulness. To effect this, however, there is the element of risk that must be assumed in the buying of milk cows that one has not seen before and which may be very deceiving. Moreover, in breeding his own stock, the dairyman can go through a process of selection of the best heifers from the most profitable cows, much increase the productiveness of his herd.

If a man were engaged in the cream trade I would advise him to rear his own heifers, as he has on hand quantities of skim milk that he could put to no more profitable use than that of feeding calves. If he were selling his whole milk from the farm, he would have much more difficulty and expense in raising the young stock, and whether he did this or not would depend on his own conditions and surroundings.

#### Feed and Care of Foals

T. R. James, Middlesex Co., Ont.

Foals should not be allowed to suckle after five months old. They should be taught to eat grain at as early an age as possible. Having learned to eat and being well supplied with suitable and sufficient feed, the youngster will not miss its mother's milk, at least, to an extent where it will suffer any setback. A roomy stall or shed should be provided for the foal. Allow it freedom in a paddock or barnyard for several hours each day when the weather is favorable.

There is no one best way of feeding foals. Conditions vary in different sections and feeds that might be recommended would of necessity have to be substituted. As much good hay as it cares to eat should be supplied three times a day, care always being taken that the allowance given is eaten up clean before the next meal. It is important that the manger and the feed box should always be kept clean. Where it is available, use well cured clover hay in preference to timothy. It contains much more nutriment, is more palatable and is more easily digested than is timothy hay.

For a grain ration, oats and bran are about the best available. While it is not desirable to have any young animal too fat, it is a rare thing for one to receive too much of a grain ration, provided it is suitable and fed in quantities as are readily eaten and not left in the manger between meals. The quantity that the youngster will clean up will soon be learned. With few exceptions, it will be found profitable to feed that quantity, as gains can be made cheaper on a

young animal will make good but be considered.

The morning quart of oats is bran. If the of cut clover prevent too ra feed masticatio a roof of some mangal—aid may be oats a clean up gester before feeding a in feeding a foal judgment must

The matter of elnt feeds should be sential to the be limited quantity ed for the root may be fed' to be able to overdo fore the youngst before feeding. when the need that your treatm in the future ho difficult to over animal will be af by his feeding.

#### Economic Q

How much is How much milk produce each year? What year? Of the L expenses and value per ye the manure? and manur. pay are vital, questio every individ who can answer each individual cular No. 134, of tion at Urbana, table given in th of cow economics.

The efficient cow money on a dairy the most remuner this reason even may result in som or even the best suspect the extent each individual c from the whole her covers up the loss



A Lazerat Second growth adaptability of these areas would practic veritable crime for a



young animal than on an older one. Since it will make good use of the feed it eats, what might be considered an excess is by no means wasted.

The morning feed might consist of about one quart of oats (preferably crushed) and one quart of bran. If these be mixed with a few handfuls of cut clover hay, so much the better, this will prevent too rapid eating and ensure more perfect mastication. At noon, the feed might be a root of some kind—carrot, turnip, sugar-beet or mangel—and one quart of oats. The evening meal may be oats and bran, as much as the colt will clean up before morning. Such quantities as suggested are for a well grown, hardy foal, though in feeding a foal, as in the case of other stock, judgment must be exercised by the feeder.

The matter of providing roots or other succulent feeds should not be overlooked. They are essential to the best health of the young animal. A limited quantity of corn silage is often substituted for the roots. Silage, in limited quantities, may be fed to advantage, though it is easily possible to overdo the matter. If water is not before the youngster at all times, always water him before feeding. Give attention to the colt's feet, when the need of such is indicated. Remember that your treatment of the foal will be reflected in the future horse. Any setbacks in growth are difficult to overcome. The value of the finished animal will be affected to no inconsiderable extent by his feeding.

### Economic Questions Concerning Cows

How much is this cow worth? And that one? How much milk and how much butter fat does she produce each year? What profit will she return each year? What is the cost of her feed for one year? Of the labor? What are the other expenses and depreciation? What is the value per year of the skim milk? Of the manure? Will the skim milk, calf and manure pay all expenses except feed? These are vital questions for every dairyman concerning every individual cow in his herd. To those who can answer how much milk and butter fat each individual cow in their herd produces, circular No. 134, of the Illinois Experimental Station at Urbana, will answer the other nine. The table given in the circular is a ready reckoner of cow economics.

The efficient cow is the chief factor in making money on a dairy farm. Good dairying is one of the most remunerative lines of farming and for this reason even poor, unbusinesslike dairying may result in some gain. As a rule, the average or even the best dairymen neither know nor suspect the extent to which the profit or loss from each individual cow affects the profit received from the whole herd. The profit on the good cows covers up the loss from the poor ones and thus

the owner fails to see how easily and to what extent the profits could be increased by simply disposing of a few poor cows. If the largest returns are to be obtained it is necessary to weed out the unprofitable cows from the herd.

#### TOTAL RECEIPTS NOT NET PROFIT

The reason that so many herds are kept at an actual loss or little profit is because the man with a large herd of poor cows may receive a large cheque at the end of each month, but he does not see the large expense bill that must be subtracted from this. The total receipts must not be looked upon as the net profit.

In an attempt to bring out these facts more clearly and to save the dairyman much figuring, the afore-mentioned table has been worked out. The use and value of this table is illustrated by applying it to the yearly records of the individual cows of five herds taken from the many herds that have been tested by the Experimental Station.

Most striking figures of profit and loss are shown in the application of this table to the herds mentioned. They prove that many men are twice each day milking cows that are not paying for the feed they eat. Yet the laborious task is continued, year after year, in the vain attempt to make money with a class of cows utterly unable to return a profit. The following are two examples.

#### A LOSING PROPOSITION

Herd No. 4. This herd of 15 cows proved phenomenal in the proportion of cows on the losing side of the account and also in the excessive loss on many of them. Either one of the two poorest cows lost the owner almost as much money as was made by all the cows on the credit side of the account. When the profit and loss from this herd was totalled up, it showed a total loss of \$112, which means that this man received \$112 less for the products from his dairy herd than he would have received had he simply sold the feed. The profit from his best cow was only \$10.21. This table depicts a most deplorable state of affairs—a man trying to support a family with a herd of cows utterly unable to return a profit. Poor as this herd is, losing \$112 annually, the owner, by disposing of the poorest two-thirds of his herd, without buying a single cow, might have prevented his loss of \$141, and have changed himself from a cow keeper to a dairyman.

Herd No. 5 was one of high average production. Although a grade herd, its lowest cow returned a profit of over \$22, which is more than twice that of the best cow in herd No. 4. The difference between the individuals of this herd is large, the best cow returning a profit of \$69.70.

#### A DIFFERENCE OF \$100 PER COW

In conclusion, the bulletin says of these two herds, "The cows in herd No. 4 lacked \$7.48 each of paying for their feed and care, while each cow in herd No. 5 made a profit of \$42.77, making a

difference in income of over \$50 a cow between the two herds. The best cow in the good herd brought in \$69.70 profit, while the poorest cow in the poor herd was kept at a loss of \$27.52, making a difference in the earning power of the cows of nearly \$100, annually."

The work of our cow testing associations as carried on by the Dominion Department of Agriculture indicates that differences just as striking are to be found among Canadian herds. It is awful to think of wasting years of weary, unprofitable toil on our dairy farms in doing all the labor of preparing the ground, planting, cultivating, harvesting and storing the crop only to dispose of the feed to the dairy herd in which many of the individual cows are kept at an actual loss. All of this waste of labor and energy might easily be obviated if intelligence and common sense were used in establishing and breeding up an efficient dairy herd.

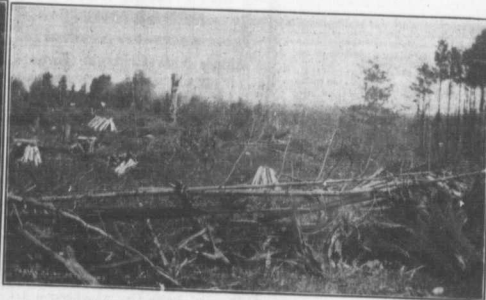
Many of us continue to lose sight of our straw as a stock food. Cattle will eat more or less straw if given plenty of time to look it through. For this reason straw is best fed at night, or it may be cut and mixed with roots or grain. Too much of our straw is going to waste. It can be economically fed to good advantage and be a saving on the feed bill.—N. J. Kuneman, Manitoba Agricultural College, Winnipeg.

Unless exceptionally high prices are paid for it, milk is fully as economical a source of nutrients as other animal foods, but dearer than most staple vegetable products. Milk, however, requires no preparation, has no waste, and is more thoroughly digested than most vegetable foods. As a source of protein, the most expensive of the nutritive ingredients, it is especially economical. Skim milk, which is whole milk minus part of its fat, and which costs only half as much as whole milk, furnishes protein about four times as cheaply as leaf. Foods prepared with either skim or whole milk are much more nutritious than those prepared with water.

Though some breeders do not make a practice of letting their cows out of doors for exercise during winter, I cannot agree with them in this treatment. A moderate amount of exercise in open air is as beneficial for beast as for man. It tends to act as a tonic to the general health and makes the cows more contented than when they are shut up. However, I certainly would not allow them to remain standing out in the cold to become chilled on a stormy winter's day, but would turn them in as soon as they had ceased taking exercise. This exercise should be given at least twice a week and I can say that we have found this method of treatment very satisfactory and beneficial.—G. H. Blair, Carleton Co., Ont.



A Luxuriant Growth of Pine and Oak on the Sand Areas, Durham Co., Ont.



An area after it has been slashed for the sake of its meagre return

Second growth oak and pine and other valuable timber that flourishes everywhere on the waste lands of Durham County, Ont., leave little doubt as to the adaptability of these soils for forest trees. It is poor economy to cut these trees. Their value standing is much greater than their value as wood. It is a veritable crime for anyone to lay this valuable growth in waste. The only hope of protecting it is to place these lands under municipal management.

—Photos by the Editor of Farm and Dairy.

# THE ROOFING WITH A REPUTATION

It pays to be careful in buying roofing, for most prepared roofings look all about alike before they are laid—pretty hard to tell the good from the poor. Many roofings are simply experiments—been on the market so short a time that you can only guess how long they'll last. Better let someone else "try these" new and "improved" kinds, and you pay your money for a kind that has actually proved that it is long lasting—economical.

You can have no better guide than the reputation of the makers and the record of the roofing.

## PAROID ROOFING

was one of the first prepared roofings put on the market and from the start won the best. In all parts of the country we can point to thousands of Paroid roofs that to-day are as good as new after years of service. Judge PAROID by its record.

Progressive experience of over 33 years in this one kind of business has taught us how to make roofing. We have learned how to make better roofing felt than any other makes. PAROID durability.

The felt in a roofing is like the foundation of a house—it's the greatest importance—yet most roofing manufacturers buy their felt where it can be bought cheapest. We make PAROID from start to finish ourselves. PAROID even make our own cups for laying PAROID because the ordinary tin cup is not good enough. Our cup is rust-proof and being made has more holding surface than a round cup.

Yet we do not ask you to buy PAROID Roofing solely for its unequalled reputation. Try it at our risk.

**OUR GUARANTEE** is that we will replace every square foot of roofing that proves to be defective manufacture. If a stronger guarantee than this could be made we would make it.

Dealers everywhere sell PAROID Roofing.

### FREE BOOKS

**For the Man About to Build**  
"Practical Farm Buildings" will show you how to save roof money and worry.

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If it's a cottage or bungalow our "Prospective Roofing Booklet" tells how to get a more attractive roof than shingles at about one-half the cost. Write to-day and tell us the kind of building and we will send you the right book and samples.

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Established 1847

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## DRAINAGE PEEP SIGHTS

As designed by Prof. W. H. Day.  
Manufactured by  
**H. OCCOMERO & CO.**  
QUELPH, ONT.

### To Our Tillers of the Soil

J. E. Klote, M.D., Lanark Co., Ont.  
Farmer man, come to the front! World could not exist for the working man unless you and your work, but we too seldom hear your voice in the vital problems of the land. On your prosperity and work depends the stock value of all things. Your opposition in the market consists largely of manufacturers, two-thirds of whose goods you could dispense with and still prosper. Your absolute needs from the outside world are few, and consist of tea, sugar, salt, spices and machinery. You have sheep and can make home-spin, which will outwear ten-fold the imported shoddy sold you by the village mercant.

You may not become Croesus rich but you and your family are most self sustaining and know nothing of the want and the "wolf at the door," so common to the laborer and union man of the large metropolis. You have staunch friends in your neighbors, all of whom will give you a helping hand at your harvest, wood-awing or when in any other difficulty. The city man may have of any kind the plague by all, unless he is a man of the high places in civic or business life.

Persuade your sons and daughters to stick to the soil. Canada has lots of it for those willing to turn it into a good knowledge of agriculture and stock is worth more than an expensive course in commercial manufacture, law, medicine or divinity, and moreover, it is more certain of a living and a fair remuneration than any of these.

Our great North West is teeming with excellent young men, pioneering and homesteading. They need your lusty country-born daughters as help-mates. Let the girls discover their affinities in this land of great promise. Our British ancestors strove for supremacy in this once and won. It is now your sons and daughters' privilege and duty to control this almost boundless heritage and save it from the mongrel, superstitious and ignorant yokels of discontented Europe.

British Columbia offers many ideal localities for mixed farming and has much less severe, taken as a whole, than that of Ontario. The only difficulty lies in getting a suitable location as the mountain ranges and want of transportation facilities make exploration for homesteads tedious and more expensive.

## CITY MILK SUPPLY DEPARTMENT

### Milk is Nine Cents in Toronto

If the members of the Toronto Retail Milk-dealers' Association can have their way, the public will pay nine cents a quart for loose milk. This means an advance in price of one cent from the prices paid for milk during the summer.

The decision of the association was an unanimous one and was made at a largely-attended meeting on Friday last. The new prices went into effect on Sunday morning. The price of table cream will also be advanced to 50 cents a quart, and whipping cream to 60 cents.

There is a strong probability that a rate war will be instituted by the Farmers' Dairy Co., who favor a flat rate of eight cents a quart, all the year round. The company is run by the milk producers on co-operative lines. Its directors were not invited to the milk retailers' conference.

## ADVERTISERS PLEASE NOTE

THAT THE

# SPECIAL BREEDERS' NUMBER

OF FARM AND DAIRY

WILL APPEAR ON

## DECEMBER 2ND, 1909

This issue will appeal to the live stock men—the men who need your goods—the men with money to buy them. Use large space. Reserve it early. Get your copy in Peterboro on or before November 25th.

"It is a delicate proposition for us," said Mr. Percy Farmer, the General Manager, in discussing the situation. "We do not want our rate so close that the retailers will be unable to make a fair profit and other hand, we do not want to see the milk go so high that the producers will be unable to market all their milk. We are inclined to favor eight cents because it is easily divisible and offers a fair profit. When people have to pay five cents for a pint they often economize and do without. It is a delicate situation and our directors will meet shortly to decide whether to set at eight cents or not."

### How to Build a Telephone Line

(Continued from last issue.)

Run the drop wires down to the house as nearly as possible to the place where the office wire is entered. For attaching to the building either side brackets or porcelain knobs will be better, for they are not so unsightly as the side brackets. Fasten the wire high up on the side of the house, and then drop down to the place where you wish to enter. If the telephone is to be mounted on an outside wall, the inside wiring can pass directly through the wall from the telephone and attach to the drop wire just outside. Be sure and solder this connection between the office wire and drop wire. Where the office wire passes through the outside wall a hole should be drilled large enough to take a 1/2 inch porcelain tube. This hole should slant upward from the outside inward, so that water cannot flow into the tube.

