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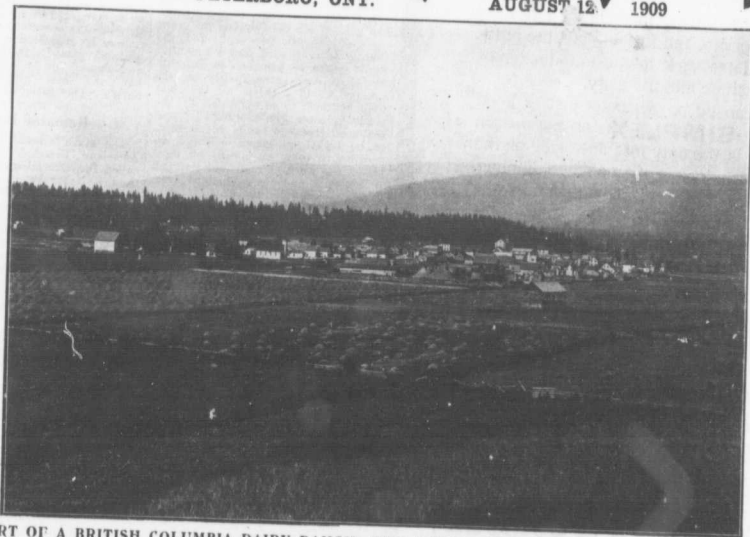
FARM AND DAIRY

AND

RURAL HOME

PETERBORO, ONT.

AUGUST 12 1909



PART OF A BRITISH COLUMBIA DAIRY RANCH—THE TOWN OF ARMSTRONG IN THE DISTANCE

Dairying is destined to become one of the greatest branches of agriculture in British Columbia. The industry is steadily on the increase. Milk, cream, butter and other dairy products bring excellent prices in this Province: annual average prices that are not surpassed elsewhere in America. High prices are due partly to supply not equalling demand, but, also, largely to the high uniform quality of the products marketed. The photo reproduced shows part of the meadow land, on Mr. M. Levar's dairy ranch. The comfortable, beautiful homes of B. C. dairymen give assurance that dairying is profitable. Near the vicinity of Armstrong fruit growing is another industry that is being successfully practised.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

Issued
Each Week

FARM AND DAIRY & RURAL HOME

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Vol. XXVIII.

FOR WEEK ENDING AUGUST 12, 1909.

No. 32.

EXHIBITING AT FALL FAIRS, AND ITS EDUCATIONAL VALUE

H. Barten, B.S.A., Macdonald College, Que.

The Delights of Victory in the Show Ring.—Small Fairs worthy of the Stockman's Attention.—The Knowledge Gained from Show Ring Experience, and Its Value to the Farmer and His Sons

SINCE the fall fair season is approaching our attention may once more be concentrated in that direction. The time will soon be here when wisdom in selection, care in fitting and exactness in finish will be placed in the scale of determinant excellence. A few exhibitors will gain their ambitions, not all will be satisfied, many will be disappointed. Everybody delights in victory, in having an animal good enough to win in strong open competition. The stronger the competition and the less the restriction the more valuable the victory and the greater the honor.

GRATIFICATION IN SHOWING.

In many cases it seems a regrettable fact that more than one animal cannot be placed at the top, when so many are worthy of special distinction. However, while the ambition of every exhibitor is to win, there is for every man in the exhibiting of good stock a pride and pleasure which probably furnish the largest measure of gratification, something which only the zealous exhibitor knows. True, there is often a quite different incentive, especially at our large exhibitions. The element of advertisement of the breed (to which the competitor pins his faith), and of his own herd in particular, provides a great drawing card. Not infrequently the exhibit at a fair leads the expectant purchaser to make his final decision on some particular breed and some particular herd. The comparative strength and excellence of a breed as manifested in the display at the exhibitions insure to make an impression and exert much influence upon the man who is just not quite certain as to which is the best breed. Such men form a very large class among our average farmers. Consequently we are not surprised to see long lines of splendid animals, carefully selected and well fitted, brought out by the various breeders. As a matter of business their interest demands that they can supply.

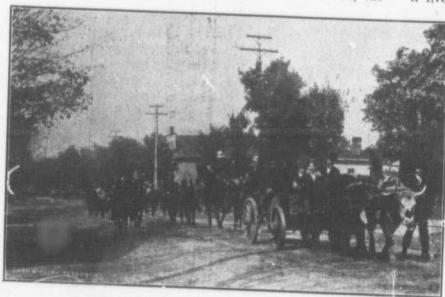
SMALL FAIRS ARE WORTHY.

Although the large exhibitions have many features and give many inducements to persuade the breeders to exhibit, which the smaller fairs cannot possibly offer, there is much to be said for exhibiting at even a small country or township fair. Many claims can be made as to why the farmer and smaller stockman should get into the game and support his own fair. For him and his co-workers fair day is a sort of annual celebration, a gala day, a day of wholesome educative entertainment, and the one day in the year, we

might say, when the people who share in common agricultural interests, have a chance to associate, compare notes, and draw conclusions in quite the same way.

THE PROPPELLER OF THE EXHIBITION.

The show ring is the real propeller of the whole exhibition, therefore the stock owner, whether he have many or few animals to exhibit, should, for the sake of the exhibition as a whole with its social, educational and inspiring influence, consider hearty co-operation his duty, as well as his opportunity. To the stockman who exhibits, the



One of the Taking Features of the Bobcaygeon Fair

Possibly no one thing adds more to the success of a fall fair than a well-ordered, well-planned procession. Bobcaygeon is noted for making such a distinctive feature of its exhibition. The illustration shows a part of the 1908 procession, with Mr. Louis Parker, driving his yoke of oxen.

fair, be it large or small, has a special significance and value. His interest should be deep, his inspiration great. Above all, the experience and knowledge gained from selecting, fitting, exhibiting and possibly breeding his own animals for the show ring, together with the lessons of comparison learned from his own observation and that of the judge at the fair; these are the things that mean most to the exhibitor; herein is the real pleasure and profit in exhibiting at any fair.

Unfortunately too many who exhibit stock fail to appreciate this special significance. Every one who visits country fairs knows in what poor condition a great many otherwise good animals are brought out every year. How some farmers can allow themselves and their farms to be represented by a herd of poor, miserable looking cattle and probably a string of their shabby looking horses, when a very little feed and attention could have made them a credit and attention to their owners, is a mystery. To such men the fair means comparatively nothing. Exhibiting stock in that shape is not only a waste of time but

an injury to their business and to themselves.

PREPARING FOR THE SHOW.

If the fair is looked upon in its proper light the stock will be selected long before the fair, in fact may be bred for it. Pampering is by no means necessary in fitting animals for show purposes; simply a little care and attention for the most part, for some time before, to gradually but surely bring them to that condition and give them that finish which so often turns the balance in a hard fought battle. The practice of fitting and watching animals, managed in such a way, improves and develops in an interest and his boys (should there be any) an interest and attachment which become a mighty inspiration and give farming a new meaning. We hear a great deal these days, about keeping boys on the farm; if live stock held a proper place a great deal of

our farming would be a much greater pleasure and a much more attractive business than it is. The fellows who leave the farm to accept worthless positions and small remuneration are those who have not had much on the farm to afford any interest or attachment to it, consequently the farm had no fascination for them. They are not from farms where live stock interest and enthusiasm exist.

LACK OF JUDGMENT THE FAULT.

Proper management of live stock and a little show fitting do not mean a great lot of extra labor and expense as many people would have us believe. A surprisingly small amount of attention and feed will make a wonderful improvement. There is no excuse for the poor condition in which we find so much farm stock, particularly horses. Some will tell us less work and more feed will change things. In many cases this is true, but the trouble is not so much excess of work, and lack of feed as it is lack of judgment in working and also in feeding.

SKILL IN HANDLING HORSES.

The proper care, working, and driving of ordinary horses mean skill and the great majority of the farmers themselves will do well to make some observations where ability in this direction is displayed. How often we find men on adjoining farms with practically the same work for their horses, frequently on the same feed and yet one man has his horses in elegant condition while those of the other man are a disgrace to himself and to his farm. In many cases the horses had they been given the same usage should have been equally good. It is simply a question of management and judgment. The one man with his horses in respectable condition can and does, with a very little extra touch at the last, fit them in creditable condition, while the other man can neither show nor sell with any credit or satisfaction to himself. The real necessities are not often forgotten but after all, the little extras,

such as regular feeding and cleaning make the difference between the shabby and the fine looking horse.

Exhibitions stimulate this greater interest in stock and whether the prize be large or small that should make little difference, the prize itself is of comparative insignificance. The real value lies in the extra investment, the farmer's increased interest in that investment and his increased interest in himself and his own education.

Some Experience With Fall Wheat

Jos. Kitcher, Brant Co., Ont.

Should we in this older Province of Ontario grow wheat, or should we leave it to the newer lands of the west, which seem so well adapted for this particular cereal? The fact of so many Ontario farmers continuing to raise it, proves that wheat can be raised profitably, though perhaps not to the same extent as it was a few years ago.

A clover sod, especially if it is plowed soon after the hay is taken off, makes one of the best locations for fall wheat. The sod should be plowed early so that the ground can be well worked to rot the sod and make a solid bottom, which is one of the most important points in preparing land for wheat. A clover sod is preferable to the bare summer fallow, which latter was followed so extensively a few years ago and which took so much time to cultivate, this time now being given to the corn crop.

If the land is rich in plant food it is a good plan to sow wheat after spring grain. Barley leaves the soil in better shape for wheat than does oats, as it is harvested earlier in the season and consequently a longer time is available to prepare the land for wheat. Barley also does not take so much fertility from the soil as do oats. On our heavy land the practice of sowing wheat on barley land is followed quite extensively.

The safest kind of soil for wheat is the limestone land. In all seasons, one with another, wheat on such soils is not so liable to rust, or heave with the freezing and thawing of the early spring. We should consider the suitability of the soil for certain kinds of seed and the proper time to sow. As a general rule some variety of white wheat has proved the most reliable on the limestone soil, though we have known mixed wheat to do even better some years. For clay land red wheat has proved to be the most profitable. One of the most difficult problems in growing wheat is to get the variety most suited to one's own farm. A new wheat is always an experiment no matter how well it has succeeded in some other locality. When trying a new wheat the safest plan is to grow two or three acres of it only and then sow it alongside of some variety that has proved itself to be adapted to one's immediate neighborhood.

We cannot be too careful in the cleaning of the seed. It goes without saying that we should take out all our seeds. We should also take out the small grains, for a large grain will produce a plant that will make a more vigorous growth and also stool more than a plant from a small seed. When all seed is plump less will be required per acre.

An important thing to consider also is the proper time to sow. Some say that the early sown wheat is the best. Others claim that they have had better results from late sown wheat. One year with another it will be found that wheat sown during the first 10 days in September will give the largest yields, that is, provided that the ground is in good condition for the proper germination of the seed. The quantity of seed to sow an acre depends largely on the richness of the soil. On average land a bushel and a half will give the most satisfactory yields.

Photos of farm buildings, farm houses and rural scenes are always welcome for publication.

Methods of Dealing With Sow Thistle

Elmer Lick, Ontario Co., Ont.

Several articles referring to sow thistle have appeared in recent issues of Farm and Dairy. Mr. Glendinning, I notice, advocates pasture and short rotations. In Farm and Dairy July 8th "Cynacus" takes this method to task. I believe both are right. Circumstances, soil, drainage and degree of infestation are the factors that make the difference. I agree with Mr. Glendinning that a short rotation and pasturing, especially with sheep and horses, will control the pest. But that is only effective when the weed is found in small patches—not covering over one-hundredth of the area.

Where a farm is overrun the only method to be effective is to summer fallow part of the area. Put that part into buckwheat after cultivation in the early part of the season, following buckwheat next year by corn. Keep the soil well worked and in short rotation until all the spring can be cleaned. If we could get three springs in succession with moderate rains and an early chance to get on land I believe the sow thistle would be largely brought under control. There is no possibility of conquering sow thistle in wet, undrained parts of a clay field. No grass will run it out. There is quite a lot of evidence to show that a thorough plowing at a certain stage of its growth will do more to kill it than all the rest of cultivation during the year. Last year that time was June 20th to July 1st. This year I am not sure there was such a time.

I have known this pest for 40 years. When I

Thoroughly Up-to-date

Editor, Farm and Dairy.—I must congratulate you on the success of Farm and Dairy.

It is a paper that is thoroughly up-to-date in everything relating to dairy farming. It is a pleasure to read it from cover to cover. Anyone desiring to keep up with the times, as it were, cannot do better than to study Farm and Dairy.—Wm. Reid, Lambton Co., Ont.

first knew it I did not think anything of it. The part where it grew was undrained and in a few years the sow thistle disappeared. I am suspicious that seed must live in the soil for quite a long time. Last year I plowed down a thick, old sod. It was at least ten years old. I planted potatoes on it, and was surprised to find the sow thistle thick on about one fourth of the area. On a 200 acre farm I have 30 or 40 acres thick with a little here and there. The balance is quite clear. I never expect to live to see it cleared from our land. I do hope and expect to see the time in a few years when we succeed in understanding the weak points a little better so that we may control this pest as well as the Canada thistle is now controlled. On farms situated similar to Mr. Glendinning, use his method of eradication. Under other conditions vary your method to suit those conditions.

Some Fruit Problems

E. B. Yarwood, Prince Edward Co., Ont.

Last fall, Mr. R. M. Winslow, spent considerable time investigating our orchard conditions and has surprised us sorely as to the ravages of the canker fungus. Now that the farmers' attention has been directed to it, we hope that some one will find a remedy. None that I know of use the lime sulphur, and not very many use even Bordeaux mixture.

A few years ago my apples got so bad, I started spraying once thoroughly, following the wind around the trees and I got immense benefit. Near-

er the water, apples do not seem to need spraying so badly. A few years ago, a neighbor who has a small old orchard let the caterpillar-
strip off every leaf and next year to everybody's surprise his trees were loaded with beautiful apples—the best around. Why?

METHODS OF FRUIT SELLING

We are not up-to-date in selling our fruit. We can co-operate in a good many ways successfully but seem to have no one to go ahead in co-operative fruit selling. Raising so much factory stuff makes a great demand for day help in the fall and most men prefer working in a crowd, so selling the orchard is the easiest way and at present the best way. A large acreage of fruit and factory stuff makes large demands on the manure pile and a good many have experimented with commercial fertilizers but have not received the satisfaction expected.

Dairy Problems in Manitoba

N. J. Kuneman, M.A.C., Winnipeg, Man.

We are face to face with the question of testing our cows and of weeding out the poor ones. By careful breeding and feeding and by selecting good sires of those strains that have records for large milk production we can greatly increase the yields of our herds. Many farmers feel that they cannot afford to purchase expensive animals. Well, why not co-operate and get a bull of the right sort? Instead of an average production of about 2,500 lbs. of milk a cow per year, there is no valid reason why the average yearly production cannot be increased to at least double that amount in five years' time.

Many in Manitoba have declared that they will have to go out of keeping cattle, or cut down their herds, owing to the fact that pasturage is becoming scarcer, consequent on the once open prairies having been taken up and cultivated. Before deciding to cut down the herd, we should not overlook that fact of great importance, the fertility of the soil. When dairying is practised the soil will not be robbed as it most assuredly will be where grain farming is practised exclusively, and where there is little fertilizing material to return to the soil.

Have We Many Farmers Like This?

(It is unfortunate that conditions such as are described in the following letter from Mrs. Hopkins are a reality. We are thankful that such cases are rare.)

Editor, Farm and Dairy.—It is astonishing to what a degree the prejudice against the English immigrant, is growing; prejudice so great that the poor fellows often are not given a chance to show what they are good for. The tales of vice, hunger and mal-treatment that some of them can tell, are harrowing. They are often homesick and in want, and find nearly everywhere cold looks and scornful refusals of employment. If they do manage to find work, the employers in too many cases take advantage of their desperate need and condition. In the matter of wages and work the farmer treats the immigrant as he would not dare treat a Canadian, no matter how mean he may be.

The story of one poor fellow will serve as an illustration. Bred a butler in England and falling out of employment he came over with the brightest hopes imaginable. Landing in Montreal, where for two months he searched in vain for work, and where as time went on, he had to sell the best part of his clothes, his illusions fast took wings. Despairing of city work he started to tramp along the country roads begging every farmer he met to give him a chance. At last, when he had almost resigned himself to the idea that a great, strong, able man must starve on the road in a country where the need of workers seemed to be so great, a farmer said he would

take him in for a month for nothing. He was glad to accept the farmer's offer, and after a month's faithful service, the farmer offered to let him stay at ten dollars a month, and he gladly accepted. He was glad to accept the farmer's offer, and after a month's faithful service, the farmer offered to let him stay at ten dollars a month, and he gladly accepted. He was glad to accept the farmer's offer, and after a month's faithful service, the farmer offered to let him stay at ten dollars a month, and he gladly accepted.

The poor Englishman that he had farmers, he hired where by his brought a tree chest which laid him for months, ever, he met some sons who were proffering him his wife, when he received every word of it.

I think it will cause of the English. Cities are the problem of life is getting greater every day, while the laborers in the countries are so crippled. From every quarter of authority and wisdom the warning, "Land."

The settler's question lies with them. If they are obstinate to take green hands; then; refuse the privilege to teach them; can any one do it? hours. The rule is: be fixed if necessary, pay along with the worker in the city.

Farmers will simplify the reasons why desirable and removals. As for the grant, let us remember the most of us give him a fair take a little patience helping forward the ment of the country. The need of the country is a thousand evil, so let us not shut our ears work calling at us; we cannot do more us at least be fair with them.—Mrs. V. Ont.

Your methods and for publication in

take him in if he would consent to work three months for nothing. The hungry man was only too glad to accept and beginning straightway gave the farmer three long summer months of faithful service. At the end of that time the farmer offered to keep him for the rest of the year at ten dollars a month. Again the immigrant gladly consented, and another six months rolled away. At the end of that time he was literally hanging in ribbons, for the farmer had never paid him a cent. On every occasion when the poor man asked for the wherewithal to get some few articles of clothing, the farmer had always come forth with the same excuse of not having any money on hand and at the same time giving him some old trousers or boots to tide over till he paid him. At last, after ten months' service the immigrant's patience gave way and he told the farmer that he would not work for him any more. The farmer then sat down, pencil in hand, made a list of all the work out things the man had been forced to accept, charged a round price for them, together with the full cost of all the breakages and lost tools, etc., that he could possibly fasten on him, and deducting this from the sum of \$70 handed the waiting man the magnificent balance of \$15.

The poor Englishman was staggered and feeling that he had had enough of farmers, he hired for the bush, where by his inexperience he brought a tree down across his chest which laid him in the hospital for months, but where, however, he met some charitable persons who were instrumental in procuring him work in his own line, when he recovered.

Every word of this story is true. I think it will plead a little the cause of the English exile among us. Cities are overcrowded. The problem of life for the poor is getting greater there every passing year, while the need of farm laborers in the country is so serious as to cripple its resources. From every quarter men of authority and wisdom are sounding the warning, "Back to the Land." The settlement of the question lies with the farmers. If they are obstinate and refuse to take green hands, as they call them; refuse the patience and the time to teach them, what then can any one do? Besides, even experienced men crowd into the cities. Why? First the long hours. The rule from 5 a.m. to 6 p.m. should be fixed if necessary by law. Secondly the small pay along with minor disadvantages that the worker in the city has not to put up with.

Farmers will simply have to study out for themselves the reasons why the work they offer is not desirable and remove as far as possible these reasons. As for the question of the English immigrant, let us remember that after all he is of all nations the most desirable for our country. If we give him a fair chance to adapt himself and take a little patience to teach him we shall be helping forward the grandest humanitarian movement of the country, that of removing the superfluity of the foul city tenement to the ever growing need of the country and thereby help to right a thousand evils, social, economical, and religious. Let us not shut our eyes and hearts to this missionary work calling at our doors, and if perchance we cannot do more work for the "English," let us at least be fair and square in our dealings with them.—Mrs. W. E. Hopkins, Russell Co., Ont.

Your methods and experience will be appreciated for publication in Farm and Dairy.

In Favor of the Winter Foal

L. C. Cameron, Halton Co., Ont.

In view of the great demand that exists for good horses many would find it profitable to breed their mares in the fall and to raise a winter foal when the mares would otherwise be idle. Where suitable mares and proper stabling are available, winter foals are worth at least a trial. A roomy box stall, kept well bedded is essential. Oats and good clover hay with a few oats, are also a necessary part of the equipment. When fed well and given exercise each day in the open, when weather permits, both mother and foal will thrive. Colts raised in winter and weaned in the spring just before going on grass, make fine animals.

The secret of getting big prices for horses is to use mares of good conformation and having these free from hereditary disease. Secure the service of the best stallion possible. He must be sound, and of good conformation, possessing weight and true action. Back of this see that he descends by a long line of good breeding on both his sires' and his dam's side. This characteristic should insure prepotency. This latter qualification is necessary in order that his offspring will with reasonable certainty inherit his characteristics.

The company supplied the wire and strung it in the lane.

BUILDING THE LINE

When the company had enough money raised to build the line they advertised for tenders for the supplying of the poles and for the building of the line. The poles were laid on the ground for 75c a piece. The line was built for \$16 a mile. The man building the line had the holes to dig, poles to place, wire to string and the phones to place in the houses. The company maintains the line.

The phone service costs \$10.50 a year, payable quarterly. The line is divided into what is called a circuit. One circuit is supposed to carry 12 phones, but in our neighborhood there are two circuits, each having 14 phones. This was caused on account of so many farmers, after seeing the benefit of the phone, getting one placed in their home.

Those wishing to send a message have to pay 15c, whether he has a share or not; 5c. of this goes to the party from where the message was sent, and 10c. goes to the company. Those having a phone have the use of about 65 miles of telephone service on the rural line, having about 60 phones, besides the use of about 60 phones on the Bell line, all for the rate mentioned.

CHEAPER THAN BELL LINES.

Rural lines can be built more cheaply than the standard Bell lines. Rural companies do not have to pay as much for their charters and they do not need to use the standard size of pole. The standard that the Bell Co. sets is a pole 26 feet long and five inches at the top, whereas those used in our rural line were 22 ft. poles and between four and five inches at the top.

Some may think the cost of the service is rather high for the first year, but the dividend one receives is good interest on his money. Those having the phones would not have them taken out did they cost twice the money. Some thought so many bells ringing would make a confusion, but after the novelty of the thing wore off the bells were no bother whatever. If there is one person more than another who benefits by the phone it is the farmer, on account of the distance he is from town, and from his neighbors. The matter of being always in touch with markets is of no small consideration.

During the hot days of summer dairy cattle should be kept in the stable more during the day and turned out at night. Feed them on ensilage, good, sweet, clover hay and any coarse grains that may be on hand that can be fed at a profit.—John Fixter, Macdonald College, Que.

Keep the speed of the separator a little over rather than under the indicated speed and you will have a richer cream, and obtain a cleaner skimming. After milking, do not allow the temperature of the milk to fall any more than can be avoided before it is run through the separator.—James Stonehouse, Creamery Instructor.

Were the truth known as to just why the average cow does not give a larger annual production of milk, it would be found that much of the fault rests with the milker. Low production is often more the fault of the milker than it is of the cow. Careless hired help, children, or old people, should never be trusted to milk cows. The work requires the best that is in a strong man.—Gavin Graham, Peterboro Co., Ont.



Some Good Ones in which the boys are interested

Clydesdale horses are the pride of the Redmond farm, in Peterboro Co., Ont. Two of the brood mares, and the imported stallion, "Hazard's Pride," may be seen in the illustration. Mr. S. F. Redmond, who is holding the stallion in the background, is an enthusiastic horseman, and one of the well known stockmen of the county.