Inside the house as nearly as possible to the point of entrance should be placed a combination of electrical storms the switches of the arrester can be opened and the telephone line be entirely disconnected from the line, at the same time the arrester portion will still be in connection with the line and will discharge any accumulation of electricity.

For interior wiring the best kind is known as the No. 19, rubber covered and braided, either single or twisted in pairs, depending upon whether the line is grounded or metallic. There are three binding posts at the top of each telephone. The two outside posts are for the line wires and the top or middle one is for the ground wire.

When the telephone is to be connected to a grounded circuit, the line wires should be connected to either one of the line binding posts, and the remaining two posts are connected to the ground wire. The only connections that will have to be made in the telephone will be the attaching of the receiver and batteries.

The receiver cord is passed through the hole in the inside of the cabinet and fastened to the two binding posts just inside.

In connecting the batteries, be careful and do not have one of them opposed to the other. Each dry cell has two binding posts—the one connected with the carbon element in the centre cup at the edge. A wire should connect the carbon of one cell with the zinc of the other. The remaining binding posts are connected with the battery compartment. Be sure and have all connections tight.

A most important part of installing the telephone is the running of the ground wire and the making of the ground connection. Every rural telephone should have a ground connection, regardless of whether it is grounded or a metallic circuit. Run the ground wire just as directly to the earth as possible with the least number of curves or angles. The best kind of ground is a water pipe or connection with a well. If connected with a water pipe, drain out the water before an attempt is made to solder the connection, for the water would prevent heating the pipe sufficiently to do the work.

If the ground connection is to be made in a dug well, solder the wire to a galvanized iron plate about a foot long and more square, and sink it to the bottom. The same method may be used in making a ground connection in the bottom of a stream. A very good ground connection may be made to the metal casing of a drilled or driven well. This casing runs the full depth, and therefore has a large surface exposed to moist earth and water.

If there is no stream, well, or water pipe, a ground rod may be used. These ground rods are usually of galvanized iron about six feet in length. The iron is driven its full length into the earth, and the ground wire is then soldered to it. The ground rod should be driven deeply enough so that the lower end will always be in moist earth and below the frost line. Ice, frozen and dry earth are good insulators, and therefore use for particular connections. Always be most particular in soldering the ground connections as well as all joints in all wires that are in any telephone circuits. It will save time, expense and poor service.

A club of seven new subscriptions will win you a pure bred pig. Write Circular Dept., Farm and Dairy, Peterboro, Ont.

We have taken Farm and Dairy for a number of years and would not like to be without it.—I. M. Fife, Peterboro Co., Ont.

## The Feeder

The Federator our subscribers voted by a large interest. All prompt attention.

I am a farmer and I wish you to have 45 acres set time looks of 5000 per acre and 2500 and 1000 bushels of silos of 16 x 30 from my corn, and use it for winter? Would of this straw and could you would \$15 per ton and cattle do you the putting on this for the cattle will 1000 lbs. in the you think would had a fair amount of steers before you went to Ont.

Two silos 16 x 30 120 bushels each. This with wheat straw at Hay would out 700 sheers from the supporting of 1000 lbs. weight this number you 35 tons of corn the climate of the p... tons of corn (gr... If you wished practically all of your farm with wheat straw and dispose of would Hay 50 tons, wheat straw probably 500 (grain) would 800 of feed would be in the time allowed and still leave 1000 (grain) un... ed of corn would all the corn (gr... probably keep period and feed advantage; but a... er cost per ste... for the months to clean... would suggest: Corn silage ... Corn stover ... Wheat chaff ... Hay ...

Corn meal, per ste... would feed... what as follows: Dec. 1st to Jan. Corn silage ... Corn stover ... Hay ...

February 1st to Corn silage ... Corn stover ... Wheat chaff ... Hay ...

Stover ... Wheat chaff ... Hay ... All changes should ally. This is more case where meal should be started. The ration says gradually worked out only new corn in the period. I would sub part of your corn mix with the corn a first should be to half corn meal.

### The Feeders' Corner

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

#### Feeding Steers

I am a farmer living in Kent Co., Ont., and I wish your advice on the following: I have 45 acres of corn, that at the present time looks good for at least 100 bushels of ears per acre, and 50 tons of mixed timothy and clover hay, also the straw from 1400 bush of wheat. With this feed would you advise me to put up, say, two silos of 15 x 30 feet each, and fill them from my corn, then husk the remainder, and use it for grain for the steers in the winter? Would you advise cutting a part of this straw and mixing it with the ensilage, or would you advise buying hay at \$10 per ton and feeding it. How many cattle do you think I would be safe in putting on this feed from Dec. 1st to May 1st? The cattle will be steers, weight about 1000 lbs. in the fall, and how much do you think would be a fair gain? I have had a fair amount of steers in feeding steers before but without a success. J. W. Kent Co., Ont.

Two silos 16 x 30 would hold about 120 tons each or 240 tons of corn silage. This with your ample supply of wheat straw and 50 tons of mixed hay would quite easily feed from 60 to 70 steers from Dec. 1st to May 1st, suppose the steers to average about 1000 lbs. weight Dec. 1st. To feed this number you would require about 35 tons of corn (grain). If your estimate of the probable yield per acre is correct you would have about fifty tons of corn (grain) left over.

If you wished to clean up all or practically all the stuff produced on your farm with the exception of the milk then your supply of feed to dispose of would be about as follows:

Hay 50 tons, corn silage 240 tons, wheat straw probably 80 tons, corn stover probably 150 tons, and corn (grain) about 84 tons. This amount of feed would fatten about 90 steers in the time allowed, Dec. 1st to May 1st and still leave 25 or 30 tons of corn (grain) unused. That is provided of course you were anxious to feed all the corn (grain), then you could probably keep 100 steers for the period and feed off everything to fair advantage; but at a probably slighter cost per steer fed. At the average ration for the 100 steers for five months to clean things up pretty well I would suggest:

Corn silage	30 lbs.
Corn stover	15 lbs.
Wheat chaff	5 lbs.
Hay	6 lbs.
Corn meal, per steer, per diem.	9 lbs.
The rest feeding should be somewhat as follows:	
Dec. 1st to Jan. 30th about thus—	
Corn silage	30 lbs.
Corn stover	20 lbs.
Wheat chaff	8 lbs.
Hay	4 lbs.
Corn meal	5 lbs.
February 1st to March 15th—	
Corn silage	30 lbs.
Corn stover	30 lbs.
Wheat chaff	5 lbs.
Hay	5 lbs.
Corn meal	4 lbs.
and from March 15th to end of feeding period—	
Silage	25 lbs.
Stover	5 lbs.
Wheat chaff	5 lbs.
Hay	12 lbs.
Corn meal	10 to 14 lbs.

All changes should be made gradually. This is more particularly the case where meal is concerned. Steers should be started off on very light rations, say 1 lb. per diem and gradually worked up to the maximum only near the end of the feeding period. I would suggest that you sell part of your corn and buy bran to mix with the corn meal. Meal fed at first should be about half bran and half corn meal.

The corn should go into the silo when just beginning to glaze. If the corn stover could be cut before feeding much better results might be anticipated. Wheat chaff, cut corn stover and silage would make an excellent and most acceptable roughage mixture. Feed the hay alone.

Feed steers loose if convenient 8 to 12 in a group, uniform as to size, and temper if possible. As indicated above, I would be in favor of cutting part of the straw, mixing it with chaff and mixing the resultant mixture with the ensilage just before feeding.

If you supply rain short it would of course be advisable to buy enough to see the steers through, but I think 50 tons would be plenty for 100 steers.

Cattle should gain from 250 to 300 lbs. each, more if you have a first-class feeder, and they are not too fat coming in.—J. H. Grisdale.

### Our Veterinary Adviser

UNTHRIFTY COW.—I have a valuable cow that is stiling and would be thankful for any supply received. About July we noticed her standing around with drooping ears. Her heart would beat rapidly, the large veins under her belly were full like usual, and she was losing her milk. Then she would revive and come back somewhat, but her milk had a sharp curd and had her breath. She has been like that all summer, and cows with this mixture were brought, called Cow-ase, and we noticed her often licking her own udder. Do you think that would hurt her? Has she any other ailment? Can you tell by these symptoms if she has tuberculosis or would it be advisable to try to bring her round?—T. E. Argente, Kent Co., Que.

I do not think the "cow-ase" responsible for the cow's condition. The cough indicates tuberculosis, but it is not possible to diagnose with reasonable certainty except by the tuberculin test by a veterinarian. Try the following treatment: Take equal parts by weight of sulphate of iron, gentian, ginger and nux vomica, mix and give a heaped tablespoonful three times daily. If her appetite and general condition does not improve in a few weeks it will be wise to destroy her.

### A Home Made Litter Carrier

Robt. Bailey, Peterboro Co., Ont.

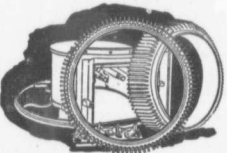
Two years ago, I came to the conclusion that the wheel-barrow was too slow an implement with which to clean out cow-byes. Having put in a system of water works in my stable and being complimented upon the work done, I thought that I could install a litter carrier as well. I accordingly set to work at it and installed it at a cost of \$50. Several who have seen it claim it to be one of the best litter carriers they ever saw.

For the track, I made use of flat irons, 2 by 1-1/2 inches. A blacksmith at the near-by cross roads put in the iron and shaped it. We use 75 feet of track in the yard, in which the post. The scantling, which the track is fastened on runs exposure of 75 feet is built up of four by 5 inch boards nailed together making it when completed 4 by 5. This is fastened to the barn as to the post by means of bolts which are provided with long threads and by means of nuts by which we were able to screw it up tight. Guy wires run from the top of the post and from the barn plate to this scantling and hold it in position. The track is attached to the car from one end of the track to the other. The track is made of rigid. All that see the outfit like it. It took us two and a half days to erect it. We did not count the cost of the labor in building it as we put it up late in the fall of the year when time was not worth much.

Renew Your Subscription Now.

## You Ought To Know About Steel Ribbed Fire-Pots

Any invention that will save you from 3/4 to 3/8 in fuel, is a pretty important subject to the man who is going to put in a new furnace this summer.



The "Hecla" Fire-pot has three times the radiating surface of any other because it has 97 steel ribs fused into the castiron (count the flanges or pins in your present furnace). This increase in radiating means a corresponding increase in the amount of heat given off by the fuel. By actual tests extending over three years,

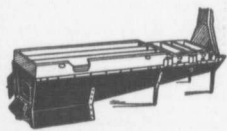
## The "Hecla" Furnace

saves from 3/4 to 3/8 of the fuel. Every one of the "Hecla" Furnace steel ribs radiates heat. They also throw off the heat so rapidly that the fire-pot never becomes redhot, cannot burn out, and should be practically everlasting.

We can't tell you all the points of "Hecla" Furnaces, here. Our new catalogue contains them, explains them and illustrates them. Suppose we send you a copy—free?

Clare Bros. & Co. Limited, Preston, Ont. 75

## Free to Syrup Makers



Champion Evaporator Construction. The corrugated pan of a Champion Evaporator placed directly over the hottest part of the fire is its shallow boiling heater. Small interchangeable fish fishing pans in the rear of the arch, connected by our portable syphon. The arrangement is such that the first sap entering the regulator is the first syrup made. Easy to clean and operate. A boy of fourteen years of age can handle our largest outfit.

Send for Descriptive Catalogue. THE GRIMM MFG. CO. 58 Wellington St., MONTREAL

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THE ONTARIO PROVINCIAL

## WINTER FAIR

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Concrete Mixers

Write for Catalogue  
GOULD, SHAPLEY & MUIR CO., LIMITED  
BRANTFORD, CANADA

HORTICULTURE

Vegetable Growers' Program

The program for the convention of the Ontario Vegetable Growers' Association, Toronto, Nov. 11, during the week of the Ontario Horticultural Exhibition will include the following papers and addresses:

"Report of Investigation on Cabbages and Cauliflower Growing in the United States," A. McMeans, O.A.C., Guelph.

"Report on Vegetable Growing at Jordan Experimental Station," H. S. Peart, Jordan.

Address, G. H. Clark, Seed Commission, Ottawa.

Reports of inspection of Experimental Plots conducted by O.V.G.A.

"The Best Method of Increasing Membership and Furthering Interests of the Association," C. W. Baker, Byron.

Address, Hon. J. S. Duff, Minister of Agriculture.

"Potato Culture," Prof. Macoun, C.E.F., Ottawa.

"Small Fruit, in Connection with Vegetable Growing," W. C. McCalla, St. Catharines.

"Insects that Affect Market Gardens," C. W. Nash, Toronto.

The Apple Situation

Rains last month helped the apple crop considerably but much of the fruit turned out under-sized. The crop is below the average. Prices have been fairly good. From all the provinces reports have been received by Farm and Dairy. The following are typical ones:

Kings Co., N.S.—Quantity nearly equal to last year which was 700,000 barrels. About half will be stored. Prices range from \$2 to \$2.25 tree run; \$2.75 for Kings, packed; \$3 to \$3.25 for No. 1 Ben Davis, unpicked.

Ralph S. Eaton. Kings Co., P.R.I.—Apple crop is not up to early expectations. Hardy varieties in cultivated orchards have a fair crop. Fall varieties are scarce locally at \$1.50 to \$2—D. J. Stewart.

Queens Co., N.B.—Apples are good size and quality, but not up to the average in quantity, free from fungi and worms. Prices better than last year. Alexanders bring from \$1.50 to \$2. Winter varieties held at \$3 to \$4.—Geo. MacAlpine.

Two Mountains Co., Que.—Wealthy, Fameuse and McIntosh have been good crop; prices good. Some barrels of Fameuse and McIntosh sold at \$4 to \$5.—G. Reynaud.

Jacques Cartier Co., Que.—Fameuse are large and of fine appearance; good crop. No. 1 selling for \$3.50 to \$4.50; No. 2, \$2.25 to \$2.75, McIntosh are higher in price.—H. Brodie.

Hastings Co., Ont.—Apple crop light. Growers selling for \$1.50 a bbl. tree run, growers picking the apples and buyers furnishing the barrels. Other growers sold at \$1.50 to \$2 for No. 1 and No. 2 packed, and buyer doing the picking, packing and furnishing the barrel.—F.S., Wallbridge.

Durham Co., Ont.—Apple crop larger than expected, fairly good quality. Ben Davis is light and poorly developed. Stark, Fallwater and Golden Russet have barreled up well. Newfoundland Association were offered \$2.75 f.o.b. but had previously promised their output.—W. H. Gibson.

Oxford Co., Ont.—Apples a fair crop but small and wormy. Buyers are paying \$1.35 to \$1.50 picked and \$1 to \$1.25 on trees.—J. C. Harris.

Wentworth Co., Ont.—Crop poor to good. We are picking 300 barrels an acre of fine Spys. They are free from worms and scab. Winds are bringing down much of the late crop.—Joseph Tweedle.

Brant Co., Ont.—Apple crop is variable, some orchards turning out well, others condemned to the cider mill. Apples generally are clean of fungus. Prices range from \$1.00 in orchard to \$2.75 a bbl., f.o.b.—B. J. Palmer.

Simcoe Co., Ont.—Apple crop is an abundant one. Fall apples sell for \$1 a bbl., growers to pick; winter varieties \$1.25, seller to gather. Co-operation in handling the product of the orchard would undoubtedly give the grower a much better return.—Wm. Bacon.

Grey Co., Ont.—Spys are of much better grade than expected. We are offered \$3.15 a bbl. f.o.b. for No. 1 but have sold the most of our pack at \$2.75 to \$2.75 for No. 1 and No. 2.—Adam Brown.

Bruce Co., Ont.—Apple crop is better than expected, fairly clean and free from coddling worms, but under-sized. Price \$1 on tree, \$1.25 picked.—A. E. Sherrington.

Vale-Cariboo Co., B.C.—Apple crop rather light; good size and clean. Good percentage should pack Fancy. One and two and one-half cents a pound is being paid for No. 1 picked and delivered at packing house. Few will be stored.—Pommier.

Dentistry as Applied to Trees

The Division of Zoology of the Pennsylvania Department of Agriculture received a letter recently asking how to prevent decay in a tree from making further progress. The writer said: "We have a cherry tree whose trunk has rotted considerably. What can be done to save the tree? Is it a good plan to cut out the dead part and fill up the hole with cement?"

Professor Surface, the State Zoologist, replied: "The proper treatment for the cavity of your cherry tree is to clean this out, removing the decayed wood; then wash or spray the interior with an antiseptic, such as a 1 per cent solution of formalin, or a very dilute solution of mercuric bichloride, which is corrosive sublimate, then paint it with ordinary paint of any kind, and finally fill the cavity with Portland cement, or use one of four or five parts of sand."

"This is patently nothing else than the principle of modern dentistry applied to the preservation of the tree. The dentist cleans out the cavity of a decaying tooth, applies an antiseptic to prevent further decay, and fills the tooth with some substance that by preservation prevent the possibility of further decay. We are coming to see that the treatment of all living things is based upon the same fundamental biological principle."

Renewal of Old Orchards

J. C. Chapin, St. Denis, Que. (Continued from last week)

All the simplest, finished, I dressed every wound by cauterization with the hot iron applied on the live wood. Then I painted all the cut surfaces with white lead. Some of the branches of those old trees were split but sound still. I brought them together by means of bolts tightly fastened with nuts, after having washed them with Bordeaux mixture. When the cracks were not completely brought together by the bolts, I filled them with putty and used the same to fill the holes left in same places by the eradication of insects. I finished the work by scraping the bark in order to remove all moss, lichens, scales, barks, which harbor the insect eggs and larvae, bark-louse and all insects which like to take shelter over or under the bark and by washing all the trunks and limbs with a solution of one pound of concentrated lye in five gallons of water.

PRUNING AND GRAFTING This work being done, I lopped off one third of the branches which had grown too high on the old trees during

the course of their prolonged growth and, on the shortened branches, I top-grafted scions of the same varieties of fruit that were borne by the original tree or of some other varieties.

CULTIVATION Having thus brought the old trees in good condition, I applied in the fall of the year, 20 bushels of unleached ash to the arpent on the ground which I had previously tried to plow and which would have required the use of the buttock and spade, a work too onerous to be undertaken. In the following spring of the year, I applied 60 single loads of coarse farm-yard manure to the arpent and covered that manure with some old straw and coarse hay collected on an uncultivated wet piece of land.

RESULTS OF THE TREATMENT Most of the top-grafts were a success and grew well the second year. Under the influence of the good manuring given, the trees got an extraordinary renewal of youth and vigor and, at the end of three years, a very large crop of fruit was the reward of the owner, for the pains he had taken to renew his old orchard. But, the marvel is that, 30 years having elapsed since that work has been done though the young orchard begins to give signs of old age, some of the old trees above mentioned, though very much worn out, still give some fruit.

Fall Spraying for Scale

The best thing to do for trees with San Jose scale is to boil 17 pounds of sulphur and 22 pounds of lime in enough water to boil it, using anything but a copper vessel. It will not injure iron. Stir it occasionally. After it has boiled for fully an hour, strain it, add enough water to make a total bulk of 40 gallons. Water can be added during the process of straining and will help to wash it through the strainer. Do not use a cloth for the fibers or little threads may get through and lodge in the nozzle. The best kind of strainer is one with a strainer wire put across the bottom in such a way that it will be higher at one side and lower at the other, or one built like a cone standing upright and pointing upward with the funnel. The best material to use in making this strainer is brass wire cloth, with about 30 meshes to the inch. You can have such a strainer made by any tinsmith at a cost of about \$1.00.

Spray your trees thoroughly after

POULTRY Feeding F. C. Elford, Que. How best to feed... An old Rockly Mountain guide, whose specialty is goats, says, 'Dominion Ammunition gets results with greater regularity than any other make. More than a hundred thousand other shooters in Canada will agree with him. The new Dominion System of inspection proves every cartridge or shot shell perfect. Dominion Cartridge Co., Ltd., Montreal.'

Dominion Ammunition THE FARMER'S SCHOOL The Central Business College Toronto has a Special Course for Farmers. V. H. SHAW, Principal 394 Yonge St., Toronto

the leaves drop. There is no use to spray for scale while the leaves are on. Do this when the wind is blowing slightly in one direction, and when it blows in another direction spray them again. Be sure that you touch every speck of the lark from tip of the most remote branches to the base of the trunk. Cost them so there is not a spot missed. If you do this faithfully and thoroughly, you will be surprised at the beneficial results that will appear next summer, and which will pay you many times over for your efforts. In addition to the spraying, cut or prune back the trees severely, or in proportion to the amount of injury, removing not only the dead but also the dying wood.

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## POULTRY YARD

### Feeding Pullets

F. C. Eiford, Macdonald College, Quebec

How best to feed growing pullets so as to have the finest egg production throughout the winter months, when prices are highest, is a problem that interests the wide-awake poultry raiser at this time of the year. Frequent experiments have been conducted along this line with varying results. One thing seems to be certain, that if winter eggs are wanted the pullets must be matured. A properly grown pullet should be ready to lay by Dec. 1. This presupposes they come of a strain that can produce eggs in the winter time. The feed can vary as much as the conditions on the average farm, but pullets should not be stunted in any part of their growth. Farm pullets have the best chance to develop any.

If they are hatched early, April or May, and fed liberally, it is a question if the pullet that is not ready to lay before Christmas is worth keeping and breeding from. At the Cornell station one experiment has been tried to find out the best way to feed the growing pullet. A bulletin has been printed from which we take the following:

**OBJECT OF EXPERIMENT**  
The object of the experiment here described was to find out how to feed early hatched pullets in order to secure best results in development, production and profit. While early pullets are generally recognized as the most profitable winter layers, it is commonly supposed that pullets hatched extra early are not so well adapted to the purpose.

It has been thought that these earliest pullets should receive special treatment designed to check the laying tendency during the late summer, with the hope of getting larger egg yields in the early winter. This treatment is called retarding. The pullets just approaching maturity are allowed a grass run, and a satisfactory ration of whole grain with a limited proportion of beef scrap, but no ground grain.

It is thought by many that if these pullets are forced—i. e., fed a rich, stimulating mash to induce egg production—they will lay a few small eggs and moult prematurely, thus greatly reducing their vitality, that, in this case, it would be a long time before they would be prematurely stunted, and their eggs would continue smaller than is natural to their variety.

This experiment was undertaken with the hope of obtaining results either for or against these theories, and of finding a method of feeding which could be recommended for early hatched pullets.

The experiment was begun with 80 single comb White Leghorn pullets and conducted for a term of 364 days, the time being divided into 13 periods of 28 days each. It was started July 28, 1906, and closed July 27, 1907.

The four pens were numbered 1, 2, 3 and 4, respectively, and each contained 20 pullets hatched on Feb. 27 making them five months old.

Some of the pullets were laying (though most were less mature) and all seemed to be healthy. They were so selected that the flocks as nearly as possible were equal in weight, vigor and maturity, and their surroundings were practically alike. No males were put in the pens till December 1, 1906.

The pens were all in one house, and were separated from each other by wire partitions. Each had a floor space of 86 square feet, or 4.3 square feet per hen. The house had 13.2

square feet glass surface, and 10 feet of cloth surface. The entire air space was about 2,350 cubic feet, or 29.3 cubic feet per hen. Except on extremely cold days, the cloth windows were removed in the morning, the openings being covered only by wire netting.

There being only two yards available for the four pens, the hens were alternately allowed a grass run until Nov. 30, 1906. From that time until March 20, 1907, they were confined in the pens, but from the latter date they were alternated as before until the close of the experiment.

The pullets were weighed at the beginning of each period of 28 days, and also at the end of the experiment. From Aug. 1, 1906, to March 1, 1907, and from July 1, to July 27, 1907, they were inspected individually each week as to their condition of moult. Between March 1 and July 1 they were examined only once each period of 28 days, at the time of weighing. To make sure that the moult was correctly observed, the pullets were dipped in Diamond Dyes at the beginning of the moulting observations, thus making any new white feather distinctly visible.

The hens were trap nested during

for their feed. Do not allow them access to water where they can swim, as they will not gain as readily then. If they are fed all that they will eat they will seldom go far from their feeding place. Ducks can be fed more corn and heavier feeds than can be fed to chickens or turkeys. The feed used must depend to a large extent upon the feed on hand and upon the prices of different grains. Corn, oats and barley are the grains that are most readily shorts is also good.

Ducks should be killed by the use of the knife. Hold the mouth open till the duck is bled as the blood will clot if the mouth is closed and death is slow. Scalding is the easiest method for the inexperienced in dry plucking, as dry plucking is difficult for any one but an expert. These birds may be much improved by proper dressing and packing.

Forty good hens never can make up for ten poor ones.

The first cockerels to begin to crow, mature more quickly than their long-legged brethren, which means that females bred from cockerels of this build and disposition will mature more quickly and lay earlier than



A simple and ordinary, yet a Satisfactory Feed Trough

The illustration shows a cheap style of brooder house on Mr. L. H. Baldwin's place, in York Co., Ont. Mr. Baldwin advocates and practices feeding chickens when outside, on flat boards. The rain washes the boards clean, and the sun disinfects them, thus they are sanitary. The curb or warp caused by the sun and rain is an advantage in giving a greater capacity to the boards.

the entire time, and individual records kept. The eggs were weighed for six consecutive periods, and after that for a week at a time at intervals of two months, until the close of the experiment. Eggs from each pen were incubated, and records kept of the results. The conclusions drawn from the data of this experiment will be given next week.

### Fattening Ducks for Market

Robert Smith, Lambton Co., Ont.  
To fatten turkeys is often regarded as troublesome, but the average farmer worries more over the fattening of his ducks. He worries when the turkey turns away from the food with a sickly look, but Mr. Duck eagerly shovels down the feed as ducks only can, and loudly proclaims his ability to get away with more much to the annoyance of the farmer. But, "cheer up," friend, you do not actually waste your feed, for ducks gain with an surprising rapidity as they eat. Ducks, to be profitably handled, must be sold at from 10 to 12 weeks. They should be hurried along as they grow very rapidly till that age. When older, they eat more and gain less. Ducks sold readily at summer resorts and at first-class hotels and boarding houses during the summer and fall. Chinese laundries are also good markets, as a rule.

The ducks should always be fed all they will eat for two weeks before they are marketed as they pay well

those bred from larger-sized phlegmatic parents.

### Canadian Horses at New York

The New York Horse Show, which will be held shortly, will, for the first time in its history have a fine exhibit of Canadian Clydesdale horses. Graham Brothers of Claremont, Ontario, are taking in addition to their Hackneys, about 12 of their best Clydesdales. Their two-year-old stallion of exceptionally fine quality and weighing 1,900 pounds, is expected to take a leading place in the show. Hodgkins and Tisdale of Beaverton, Ontario are also taking six excellent Clydesdales to the New York show. The prizes offered for each class are: first, \$150; second, \$75; and third, \$50.

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# FARM AND DAIRY

AND RURAL HOME

Published by The Rural Publishing Company, Limited.



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

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

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## FARM AND DAIRY

PETERBORO, ONT.

### DO WE WANT A NAVY?

Farm and Dairy looks with considerable misgiving upon the proposed expenditure by Canada of \$20,000,000, during the next few years, in the establishment of a Canadian navy. If voted, this \$20,000,000 would be only the initial expenditure. It would be but the thin edge of the wedge. What the final burden on this country of such a navy would amount to, no one can tell.

It is a question if we are not already expending excessive sums for military purposes. The Dominion Government devotes approximately \$1,000,000 a year for the encouragement of agriculture and over \$6,000,000 for militia and defence. Can there be any question as to which line of expenditure is productive of the most good?

Few of us can realize what \$30,000,000 means. It would, for instance, provide for the construction in our rural districts of 30,000 miles of good macadam roads, estimating the cost

of such roads at \$1,000 a mile. It would provide a substantial start towards the construction of another Canadian transcontinental railway.

What are we going to do with a navy after we get it? War vessels cannot be used for the transportation of produce. They may be fine to look at, and brag about, but they do not produce wealth. They would be immensely expensive to maintain, and the greater part of the time they could only play tag with themselves up and down our shores.

What also would be the general effect of such an expenditure upon other countries? Japan and China will see it and in all probability will conclude that they also must increase their expenditures for the same purpose. The effect on Germany, the United States and other countries would be the same. As soon as they increased their expenditures, we would be told that it had become necessary for us to still further enlarge our navy. Thus the merry, but expensive, game of building navies would continue.

Supposing \$20,000,000 was to be voted by Canada for the encouragement of peace, the greatest step the world has ever known for the establishment of international peace would thereby be taken.

It may be that we need a navy to protect our trade routes. We doubt it. In any event, we feel that this question deserves more thorough consideration than it has yet received. The Government would be well justified in leaving this matter to the vote of the people. Farmers who agree with this view, and on whom the burden of such a navy would mainly fall, will do well to write to their members of parliament and to Sir Wilfrid Laurier direct, protesting against the expenditure of this enormous sum until the question has been submitted to the country for its approval.

### WHAT IS YOUR BEST COW WORTH?

How much would it take to buy your best cow? Would it be \$50, or more? Or have you any basis of telling just what she is worth? A strong argument in favor of individual testing of dairy cows is that it forms a ready basis on which to compute their value.

A cow is a poor one that is not worth at least \$50, though ordinarily that is a fair average price. High prices are the exception rather than the rule chiefly through lack of knowledge as to what each cow produces. Where records are available (and they are rapidly becoming more common) it is a poor herd in which the best cow would not realize more than \$50. In the case of Mr. B. Rothwell's herd, mention of which was made in Farm and Dairy, October 21, a cow is not considered a good one unless she gives 8,000 pounds of milk, testing not less than 3.8 per cent., a year, in her four-year-old form. Such a cow Mr. Rothwell considers worth \$100, and she is cheap at that.

The Illinois Experimental Station in a recent circular entitled "Cow Index of Keep and Profit," have

simplified the matter of telling what a cow is worth, by means of a table based on the experience and findings of the Department of Dairy Husbandry during the past 13 years. The table makes it possible for anyone, knowing the number of pounds of milk produced yearly, to tell at a glance just where he stands as to profit and loss in connection with each cow. An extract from this bulletin is given elsewhere in this issue.

### MAKE WASTE LANDS PRODUCTIVE

One of the important questions of the day, so far as the Province of Ontario is concerned, is the reforesting of her waste areas. Farm and Dairy readers will remember from the information brought out during the discussion of this question through these columns last spring, that there is in the Province at least 125,000 acres of non-agricultural land, most of which is drifting sand.