A Rural Telephone System

R. H. Spence, Wellington Co., Ont.

Our telephone system is controlled by a joint stock company. The company when first started was assisted by the leading citizens, such as the doctors, merchants and the leading farmers, working together. They had first to take out a charter from the government to give them the right to build the line. The company after getting their charter, appointed an agent to get stock. The shares were fixed at \$10 a share. Not more than five shares were allowed to any one person. This enactment was made because at business meetings a shareholder is entitled to as many votes as he has shares. It was thought that in this way the farmer who could not afford to take much stock would be given an equal footing with his more wealthy neighbors. The agent canvassed the farmers in the district in which the telephone line was to run. His object was to receive enough shares to build the line. Almost all the farmers canvassed took one share on the ground that they thought it was a good thing for the district. Those wishing to have a phone installed in their house had to take two shares. Farmers putting phones in had to find their poles and put them in from the road to their houses.

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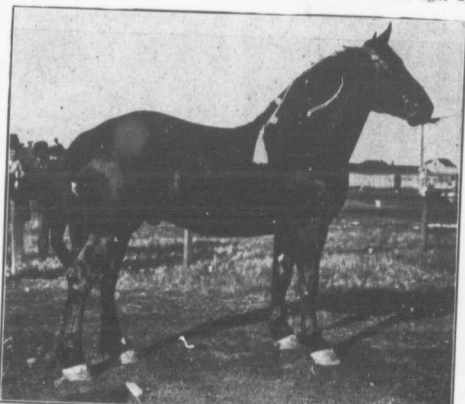
Holstein-Friesian Record of Merit and Record of Performance

G. W. Clemons, Sec. H.-F. B. A.,
St. George, Ont.

As a number of Farm and Dairy readers do not seem to understand the exact difference between the records published by the Holstein-Friesian Association under the headings of "Holstein-Friesian Official Tests" and "Holsteins accepted in the Record of Performance" we herewith give a short description of each system of testing.

The "Holstein-Friesian Official Tests" are the records accepted for entry in the "Record of Merit," a system of registration by performance in which only such cows are entered as have produced the number of lbs. of butter fat required by the standard. The tests accepted must be made under the supervision of an official test-er vouched for by an Agricultural College or Experimental Station, and must be sworn to by each and every person assisting in making them. The standard for the seven day test is as follows:

A cow in the two year form must produce 8 lbs. butter fat.



The Grand Champion Draft Stallion at the Winnipeg Industrial Exhibition. Halifax (Imp.), Two Year Old Percheron Stallion. Owned by Colquhoun & Beattie, Brandon. Winner of First in Class, also Champion Stallion, all ages, and Winner of Championship for Best Draft Stallion, any breed, at the Winnipeg Industrial.

A cow in the three year old form must produce 10 lbs. butter fat.

A cow in the four year form must produce 11½ lbs. butter fat.

A cow in the full age form must produce 13 lbs. butter fat.

All bulls that have four or more daughters which have made official butter records that are recorded in the Record of Merit will be entered in the Record of Merit.

The "Record of Performance" is a semi-official system, superintended by the Department of Agriculture, for testing cows for a full milking period, but must be completed within 12 months. In addition to fulfilling the requirements of the standard set, a cow, in order to qualify for registration, must prove herself a regular breeder. The care of the cows and the weighing of the milk is carried on by the owner of the cow, or by his agent. The verification of the weights of milk and the testing for fat are looked after by the officers of the Live Stock Branch of the Dominion Department of Agriculture.

The standard for this yearly test is as follows:

Two year old class, 7500 lbs. milk and 255 lbs. fat.

Three year old class, 8500 lbs. milk and 289 lbs. fat.

Four year old class, 9500 lbs. milk and 323 lbs. fat.

Mature class, 10500 lbs. milk and 357 lbs. fat.

A New Factor Influencing the Per Cent. of Fat in Milk

The question of increasing the per cent. of fat in milk has been a subject for discussion at almost every farmers' meeting. The farmer as a rule assumes that the richness of the milk is increased by heavy feeding. The College and Experiment Station men basing their conclusions upon the results of numerous investigations in different parts of the world teach that the per cent. of fat cannot be influenced by the character of the ration, except as the work done at the New York Experiment Station indicates that phosphorus compounds may produce a slight effect. In view of the discussion on this question, and the experiences given in Farm and Dairy in recent months, the following matter written by G. H. Eckles, Professor of Dairy Husbandry at the University of Missouri, in Hoard's Dairyman, throws considerable light upon

from birth until she came in milk on a ration of skim milk and hay with only grain whatever. As a consequence, she was decidedly poorer in calf birth. The milk of the heifer in good condition tested over 4 per cent. at the start while the milk from the cow in this condition tested about 3 per cent. The fat content of the milk weight for several weeks and during this time continued to show a high per cent. of fat. When her weight increased she was again put on a diet of fat declined until it was practically the same as the other. The third heifer made no decline in weight and milk. Later she began to gain in live weight, she having been put on a liberal grain ration immediately after calving. Her per cent. of fat increased slightly until the two became practically together. Similar results have been obtained with two other pairs of heifers under similar treatment. The most marked example of how the works out is shown in the following:

A MARKED EXAMPLE.

"A mature Jersey cow was fed a liberal ration for two months before she was put to get her unusually early calf. Immediately after the birth of the calf she was put on a ration that was sufficient only to maintain her body weight, according to the maintenance value as usually estimated. She was fed for 30 days on a ration of three and one half pounds grain and 7 pounds hay a day which was estimated body maintenance. At the beginning she produced 21½ lbs. of milk a day. During the 30 days the decline in milk was very slight. Indeed—at the end of the 30 day period she was producing 19½ pounds a day. During this time she lost 115 pounds in live weight. In the beginning she was smooth and excessively fat for a Jersey cow, but at the end of the 30 days she was decidedly thin and emaciated. Beginning with the twentieth day it was observed that she was becoming weak and she staggered as she walked. On the twenty-third day she could scarcely get up when downed, yet she produced 10 pounds of milk. It was not considered safe to continue the diet any longer and her ration was increased to a normal amount. During the 30 days this cow produced milk continuously until any feed whatever to supply the nutrients. It is evident that the solids in the milk must have been taken from the body and the decline of 150 pounds and 52 pounds of other solids were produced in the milk. The average per cent. of fat during the 30 days was 6.9; the normal test for this cow is slightly under five per cent. Within 48 hours after the 30 day period the per cent. of fat in the milk declined about two per cent.

"Further and more extensive trials are necessary to fully prove this law and, especially, to determine the means and bounds, but it is believed these results are of great significance in a number of ways. In the first place it means that short periods are absolutely valueless in carrying on experiments with dairy cows. If a cow will produce milk for a month without having any food to furnish the necessary material, it is evident that the effect of any feed cannot be measured in a short period. In an experimental way it also has a bearing on methods of carrying out many lines of investigation, as, for example, the effect of feeds on the per cent. of fat in the milk, since here we will have to avoid the probability that milk fat taken from that stored in the body and secreted in the milk is of different composition from normal milk.

"INFLUENCING SEVEN DAY TESTS.

"Another interesting question

(Continued on page 9)

FARM

Quack Grass

I have been told that a quarter acre in new. Just come down with time plowed. This is a method of getting quack grass. You appreciate as well as afflicted and anxious to get rid of it.

Quack grass, which repels the farmer, is a difficult weed to get rid of. It is desired to get it out of your yard probably to plow at once. It is a shallow furrow (four inches or eight inches or plowing to adapt the soil for a deep plow, if a low furrow.

If a shallow should be laid down rolled with a harrowed at the end of a common harrow is still well worth use or stiff tilled with a plow. If the use might be left there is sufficient roots to start and remove them should be worn: a good plan to at the rate of 200 acres. Do not so a plow for a should have been that time.

If deep plowing should be set to cut a good work. The soil as soon as plowed is showing as with disc harrow. If any possible give a thorough broad toothed spring toothed use taken in to plow and sow weeks and sow a buckwheat an acre sowing seedling till so that grain gets H. Grisdale.

Grass for

Could you advise would be the best? The soil is a heavy clay. In floods in the spring have raised heavy or does not last long. Top and good to sow on top on it until late the grass does not grow. If you are plowing it now, intend to sow it better. Some of my neighbors, I believe, have sown H. Glen View, Ont.

The chances are getting a good crop of grass at this time if from now on you favor favorable the industry catch. You find the kind of grass in the field in question. The grass that will stand for any length suggest your sowing pounds Timothy, 15 and three pounds of acre. Cultivate land a good seed bed, the into two equal parts walking lengthwise the other half sowing

FARM MANAGEMENT

Quack Grass in New Ground

I have a patch of quack grass about a quarter acre in extent. Piece of ground is new. Just out cow first and so I'd down with timothy. It has now been a year. Please advise me of the best method of getting completely rid of this quack grass. Your reply will be greatly appreciated as some of my neighbors are also afflicted with the weed and am anxious to get rid of it.—Alex. T. S. Hilliard, Ont.

Quack grass, couch grass (*Agropyron repens* L.) is one of the most difficult weeds to eradicate. If it is desired to get rid of the weed this year probably the best plan would be to plow at once with either a very shallow furrow (absolutely not over four inches) or with deep furrow, eight inches or more. The style of plowing to adopt should depend upon the soil. If a good strong, soil then plow deep, if a light soil use a shallow furrow.

If a shallow furrow is turned it should be laid as flat as possible and then rolled with a heavy roller and harrowed at frequent intervals with a common harrow. After the surface is fairly well worked up a spring tooth or stiff toothed cultivator should be used. If the weather is dry the roots should be left upon the surface. If there is sufficient rain fall to cause the roots to start up growth quickly, it would be better to gather together and remove them. If the weather should be warm and moist it is often a good plan to sow rape broadcast at the rate of about eight lbs. an acre. Do not sow till land has been plowed for a couple of weeks and it should have been well worked during that time.

If deep plowing is practised then a harrow should be used and it should be set to cut as deep as it will do good work. The land should be rolled as soon as plowed. Roll each half day's plowing as it is done. Harrow with disc harrow at frequent intervals. If through working with harrow give a thorough working with a broad toothed cultivator. Do not use spring toothed cultivator.

When taken in June a good plan is to plow and work for a couple of weeks and sow about two bushels buckwheat an acre. Be sure to postpone seeding till a good growing time so that grain gets a good start.—J. H. Grisdale.

Grass for Low Land

Could you advise me what kind of grass would be the best to sow on a field of low ground? The soil is principally macs with a heavy clay bottom. The field is flooded in the spring for a week or two. I have raised heavy crops of hay on it, but it does not last long until it goes to red top, and poor at that. I cannot get grain sowed on it until late in the spring and the grass does not catch, and then the plowing is now, intending to sow timothy grass on it about August 15th, so if there is anything better, would be glad to know. Some of my neighbors advise sowing alfalfa, some say red top and so on.—A. H. Glen View, Ont.

The chances are very strong against getting a good catch of timothy by sowing at this time of year, although if from now on the weather should prove favorable there might be a satisfactory catch. Your letter indicates the kind of grass not suitable for the field in question. Red top is the only grass that will stand being under water for any length of time. I would suggest you sowing a mixture of five and three pounds alfalfa clover an acre. Cultivate land thoroughly, get a good seed bed, then divide the seed into two equal parts, sow one half walking lengthwise of the field and the other half sowing crosswise to en-

sure even seeding. Give stroke of the common harrow after seeding, then roll.—J. H. Grisdale.

Quick Methods of Curing Hay

Ed. Farm and Dairy.—The article I contributed and which appeared in Farm and Dairy July list, on "Curing Hay by Modern Methods," was again verified this present season. If you could examine my present crop, the hay from 30 acres of which is already stored, you would find that none of it is discolored by wet weather. Our hay for the past three years, has been cured by the use of the Dain Side Delivery Rake and Loader. We did no coiling whatever,



Raking a Field of Timothy, the Last of the Hay Crop

Much timothy is allowed to stand too long thereby becoming mature, and of inferior feeding quality. Harvesting is much simplified when the hay is ripe as it side-delivery rake, and loader—there is little justification for allowing hay to cure on the stem.

this year. We find it a waste of labor and entirely useless.

Hundreds of tons of hay that were out in coils in our recent downpour of rain will largely result in more up-to-date methods being used in future and a more general use of improved haying machinery such as side delivery rakes and loaders.—F. C. Caldwell, Carleton Co., Ont.

The Angoumois Grain Moth

Throughout the southern part of Pennsylvania there has for some years been a small destruction of hundreds of thousands of dollars worth of wheat in this bin by a little pest very commonly called the White Weevil or Moth weevil. As a matter of fact it is not a weevil but a moth, the larva of which lives within the grain of wheat and hollows it out to such an extent that it becomes a mere hull of bran. It is ruined for milling purposes, and, of course, badly injured for domestic use.

The Angoumois Grain Moth is so named from the province of France where its ravages were first most noted. The mature moth lays its eggs on the grains of wheat while in the head or straw and as it feeds voraciously and but a short time, it multiplies rapidly, giving several successive broods. Where the wheat is left in the straw, when the stack or mow it has been found to be more infested than when the grain is put in a bin. Several farmers have acted upon his recommendation of threshing the grain soon after harvest, and have found the results quite satisfactory. One farmer reports that half of his crop, which was threshed

shortly after harvest, was entirely uninjured by this pest; while the other half, that was not threshed until the latter part of fall, was nearly all destroyed.

The remedy therefore, is one of the simplest, and at the same time one of the most effective, that could be applied, and consists in merely threshing the grain as early as is possible and storing it in the bin, rather than keeping it in the straw unthreshed. In the grain bin the moth weevil will work only in the top layer of grain if at all; and, if it should be found there, as would be indicated by the heating of the grain, it can easily be killed by pouring carbon bisulphide into shallow dishes, and

placing them on the grain under cover of wet blankets.

Farm and Dairy is to the farmer what a trade paper is to the merchant. No up-to-date farmer can afford to do without his trade paper.—H. J. Carter, Prince Edward Co., Ont.

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HORTICULTURE

Methods of a Practical Pear Grower

"One of the best pears that I grow is the Wilmot," said Mr. E. C. Beman, of Bowmanville, Ont., to an editorial representative of Farm and Dairy who visited that locality this summer. "It is a good cropper and very hardy. I have taken 120 barrels of this variety off half an acre. The Bartlett did well with me until a year or two ago, but now it is not doing so well. I grow the Clapp for earliness but not for profit. The Bose is a good keeper and shipper but it is not as hardy as I would like."

Pears grow best on a strong clay loam of good depth running from six to eight feet before striking hardpan, according to Mr. Beman, who discussed pear culture in general with our representative. He plants his trees 30 feet apart one way and 20 the other. They are cultivated from the time of yearling until they are about 10 years old when they are left in sod.

Trees are trained in pyramidal form. Each year, varieties such as Clapp and Wilmot have the new growth headed back about one half. The trees are kept fairly well thinned out.

In reference to spraying, Mr. Beman said, "I spray for codling moth and fungus diseases with Bordeaux mixture and Paris green as soon as the blossoms drop and repeat the dose two weeks later. I believe that profitable spraying depends more upon thoroughness in doing the work rather than upon the number of times that it is done."

Strawberry Pests

In regard to strawberry pests, State Zoologist Surface, of Pennsylvania, states that the best general means of suppressing them lies in a novel method of summer treatment of the strawberry plant, which many persons would hesitate to apply, but which they will find so effective that it will become a regular feature of their mode of culture after its benefits have been observed. This consists of nothing more nor less than mowing the strawberry leaves as low as possible shortly after the berries are picked, throwing these together with a little straw between the rows, drying them quickly on a hot, sunny day, and then burning them on site.

The strawberry leaf rust and leaf spot are among the diseases that are very destructive and contagious. They can be partially prevented by the use of Bordeaux mixture, but the germs causing the leaf destruction remain in the soil from one year to another. Also, the aphid and several other insect pests attack the leaves during the summer. It has been found that if the leaves are mowed closely on a warm, dry day, and slightly dried and with just a little straw and then burned, the pests are practically all destroyed, and the plants themselves escape uninjured. Consequently, this is the time of year to give such treatment.

Good new runners will be formed at once; especially, if a little commercial fertilizer or finely-divided manure from the stable or poultry house be scattered over the roots of the old plants and these be cultivated in the regular manner. New leaves will yet be formed this season, and the plants will be put in good condition for bearing a much more abundant and a healthier crop next year than if the leaves had not been burned. Persons who doubt the efficiency of this treatment should mow the leaves of

some of the plants, and see the results for themselves.

Bordeaux Mixture

The Illinois Agricultural Experiment Station has issued a bulletin (No. 135) on "Bordeaux Mixture." It is filled with valuable information, which may be summarized as follows:

1. Bordeaux mixture was discovered by accident in the fall of 1852 by Professor Millardet, of Bordeaux, France.

2. Original formulas have been greatly modified. The first formula contained more than six times the copper sulphate and nearly 12 times the lime per gallon of water that is found in the present standard 4-4-40 formula.

3. It is conclusively demonstrated that mixtures made with air-slaked lime are not only extremely injurious to foliage, but are much less adhésive than are mixtures made with fresh-slaked lime.

4. The chemical reactions that occur when copper sulphate and lime are combined take place in a manner to give best results only when the ingredients are combined in certain definite proportions. Hence formulas should be strictly followed.

5. Equal and full dilution of the milk of lime and the copper sulphate solution, before mixing, give mixtures that are least injurious and of maximum adhésiveness.

6. With all precautions taken, injuries to foliage sometimes occur and are not to be avoided. In such cases injury is usually associated with unfortunate weather conditions.

7. Rightly made Bordeaux mixture is remarkably adhésive. When once on the leaves it is not easily removed by the action of its defensive action for long periods.

8. There is decided advantage in the maintenance of an excess of lime on the leaves. This must be accomplished by subsequent applications of milk of lime and by additions of lime to the original mixture.

9. There is no evidence indicating danger to orchard trees from accumulation of copper sulphate in the soil as a result of spraying.

10. Well made Bordeaux mixture contains no copper in solution, but small quantities of copper become soluble very soon after application to foliage. The presence of free calcium hydroxide, in large excess, retards, but does not entirely prevent, solution of the copper.

11. Bordeaux mixture on foliage yields soluble copper more rapidly under the action of meteoric waters than under the action of waters artificially applied. Injury to foliage follows the action of rain in some cases, but does not result from water artificially applied.

12. Physical condition of leaves at time of spraying is important. Leaves injured by insects, or attacked by fungus, are especially susceptible to additional injury by Bordeaux mixture.

13. Epidemics of the trouble known as "yellowing of the leaves" appear to have no relation to weather conditions and no evidence has been found that Bordeaux mixture shows yellowing. Experiments do show definitely that copper sulphate solutions cause yellowing and that the degree of yellowing depends upon the strength of the solution.

14. Healthy bark of trunk and branches is impervious to Bordeaux mixture and to solutions of copper sulphate.

15. Copper sulphate solutions varying between 1:100 and 1:1000 when absorbed by trees through wounds, invariably kill the leaves which then become brown.

16. In one instance absorption of a

solution 1:20000 was followed by yellowing of leaves.

17. Examinations of drip waters from sprayed trees show the early appearance of a continued presence of copper in solution. They also show the extreme adhesiveness of Bordeaux mixture and the slow solubility of the copper.

18. The conclusions to be drawn from the work recorded in this bulletin will be mentioned in a later issue of Farm and Dairy.

Growing Ginseng

I would like to start a ginseng garden, but feel that if the farmers start to grow it by the acre, in a few years they will "beat the market." What do you think about it?—S. R. Huron Co., Ont.

If ginseng were an annual they might do so. Let us see what it would mean to grow ginseng by the acre. One would require 80,000 one-acre plots to plant one acre. It would require 800 posts set in the ground to support the shade besides all the other material for erecting the shade, probably costing perhaps \$4,000. To have the product of one acre annually for market, one would require to keep five acres under continuous cultivation. I think we need not have any fear of the market being glutted from that quarter. It is my opinion, considering the peculiar nature of ginseng, that it can be grown more profitably in small plots. It is well adapted for suburban residents of cities and towns who have gardens to produce annually, say, from 15 to 30 or 50 pounds of dry roots or more according to their means and room to grow it in. If it is near the house, they can attend to it in their leisure time. Such people will find it a very interesting occupation besides being largely to their income. Of course, the farmer could grow it and some will, but the average farmer would not give it the care and attention needed for success.—W. J. Gilgore, Peterboro Co., Ont.

The apple crop is under the average. Peach crop is light. Orchards are quite free from insects, except the green aphid.—J. E. Annable, Nelson, B. C.

The strawberry crop was exceptionally good, being above the average. Raspberries are about half a crop. Blackberries promise well. Plums average, the yield being lessened somewhat by the ravages of the aphid. The area of sprayed orchards is increasing every year. Growers are be-

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coming more alive to the benefits to be derived therefrom. We have three associations in this district for the packing and exporting of apples, the last one being formed about a couple of years ago.—R. C. Fowler, Burlington, Ont.

Potato Diseases.—At the Vermont Agricultural Experiment Station, Bordeaux mixtures and lime-sulphur were used to combat injuries in potatoes. The lime-sulphur plots gave a 37 per cent. larger yield than did the unsprayed plots, while Bordeaux twice applied yielded 67 per cent. more and the applied four times 141 per cent. more than did the unsprayed plots. Eighteen years of Bordeaux usage at the Station emphasize its value. The lowest gain has been 26 per cent., the highest 215 per cent., the average 92 per cent.

HOW IT CAN BE

As already noted, assistance in other countries found an outlet for their fowls. In the past, Canada have had to assist the producer with his neighbor to find the best market for the poultry industry of Eastern and Great Britain. Its objects and aims in the constitution, wishes to do for poultry what similar societies for the poultry industry of Great Britain and Great Britain are doing. It is not intended that should act as a model and sell. Its work is educational. By educational, to assist in two local branches, circles it will demonstrate of combination. It is to keep the buyers in members and establish dards of dress and quality. The constitution, dressed poultry and printed and may be sent the Secretary.

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POULTRY YARD

Poultry Industry in Canada

Prof. F. C. Elford, Macdonald College
 In the last two issues of Farm and Dairy we have sought to outline the Poultry Industry of Canada, and compared it with the industry in other countries. We shall now deal with the matters of where the money goes to in the egg business and show that co-operation is practicable in Canada. Mr. Hastings provides the following table of figures which shows where the difference of prices goes to. "Elements of cost of a dozen eggs purchased by a New York consumer. Paid the farmer.....15c Profit of the Country Store.....0 Gross profit of the shipper.....5c Freight to New York.....5c Gross profit of receiver.....5c Gross profit of jobber.....15c Gross profit of retailer.....4c Loss from handling.....2c Cost to consumer.....25c

IS CO-OPERATION PRACTICABLE?

It has been said that co-operation amongst poultrymen is not practicable in Canada, that farmers are too sparsely settled and of too independent a spirit to co-operate. To answer these objections one has but to notice what has been done by co-operation along similar lines by and among the same people. The co-operative fruit packing establishments illustrate that farmers can come together for mutual benefit. What would the dairy trade of Canada be but for co-operation? In '01 there were 755 factories, in '01 there were 3,576 factories, with a combined value for plant and buildings of over \$6,000,000 and a total value of products sold in '01 of nearly \$30,000,000. What co-operation, judiciously encouraged and controlled, has done for the dairy industry of Canada it can do for the poultry industry. If farmers can co-operate with their fruit and milk interests, they can co-operate with poultry production. There are but few interested in either fruit or milk but who are interested in poultry also. Co-operation in selling poultry products already exists in a few instances. As the benefits of such circles are realized others will doubtless follow. As however, the preliminary educational work necessary is less than private individuals feel slow. It is felt that assistance along these lines would be productive of good results.