Of these lands, Lambton County is said to have 40,000 acres, Simcoe, 60,000; South Norfolk, 10,000, Northumberland, 8,000 and Durham County, 6,000. These lands, for the most part, at one time were covered with valuable timber. Since the timber was removed, and after a few years of exploitation for agricultural purposes, these soils have proved unsuited to such an extent for the growing of farm crops, that they have been utterly abandoned. A bright side of the situation is that these lands will grow forest trees. How to use these areas set apart, replanted and devoted wholly to the growing of trees, is the question of the moment.

Realizing the soundness of the principle of reforesting and being informed as to the conditions prevailing on these waste lands, Farm and Dairy on March 18th outlined a forestry policy whereby the counties interested could take over their waste lands assistance and direction. At the same time, it was suggested to the wardens of the various counties in which these lands were located, that they call mass meetings of their ratepayers and others to consider this matter. Warden Powers of the united counties of Northumberland and Durham, acted upon this suggestion, which resulted in a convention being held in Cobourg last June. Resolutions passed by the convention affirmed our contention that there is a large area of waste land there dangerous to surrounding lands, and that these should be taken over and reforested; and that efforts should be made by the councils of the counties to secure the co-operation of the Provincial Government in working out a policy of reforestation. A committee was appointed to arrange for a series of meetings next autumn to inform the ratepayers on this subject, the series to conclude with a monster convention at the December meeting of the council of the counties when definite action is to be taken. In connection with this some definite announcement will be made shortly.

In view of the reviving interest in this matter of reforestation, the address of Dean Fernow of Toronto University, delivered at the June convention and reproduced elsewhere, is worthy of careful perusal. It deals with many facts and figures not generally known, and points out that Governments are justified in reforesting waste land, just as they are in assisting railways or other internal improvements on broad lines.

### THE GRANGE AND FARMERS' ASSOCIATION

"To develop a better and higher manhood and womanhood among ourselves," "to enhance the comforts and attractions of our homes, and strengthen our attachments to our pursuits;" "to foster mutual understanding and cooperation"; by "meeting together, talking together, working together, buying together, selling together," by suppressing "personal, local, sectional and national prejudice," and "and all selfish ambition." These are some of the specific objects for which the Dominion Grange and Farmers' Association exists, and some of the methods whereby it works. It is each member's duty "to do all in his power legitimately, to influence for good the action of any political party to which he belongs," and "to do all he can to put down bribery, corruption and trickery, and see that none but competent, faithful and honest men, who will unflinchingly stand by the public interests, are nominated for all positions of trust."

In these days, when politics are run by the "Machines," when nearly every other industry except agriculture is carefully organized, and brings its influence to bear to secure special legislation in its own favour, when there is the subordination of the public welfare to that of privilege and vested interests; in these days it is highly important that farmers awake to a realization of their position, and the country's need. No other organization than the Grange and Farmers' Association seems as likely to meet the situation, and solve the problems of the day. The farmer is not adequately represented in public life; let him organize, think, study, speak, and use his influence for the uplifting of the standard of political morality; let him "go into politics"; not as a partisan, but as one who intends to elevate the tone of public life, and not as one seeking special favours for himself or his fellow-workers, but as one who demands a "square deal" for all.

The Grange commends itself to all public-spirited agriculturists, and should be warmly supported. The Farmers' Institutes have done, and are doing, splendid work along technical lines, but, owing to their financial dependence upon a party Government, a very large element of independence is sacrificed, and they do not meet all the needs of the present time. Two years ago The Old Dominion Grange amalgamated with the Farmers' Association. A revised and liberal constitution was adopted, and the combined organization

now solicits to... for their welfare. They be held in a prospect of a Growers' and of Manitoba, berta. The t A number of affecting the under consider time that sub organized through breadth of Ca formation as to or other matter with the Secret Alliance, Ontario We bespeak Farmers' Assoc port of all the for apathy and Creamery Butter Makers' ideas to the dea matter relating to most subjects, as letters to the Creamery Creamery Br J. A. Ruddle, The creamery industry differs in its branch in much as the conducted on several territories are ma one of the creameries or whole milk creal establishments allowing stationing of creameries, and delivered by teaming territory and creameries, which run from a more or less of covary. Items differ only cially to put the ferent category. Where condition milk supply will tained whole milk ideal system for crive buttermaking, to control the con tribute to the ma article with that any other. The c where that plan h far succeeded in r reputation for mal article of butter. is the universal system of the bee, which distri tion in Canada butter, the whole m sells. There are like those western north-western such a system cannot to spare settling milk production, and is the only one pr It will depend of to whether the sma large centralized p do not agree, how who assert that good the better satisfied tend to recommend items in preference 1000 BUTTER FROM I do not agree, how who assert that good the better satisfied tend to recommend items in preference 1000 BUTTER FROM I do not agree, how who assert that good the better satisfied tend to recommend items in preference 1000 BUTTER FROM

now solicits the support of all farmers, for their own and their country's welfare. The annual convention will be held in a few weeks and there is a prospect of affiliation with the Grain Growers' and Farmers' Associations of Manitoba, Saskatchewan, and Alberta. The time is ripe for action.

A number of public matters vitally affecting the welfare of all farmers are under consideration, and it is high time that subordinate Granges were organized throughout the length and breadth of Canada. All wishing information as to mode of organization or other matters should communicate with the Secretary, J. G. Lethbridge, Alliance, Ontario.

We bespeak for the Grange and Farmers' Association the hearty support of all this agriculturalists, for apathy and delay spell disaster.

### Creamery Department

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

#### Creamery Branch of Dairying

J. A. Ruddle, Dairy Commissioner. The creamery branch of the dairy industry differs from the cheese-making branch in one particular, inasmuch as the creamery may be conducted on several plans, while there is only one plan on which cheese factories are managed. (1) Thus we find creameries operated (1) as separator or whole milk creameries, (2) as separator establishments, with contributory skimming stations, (3) as cream-gathering creameries, where the cream is delivered by team from the surrounding territory and (4) as centralized creameries, which receive cream by rail from a more or less extensive territory. Of course, the last two systems differ only in degree, yet sufficiently to put them in a slightly different category.

Where conditions of settlement and milk supply will permit, the self-contained whole milk creamery is the ideal system for carrying on co-operative buttermaking, because it is easier to control the conditions which contribute to the making of a superior article with that system than it is with any other. The countries or districts where that plan is followed have so far succeeded in building up the best reputation for making a perfectly fine article of butter. In Denmark that is the universal system. In the Eastern Townships of the Province of Quebec in Canada for fine creamery milk. There are districts, however, like those western provinces and the north-western part of Ontario, where such a system cannot be operated, owing to sparse settlement and limited milk production, and home separation is the only one practicable.

It will depend on circumstances as to whether the small creamery or the large centralized plant, both receiving the home separated cream, will give the better satisfaction. I do not pretend to recommend either of these systems in preference to the other.

**GOOD BUTTER FROM GATHERED CREAM**  
I do not agree, however, with those who assert that good butter cannot be made on the cream-gathering system. Allow me to quote a reference to this question from my report for 1906.

"While I agree with the claim that much so far been inferior, and believe that it is easier to reach a high standard from the last meeting of the Manitoba Dairy-men's Association.

dard of excellence with the central separator or whole milk system, I do not agree with the contention that it is impossible to make first-class butter on that system. The common mistake is to blame the system for defects that are due simply to the methods that are employed in carrying it out. If the buttermaker at a whole-milk creamery were to stand, after his cream has stood, after separation, for several days without any particular attention as to temperature, acidity or exposure to injurious influences of any kind, does any one suppose he would achieve much success as a maker of fancy butter? And yet that is just what occurs; as a rule, in connection with a hand separator creamery, when the cream is delivered only twice or even three times a week. The proper ripening of the cream is an essential part of the process of making first-class butter. There can be no proper ripening by the buttermaker when the cream is delivered to him in a sour, tainted and sometimes highly fermented condition. The reasons for cream being delivered in this undesirable condition are obvious. In too many cases the cream is not well cooled, or even not cooled at all, before separation, and being kept for several days at comparatively high temperatures, soon develops the inferior qualities which have been enumerated.

"Here we have a wrong method, rather than an inherent defect in the system. There is no reason why cream from hand separators should not be delivered to the creamery in a sweet, fermented condition. As a matter of fact, it is easier to properly care for the cream than it is to handle the whole milk. There is less bulk to cool the vessels in which it is kept can be cleaned as soon as emptied; and it is easier to find a suitable place for storage."

I have recently published a bulletin on this subject (No. 15), entitled "Gathered Cream for Buttermaking," which I shall be glad to send, free of cost, to any person who applies for it. Creamery managers may obtain one for each patron on the same terms.

#### Dairy and Cold Storage Commissioners Report

The report of the Dairy and Cold Storage Commissioners for year ending March 31, 1909 has been received. The report appears in five parts, they dealing with the Dairy Division, Report of the Assistant Dairy Commissioner, The Fruit Division and The Cold Storage Division, respectively.

The report is a strong one and is well worth careful study. The illustrations inserted in the report are of interest. The picture of the late Thomas Ballantyne, whose name was so prominently identified with Canadian factory dairying from its inception to the time of his death, is reproduced, as is also one of Mr. Harry Farringford, who started the first cheese factory in Canada, near Norwich in the County of Oxford, Ont., in the year 1864. Photographs reproduced of the modelled butter at the Franco-British Exhibition are unusually interesting. Plates showing collections of fruit at exhibitions in Canada give some idea of the progress that has been made in the packing of apples during recent years. The illustrations accompany Mr. Barr's care of milk show the work on the results of different treatment of milk and are of particular interest.

Some of the matter contained in the report, namely, many of the addresses that were delivered at the Dairy-men's Association last winter, have already received some publicity through the press and the exhibition of the Association, but this matter is of sufficient importance to warrant wide circulation.



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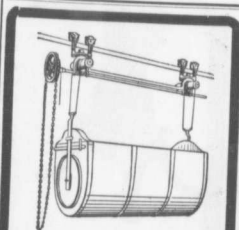
ation and in the report it is in convenient shape to keep for study and for reference purposes. Records of the cow testing work as carried on under the direction of Mr. C. F. Whitley are published in some detail. Cow owners will do well to study them carefully. All interested in dairying should receive a copy of this report. It can be had for the asking from the Dairy Commissioner, Mr. J. A. Ruddle, Ottawa.

#### The Butter Trade

We must not depend upon the English market for our surplus stocks of butter after this as the first arrivals of new butter have been received in London from Australia and New Zealand, and a considerable quantity is on the water. The shipments from Australia into London for week ending Oct. 16, were 32,000 boxes, the bulk of it being stored and on consignment; but there were very few orders for stored goods. The new goods, however, sold readily on landing at 116s to 118s—and even higher for choice grass flavored goods. Stored goods sold at 107s to 109s. The first lot of New Zealand grass butter sold at 117s to 118s—and stored at 109s. to 110s. Advice from London state that New Zealand factories have contracted their season's make at 107s to 108s.

Under these circumstances, therefore, we cannot expect any demand from the other side of the Atlantic for any large quantities and we would not be surprised if last week's shipment of 326 pkgs. was the last of the season. Holders in this market consider present prices very reasonable, and as they are 2s to 3s a lb. lower than last season, it is thought there will be no difficulty in working off surplus stocks during the coming winter at fairly remunerative

values. Prices in New York continue to advance, sales being made in that city at the close of last week at 32 1/2 cents for specials, whilst as high as 33 1/2-2 was paid for fancy marks.—Trade Bulletin.



## Get a BEATH LITTER CARRIER

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Agents Wanted for Unrepresented Districts

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**Cheese Department**

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

**Best Method of Selling Cheese**

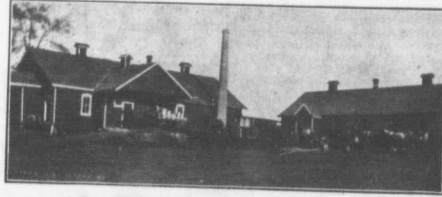
During the past couple of years a lively controversy has been waged in Eastern Ontario in regard to the best method of selling cheese. Most of the factories have sold their cheese on the cheese boards, a few have shipped their cheese direct to the Old Country, while others have sent their cheese to Montreal and sold it there. A representative of Farm and Dairy had a talk on this subject with Mr. J. A. Campbell, of Ormond, who is interested in five factories. Mr. Campbell has shipped cheese direct to Montreal with excellent results. "I believe," said Mr. Campbell, "that our dairymen should co-operate in the matter of selling their cheese. The cheese should be shipped to some central point, inspected there, and sold upon its merits. It seems to me that the factories in Eastern Ontario, between Montreal and Perth, could co-operate and ship their cheese direct to Montreal. One man could represent several factories and he would be able to go to Montreal with the cheese and see that it was sold on its merits. By several factories co-operating the expense of selling cheese would not be so great. At present the factories each send a sales man to the cheese board and the Montreal exporters have to send representatives to each board." "Were all the cheese shipped to Montreal, the Montreal exporters would not have to pay a commission to the local buyers who now buy the

cheese at the different cheese boards. Were cheese sold in this way, it would be possible for the buyers to inspect the cheese and, therefore, the buyer could not make any unjust cuts on the cheese after it was bought. Should the salesman not be satisfied with the price offered for the cheese, he would be able to dispose of it to the numerous other buyers in Montreal or hold it in cold storage in Montreal until the market improved. There are some splendid cold storage plants

should be discussed at dairy meetings."

**Western District Meetings**

Editor, Farm and Dairy.—We again extend a cordial invitation to Cheesemakers, Factorymen and Patrons to meet together the various districts to discuss such questions as they feel are of interest to both maker and producer. The details of making cheese and



A Cement Smoke Stack at an Oxford Co., Ont. Cheese Factory

The illustration shows the exterior of the Durham and Norwich Union Cheese and Butter Factory. The cement smoke stack shown, and which is somewhat of an October 7th, by Mr. A. W. Darroch, who owns and operates the factory.

in Montreal where cheese can be stored for considerable periods at but slight expense."

"One of the leading Montreal exporters," concluded Mr. Campbell "not object to such an arrangement as we were anxious to buy the cheese in the cheapest way possible. This exporter said that he would rather have one salesman at Montreal than 20 around at the different cheese boards as at present. He believed that such an arrangement would save expense. This is a question that

concerning for milk can be discussed more fully at a small meeting of this kind than at our Annual Convention. Those interested are requested to kindly make a special effort to attend the meeting most convenient, and get as many as possible of their officers and patrons to attend. Every person interested in dairying will be made welcome. No set program will be adhered to, but the following questions are probably of interest, and we will be glad to have dairymen come prepared to discuss any or all of them: 1. Short report on the work of the

- 1. season in each district.
- 2. The instruction work of 1909. Discussion.
- 3. Has the method adopted this year for insuring a uniform Alkaline solution been satisfactory? Discussion.
- 4. Defects in some of our hot-weather cheese during the past season. Suggestions for overcoming these defects. Discussion.
- 5. The principal points necessary to be observed for successful and proper pasteurization of whey. Discussion.
- 6. The proper and cheapest method of disposing of factory wash water. Discussion.
- 7. Further improvements in the milk supply and uniform methods of caring for milk. Discussion.
- 8. The benefits of cool curing rooms. Discussion.
- 9. Factory registration and Makers' certificates.
- 10. Why not pay for milk by the test?