HOW IT CAN BE ACCOMPLISHED
 As already noted, Government assistance in other countries has usually found an outlet through existing societies. In the past the poultrymen of Canada have had no organization to assist the producer to grow a better article, to assist him to co-operate with his neighbor and to help both to find the best market. For this purpose the Poultry Producers Association of Eastern Canada has been formed. Its objects and aims are set forth in the constitution. The association wishes to do for poultrymen of Canada what similar societies have done for the poultry industry in Denmark and Great Britain. For the present it is not intended that the association should act as a middleman and buy and sell. Its work will be largely educational. By establishing one or two local branches or co-operative circles it will demonstrate a rational combination. It will also endeavor to keep the buyers in touch with the members and establish uniform standards of dressed poultry and eggs. The constitution, rules, grades for dressed poultry and eggs are being printed and may be had by addressing the Secretary.

A Camera for Four New Subscriptions

Objects and Aims of the Poultry Producers' Association
 A. P. Hillhouse, President, Bromo Co., Que.

Although we do not hope at first to revolutionize or change the whole poultry industry, we do hope to remedy certain existing conditions which are greatly to the disadvantage of the industry as a whole. The backbone of the poultry industry is the farmer, on the farm, and although poultry plants now and in the future may come to their share, yet for some time, fully 90 per cent of poultry products will owe their origin to the farm, so one of our first aims will be to assist farmers.

Most farmers are small producers of eggs and poultry. Owing to the light weight and perishable nature of these products they do not produce enough individually to enable them to make frequent and large shipments to distant or best markets. Under these conditions we consider that a co-operative system might be established in various localities and eggs and poultry brought into a central packing and shipping point. At present, farmers have individually small lots that cannot be marketed till they are stale. These could be gathered together and packed a sufficient parcel to be shipped while still fresh. This would do away with the present wasteful system most universally practiced in all parts of the country, of marketing eggs at the village grocery in exchange for goods. No attention is given to age or quality. They never reach the consumer until its best when just laid and the longer time taken in putting it on the consumers' table the less it is worth.

TO IMPROVE THE TRADE.
 Then by establishing grades for these eggs we think that the whole trade will be greatly improved. We do not want the saying that "an egg is an egg" to continue. We all know that there are vast differences in eggs, and we want people to say these are "selects" or No. 1 from Stanbridge, from Farnham or from Bondville as the case may be, and we want them to want that and No. 1's. We do not want that there be any question represented and graded to that we want the dealers and consumers to be able to order whatever grade they want, knowing that they will receive that grade and pay for it and get more value for what they pay. The same will apply to poultry of all kinds. We quality more produced of the better sold at a profitable price, and less at an unprofitable price. This will be in the interest of the producer, dealer, consumer, and the country.

The farmer should not sell his poultry at seven or eight cents a pound as they run, when by selling three weeks more of crate fed, double this price might be obtained. Farmers fatten their cattle and their their poultry? There is no place where they can be fattened better and more economically than on the farm. It will not take any more time feeding for all other stages of their growth. One of the most essential feeds for fattening—skimmed milk—is usually found on the farm.

WHY MENUS ARE NOT FATTENED.
 We have been looking up the reasons why more fattening of poultry is not done on farms. We find the chief difficulty seems to be the lack of experience in buying, plucking and cases, lack of knowledge of the markets, and the feeling of uncertainty that exists between the producer and the consumer. Hence our proposed system of co-operative fattening, packing and shipping centres all these difficulties will be overcome. Farm-

ers will not be required to do the plucking, packing or shipping and will know that the market end will be handled capably and satisfactorily for them.

At present it is not the intention of the Association to buy and sell the produce of the branches, but to assist in the bringing the consumer nearer the producer. This may be done by shipping as direct as possible and through as few hands as practicable. All members will not receive the right to the use of the brand of the Association, but only those where there is a local branch, and the produce is shipped through the local manager or perhaps in exceptional cases where the individual may not have co-operation privileges. The gradings may be severe but none too severe for an Association that wishes to have its brand stand for the best. It is not expected that the Association will market large quantities under the brand this year. It will merely pay more attention to quality than quantity.

Fattening Ducklings

When ducklings are five to nine weeks old, fattening should commence. The age at which the ducklings are sold depends very largely upon the breed. For a Cleyburner—the quickest grower there is—is ready for fattening at about five weeks, the Pekin seven, and the Rouen nine. The period lasts three weeks, and thus we see that Aylesbury ducklings should be quite fit for killing when eight weeks old. Pekins and Rouen 12. At these ages the birds should weigh from 4 lb. to 5 lb. The ducklings during the fattening period are best divided into flocks of about 25, those as even in age as possible being selected.

The finest food for fattening is boiled rice, with the addition of a little fat. This fed three times a day produces the finest flesh, of first-class quality and flavor. Those who supply a second-class trade employ middlings and barley meal; others, again, use maize. The barley-meal and middlings form a good mixture—not as good as rice, however, but maize is a most unsuitable food, and should be avoided. It has the effect of producing fat rather than flesh. Green food and grit must be regularly supplied, without which good results will not be achieved. The birds should be fed three times a day, and no water should be given them to drink after they have finished eating.

Hens Have Diarrhoea

I am feeding my hens wheat and tinned potatoes and buttermilk occasionally, but a number of them have died. They have diarrhoea and run down. I have that for a few days, they take lime lumps and their combs turn black and they do not

eat very well. Kindly tell me what to do.—Mrs. R. E. Durham, Ont.

Make the boiled potatoes and milk into a mash and in it put epsom salts, one half teaspoonful to each hen. Don't feed any more potatoes until next week when the dose may be repeated. Do not feed so heavy on potatoes and milk for a week or two.—F.C.E.

A New Factor Influencing the Per Cent of Fat in Milk

(Continued from page 6.)

brought up by these experiments is its relation to the common method of carrying on seven days tests of dairy cattle. It has been the subject of comment frequently by leading authorities that in recent years men higher fat percentages are secured in seven day tests than was formerly the case. The possibility of increasing the per cent of fat in milk for a period after calving by the means mentioned has apparently been used by those who are the most successful in making these phenomenal seven day tests. A cow that will average 3.2 per cent of fat for the year, can with reasonable certainty be made to test 4 per cent, or even higher for a week if properly handled. The way it is done is to fatten the cow as much as possible before calving. Then after calving the animal is fed only moderately and the test is begun within four or five days. Under these conditions the animal has insufficient feed to support the enormous milk and fat production. Since her body is loaded with fat, this fat is taken from the tissues and a large amount of it secreted in the milk.

As said before, a large amount of additional investigation will have to be carried on to establish the limitations of this method of making it possible to understand its full significance. The investigations under way in this line, it is hoped, will supply data that will make it possible to reach some definite conclusions. The material already at hand is sufficient and so consistent in every respect that in the opinion of the writer there is no doubt of the accuracy of the general proposition laid down. The reason for presenting this preliminary statement regarding this work is that it will be some time before results can be worked out in detail and an account of the importance of the subject and its many applications, as seemed to the writer to justify this preliminary notice."

We think every farmer should have such a paper as Farm and Dairy in his home. It is worth a place in any home. Farm and Dairy is pure, clean and up-to-date in every particular.—J. S. Keller, Lambton, Ont.

SOME EXCELLENT PREMIUMS
 Get a Copy of our New Premium List

Farm and Dairy has recently issued a new Premium Catalogue, in which illustrations and descriptions are given of a large number of useful premiums that will interest you. These premiums are not for sale but are being GIVEN AWAY. Full descriptions are given for securing any premium that may interest you. Write for a copy. Send us a post card, and one will be sent you by return mail. Address:

CIRCULATION DEPT., FARM AND DAIRY PETERBORO, ONT.

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FARM AND DAIRY

AND RURAL HOME

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FARM AND DAIRY

PETERBORO, ONT.

MUCH IMPROVEMENT POSSIBLE

The dairy herds of Canada are capable of great improvement. The average yield of the Canadian cow is repeatedly stated to be practically 3,000 pounds per annum. Thanks to the work being done by the cow testing associations satisfactory evidence of much higher averages is available. Cows giving as high as 13,000 pounds of milk in a year are not uncommon, while records of whole herds in Ontario that average from 8,000 to 10,000 pounds in a year have been cited.

That part of the report of the Scottish Agricultural Commission that deals with the milk yields of Canadian cows gives these as ranging from 4,038 pounds in Ontario to as low as 2,184 pounds in Prince Edward Island. The report reads:—

"These figures contrast most unfavorably not only with Scottish and Danish records, but also with the records of well fed and well selected herds in Canada. In Ontario one herd of 65 cows had an average record of over 10,000 pounds. Even in Prince Edward Island several herds have averaged over 7,500 pounds. At

Truro College farm, we found a Holstein cow with a record of over 18,000 pounds."

These contrasting figures were received by the members of the Commission with bewilderment. With an average of a little over 2,000 gallons (2,000 pounds)—and of course many herds must be well under that average—how can such dairymen carry on their business at all? More bewildering still, why should they?

As the work of the cow testing associations spreads, those cowstads that do not produce more than the average Canadian cow will cease to be kept. It is gratifying to note that where individual records are kept there is for a period of two years or more, each year sees a considerable increase in the average herd production.

HEAVY HORSES IN DEMAND

Farmers in certain sections of Durham and Ontario Counties, Ont., have wisely devoted much attention of late to breeding heavy horses. Large numbers of young horses ranging in age from sucking foals to those in their three year old form were seen in this district recently by an editorial representative of **Farm and Dairy**. It appeared as if horse breeding was common to nearly all farms in that section, and a noteworthy feature of the situation was that for the most part all seemed to breed the same class, the Clydesdale.

Reward is already coming to these farmers for their enterprise in pinning their faith to one breed and breeding it in numbers. The district is becoming noted as one where heavy horses are raised. Buyers with long prices are coming there in search of such stock. Only recently a buyer from Quebec spent several days in the region back of Oshawa buying horses for the lumbering business. He wanted good sound horses from 1500 pounds up. He found them difficult to get and when located he paid \$200 to \$250 a head for them.

This buyer came past Montreal to get these horses. Many could have been obtained in that city. He preferred, however, to buy direct from the farmers where he could see the horses at work. He was not particular as to their condition, simply requiring that they be of suitable conformation, up to weight and sound, and for such he was willing to bid, and pay the price asked. Other localities may well take a pointer from this experience and get into the heavy horse business. Breed them right and they will command prices that spell profit and if enough are available, buyers will soon be abundant. Heavy horses are the right sort to breed. They are the most easily handled and are practically sure of a market.

IS IT A HOPELESS TASK?

There are some, who, considering the rate at which certain weeds are spreading, are about ready to throw up their hands and take the consequences. Three weeds loom up very large in some districts in this connection. These are wild mustard, bladder

campan and perennial sow thistle. Of these three the first is most common as yet. It is the least dangerous, and yet it is a most universally hated weed. If one's troubles, so far as weed life is concerned, were confined to mustard he might count himself happy. This is one of the few weeds which seems to interfere with the growth and development of crops very little. No one, however, would court its favor even if it did not give very serious trouble. Being a simple annual it is easily killed. If it could be prevented from going to seed it would soon run out. When the land gets full of seed it becomes a difficult matter to eradicate it because of the great vitality of its seeds which may remain unimpaired in the soil for it is hard to say how many years.

In the old country some few years ago, experiments seeking to eradicate mustard were tried on some fields almost entirely occupied by mustard plants. In ten years, by thoroughly spraying the young mustard with a solution of copper sulphate, and practicing a short rotation, together with best methods of cultivation to grow and otherwise kill the young plants, it was claimed that they had succeeded in practically exterminating it.

With bladder campan and perennial sow thistle the task of extermination is more difficult, but it can be done and it will pay to do it. The most effectual means of dealing with these is by a process of smothering them through cultivation, best done with a broad-shared cultivator. Keep both of these plants from going to seed until they can be handled in a summer fallow. Plow once quite deep and after that give frequent cultivation throughout the season with a broad-shared cultivator and both bladder campan and sow thistle must succumb. A number of definite ways of dealing with these weeds have recently been discussed in **Farm and Dairy**, to which those specially interested might wish satisfaction to themselves refer.