**LIST OF MEETINGS**

- Watford Music Hall, Tuesday, November 9th, 2.45 p.m.
  - Hamilton, Dominion House, Thursday, November 11th.
  - Listowel, MacDonald Hall, Tuesday, November 16th.
  - Woodstock, Council Chamber, Thursday, November 18th.
  - Simcoe, Council Chamber, Tuesday, November 23rd.
  - Norwich, Town Hall, Thursday, November 25th.
  - St. Mary's, Council Chamber, Tuesday, November 30th.
  - Belmont, Masonic Hall, Thursday, December 2nd.
- Note.—All meetings, except Watford, begin at 2 p.m.—Frank Hens.

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BOX No. 45, FARM AND DAIRY.

**Cheese and Butter Maker Wanted**

THE MARION BEAVER CHEESE AND BUTTER CO. will receive tenders up to Nov. 15th for a cheese and butter maker for the season of 1910. The maker to furnish all supplies—box the cheese ready for shipment. All supplies for the manufacture of butter to be supplied by maker. Applicant must be strictly temperate. Tenders will be opened at the Council Chamber, Palmerston, on NOVEMBER 15, at 2 p.m.

Tenders must be addressed to **G. V. POOLE, PALMERSTON** SECRETARY OF THE CO. The make is about 100 tons of cheese.

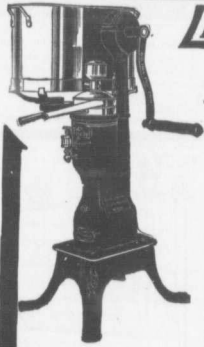
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**Y**OU haven't here," said pay folks up I know Mac land wouldn't "I don't care not," replied fiercely. "I've dollars, Mrs. G roast of pork and raisins and crack my children's T told the butcher I would leave with Liza, and ask them to-morrow ask them to trust and I've got to be that two dollars, show your face snarled the old sunken in the dep ther pillow lookin by malignant. "I ain't that returned Hanna said I'd come, at got to get up before my own dinner cook it, but I'll that two dollars."

For answer Ma her bed, and press of back to Hannah another word. She even the indomita the other woman, the greatest force of after negotiation silence.

Finally poor H home without her walked down the of the village be houses, which seem asleep, and in som she was fairly tra She unlocked the and stole in caution wake the children. said, she sat beside dow, and looked o street. Early in th there was a rime o on the ground. Th a cold green lig pressed by a num ence itself. She sa that night. She s relationship when sh daylight when she go to go to MacFar she whispered, shak shoulder tenderly. pretty. She eyes an sleep.

"Now," said Har something to tell you make a fuss about i





"I believe that the mind can be profaned by the habit of attending to trivial things, so that all our thoughts shall be tinged with triviality."

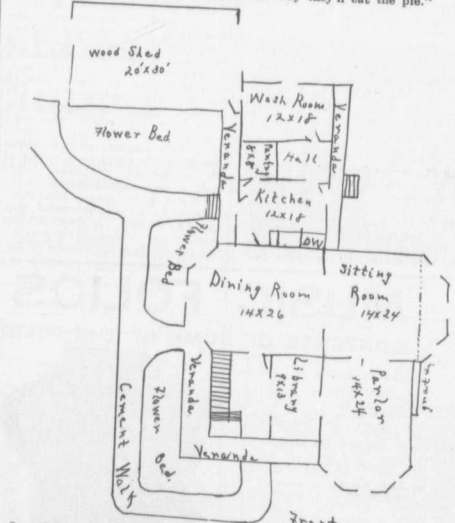
Thoreau

## The Strike of Hannah

Mary E. Wilkins Freeman.

(Continued from last week)

tell the other children not to make a fuss. There's worse things in life than this, and if you all don't have to face them you'll do well. You had better get up by seven, and make some injun-meal mush for breakfast, there's



Ground floor plan of the home of Mr. J. W. Richardson, Haldimand Co., Ont. See illustration of exterior of house on page 15, last week's issue. Note the attractive room, and the convenient wash room in the rear.

YOU haven't finished your work here," said Maria Gore. "I never pay folks until their work is done, and I know Mr. George S. MacFarland wouldn't approve of it."

"I don't care whether he would or not," replied Hannah, facing her fiercely. "I've got to have that two dollars, Mrs. Gore. I've lough a roast of pork and some vegetables and raisins and crackers for a puddin' for my children's Thanksgiving dinner. I told the butcher and Mr. Rogers that I would leave the money for the things with Liza, and she would bring it to them to-morrow mornin'. I wouldn't ask them to trust me any other way, and I've got to have that two dollars."

"It's a likely story I'll give you that two dollars, and then you won't show your face here to-morrow," snarled the old woman, her face sunken in the depths of her great feather pillow looking cunning, and fairly malignant.

"I ain't that kind of a woman," returned Hannah indignantly. "I said I'd come, and I'll come. I've got to get up before daylight and get my own dinner ready so Liza can cook it, but I'll come. But I want that two dollars."

For answer Maria Gore turned in her bed, and presented a small mound of back to Hannah Dodd, and said not another word. She was too much for even the indomitable determination of the other woman. She opposed to it, the greatest force in the world, that of utter negation and unresponsive silence.

Finally poor Hannah Dodd went home without her two dollars. As she walked down the dark silent street of the village between the locked houses, which saved themselves to be asleep, and in some far-off country, she was fairly tragic in her mood. She unlocked the door of her house and stole in cautiously, lest she should wake the children. Then, as before said, she sat beside the kitchen window, and looked out at the moonlight street. Early in the season as it was, there was a rime of hard-frozen snow on the ground. The moon gave out a cold green light. Hannah felt oppressed by a numbing chill of existence itself. She did *not* go to bed that night. She sat thinking her revolutionary thoughts. It was before daylight when she stood over the oldest daughter's bed with a lamp. "I've got to go to MacFarland house now," she whispered, shaking Eliza's little shoulder tenderly. Eliza opened her pretty blue eyes and stared at her sleepily.

"Now," said Hannah, "I've got something to tell you, and you mustn't make a fuss about it, and you must

you'll have a dinner good enough for anybody. I guess if you knew how many poor folks didn't have half as much you'd be thankful."

But poor Eliza sobbed faintly in spite of herself. She was hungry.

"Cry baby!" said her mother in a violent whisper. Then she bent over, tucked in the clothes and kissed her fondly. "Now, go to sleep again," said she, "and do what I have told you, and don't you make a fuss yourself or let the other children make a fuss, or the time will come when you won't have anything half as good as codfish to eat."

Then Hannah Dodd retraced her steps to the MacFarland house and resumed her labor. Such was the splendid strength of her injured and rebellious heart she would have realized little fatigue in spite of her which had proceeded it. The great MacFarlands were expected at ten, and they were to have breakfast according to the family traditions, chicken pie, and the other kinds of pies.

"They never had pie for breakfast in their lives," Maria Gore told Hannah. "They don't think it is stylish to have anything except eggs and rolls and coffee, and now they feel as if they were going to turn consultants, having pie. They are thinking it's a great joke, and you'll see the way they'll eat the pie."

that meant, but she judged it to be not complimentary, and she closed her mouth more tight, and she worked. She was carefully taking from the brick oven the mammoth chicken pie which had really been baked in the range the day before and was merely being warmed in the brick oven. The MacFarlands had opened the door of light and Hannah had felt guilty, but she said nothing.

When she held the long table in the dining-room set, and all the pies thereon, she opened the door of the sitting-room a little way, and called in a harsh voice, "Mrs. Gore, breakfast's ready."

Then she went back in the kitchen with long strides. She had been in wait upon the table, but Mrs. Maria Gore had told her that it was the fancy of the MacFarlands to wait upon themselves. "They want to do everything just the way their great-grandfather used to," said she.

Hannah heard the jubilant rush to the dining-room, and the gay chatter and laughter as the MacFarlands fell upon the pies. She went about preparing dinner. There was much to do. There were vegetables to boil in the pots swung upon the crane, and turkeys and chickens, and a sucking pig to roast before the fire. If Hannah had been a good Christian she would have had and profane. Possibly she did in her innumerable "When folks found out better ways to the old ones, the idea of goin' back to the old ones that ain't half so good," she muttered. She heard once quite distinctly Miss Alice in the dining-room say how much better a chicken pie baked in a brick oven did call.

Hannah toiled and toiled. After breakfast she had the dishes to wait then the table to set out grandly for dinner with the fine old MacFarland damask, and the old MacFarland silver, which had been brought from the safe-deposit vaults, and the old Canton china. Dinner was to be at four o'clock. At quarter before everything was in readiness, Hannah heard voices exclaiming how good the dinner smelled. Mrs. Maria Gore came to the kitchen door, arrayed in her best black silk and a fine cap with lavender bows. She looked through her gold-bowed spectacles at Hannah, and they glittered red in the light from the hearth fire. "Is dinner about ready?" she inquired sharply. "They are asking."

"It's all ready to dish up," replied Hannah.

"Well, dish up," said Maria Gore. "The MacFarlands never like to wait. She retreated, her black silk trailing and flouncing with long whippers. Hannah began to "dish up." Her face was tragic. She was thinking with intensity of love and pain of her poor children at home, with nothing except codfish for their Thanksgiving dinner. Suddenly great wrath and sense of injustice burst into flame in the woman's stern New England heart. She was a true descendant of revolt against existing conditions. She stood for one minute in the kitchen, not hesitating, but stunned, as it were, by her own purpose. Then Hannah Dodd let herself go. Hereditary instincts dragged her like wild horses. Her conviction of injury and injustice, her revolt against oppression became terrible powers against which she was helpless.

(Continued next week.)

enough molasses to eat with it, and you'll have a good breakfast. Then you and Elsie must take that roast back to Mr. Brooks. His shop won't be open, so you must go to his house. You can just say to him that mother must take the vegetables and raisins and say just the same to him."

Tears gathered in little Eliza's blue eyes. She gave a soft whimper, but her mother snatched her. "Don't you make a fuss," said she. "There are worse things. You can have that nice codfish for dinner. Pour boiling water over it three times, and turn it up, then there's a little butter you can put on and some pepper, and

"Then pie are good if I do say it," replied Hannah grimly, "and I guess it won't hurt them if they ain't stylish ones."

"You don't know anything about such rich folks," said Maria Gore, going out of the kitchen with a swish of her black silk skirts.

"Don't want to either," retorted Hannah, but Maria did not hear her. The MacFarlands arrived at half-past nine, and presently there was an interruption of all of them into the kitchen. They spoke to Hannah pleasantly, they exclaimed and praised, but she took it all grimly. "She's a perfect dragon of a woman," she heard pretty Alice MacFarland remark as they went out.

Hannah Dodd did not know what

I like Farm and Dairy very much. Especially do I admire its stand in of a religious nature. Farm and Dairy is, I believe, the only agricultural paper which has that noble tendency.—Geo. E. Ford, Dunham Co. Que.

Country Homes

Bertha A. Duncan, Emery, Ont. Those who have reached years of maturity, and recall conditions as they existed in the pioneer days of our country, can scarcely believe it possible for such changes to take place in country homes in so short a time. The early settlers were content with a log house of small dimensions, but few of their grandchildren would be satisfied to bring a bride into such a humble abode to-day. Not many would care to hew out a home for themselves as our grandparents did in the early days, but people are willing to begin just where their parents leave off after long years of struggling, and seldom do they realize what such struggles cost.

Probably one reason why so many left their country homes for city life was about the time machinery was first used. Up to that time a great many men were required to harvest the crops, but the invention of the farm machinery, the number required was lessened, consequently the unemployed must seek employment elsewhere, and the most likely place would be in the city where the implements were being manufactured. Another reason might be, that city life appeared to them more attractive than country life. This may have been true in early days, but is it true to-day? Is it not an improvement of rural environment which is tempting many to return to country homes?

Travelling through the country one finds a great many changes in the past few years. Telephone lines, telephones, rural mail delivery, etc.—these are the improvements which make the city extend into the country, and make our rural homes the more desirable.

In selecting a rural home we have a great variety of materials to choose from. In the prairie country, on the other hand, there is a great deal of monotony, but in this beautiful Ontario, with all its beautiful hills, valleys, rivers and trees to add to the charm of our home, it would be difficult to find two places exactly alike.

SELECTING THE SITE.

One of the first points in selecting a home would be to consider the aims of the individual members of the family. All the family may wish to live in the country; yet some may like to be near enough to town or city that they may go to business and yet enjoy the privileges of a country home. Therefore, it would be well to select a place convenient to town or village, not larger than can be cared for by the family without incurring greater expense than it will yield. The situation of the home is very important. There are instances of homes built on that part of the land which is not much used for cultivation, probably near a swamp. We want good surroundings for a home, and as beautiful as possible, a site high enough to afford good drainage, but not necessarily the unprotected hill top. All situations have their advantages and disadvantages, and should be thoroughly considered before giving a final decision in the selection of a site for a home.

The general appearance of a house expresses the individuality of the owner, and to walk through each apartment only corroborates one's views. From the outside one can judge whether he is neat, orderly, or artistic, or whether he cares nothing for the elements of neatness and beauty. His parlor indicates whether he cares most for show or comfort, his library reveals the character of his mind, and the furnishings of the dining room and his viands, one can judge whether he loves the pleasures of sense more than a strong body. It is not necessary to see the man, to have a fairly clear idea of him.

WHAT HIS HOME SHOULD BE.

A country home should not be a city house transferred to rural surround-

ings. In the city the houses are crowded together and are usually long and narrow. Such a house standing alone in the country, unprotected by trees, would give one the impression that a good strong back might blow it down by a few trees is more desirable for the country. It should be of as good construction as possible to be convenient. Many of the country homes which were built years ago are not very convenient, and one must take a great many unnecessary steps in doing the work of the household. A little more money spent on alterations to improve those household conditions would be a wise investment. There is no reason why the housewife should not have conveniences to save her strength and time, as well as the farmer have all the labor saving machinery on the farm to lessen his labor. Not always are the husbands at fault; the wife toils from early morn till late at night, simply because she is content to go on in the same way year after year, trying to do with what she has rather than incur a little expense for labor saving devices.

WIVES—PLAN YOUR OWN HOMES.

In building a new home it is well for the housewife to be consulted about the plan, for who should know better than the woman who will live in it and do the work what will be most convenient for her? A careful study should be made of the plan before any work is begun in the construction of the house. It is much easier and costs less to make alterations in the plan, before it is made into a house, than after. Sanitation and ventilation should be carefully considered before building operations are begun. To enjoy good health we require a good system of ventilation in sunshine and good nutritious food well cooked.

Too often the parlor is given more thought than the kitchen. Elaborate furnishings and anything that will make a room to be found there; while out in the kitchen, where the housewife has to spend most of her time in looking after the needs of the family, there is nothing to lighten labor, and everything to make her

cross and irritable. Why should this be? The time is coming, yes, it is at hand, when women are waking up to realize that labor-saving devices are as necessary for women as for men, and are insisting upon having them in their kitchens.

In many farm homes we find large kitchens which are used as kitchen and dining room combined. The small kitchen conveniently arranged is preferable for lessening labor. Having it separate from the dining room is desirable. Why not have a partition put up to make two rooms of the large kitchen. It will not require as much labor to do the work, and the meals will be more appreciated in the cool dining room, free from odors of cooking, than in a hot kitchen.

ROOMS IN THE HOUSE.

The number of rooms in a house depends on the size of the family to occupy it. It shows poor judgment to have so many rooms that some of them are never furnished. And a worse fault is to furnish them so elaborately that the members of the family are afraid to use them. What is more unpleasant than to go into a parlor to wait for a friend, and find everything so stiff that one is afraid to pick up a book to read while waiting, for fear it might not be replaced at exactly the same angle? Why not have everything for use and not so grand that one cannot enjoy them?

Above all simplicity should predominate. The less carved furniture and fancy ornamentation in the home, the more easily it can be kept clean and sanitary. In purchasing it is well to keep this point in view, as it will require less of the housewife's time and strength to keep it in perfect condition, and give her more time to spend in reading and recreation. It is possible, too, to have simplicity in all the home decorations. One does not need to go into expensive materials to have pleasing effects. Some of the less costly materials give just as good satisfaction. Because one's neighbors have expensive articles in their homes is no reason why every one should have them, providing they cannot afford them. It shows wisdom to live within one's means. Nor should the color scheme be for-

gotten. Harmony of color is very important, and has great influence on refinement in the home. Each must use her best judgment as to what is the best color for each particular room, what are most appropriate furnishings and to not forget some good pictures.

(Concluded next week)

The Upward Look

When Fear is Impossible

There is no fear in love; but perfect love casteth out fear; because fear hath torment. He that feareth is not made perfect in love.—1 John 4, 18.

Much of the misery in the world is caused by fear. Fear of sickness and of want, of ridicule, of failure in one form or another, of death. And yet; it is not God's will that us clearly, His holy word, that just in proportion as we love Him fear will drop away from us. "Thou which keep I am in perfect peace, whose mind is

Feeding Farm Hands.

Every farmer's wife knows what tremendous appetites farm hands usually have; but while they eat well they work well, too.

Here's a good suggestion about feeding farm hands. Give them plenty of Quaker Oats. A big dish of Quaker Oats porridge with sugar and cream or milk is the greatest breakfast in the world for a man who needs vigor and strength for a long day's work. The man that eats Quaker Oats plentifully and often is the man who does good work without excessive fatigue. There is a sustaining quality in Quaker Oats not found in other foods, and for economy it is at the head of the list. A whole family can breakfast for a week on the worth of Quaker Oats.

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The Blue Bell of Scotland  
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The Spanish Dancer  
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slayed on the floor. Trustee; for in everlasting state 4).

Our text man fear enters our conscience that we trusting God (John 4, 16) remember the of our text, it follows that but God casteth bath torment. made perfect in the finer or more definite than it. If we love G in Him and in when we doubt creeps into our us. Faith in the troubles ar elaborately that "The Life Rad, expressing the "Even the most their hold over that these, as a like expression People talk about the will of God phrase being " That has been a tradition that r

Th R

Take a new Then says out of Do this at the hem of the sly and closely. You'll find ed, ripped, more than f hard, steady Half the li bone-eaten board. Shirt coats board takes s of it-you ge Why don't Washboard? "I" instead. through the pump. It stains in half wearing a cranking a bo. No rubbing, ing, or tearing against a th board. That co for hard wor twice as many washings! coat to try it, to me for a I'll send it to son without a or a cent of p I'll pay the that you may tiredly at my most free of If you like it keep it. You don't ha back to me, at if you keep it -at, say, 50 cents can be washed by it works like Even a child te mas prose for I'll send the "I'll send the I'll take it back pay the freight be actually wash clean say it will. Write to me to chine for a month. More than 200. Write today to C. O. 357 Yonge Street

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stayed on thee; because he trusteth in thee. Trust ye in the Lord for ever: for in the Lord Jehovah is everlasting strength." (Isaiah 26, 3, 4).

Our text makes it clear that when fear enters our lives it is direct evidence that we are not loving and love casteth out fear, for (1 John 4, 16). If then we will but remember this, when we read or think of our text, it will appear to us as if there is no fear in God but God casteth out fear, because fear hath torment. He that feareth is not made perfect in God. Could anything be finer or more encouraging or more definite than that?

If we love God we must have faith in Him and in His love for us. It is when we doubt His love that fear creeps into our hearts, ruins our peace of mind and is a cause of torment to us. Faith enables us to rise above the troubles and trials that if we would let them, would crush us. "The Life Radiant" Lilian Whiting expresses this thought when she says: "Even the most tragic sorrows lose their hold over one if but reflected that these, as well as his joys, are like expressions of the divine will. People talk about being 'resigned' to the will of God, well might they phrase being 'resigned' to Paradise. That has been an inconceivably false tradition that repeated the prayer:

'Thy will be done,' as if it were the most sorrowful, instead of the most joyful petition."

We must ever bear in mind that God loves us and that He desires to give us every good and every perfect gift. In order that we may receive these gifts we must have faith and patience and strive earnestly to live as God would have us live. "Anxiety and misgiving," wrote Fenelon, "prevent solely from love of self. The love of God accomplishes all things quietly and completely, it is not anxious or uncertain. It is in forgetfulness of what we find peace. Happy is he who yields himself completely, unconditionally and finally to His spirit and follow it—that is enough; but to listen one must be silent, and to follow, one must yield." As we love others and love God we crowd fear out of our lives and peace and joy enter in its stead.—I.H.N.

Handkerchief corners will meet more exactly if the handkerchiefs are folded with the firm crease on a line with the width-wide threads of the linen.

When wringing out garments having buttons on them, be careful to keep the buttons near the lower roller of the wringer and they will never pull out.

the farm in return for their services I don't recall that I have ever known of any such arrangements with the girls of the family. Why is this, and is it fair?—The Daughter.

OUR HOME CLUB

PROFITABLE EVENINGS.

The long evenings are once more with us. It is dark now before seven o'clock, and supposing the hour for retiring at ten, there are over three hours in which a male portion of a rural community can do little at their ordinary avocation. The question hence, as to the best way to spend this time is important. Some are accustomed to spend it in idleness, they sit on chairs, or lie on the sofa dozing. Some spend it retailing the gossip of the neighborhood, or some in games. Now the reading of a newspaper, and such a magazine as the "Farm and Dairy," may be a profitable exercise. Yet no one should be content in the absence of a few good books in which are expressed thoughts of permanent importance. There are books of this character treating of agriculture, horticulture, the dairy and other departments of industry, and whose contents those who live in the country would be the better for knowing. Such literature may be had at the book libraries. Several of these books, as well as others by standard authors, could be read carefully between now

Women's Institutes Popular

We publish in this issue an illustration of the East Northumberland Women's Institute, showing the Wooler branch. This Institute secretary writes Farm and Dairy:

"I am particularly interested in such papers or magazines as Farm and Dairy. I have been a member of the Women's Institute for some years. We learn many useful things as we meet from month to month, both in cooking and many other things as well. Household economy and domestic science hold a high place in our program, and many other things which tend to the betterment of our homes and life on the farm.

I would advise every woman who reads Farm and Dairy to join a Women's Institute, if there is not one near her, then to write the District Officers to come and organize one as soon as possible."

Making Bed Time Pleasant

Busy mothers are prone to hurry their children into bed. I would that all would reserve a certain amount of time for the children's bed hour, making it pleasant, so pleasant that they will ever look back upon it with the sweetest of memories. Listen to their



East Northumberland Women's Institute, Wooler Branch

Taken at "Floral Hill," the home of Mrs. Egle Terrill. This is not an Institute picnic group, but represents simply one regular monthly meeting of this branch. Wooler branch is a progressive organization and has done much good work among its members to instruct and elevate along lines pertaining to domestic science. Much enthusiasm is manifest at the meetings, and it is one of the up-to-date branches in its locality.

and April, when the evenings are again short, and the busy outdoor life is resumed.

The reading need not be in silence, but aloud, so as to give other members of the family the benefit. Questions could be asked, and these with the answers would doubtless give rise to interesting and profitable debate.—"Parson."

little sorrows, answer their questions as best you can. In return you will keep the child's confidence as he grows older and other influences (often bad ones) are brought to bear upon his life.

IS IT FAIR.

I think an interesting and practical subject for discussion in the Home Club, would be whether the parents, when able, should give their children a start in life as they came of age, or whether it is better for the children to let each one depend upon his own exertions in getting a start for himself. I think there is a great deal to be said on both sides of the question.

It would be interesting too, if those parents who do give their boys a farm, or teams and cattle, (or money, if they prefer some other calling), would tell why it is that the daughters when they come of age. In many share families where the parents are not able to give their children any start in life financially, the boys will work at home on their farm several years, with the understanding that when they marry they are to have part of

Don't Throw It Away  
USE **MENDETS**  
They must all be used in all climates—Hot, Warm, Cold, Copper, Brass, Iron, Steel, Lead, Zinc, Tin, Pewter, Silver, Gold, etc. They are sold in all sizes and quantities. They are sold in all sizes and quantities. They are sold in all sizes and quantities.

**FOUNTAIN PEN FREE**  
To every lady and gentleman, girl and boy, for selling only 6 pairs of our patent gift fasteners at 25 cents per pair, we will give absolutely free a fountain pen; do not delay, send today; send no money, only your name and address, to:  
**Domion Mail Order House**  
Dept. 250  
TORONTO - ONT.

The Washboard Ruins Clothes



Take a new shirt. Soak it well! Then soap it, and rub the stains out of it on a Washboard. Do this six times. Then look at the hem, collar and cuff edges and the buttons—holes closely.

You'll find them all badly frayed, ripped, thinned, worn out more than from three months' hard, steady use.

Half the life of the garment gone—eaten up by the washboard.

Shirt costs a dollar say—washboard takes 25 cents of wear out of it—you get what's left.

Why don't you cut out the washboard? Use a "1900 Gravity" instead. It drives the water through the clothes like a force pump. It takes out all the dirt in half the time, without wearing a single thread, or cracking a button.

No rubbing, scrubbing, wearing, or tearing of the clothes against a hard metal Washboard that costs twice as much for hard work, wears out twice as many clothes in a year.

Try the "1900 Gravity" for four washings! Won't cost you a cent to try it, either. You write me for a "1900 Gravity" and I'll send it to any reliable party or a cent of risk on their part. I'll pay the freight, too, so that you may test my offer entirely at my expense. Use it a month free of charge.

If you like it, then you may keep it.

If you don't like it, send it back to me, at my expense.

If you keep it you pay for it out of the work and the wear it saves you—at say, 50 cents each. Remember it washes clothes in half the time they can be washed by hand, and it does this by simply driving soapy water swiftly through their threads.

It works like a spinning top and it runs as easy as a sewing machine.

Even a child ten years old can wash with it as easily as a strong woman.

You may prove it for yourself and at my expense.

I'll send the "1900 Gravity" free for a month anywhere so you can prove it without making a penny.

I'll take it back, if you think you can get along without it. And I'll pay the freight both ways out of my own pocket.

Now could I make a cent out of that deal if the "1900 Gravity" wouldn't say it will.

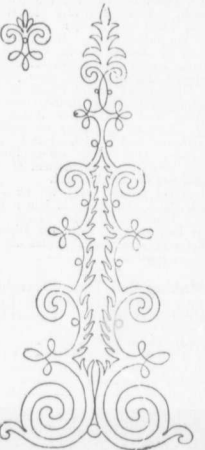
Write to me to-day for particulars. If you say so, I'll send on the machine for a month, so that you can be using it in a week or ten days.

More than 200,000 people are now using our "1900 Gravity" Washers. Co., 357 Yonge Street, Toronto, Ont.

The above offer is not good in Toronto or Montreal, and suburbs—special arrangements are made for these districts.  
It is desirable to mention the name of this publication when writing to advertisers

**Embroidery Designs**

Designs illustrated in this column will be furnished for 15 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.



**430** Design for Braiding a Panel and Bodice Front.  
Transfer patterns for a skirt and small bodice garment are given. Soutache braid (silk, mohair and cotton) and rat-tail cord are appropriate. Price 10 cents.



**438** Designs for Embroidering Initial Frames in two sizes.  
Six transfers of each size are given in each pattern.  
The ribbon effect, leaves and dots are to be worked in solid embroidery and the stems are to be outlined.

**HINTS FOR THE HOLIDAYS**  
Why not send for one of our New Premium Lists and make a selection of several premiums which you would like to have 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.

Have you looked into our Music Folio Premium offer? It is a good one.

**THE COOK'S CORNER**

Recipes for publication are requested. Inquiries regarding cooking, recipes, etc., readily answered upon request, to the Household Editor, Farm and Dairy, Potosi, Mo.

**Our New Cook book free for only two new subscriptions.**

**BEEF SALAD**  
To 2 qts. chopped beets add 2 qt. chopped cabbage, 2 cups sugar, 1 cup grated horse-radish, scant tablesp salt, pepper to taste, and cold vinegar to cover. This makes a gallon jar full and will keep all winter.

**GREEN TOMATO SAUCE**  
One peck green tomatoes, 1 head cabbage, 10 large onions, 1 large head celery, 2 green peppers, 2 lbs brown sugar, 1 tablesp mustard seed, 3 qts vinegar, and salt to suit taste. Cut up tomatoes and sprinkle salt through them, stand overnight, drain off in morning, and put all through a food chopper and boil one hour.

**CANNED PUMPKIN**  
Fresh home-stewed pumpkin makes the best pies. This cannot be had the year round. But pumpkin may be so treated as to defy an epicure to distinguish between the preserved and the fresh product.

Stew the pumpkin "dry" that is, reduce the pulp greatly. Sift. Then to every 3/4 cup pumpkin add 1/2 cup white granulated sugar, 1 scant tsp ginger, 1-8 teasp cinnamon, 1-8 teasp nutmeg, and a pinch of salt. Blend thoroughly. Heat to the boiling point being careful not to burn the mixture. Seal in airtight pint jars. This will keep indefinitely.

The preserving may be done in the fall, when pumpkins are fresh, or a little at a time at each slewing, or in the winter, when pumpkins will keep no longer. Whichever plan is followed, the product is most convenient. For pie dissolve 1 cup of preserved pumpkin in 1 1/2 cups hot scalded milk, add 3/4 cup cream and 2 well-beaten eggs. Bake in a rich crust 1 hour and you have the famous old "New England" pumpkin pie.

**BOABT HAM**  
Wash and scrape carefully and soak in cold water 24 hours. Scrape again and dry thoroughly. Make a dough with 2 qts flour and water enough for a stiff paste. Roll this into a sheet large enough to wrap the ham; fold

the ham in it and place on a meat rack in the dripping pan. Bake in a moderate oven 6 hours. On taking ham from oven remove the paste and skin, sprinkle with fine bread crumbs and brown sugar, return to oven for an hour. It is delightful served either hot or cold.

**MEAT ROLL**  
Take 1 lb each of lean beef, veal and pork. Remove all gristle, put through the food chopper and mix well, adding 1-2 cups fine crumbs, 3 well beaten eggs, 1 cup water, 1 tablesp salt, 1/2 teasp white pepper, 1 grated onion and 1/2 teasp curry powder. Work thoroughly and shape in a loaf, arrange in a shallow pan, cover the top with thin slices of lard, lard pork and bake 1 1/2 hours in a hot oven, lasting every 10 minutes.

**The Kitchen Cabinet**

Noticing the article about kitchen cabinets in the October 7 issue of Farm and Dairy, by Mr. J. L. Murray, makes me say to the readers of Farm and Dairy that I hope Mr. Murray succeeds in selling a cabinet to every woman he shows one to. I also hope he makes a good round commission for he deserves it, if he puts such a treasure into any house. They are really an essential which should be found in every farm home.—"Aunt Faithie."

**Our Music Folios**

One of the most popular offers in the premium line we have ever made is that of our Music Folios, given away absolutely free for one new or a renewal subscription to Farm and Dairy. These folios are printed on the best of paper, are standard selections. These folios could not be purchased for less than \$1 to \$1.50. If you have not sent in your renewal for the coming year, this is a fine chance to secure a folio. See advertisement on another page.