WHERE ALFALFA IS HIGHLY VALUED

Alfalfa is becoming more and more prized as a valuable forage plant. In some sections that seem peculiarly adapted to alfalfa and where it has been thoroughly tested it has become very popular and is proving a most profitable crop. The district in the vicinity of Caledonia, Haldimand County, Ont., comprises some rather rolling ground. In many cases, the hillsides are a stiff, red clay, not the kind of land that the average farmer would choose to produce the best of crops or that could be worked easily. While in that section recently, an editorial representative of **Farm and Dairy** learned that about 25 years ago, a Mr. Douglas, a progressive farmer, sowed some alfalfa seed and thereby discovered that these clay hillsides are adapted to the growing of the alfalfa plant. Since that time, neighboring farmers have taken to growing alfalfa. Now, some of them

have areas as large as 100 acres devoted to this crop. They find that in conjunction with corn in the silo, alfalfa is one of the best and cheapest feeds for dairy stock. The alfalfa is fed to all kinds of stock and gives excellent results.

Under ordinary condition, land in that vicinity would not command a high price. Since it has been found that this particular soil is suited for the growth of alfalfa, land values have risen and the values will yet go up. Land that will produce alfalfa with the certainty of this soil, would be cheap at \$100 an acre. When we consider the success that some have met with in the growing of alfalfa, it is surprising to find that other farmers in the same locality with land that is equally suited for this plant have never sown a handful of alfalfa seed but stand by timothy and red clover (mostly timothy) and the growing of fall wheat and oats, selling the same from their farms. It is noteworthy, and not surprising, to find that men in that locality who have grown the most alfalfa are gradually buying out their less enterprising neighbors.

Too much of any one thing is often a bad commodity to have on the farm. Many realize the truth of this as applied to swine. The same is almost equally true of any other branch of the farm. It is true of wheat. Because the price is a fair one, well up to the dollar mark, is no reason why the acreage in wheat this fall should be unduly increased in Ontario. The man of averages, he who follows mixed farming in its truest sense, is the one who in the long run is the prosperous farmer. Sow a reasonable acreage to wheat this fall if you are so situated as to make such advisable, but let not the present price of wheat unduly influence the area that you will sow.

Harvester Excursions

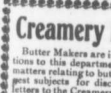
(The Toronto Globe.)

The demand of the West for labor in the harvest fields is again in sight, and no doubt there will be plenty forthcoming even for handling the splendid crop in immediate prospect. Many newly-located settlers will be eager to earn ready money by helping on established farms. Some Ontario farmers who have finished their own harvesting will welcome the chance of seeing the country and returning with a surplus. Homesteaders will as usual improve the opportunity, and there will be the expected recruits from the unemployed and the newly-arrived immigrants.

Experience should suggest provision against former mistakes. The roystering that attended last year's excursions should be prevented, both by care on the part of the railway authorities in the distribution of the men, and by the presence of a sufficient number of constables to preserve the peace. The men must not be made to feel that they have grievances, and their tendencies to boisterous pranks should be promptly checked. Earlier excursions covered only parts

of the railway not good to work could be return checks men who could where work is stranded. More

promptly an opportunity, late owing to laboring a severe out of work opportunity. Two entirely different guests preparati there will be rior available, o industries the year. Every in problem of c for none need of men available few busy weeks farmers will be of keeping their ployed. This adoption of n change will serv of avoiding any of the soil. If large nor so im attendant a surance of labor mands of harvest fiding trust in c been available s such trust may so The farmers' s should provide s supply of labor b pressed by a ser loss. A harvest handle it would b



Creamery
Butter Makers are
attentions to this department
get subjects for letters to the Creamery

Cheese and Exhib

At many of the United States regu ter scoring exhibiti to that appear to work in the way what the defects a their products are might be worth co nnection with Cana At one of these tions held at the school last Februar butter and cheese entry of cheese was expected during the few extracts from ments on the scor educational value o Most of the cheese from old milk to c cases was marked ented why flavor, in some cases "ran flavor was also fou its. The judges poi is due to milk be too long in winter had been kept in before being deliver The judges, as a rter care of the mil the through steriliz utensils used in milk at the farm. that there will be

of the railway lines, and tickets were not good to points where sufficient work could be obtained to validate the return checks. The result was that men who could not pay full fares to where work could be obtained were stranded. Men thus treated are easily prompted to acts of violence when an opportunity arises.

Last season was specially unfortunate owing to an unusual excess of laborers. The excursions were held during a severe depression, and men out of work eagerly seized the opportunity. This year conditions are entirely different, and the change suggests preparation for the time when there will be no great surplus of labor available, during what is in most industries the busiest season of the year. Every industry must solve the problem of continuous employment, for none need expect to find a force of men available for service during a few busy weeks every year. Western farmers will be forced to devise means of keeping their men continuously employed. This can be done by the adoption of mixed farming. The change will serve the further purpose of avoiding any threatened exhaustion of the soil. If the profit is not so large nor so immediate, there will be an attendant advantage in the assurance of labor for the sudden demands of harvest. So far by a confiding trust in chance the labor has been available every season. But such trust may some day be misplaced. The farmers in the prairie country should provide systematically for a supply of labor before the need is impressed by a serious and widespread loss. A harvest without the labor to handle it would be indeed a calamity.

Creamery Department

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

Cheese and Butter Scoring Exhibitions

At many of the dairy schools in the United States regular cheese and butter scoring exhibitions are conducted that appear to be doing excellent work in the way of showing makers what the defects and good points in their products are. Similar contests might be worth considering in connection with Canadian dairy schools.

At one of these contests or exhibitions held at the Wisconsin dairy school last February, 87 exhibits of butter and cheese were scored. The entry of cheese was small as would be expected during the winter season. A few extracts from the winter season's comments on the scoring will show the educational value of these contests. Most of the cheese scored was made from old milk. The flavor in many cases was marked "unclean," "fermented whey flavor," "lacking," and in some cases "rancid." A "bitter" flavor was also found in a few exhibits. The judges pointed out that this is due to milk being kept at the farms too long in winter and also that it had been kept in too cold a place, thereby being delivered to the factory. The judges, as a remedy, advise better care of the milk on the farm, and the thorough sterilization of all milking utensils used in handling the milk at the farm. They point out that there will be no danger of de-

veloping a bitter flavor in the cheese, even if the milk is held at a low temperature, while at the farm if all the milk utensils are perfectly clean and carefully scalded before they are used. The texture of the cheese indicated that the cheese presses were in a cold place as the cheese did not seem to close up properly when in the press. As a remedy the judges recommended pressing the cheese in a place where the temperature does not go below 60 degrees.

BUTTER CONTESTS.

In the butter contest blanks were filled in by the makers giving information covering all the processes connected with the making of the butter from the time when the milk or cream is received until the butter is ready to ship. Most of the butter received in the February scoring contest showed the effects of winter conditions: Old cream, over-ripe flavors, oily and greasy texture and exceptionally low moisture content.

WATER CONTENT OF BUTTER.

It is interesting to note that there has been a gradual increase in the moisture content of the butter of about two per cent. during the seven years previous to 1907. The general average water content in creamery butter in 1900 was 11.3 per cent. The average water content of 658 entries of creamery butter received at the Wisconsin Dairy School scoring exhibitions during 1907 was 13.36 per cent. Butter makers evidently are learning how to control the moisture content of their butter and it is expected that in a few years the average water content of American creamery butter will be at least 14 per cent or about the average water content of the Danish butter at the present time. The water content of most of the butter in this February exhibition ranged from 11 to 12 per cent, which is below the average and as the judges pointed out, is due to the cream being churned at a very low temperature and the butter being worked in a cold room. The highest score was 95.66 points, with a moisture content of 16 per cent.; the lowest 88.50, moisture 10.2 per cent. and the average 91.76 points with an average moisture content of 13.44 per cent.

EDUCATIONAL VALUE OF CONTESTS.

But the point that concerns Canadian dairymen is not so much the quality of cheese as is made in other countries, as the educational value of these scoring exhibitions. Is it of sufficient importance to justify the establishment of similar scoring exhibitions in Canada? The maker should benefit very much by having his butter or cheese scored by competent judges at regular intervals during the season. He would know then where he is and could change his methods or seek to remedy defects in other ways.

Butter from Petroleum

A report from New York says that The Standard Oil Company has decided to drive the cow and the dairyman out of business. Its skilled chemists have discovered a process whereby they can make gilt-edged butter as a by-product of crude petroleum. If reports are true, plans have been prepared and contracts soon are to be let for the erection of a big buttermaking plant as a new department of the Standard Oil works at Bayonne, N. J.

Since the new process was discovered, every precaution possible has been taken by Standard Oil officials to prevent the secret leaking out, and it was only by accident that it became public. The butter, cream, sweet milk, buttermilk and cottage cheese markets soon are to be dominated by Standard Oil (so the report states). None of the officials, chemists or employees of the Standard Oil



Ask Him

When the agent for the imitating Cream Separator has finished his assault on your intelligence, ask him:—

- Where did you come from?
- How long has your machine been on the market?
- How long will it be?
- Why should I buy it rather than the De Laval?
- As you claim it to be the same as the De Laval, why should I take a chance, when I can buy the genuine De Laval?
- Has your machine the Split Wing Tubular Shaft? Why not?
- Won't it be a long time to wait until the patents expire?
- Will you agree to skim as well as the De Laval?

Then put it in the order that it must do as well as the De Laval or no sale

THE DE LAVAL SEPARATOR CO.

173-177 William St.

MONTREAL

WINNIPEG

VANCOUVER

Company will admit that the company is soon to invade the dairy product field.

Adulterated Milk

Adulterated milk is defined by the Act governing its sale in New York State as follows:

- 1.—Milk containing more than 88 per cent. of water or fluids.
- 2.—Milk containing less than 12 per cent. of milk solids.
- 3.—Milk containing less than 3 per cent. of fats.
- 4.—Milk from which any part of the cream has been removed.
- 5.—Milk which has been diluted with water or any other fluid, or to which has been added or into which

has been introduced any foreign substance whatever.

In the application of the Act inspectors are guided by a comparison of the sample sold with that of a sample of the milk of the whole herd taken at milking time on the owner's premises.

The creamery at Melfort, Sask., which was started in July, is reported to be making good progress, about 3,600 to 4,000 pounds of butter per week being made during August.

"I am extremely interested in your paper, from week to week, especially your market reports. Never read better in any paper."—E. Barker, Grey Co., Ont.

What About Your Fall Order

NOW is the time to get busy on Autumn Supplies. Look your stock over carefully and you will find that you are short of some useful articles. Place your order early and thus avoid any unnecessary confusion. We handle a full line of DAIRY SUPPLIES and our prices are right.

Rennet Colorings, Salt, Cotton, Brushes, Brooms, Glassware and Tinware.

ALL ORDERS FILLED PROMPTLY

R. M. BALLANTYNE

Limited

STRATFORD, ONT.

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 Makers' Department.

Mr. Barr's Lectures Bearing Fruit

Last fall patrons of these factories in a considerable part of Peterboro County were privileged to hear Mr. Geo. H. Barr, Assistant Dairy Commissioner for the Dominion, give his illustrated lecture on "Care of Milk for Cheese Making." Among other places, this lecture was given at Warsaw. While calling recently at the Warminster cheese factory, which is in close proximity to Warsaw, an editorial representative of Farm and Dairy was pleased to learn that Mr. Barr's efforts were bearing fruit. Mr. Gavin Graham, the manager of the Warminster factory, stated that Mr. Barr had worked wonders so far as the milk coming from some of his patrons was concerned. One patron in particular had always given continual trouble in sending unsound milk. It was a common thing to send back at least 200 pounds or more of his milk a week. Since caring for his milk as recommended by Mr. Barr, his milk had come in in perfect condition, not a pound having been returned this season.

"The system recommended by Mr. Barr," said Mr. Graham, "is all right. If cooled by water and covered up immediately and kept from all sources of contamination, the milk can be left on the covered stand over Sunday and be in good condition Monday morning. It is no trouble to tell how the milk delivered at the factory has been cared for. The old coolers and aerators where the milk

runs over a bridge, and is exposed to the air, are all wrong. Should there be any wind blowing, they got the benefit of all that is going from the barnyard, and the seat of most of the trouble in this district is that invariably, farmers have their stands in very close proximity to their barnyards.

"Like many other factories in Eastern Ontario, we separate the whey and get all that is in it," continued Mr. Graham. "The whey seems to be as good for feeding purposes as it was in other years. Now farmers get it fresh every day. Years ago, they used to get in a supply large enough to last a week. The whey used to be drawn from the vats and elevated from the lower tank to the higher by means of an ejector, and as the farmers draw the whey from the bottom of this elevated tank, they got but very little of any fat that it might contain when first dipped."

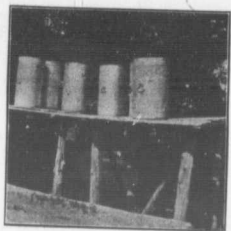
Making Butter from Whey Cream

J. J. Hogan, Peterboro Co., Ont.

One of the first factories in Peterboro Co., Ont., to commence the manufacture of butter from whey was the Shearer Factory, one of the largest in the district and one that has installed the Radcliff system of cold storage. The Shearer factory was receiving daily during July about 12,000 pounds of milk, making approximately 12 cheese. The whey is separated and the cream made into butter. At the time of writing, we are making a little more than two pounds of butter out of the whey from each 1000 pounds of milk, or the whole amount of whey daily yields about 28 pounds. At the request of Farm and Dairy, I give the following outline of how our whey butter is handled from start to finish.

When the whey is ready to remove from the curd it is run into a small pan placed at the end of the vat, the whey being conducted from there by means of a five inch leader to a large vat under a part of the factory built especially for this purpose and which is most convenient to the separator. From this tank the whey is elevated by means of a three quarter inch ejector to a small receiving can at the separator, the whey being at a temperature of about 110 degrees F. The whey is separated at this temperature.

After all the whey has been separated, the cream, which will test by



Cans on a Roadside Milkstand

Much unsound milk can be traced to unpoor cans having been left standing exposed to the sun. The cans illustrated when photographed at 2:30 p.m. in the eastern section of Peterboro Co. recently by the Editor of Farm and Dairy, were unwashed, and in such a state they would be difficult to get them in proper condition to receiving the evening milk.

The Babcock about 40 per cent. butter fat, is placed in a tank built especially for the purpose so that the cream can be surrounded with water and ice and the cream reduced to 40 degrees F. After cooling for about 15 minutes, pasteurized starter made from pure culture, testing by the acidimeter about 30 or 35, is added. The cream is left in the cooling tank at a temperature of about 40 degrees for about 12 hours. It is then churned in a No. 6 barrel churn run by a belt. The churn is revolved at about 40 turns a minute. The butter generally comes in about one hour. It is washed and salted to suit the trade, and is same as one would do with any butter. It is worked up by a hand work or, printed, and placed in a box made purposely for it in one end of the tank which is surrounded by the ice cold water. This keeps it in good condition for the consumer.

Patrons take about one half or more of our product. They seem to like it well. The remainder is sold to stores in Peterboro at 23 cents a lb. We have received no complaints whatever from the consumers should any points in the manufacture of whey butter not be made clear enough in the foregoing, I will be pleased to give any additional information that may be requested through Farm and Dairy. I would like to know how whey butter is handled in some of the other factories. To my fellow cheese makers, would say, send in your experiences to Farm and Dairy and let it be published through its columns.

The value of Red Deer District as a dairy district, and of Red Deer town as a distributing point and regional centre was never more clearly recognized. Mr. Millar is building up a big cheese manufacturing industry in the West country, and the local creameries are having their high records of output. Mr. Trimble, Mr. Richards, and Mr. Julian Sharnam have brought in carloads of valuable purebred dairy cattle, and other carloads are projected for this fall.—Red Deer Advocate.

Renew Your Subscription Now.

All Say Same

Users of Sharples Dairy Tubular Cream Separators know Tubular superiority. Read what they say:

Clanville, Ont., Nov. 7.—"I tried a 'bucket bowl' and Tubular. I learned that if I used the 'bucket bowl,' I would lose enough in two years to purchase a Tubular.—A. G. Gustafson.

Lower Mills, N.S., March 5.—"I tried two 'bucket bowl' machines but preferred the Tubular."—J. E. McAuley.

Rocanville, Sask., Feb. 5.—"Since using the Tubular and discarding the 'bucket bowl,' we find dairying a pleasure instead of a hell. Tried four others before purchasing Tubular."—Jessie Miller.

Fox Hill, N. B., Aug. 15.—"The Tubular can be cleaned in 7 minutes, whereas the 'bucket bowl' I previously owned required 30."—H. Campbell.

Bowden, Alta., Feb. 11.—"I used a disk filled 'bucket bowl' but find the Tubular much easier to turn and clean."—Geo. Hawkins.

The manufacture of Tubulars is one of Canada's leading industries. Sales exceed most, if not all, others combined. Write for Catalog 253.

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Toronto, Ont. Winnipeg, Man.



Pigs as Premiums

It affords us pleasure to note how popular our "Big Offer" is proving. We have sent out great many pigs, this spring as premiums for clubs of seven new yearly subscriptions to Farm and Dairy. We have been gratified to learn that the pigs sent out have proved satisfactory in every case. The following letter recently received from Mr. John Meyers, of Leeds Co., Ont., indicates the popularity of our "Big Offer."

"We received the pig which you sent us for securing seven new subscriptions to Farm and Dairy. It is a fine pig and we think it is a great credit to the man that raised it. We cannot thank Farm and Dairy enough for such a nice gift."—John Meyers, Leeds Co., Ont.

Farm and Dairy is always anxious to give credit where it is due, and we take pleasure in stating that the

Contains Valuable Information

Everyone interested in dairying should read Farm and Dairy and put into practice the valuable information that it contains. J. J. Hogan, Prop. Shearer Cheese Factory, Peterboro Co., Ont.

above pig was ordered from and shipped for us by Mr. Alex. Hume, of Menie, Ont. Any of our readers who have not yet secured one of our pure bred pigs, cannot do better than to send us a club of seven new subscriptions and thereby win a premium of a pure bred pig. Each of the seven new subscribers will have the same privilege. We will send a pure bred pig to any one upon receipt of a club of seven new subscribers to Farm and Dairy taken at only \$1.00 a year.

As I cannot get along without Farm and Dairy, please find enclosed \$1 for my renewal subscription for one year. Every dairyman should have Farm and Dairy.—Wm. Batur, Wellington, Ont.

SYNOPSIS—The consists of Mr. W. Watkinson, Pearl W. Mrs. Barton Francis Mrs. Isabel of Pearl W. Mrs. Francis' domestic Mr. McQuire, the Mr. Watson, Mr. Mr. Motherwell is a addition to their ho After much discussion brought up to rega however, invited to

But Perkins, who the Perkins family, mother a "regular last induced to sin ally—containing to and in it was set fo or one, young W home and native in der age, and "left b he left." His moth of blue round his sion about his son, "she said will watch for you fed!" The thoughten the mother watched Willie roamed afar, been satisfied by savv for dead upon the wise malnurted h large, he began to t after shipwreck, a hair-breadth escap mother's cottage do had gone long year Then, of course, cess his mother, aft all boys returning at absence—

Oh, can you tell me How far to Edinbu

But he could not no, no! She knew chief blue, still tied. When the applause generous, had been g self wanted to know he got his necked w long meanderings, or wash, how did he do

George Slater grand that perhaps young W cleaning process—Fr brown paper and a p Peter Slater said he it was the same hand No handkerchief cou young Willie went. one very like the one off with. He noticed dew as he passed, t cheap for cash.

ATTENTION!

Cheese Manufacturers



Fig. 1



Fig. 2

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

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

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YOU can never tell what your thoughts will do,
In bringing you hate or love;
For thoughts are things, and their airy wings,
Are swifter than carrier doves.

Sowing Seeds in Danny

By Nellie L. McClung
ALL RIGHTS RESERVED.
(Continued from last week)

SYNOPSIS—The Watson family live in a small town in Manitoba. The family consists of Mr. Watson, a man of few words, who works on the "section," and nine children. Pearl Watson is an imaginative, clever little girl, 12 years old, and is Mrs. Burton Francis, a dreamy woman, who has beautiful theories. "Wee Danny" is the idol of Pearl's eye, and is a favorite of Mrs. Francis, who tries some of her theories on Danny. Camilla Rose is a capable young woman who looks after Mrs. Francis' domestic affairs, and occasionally helps her to apply her theories. After much discussion it is decided that Peattie Watson shall go and demands payment. Mr. Motherwell, the next door neighbor of the Watsons, has a special antipathy for Mr. Watson. Mr. Sam Fletcher, who does much good among the Watson family, Mr. Watson, Mr. Sam Fletcher, who does much good among the Watson family, Mr. Motherwell is a well off but very stingy farmer who lives on a farm near the Watsons. He afterwards regrets this move, and demands payment. Young Tom Motherwell has been brought up to regard the gathering of wealth as the chief aim in life. He is, however, invited to a party at one of the neighbors, and as his parents object to such foolishness, he steals away unobserved.

Bud Perkins, who was the wit of the Perkins family, and called by his mother a "regular cut-up," was last induced to sing. Bud's "Come-alive" contained twenty-three verses, and in it was set forth the wanderings of one, young Willie, who left his home and native land at a very tender age, and "left a good home when he left." His mother tied a kerchief around his neck. "God bless you son," she said, "remember I will watch for you till life itself is fled!" The song went on to tell how long the mother watched in vain. Young Willie roamed afar, but after he had been scalded by savage hands and left for dead upon the sands, and otherwise maltreated by the world at large, he began to think of home, and after shipwrecks, and dangers, and hair-breadth escapes, he reached his mother's cottage door, from which he had gone long years before.

Then, of course, he tried to deceive his mother, after the manner of all boys returning after a protracted absence.

Oh, can you tell me, ma'm, he said
How far to Edinboro' town.

But he could not fool his mother, no, no! She knew him by the kerchief blue, still tied, around his neck. When the applause, which was very generous, had been given, Jim Russell wanted to know how young Willie got his necked washed in all his long meanderings, or if he did not wash, how did he dodge the health officers.

George Slater gravely suggested that perhaps young Willie used a drying process—French chalk or brown paper and a hot iron.

Peter Slater said he did not believe it was the same handkerchief at all. No handkerchief could stand the pace young Willie went. It was another young Willie one. It was another young Willie like the one he had started off with. He noticed them in the window as he passed, that day, going cheap for cash.

The young Englishman looked more and more puzzled. It was strange how Canadians took things. He turned to Camilla.

"It's only a song, don't you know," he said with a distressed look. "It is really impossible to say how he had the kerchief still tied around his neck."

The evening would not have been complete without a song from Billy McLean. Little Billy was a consumptive, playing a losing game against a relentless foe; but playing like a man with unflinching cheerfulness, and eyes that smiled ever.

There is a bright ship on the ocean,
Bedecked in silver and gold;
They say that my Willie is sailing,
Yes, sailing afar I am told.

was little Billy's song, known and loved in many a thresher's caboose, but heard no more for many a long day, for little Billy gave up the struggle the next spring when the snow was leaving the fields and the trickle of water was heard in the air. But he and his sons are still lovingly remembered by the boys who follow the mill, when their thoughts run upon old times.

Peter and Fred Slater came in with the coffee. Jim Russell was in white apron around his neck, followed with a basket of sandwiches, and Tom Motherwell with a heaping plate of cake.

"Did you make this cake, Nell?" Tom whispered to Nellie in the pantry as she filled the plate for him.

"Me?" she laughed. "Bless you no! I can't make anything but pancakes." "Martha Perkins still sat by the window." She looked older and more careworn—she was thinking of how late it was getting. Martha could make cakes. Tom knew that. Martha could do everything.

"Go along Tom," Nellie was saying, "give a piece to John. Don't let you see how hungry he looks." Their eyes met. Hers were bright and smiling. He smiled back.

Oh pshaw! pancakes are not so bad.