When a pipe from a lavatory basin or bath becomes clogged with soap, as it often does, mix a handful of common salt and soda and force it down the pipe. Leave for half an hour or more and then pour down a kettle of boiling water; flush afterward with plenty of warm water.

In making pie crust, if milk is used in place of water, it will produce a much lighter, flakier and easier digestible crust.

How to prepare

**'CAMP' COFFEE**

A teaspoonful of 'CAMP,' sugar, milk, boiling water—that's all! Result—the most fragrant, delicious, refreshing cup of coffee you ever tasted in your life.

Put 'CAMP' on your grocery order to-day.

R. Paterson & Sons, Coffee Specialists, Glasgow.

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

**The Sewing Room**

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

**BOX PLAITED SKIRT 648**  
Every variation of the plaited skirt is to be found in the incoming styles. The one that gives a suggestion of the yoke is a favorite.  
Material required for medium size is 10 1/2 yds 24, 9 1/2 yds 27, 6 1/2 yds 44 or 52 in wide. The width of the skirt at low edge is 2 1/2 yds.  
The pattern is cut for a 22, 24, 26, 28 and 30 in waist and will be mailed to any address on receipt of 10 cts.

**FANCY BLOUSE 649**  
Such a blouse as this will find innumerable uses. It is graceful, attractive, and becoming. The long lines given at the front produce an effect of slenderness, and the pretty puffed sleeves, with under material, are among the latest features.  
Material required for medium size is 4 yds 21, 3 yds 24 or 2 1/2 yds 44 in wide and 1 1/2 yds of banding, 3/4 yd of tucking for the centre front for chemise.  
The pattern is cut for a 32, 34, 36, 38, 40 and 42 in bust, and will be mailed on receipt of 10 cts.

**BOYS' OVERCOAT 646**  
The simple overcoat that falls in straight unbroken lines is most becoming. This one can be made with two or three pockets and is adapted to every seasonable material that is used for boys' overcoats.  
For a boy 12 yrs old the coat will require 4 1/2 yds of material 27 in wide, 3 yds 44 or 2 1/2 yds 52 in wide, with 3/4 yd of velvet.  
The pattern 646 is cut for boys of 6, 10, 12 and 14 yrs of age, and will be mailed on receipt of 10 cts.

**MISSIS' DOUBLE BREASTED COAT 642**  
Double breasted coats are always satisfactory for cold weather, and they are among the smartest shown just now. This one is made of diagonal cloth with revers and a trim of velvet, but the style is appropriate for the coat suit as well as for the separate wrap.  
Material required for 15 yrs is 7 1/2 yds 27, 4 1/2 yds 44 or 52 in wide with 3/4 yd 32 in wide for trimming.  
The pattern is cut for misses of 14 and 16 yrs and will be mailed on receipt of 10 cts.

**RENEW YOUR SUBSCRIPTION NOW.**

**OUR FA**

Content  
CARL  
MERIVALE—T progress for soed the fact that for season for yielded well, but and turnips are through with the crop. Quite a sislo would hold the silo later on so—G. B.

**PETER**  
NORWOOD—W have been for a ers Club holds and 4th Tuesday subject for the will be "feeding important subjects of this nature to make it a "b"

**WATERLOO—W**  
of cold weather through with the roots are being tion of turnips; are not so heavy "feeding away" sugar factory com week. More beets ed at the factory from lice and rot excellent crop. Mo been harvested an market. No. 1 1/2 Plowing is the order body aims to get in. Not a ton of as we leave this and cannot plow neighborhood owned by the neighbors, this plan is liked better than any other thing being working on the farm don't want to hire machine. People the usual number of hard to get, and hi

**OXFORD**  
**GOISPIE—**Rain very short of water dry for plowing, a good shape. Fall was 8 bush an acre. great difference in early and some very from 28 to 50 bush; which was a good Oatle have to depe stable feeding as in A. H. H.

**WELLINGTON**  
**HOIRA—**The past completed the grow until there seems to Turnips are a magnificent remain, and the one that they are too purposes. Prices for a bush, but are a still a good many low. Store cattle being at prospects for winter are not large. Many more largely grown so with the abundance. It will seem to sp wheat still shows a yield of grain of the high prices for pork beef a spirit of optimism the farmers of this region effect on the G. W.

**MIDDLESEX**  
**TEMPO—**A near neighbor tree one near his house. The book in his well kept has a fine crop of nuts. Its owner told the w not take \$10 for the about 15 years old tree. On October 11 the first apples picked and the first of this season. Considered grown this year; most and the seed ground



**OUR FARMERS' CLUB**  
Contributions Invited.

**CARLETON CO., ONT.**

**MERIVALE**—Threshing has been in progress for some time; it has established the fact that this has been a very fair season for the farmers. Oats have yielded well, barley extra well. Potatoes and turnips are good, none of the patches rotting. Corn for ensilage was a fine crop. Cattle a few and more than this silo would hold but they will cut it into the silo later on, as it does very well to do so.—D. B.

**PETERBORO CO., ONT.**

**NORWOOD**—We are feeding silage, and have been for a month now. Our Farmers' Club holds its meetings on the 2nd and 4th Tuesdays of each month. The next will be "Feeding the Dairy Cow"—a very important subject for presentation to the farmers of this district, and it is hoped to make it a "bummer".

**WATERLOO CO., ONT.**

**WATERLOO**—With the near approach of cold weather, farmers are hustling through with their fall work. Most of the roots are harvested with the exception of turnips; mangles and sugar beets are not so heavy this year. Sugar beets are fastening away above the average. The sugar factory commenced operations last week. More beets could be accommodated at the factory. Turnips are free from lice and rot, and we still have an excellent crop. Most of the apples have been harvested and are sold on the local market. No. 1 Spys sell at \$5.50 a bush. Plowing is the order of the day, as everybody aims to get all plowing done in the fall. Not much threshing has been done, as we leave this till the ground is frozen and cannot plow. As everybody in this neighborhood owns a threshing machine or has share in one with a few of his neighbors, this plan works, and it is liked better than hiring a threshing man and doing this work when we should farm and do the work on the land. And besides, to keep your farm clean of weeds you would want to hire a strange threshing machine. People are putting in about the usual number of feeders but they are hard to get, and high in price.—C. H. S.

**OXFORD CO., ONT.**

**GOLDSPIR**—Rain is needed. Some are very short of water, and the ground is dry for plowing, but the turn over in good shape. Fall wheat went from 25 to 30 bush an acre. There has been a great deal of rain since. Some were in from 20 to 50 bush; peas, 25 bush; barley, which was a good crop, 30 bush an acre. Cattle have to depend almost entirely on stable feeding as there is no pasture.—A. H. H.

**WELLINGTON CO., ONT.**

**ELORA**—The past showery weather has completed the growth of the root crop. Turnips are a magnificent crop. No rut or thrips, and the only complaint heard is that there are a large for shipping and a bush, but are now down to 30, and Store cattle being high in price, the prospects for winter feedings of turnips are large. Mangies, too, have been more largely grown, and recent years so with the abundant turnip crop there is still some to spare. The threshing yields of grain of the various kinds, with high prices for pork and prospectively for beef, a spirit of optimism prevails among the farmers of this locality, with its consequent effect on the whole community.—C. W.

**MIDDLESEX CO., ONT.**

**TEMPO**—A near neighbor has some nice walnut trees one, especially, growing near his house. They afford shady look in his well kept lawn. The one tree has a crop of nuts on it this year. Its owner told the writer that he would not take \$10 for the crop. The tree is free. On October 1st it pays to plant a the first apple picked and the writer saw a good and the first potatoes dug for this season. Considerable millet was grown this season; most with it thrashed, and the seed ground for pig feed.—J. E. O.

**ELGIN CO., ONT.**

**UNION**—This village is south of St. Thomas five miles, and is surrounded by a beautiful rolling country. Through the village runs a large spring creek, whose waters at one time afforded power for several mills. Flour, chop, cranial, lumber and various kinds of woollen goods were the product of them. Some have gone out of fashion. Eggs, milk, corn, clover, beans, fruit of all kinds, and potatoes by the carload are the principal items of the green. The output of Don-farm arises chiefly from this town, and a "big swell" wherever there is a cheese "silver plate" year comes his way. The writer has seen, and also been told, about an unique way many farmers have of fattening their hogs. After they are about half grown they are turned into a field of partially ripened corn; here they are fed, and put on fish quickly. The owner goes two or three times a day and stirs them up a bit. This makes the hogs eat faster than ever, they think they are stealing than ever, for a month or more the hogs are fat, and sold. The ground is now plowed, ready for another crop.—E. O.

**GREY CO., ONT.**

**RAVENNA**—Apple pickers are very busy, and will not be through with the apples for a few days yet. Nearly all the farmers have threshed. Grain has turned out well. Potatoes are good, so are the turnips and mangies. The heavy rains of late have done much towards improving the turnips, as well as the apples. The price of butter is from 20c to 25c; eggs are still higher. The prices continue firm for both eggs and butter. There has been so much rainy weather it has made it rather bad for the fall plowing.—M. C. P.

**THUNDER BAY DISTRICT, ONT.**

**SLATE RIVER VALLEY**—Cold weather has been common lately though we have had much frost yet. Your correspondent has been busy putting in his concrete floors in cow stables. This is a good year to install concrete as it is very cheap. Farmers should avail themselves of this opportunity of cheap material. Our hay crop was very poor this year. Grain was voted to potatoes than usual. Our local telephone system, recently installed, is working fine, and it proves a great convenience.—J. R. H.

**HOLSTEIN-FRIESIAN NEWS**

Farm and Dairy is the official organ of the Canadian Holstein-Friesian Association, whose members are readers of the paper. Members of the Association are invited to send items of interest to Holstein breeders for publication in this column.

**HILL-CREST STOCK FARM**

Most Holstein breeders are aware that "Hengevald De Kol" is now the leading cow number (102) of A. R. O. daughters, but he has also more daughters (51) with 7 day butter records better than 20 lbs. As his daughters seem to be uniformly good, the average of all his record daughters, including better with first calf, he very safely concludes that this bull has fairly the world's most valuable Holstein breeders.—Hengevald De Kol, the world's greatest A. R. O. sire.

This Holstein man across the line recognizes his worth as a sire has been repeatedly shown at the largest sales of "Holstein cattle" in the States this season. At the three or four sales where this offspring between two and three hundred daughters were offered, in every instance sons and the highest prices. At the great "treasurers' sale held in June last at Syracuse, N. Y., where 29 heads were sold and all the leading sire of Hengevald De Kol" averaged by any sire or cow, the highest average made which, "Bloomingdale Hengevald Agric." brought the top price of the sale, \$1900. "Pontiac Herma" Hengevald's 4-year-old Canadian head of the Hill-Crest Holstein herd, Norwood, Ont., was bred by Hengevald Michigan Agrim, Pontiac, Mich., which bred and sold the highest record sire. His dam is one of his illustrious cord daughters of "Sir Inka, Artis Mech-

**LIVE HOGS**

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

THIS WEEK'S PRICES FOR HOGS DELIVERED AT FACTORY

**\$7.85 a Cwt.**  
FOR HOGS WEIGHING 160 TO 220 LBS.

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

thide," whose 19 A. R. O. daughters average nearly 20 lbs. butter in seven days, and out of a dam with three A. R. O. daughters.

The tested daughters of Pontiac 2, the nearest sire, some 120 in number, have a uniform average of 20 lbs. or better in days. We may fairly expect "Pontac Herma" to prove a phenomenal producer of large record butter producing daughters. The under development and fine dairy type of his daughters seem to predict it, and they will be given a chance to show their worth. He who gets a daughter of "Pontiac Herma" gets a

(Continued on page 19)



**SAVE THE RAIN, YES, EVEN THE DEW**

Every drop of water is precious around the farm. You would always have plenty of water if your roof shed every drop that fell. Do you realize how much good water the average roof wastes. Notice how the steam rises as soon as the sun strikes the roof after a rain-fall—what is not absorbed by the spongy resin shingles evaporates—very little reaching the reservoir,—in a light rain, practically none. How different with a metallic roof,—it is perfectly dry a few minutes after the rain ceases, for as fast as it falls, almost every drop runs to the reservoir—no absorption, no evaporation.

A Metallic Roof is not only valuable in saving rain water but a heavy dew will some times bring a barrelful of clean, fresh water off the metal roof of an ordinary house or barn—every drop, a clear gain—meaning so much to you in the summertime when the creeks are dry.

How the farmer's wife appreciates the clean, soft water that flows from a metallic roof—so different from the murky, brown fluid, made so impure from draining through the old moss, dust and dirt that quickly collects on the ordinary wood shingle roof.

**Eastlake Metallic Shingles**

Not only make a clean roof but are absolutely Lightning, Rust, Fire and Weatherproof. They can be laid by yourself or anyone cheaper and quicker than any other shingle, and will last a lifetime. Roofs shingled with Eastlake Steel Shingles 25 years ago are in perfect condition to-day—an actual test—the best guarantee.

Write us, enclosing measurements of your roof for estimates of cost. Let us quote you on rat and mice proof sheet metal granary lining.

"A Metallic Roof and Galvanized Corrugated Iron Siding on your barn make it positive proof against fire from outside sources, and greatly reduce your insurance rate."

—The Philosopher of Metal Town.

WRITE US, THE MANUFACTURERS

**The Metallic Roofing Co. Limited**

TORONTO & WINNIPEG

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



ing continues to be in horses for the lumber camps. At the West Toronto Horse Exchange on Wednesday 125 horses were offered but only about 60 were sold. Most of the sales were for the woods. The local demand and inquiry from the west was not large. The quality of the offerings averaged high, indeed from the west some of the prices was about as follows: Heavy drafts, \$100 to \$220; general purposes, \$10 to \$175; wagon and light harness, \$150 to \$190; drivers, \$100 to \$175, and seriously used horses, \$35 to \$85.

**MONTREAL HOG MARKET**  
Montreal, Saturday, October 30.—There was a firmer feeling in the market here for live hogs this week, and prices were well maintained at the advance of last week, and in some cases an advance of a cent was paid, selected lots weighed of cars selling as high as \$9.50 to \$8.60 a cwt.

Dressed hogs are firm and in good demand, fresh killed abattoir stock selling at \$12.50 to \$12.85 per 100 lbs. Cable advices from Great Britain this week indicate better markets over there for Canada stock with prices advanced 2 to 4 cwt. all round.

**EXPORT BUTTER AND CHEESE**  
Montreal, Saturday, October 30.—The improved tone of the cheese market, which was apparent at the end of last week, has continued throughout the week. Prices have been advanced steadily in the face of the good demand from the various exporting centres in Great Britain. The better feeling in cheese here and on the other side has been reflected in this country where the buyers with better limits than they have had for some time, have been able to buy up the offerings at good prices, each succeeding market showing an advance over those of the previous day, until at Cornwall on Friday the climax was reached when the offerings were all sold at 11½¢, bringing the market back to the level at which most of the season's cheese have been sold. Whether or not these prices will be maintained, remains to be seen. The cheese that will be offered in the country this week and thereafter will be the tail end lots of the season, and as the quality is not so high as that which is not likely to be any rush for the small quantity that will be offered, and are in like manner likely to come back again. In any case these cheese at 11½¢ are comparatively dear when compared with the September and early October dates that were sold at the same price when the quality of the goods is considered.

The fine open weather that has prevailed throughout the greater part of the month has helped to maintain the flow of milk, and the make of cheese going on at present is heavy compared with recent years, reports from all parts of the country indicating a decided increase in the output. The quantity however will not be sufficient to have any material effect upon the course of the market. The shipments this week have been fairly heavy, the quantity going out being somewhat larger than the receipts, and the stock in store here has been reduced somewhat as a consequence. The stock, however, is still large, and there is no doubt that the quantity of cheese in the first of November will show a decided increase over the quantity in store here a year ago.

The market for butter is strong and prices are well maintained. Finest Eastern Townships creamery is quoted at 22½¢ to 23¢, the latter price being asked for specially fancy lots of extra good. The fresh receipts from the country are in indifferent quality, and are being picked up at lower prices than they are quoted on this market at from 24¢ to 25¢, according to quality. Dairy butter

is quoted all the way from 17¢ to 22¢ a lb., the latter price being asked for selected Ontario, of which the supply is limited.

**CHEESE BOARDS**  
Utica, N. Y., Oct. 29.—Sales of 1720 boxes, all sold at 14½¢. Curt sales, 15½¢, with some special factories higher. Woodstock, Oct. 29.—400 boxes of cheese were boarded all sold at 11 5/16¢. Campbellford, Oct. 26.—595 boxes of cheese registered; all sold at 11 1/16¢. Woodstock, Oct. 27.—2200 boxes offered. The price bid was 12½¢, no sales.

Maddox, Oct. 27.—366 boxes of cheese boarded and sold at 11½¢. Kingston, Oct. 27.—600 boxes of colored registered. The stocks cleaned out at 11 5/16¢ to 11½¢.

Brookville, Oct. 28.—1685 colored and 675 white offered; best offer, 11¢, no sale. Belleville, Oct. 28.—1230 white and 170 colored; 11 5/16¢ bid for all offered, and 1250 sold. Pictou, Oct. 29.—Thirteen factories boarded 1345 boxes of cheese, all colored; highest bid, 12½¢. 940 boxes sold at 11½¢; 255 boxes at 11 5/16¢, balance unsold.

Brantford, Oct. 29.—Offered 1150; sold 610; 11½¢, 415 at 11½¢; 80 at 11 5/16¢; 115 at 11½¢. Napane, Oct. 29.—385 boxes of white and 365 boxes of colored sold at 11 5/16¢. Perth, Oct. 29.—1300 boxes of cheese boarded here today, 800 boxes of white, and 300 boxes of colored. All were sold, ruling price 11½¢.

Kempville, Oct. 29.—414 boxes of cheese registered, all colored; 354 boxes sold for 11½¢. Oquoca, Oct. 29.—520 boxes of colored, and 60 boxes of white, offered; 80 boxes sold on board at 11½¢; rest on the street at the same price. Ottawa, Oct. 29.—435 cheese boarded; 257 white and 582 colored. All sold at 11½¢.

**HILLCREST STOCK FARM**  
(Continued from page 17)  
granddaughter of "Hengerveld De Kol," one of which "Pontiac Bag Apples," is the highest priced Holstein cow ever sold, she bringing \$9000. Pontiac's calves are mostly heifers.

The young bulls offered by the Hillcrest Farm are good individuals, and include the 2nd and 3rd prize calves at the East Peterboro Exhibition. Most of them are sired by "Butterfly Calamity," son record son of De Kol, 2nd and sire of "De Kol's champion 3 year old milk cow, 91 lbs. in one day, with 2nd calf. Butterfly Calamity's dam is by Calamity, daughter of Calamity, son of the famous old "Calamity Jane," winner of the milk test at Guelph four years in succession.

Any of the cattle offered are well worth the money. All enquiries will be cheerfully answered. Visitors met by appointment. The Hillcrest Farm is one mile from Norwood Station. G. A. Brothert, Proprietor.

**ROCK SALT** for Horses and Cattle, in tons and carloads. Toronto Salt Works, Toronto. G. J. CLIFF, Manager

**DORSET RAMS**  
Of the choicest breeding and quality. For sale at a bargain. Write for prices and particulars to

R. H. HARDING, Thorndale, Ont.

**MISCELLANEOUS**

**TAMWORTH AND BERSHIRE SWINE**—Boars and sows for sale J. W. Todd, Corvith, Ont. Maple Leaf Stock Farm

**WILLOWDALE STOCK FARM**  
LENOXVILLE, QUE.  
Breeds Clydesdale horses, Shorthorn and Jersey cattle, Leitch's Improved Chester White swine, all of choice breeding. Young stock for sale. Also a large quantity of standard breeds of American poultry and Pouter ducks. Settings for sale. 6-4-21-10

**CHEESEMAKERS**—Can secure good winter employment by working with us. Dairy. If you mean business and are anxious to earn money, call on us weekly for full particulars to Classification Manager, Farm and Dairy, Peterboro, Ont.

**AYRSHIRES**

**AYRSHIRE BULL FOR SALE**  
Isaleigh Norman —2102— white with brown cheeks, calved Sep. 12, 1905, bred by J. N. Greenhalgh, Danville, Que. Dam Isaleigh Norina lat. 1905. Sire Full Bloom Isaleigh (Imp.) —1697— (4756). Isaleigh Norina last year's sire 970 lbs. testing 3.08 per cent. The above animal mated with a cow of 1909, male and female. Weight, 1350 lbs. Further particulars write **JACOB DILLON, ELLISVILLE, ONT.**

**SPRINGBROOK AYRSHIRES**  
Are large producers of milk, testing high and bred for quality. Young stock for sale. Orders booked for calves of 1909, male and female. Prices right. Write or call on **0-3-2-410 W. F. STEPHEN, HUNTINGDON, QUE.**

**AYRSHIRES**

Young bulls, from one week to one year old, large, growthy fellows, from Record of Performance cows, on both sides. Also of your young cows, just freshened. Prices right.

**JAMES BEGG, Box 88, St. Thomas, Ont.**

**SUNNYSIDE AYRSHIRES**

Imported and home bred, are of the choicest breeding, of good type and have been selected for production. Some of the young bulls dropped this fall sired by "Mother Bull Going" of 1909, male and female, as well as a few females of various ages for sale. Write or come and see.

**J. W. LOGAN, Hockley Station, Que. (Phone in house.) 4-2-12-5**

**STONEHOUSE STOCK FARM**

Is the home of most of the coveted honors at the leading eastern Exhibitions, including first prize old and young herd.

**FOR SALE a few Choice Young Cows, also Bull Calves.**

**HECTOR GORDON, HOWICK, QUE.**

**"La Bols de la Roches" Stock Farm**

Here are kept the choicest strains of AYRSHIRES, imported and home bred. CALVES are the best blood types. **WHITE ORPINGTON, WHITE WYANDOTTES and BARRED ROCK PULLED.**

**HON. L. J. ROBERTS, J. A. BIDEAU, Proprietors, Ste Anne de Bellevue, Que. P-5-26-10**

**SPRINGHILL AYRSHIRES**

Imported and home bred stock of a fine quality for sale. See our stock at the leading shows this fall. Write for prices.

**ROBT HUNTER & SONS**  
Long Distance Phone **Navville, Ont. B7-4-10**

**IMPORTED AYRSHIRES**

Having just landed with 50 head of choice Ayrshires, mostly purchased at the great Barabankis sale, I am prepared to fill orders for herd heading bulls, selected from the best dairy herds in Scotland; fit for service to close cows. Also show females of all ages. Cows with milk records up to 70 lbs. per day. Write and let me know your wants. Long distance phone.

**R. NEES, Howick, Que.**

**RAVENSDALE STOCK FARM**

Ayrshires, Clydesdales and Yorkshires

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

**W. F. KAY, Philippsburg, Que. 0-5-19-10**

**HOLSTEINS**

**Hill-Crest Holsteins**

HEADED BY **PONTIAC HERMES**  
SON OF **HENGVERLD DE KOL**  
(World's Greatest A. R. O. Sire)

The only bull in the world with "over 100 A. R. O. daughters, half of which have 7 day butter records better than 20 in calf to a herd is not large, will sell the Services of Pontiac to a limited number of approved cows. Also few young cows in calf to him. Young Bulls sired by "Butter Boy Calamity" for sale now. Price winners and out of producing dams, if in the market for our kind, write or come and visit our herd and learn more about them.

**G. A. BRETHERN - Norwood, Ont.**

**HOLSTEIN CATTLE**

If you are thinking of buying a choice young cow or heifer in calf, come and see our herd. Will sell anything. Have a dozen beautiful heifers 2½ in calf to Suner Hill, Choice Goods (Imp.), who has five sisters averaging 20 lbs. butter in 7 days and one sister that held world's record as a year old with 35.00 lbs. butter. Write us what you want. We will guarantee everything just as described. Visit our met at our place. Write for particulars. **D. C. FLATT & SON, Millgrove, Ont. L. D. Telephone 2471, Hamilton**

**SUNNYDALE**

OFFERS BUTTER BOY HENGVERLD, calved April 8th, 1909. He is a good individual and well marked. Dam Helena De Kol's De Kol, sister of Hengerveld De Kol, who has 102 A.R.O. daughters, 61 of them with 7 day butter records of over 20 lbs. Write for record book of this calf. Price \$100.

**A. D. FOSTER**  
Bloomfield, Ont. P-5-6-10

**LYNDALE HOLSTEINS**

Send your Herd with a son of "Butter Boy" to Lynsdale. This calf was recently sold for \$8000. His 3 year old daughter has 20 lbs. of the butter each in 7 days. Only 2 records of a year old with 35.00 lbs. Paul, and a number of heifers for sale. P-3-17-10

**BROWN HORS, LYON, ONT.**

**HOME-BRED AND IMPORTED HOLSTEINS**

We must sell at least 45 cows and heifers at one time, to make room for the natural increase of our herd. This is a chance of a lifetime to get a good young bull. Pontiac Herms, Imp. son of Hengerveld DeKol, world's greatest sire, head of herd. Come and see them.

**H. E. GEORGE, CRAWFORD, ONT. Putnam Stn., 1½ miles-C.P.R. E-4-21-10**

**RIVERVIEW HERD**

FOR SALE, 2 Bull Calves, sired by Sir Angley Beets, Son of Leitch Segie, world's greatest 5 year old sire, dam Angie Lilly Pieterse Bull, champion Jr. 4 year old—29 lbs. of butter, 20 lbs. of milk and 20 lbs. of butter. Also 12, 13 and 4 year old. Price reasonable considering breeding.

**P. J. YALLER, Lachine Rapids, Que. E-10-6-10**

**HOLSTEINS**

**WINNERS 'N THE RING**  
Gold Medal Herd at C. W. Fair and **WINNERS AT THE PAUL**

See Our A.R.O. Records  
Just the kind we want. They combine **CONFORMATION and PROFITION**

Bull and Heifer Calves for Sale from Our Winners

**"LES CHEMAUX FARMS"**  
Vaudeuil, Que.

Dr. Harwood, Prop. D. Boden, Mer.

Men should look for this Tagon Chewing Tobacco. It guarantees the high quality of **Black Watch** The Big Black Pipe.

# 40 Million Square Feet of Oshawa Shingle

## Cover Canadian Roofs Today

A ROOFER'S square is 10 x 10 ft.—100 square feet. There are 400,000 such squares of Oshawa Steel Shingles in use to-day in Canada. Enough steel, that, to make a pathway a foot wide and 7,576 miles long. Almost

thrice the length of the C.P.R. tracks. Nearly enough to roof in a thousand acres of land! And the greater part of those Oshawa Shingles will be right on the job, good, weather-tight, rain-proof roofs, when your grandsons are old, old men. They are good for 100 years.

**THEY KEEP ON SELLING BECAUSE THEY MAKE GOOD**

### This is the One Roofing It Pays Best to Buy

Figured by price-cost, "Oshawa" Guaranteed Steel Shingles are as cheap as the poorest wood shingles. Figured by service-cost—the length of time they will make even a passably good roof—wood shingles cost Ten Times as much; slate costs six times as much; and the stuff they call "ready roofing" costs Thirty-Three Times as much! These are facts. They can be proved to you. Proved by figures; by the experience of hundreds of other people who doubted at first, just as you perhaps doubt. Proved, absolutely! You want that proof before you roof. Get it! Send for it to-day.

### No Other Roofing Does This

Stays rain- and snow- and wet-proof for fully a hundred years. Absolutely fireproofs the top of the building for a hundred years. Protects the building from lightning for a hundred years. Resists the hardest winds that blow for a hundred years. Keeps the building it covers cooler in summer, warmer in winter, for a hundred years. Gathers no moisture, and never sweats on the under side for a hundred years. Needs no painting, no patching, no care nor attention for a hundred years. **WHAT MORE CAN YOU ASK OF A ROOF?**



The picture above, on the right, shows the new Spanish pattern Oshawa Galvanized Steel Shingle (Guaranteed). That on left is the standard pattern.

Probably 1835 seems a long way off to you. By that time, I suppose, aeroplanes will be as numerous in the skies as steamers are on the seas now. I don't believe the fall of an aeroplane upon it would harm a Pedlarized roof.

Yet, when 1835 begins the guarantee that goes with every square foot of my shingles will still have twelve months to run.

You may not be around then. I may not be here. But this powerful Company I head will be doing business; and the price of putting a new roof on your building will still stand as a mortgage upon our assets.

Understand me clearly:

If the Oshawa-shingled roof you put on this year fails—even on the last day of 1933—to make good to the letter the plain promises of our Guarantee, there's a new roof for nothing going on that building just as soon as we can get a man there.

Think that over for a minute. Think if it isn't a pretty clear evidence of merit in roofing.

That is what I call making good with Oshawa shingles. That is what you pay five cents per year per square for. Seems to be worth the money.

Doesn't it?

*G. R. Pedlar*

### It Will Pay You To Pedlarize All Your Buildings

"To Pedlarize" means to sheathe 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.

ADVERTISING alone never sold that vast area of Pedlar Shingles. Smooth salesmanship never kept them selling; nor glib talk; nor lying abuse of competing goods; nor cut price. Those things do sell shingles, right here

**THEY DO ALL WE SAY THEY WILL AND MORE TO**

in Canada's roofing trade. But Oshawa Shingles sell, and keep on selling, for different reason. They make good. They keep out the wet, year after year, as they say will. They protect buildings from fire and lightning, as we say they will. They make good.

### This is the One Roofing That is Guaranteed

Some makers of "metal shingle" (ever notice how careful they are to avoid saying steel?) point with pride to roofs of their 25 years service. BUT THEY DON'T GUARANTEE their shingles for 25 years to come. You buy Oshawa Steel Shingles—the only kind that is guaranteed—upon the plain English warranty that if the roof goes back on you the next quarter-century you get a new roof for nothing. You can read the Guarantee before you decide. Send for it. See if it isn't as fair as your own lawyer would make it on your behalf. Isn't that square?

### Book and Sample Shingle Free

Send for free book and free 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 in no doubt about which roofing after you have studied this shingle. Send for it and the book and Guarantee. Send for them now.

## The PEDLAR PEOPLE of Oshawa

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321-3 Casp. St.

OTTAWA  
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TORONTO  
111-113 Bay St.

LONDON  
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CHATHAM  
200 King St. W.

PORT ARTHUR  
45 Cumberland St.

WINNIPEG  
76 Lombard St.

REGINA  
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ADDRESS OUR NEAREST WAREHOUSE.

WE WANT AGENTS IN SOME LOCALITIES.

WRITE FOR DETAILS.

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1861

MENTION THIS PAPER