Jim Russell whispered to Camilla, as he passed near where she and Arthur sat: "Will you please come and help Nellie in the pantry? We need you badly."

Camilla called Maud Murray to take her seat. She knew Maud would be kind to the young Englishman.

When Camilla reached the pantry she found Nellie and Tom Motherwell happily engaged in eating lemon tarts and evidently not needing her at all. Jim was ready with an explanation. "I was thinking of poor Thursa, far across the sea," he said, "what a shock it would be to her if Arthur were compelled to write home that he had changed his mind," and Camilla did not look nearly so angry as she should have, either.

After supper there was another song from Arthur Wemyss, the young Englishman. He played his own accompaniment, his fingers, stiffened though they were with hard work, ran lightly over the keys. Every person was still to listen. Even Martha Perkins forgot to twirl her fingers and lean forward. It was a simple little English ballad he sang:

Where'er I wander over land or
foam,
There is a place so dear the heart
calls home.

Perhaps it was because the ocean rolled between him and his home that he sang with such a wistful longing in his voice, that even his dulcet listener felt the heart-cry in it. It was a song of one who reaches longing for arms across the sea to the old home and the old friends, whom he sees only in his dreams.

In the silence that followed the song, his fingers unconsciously began to play Mendelssohn's beautiful air, "We Will See Jesus, for the Shadows Lengthen." Closely linked with the young man's love of home was his religious devotion. The quiet Sabbath morning with its silvery chiming calling men to prayer; the soft footfalls in the aisle; the white-robed choir; his father's voice in the church service, so full of divine significance; the many-voiced responses and the swelling notes of the "Te Deum"—he missed it so. All the while the spiritual hunger and thirst that was in his heart sobbed in his voice as he sang:

We would see Jesus,
For the shadows lengthen
O'er this little landscape of our life.

We would see Jesus,
Our weak faith to strengthen,
For the last weariness, the final strife.

We would see Jesus, other lights are
paling,
Which for long years we have re-
joiced to see.

The blessings of our pilgrimage are
falling.
We would not mourn them for we go
to Thee.

He sang on with growing tender-
ness through all that divinely tender
hymn, and the longing of it, but
arose from every heart that listened.

Perhaps they were in a responsive
mood, easily swayed by emotion.
Perhaps that is why there was in ev-
ery heart that listened a desire to be
good and follow righteousness, a
reaching up of feeble hands to God.
The Reverend Hugh Grantley would
have said that it was the Spirit of
God that stands at the door of every
man's heart and knocks.

The young man left the organ, and
the company broke up soon after.
Before they parted, Mr. Slater in
whom the Englishman's singing had
revived the spiritual hunger of his
Methodist heart, requested him to
sing "God be with you till we meet
again." Every one stood up and
joined hands, Martha, with her

thoughts on the butter and eggs;
Tomald McKenzie and old John with
the vision of the lonely dwellings
in the hills looming over them; Jim
and Camilla; Tom and Nellie, hand
in hand; little Billy, face to face with
the long struggle and its certain
ending. Little Billy's voice rang
sweet and clear above the others—

God be with you till we meet again,
Keep love's banner floating o'er
you,
Smite death's threatening wave be-
fore you;
God be with you till we meet again!

CHAPTER XIX.

Pearl's Diary.

When Pearl got Tom safely started
to have rolled from her little should-
ers. Tom was going to spend the
night—what was left of it—with Ar-
thur in the granary, and so avoid the
danger of disturbing his parents by
his late home-coming.

Pearl was too excited to sleep, so
she brought out from her bird-cage
the little note-book that Mrs. Francis
had given her, and endeavored
to fill some of its pages with her ob-
servations.

Mrs. Francis had told her to write
what she felt and what she had saw.
She had written:

August 8th.—I picked the fethers
from 2 ducks to-day. I call them cus-
moodles. I got that name in a book.
The cusmoodles were just full of
cheesy-wool-wool. That's a pretty
name, too, I think. I guess the
wools are wanderers to-night. I guess
They lost their feather-bed.

Arthur's girl, a girl. Her name is
Thursa. He had told me about her, and
showed me her picture. She is beau-
tiful beyond compare, and awful say-
ing on her clothes. At first I thought
she had a die-away-ducky look, but
I guess it's because she was sorry
Arthur was comin' away.

August 9th.—Mrs. Motherwell is
gittin' kinder, I think. When I was
gittin' the tub for Arthur, yesterday,
and gittin' water hot, she said, "What
are you doin', Pearl?" I says, "gittin'
Arthur a bath." She says, "Dear
me, it's a pity about him." I says,
"Yes'm, but he'll feel better now."
She says, "Dux he want anyone to
wash his back?" — I says, "I don't
know, but I'll ask him," and I did;
but he says, "No, thanks awfully."

August 10th.—The English church
minister called one day to see Arthur.
He read some of the Bible to us and
then he gave us a dandy prayer. He
didn't make it—it was a bot one.

There's a wild, wild, wild, wild
crierick. Mrs. M. sed 't down on the
bed, but I wanted to be sure, so I et at
it an' it ain't. There's wild sage all
over, purple and lovely. I pick a big
lot of it to take home—we might
have a turkey this winter.

August 11th.—I hope Tom's happy;
it's ofel to be in love. I hope I'll
never be.

My hands are pretty sore pullin'
weeds, but I like it; I pretend it's bad
habits I'm routin' out.

Arthur's ofel good; he dux all the
work he can for me, and he sings for
me and tells me about his uncle, the
Bishop. His uncle got servants and
leggin's and lots of things. Arthur's
been kind of sick lately.

I made verses one day, there not
very nice, but there true—I saw it:

The little lambs are so-softful,
There cotes are soft and nice,
The little calves have ringworm,
And the 2-year olds have lice!

Now I'm going to make more; it
seems to bad to leve it like that,
It must be very nasty.

But to worrie, wahi's the use
Better be can't cheerful,
And appli tobaka juice.

Fun for the Holidays

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What boy or girl would not like to have a camera of their own this summer. Here is a chance to get one free of cost. This roll film camera, fixed focus box type, taking pictures 2 1/2 x 3 1/2 in. will sell you free of cost for securing a club of ONLY FOUR NEW SUBSCRIBERS to Farm and Dairy at \$1.00 each. Write for some sample copies and get some of our neighbors to subscribe. It will not take long to secure four new subscribers. This is a splendid camera, and you can have a good time this summer with it.

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Sometimes I feel like gettin' lonesum, but I jist put up with it. I say to myself I won't git lonesum till I git this cow milked, and then I say o shaw I might as well do another, and then I say I won't git lonesum till I get the pants washed and the dore scrubbed, and I keep settin' it up and settin' it of till I forgit I was gonn' to be.

One day I was jist gettin' redly to cry. I could feel tears startin' in my hart, and my throate all hot and lumpy, thinkin' of ma and Danny an' all of them, and I noticed the teakettle jist in time—it needed scrubbin'. You bet I put a shine on it, and of course, I couldn't do none on it, and miss it up, so I had to wait, Mrs. M. duzn't talk to me. She has a mortgage or a cancer I think botherin' her. Ma knowed a woman once, and everybody that she'd n't terrible cross cos she wouldn't talk at all hardy, and when she died, they found she'd a tumbl in her insides, and then they felt good and sorry, and when we're cross at lonesum ma says it's not a strap we need, but a good dose of kaster oil or Seany and we git it too.

I goes I got Bugees and Patsey's bed paid for now. Now I'll do Feddy's and Jimmy's. This ain't a blot it's the liniment Mrs. McGuire gave me. I have it on my hands.

I'm gittin' on to be thirteen soon. I'm pretty old to go. I'll soon turn the corner now and be lookin' 20 square in the face—I'll never be homesick then. I ain't lonesum now either—it's jist sleep that's in my eyes smuggin them up.

Jim Russel is ofel good to go to town he doesn't seem to mind it a bit. Once I said I wisht I'd told Camilla to remind Jimmy to spit on his warts every day—he's ofel careless, and Jim said he'd tell Camilla and he often asks me if I want to tell Camilla anything, and it's away out of his rods to go round to Mrs. Francis house to. I like Jim you bet.

(To be continued next week.)

The Upward Look

Temptations

When through fiery trials thy pathway shall lie,

My grace, all-sufficient, shall be thy supply;

The flames shall not hurt thee; I only design

Thy rods to consume and thy gold to refine.

My son, despise not thou the chastening of the Lord, and chide not when he rebuketh thee: for whom the Lord loveth He chasteneth, and scourgeth every son whom He receiveth.—Hebrews, 12: 5-6.

For many a man it is hard to understand how it is that if God loves us He allows so much suffering in the world. Why should we be burdened down by griefs and difficulties when God has it within His power to make our pathway smooth and clear and our life joyous?

When we ask these questions we should ask others with them. Do we deserve to enjoy any better times than we are? Are we trying, striving might be a better word, to live as God wants us to live and as Christ has shown us how to live? Do we love God above everything else? Do we love our fellow men and women even those who have ill-treated us, as we do ourselves? Are we forgetting self and endeavoring to help others? Are we patient and kind in our daily thoughts and actions? If not, we cannot very well complain if God thinks it best for us that we should be tempted and tried.

When we feel that our burdens are greater than we can bear we should go straight to God and ask Him to show us where we have been offend-

ing. In the words of Dr. Torrey, "The chastisements of God are a call to prayer. It is only when we are almost overwhelmed by our trials and difficulties that we can appreciate the joys that are possessed by Christians who have a God who they know loves them and who has promised, if they will ask Him in the right way, not to tempt them more than they can bear and to give them the strength they need to enable them to overcome all their difficulties. Is not that a God worth having and holding to fast?"

If we have faith in God we will believe that he sends us troubles for our own good. In her book, "The Life Radiant," Lillian Whiting says: "The Life Radiant comes when we can as sincerely thank God for pain as for joy; when after long groping in the darkness, clinging, indeed to his faith in God, he suddenly realises how a great sorrow, which we might call Him a great result." It is because, as the writer says elsewhere in the same book, the average individual holds a traditional belief that he ought, perhaps, to be able sincerely to wish that God's will be done, but as a matter of fact he far prefers his own, that it is so hard for some of us to face troubles as bravely and as uncomplainingly as we should.

If we will look on our troubles and temptations as a proof that God loves us, and our text shows us that we may, we will be able in time, to rejoice in temptation. The apostle James has said, (James 1, 2) "My brethren, count it all joy when ye fall into divers temptations"; and also, "Blessed is the man that endureth temptation."

The manner in which we carry our burdens and overcome our temptations is the measure of our love of God and of our faith in Him. If we have a true conception of God's love for us we will be able to say gladly, "Thy will be done."—I. H. N.

The Value of a Fruit Diet

Apples, oranges, peaches, lemons, strawberries, blackberries, raspberries—in fact, all the various acid fruits—are exceedingly wholesome in character, and are capable of furnishing a very large amount of nourishment in one's daily diet. Strange as it may seem to the average individual, almost any one of these fruits, lemons excepted, would fully and completely nourish the body for a period, if one were for any reason compelled to secure nourishment entirely from food of this character, although of course it would require a considerable period for the organs of assimilation to acquire the habit of absorbing all needed nourishment if a radical dietetic change of this nature was made.

Helps and Hints

Putting a pinch of salt in the coffee improves the flavor.

To remove finger marks from door-knobs and locks use pure soap and old cheese cloth.

To clean windows use warm water and a little borax. Wipe dry and polish with crumpled newspapers.

The pleasure of preparing some dainty dish is often spoiled by the thought that the necessary basins, spoons, plates, etc., must be washed afterwards. To many people the prospect of dirty cooking utensils awaiting them after their food. All pots and pans should be washed when warm, if possible, as this much lighter than cold. Some old pieces of rag or thick folds of paper should be kept near the stove to save the hands in taking vessels off the fire. Be careful to keep the dish cloth clean and free from grease, by well washing it after each time of using. A

little soda added to the water is a great help in getting the grease off the dishes and pans.

Try dipping stale cake in milk and rebaking it in a moderate oven. It is said to taste as if newly baked.

Peas and beans are the most nutritious of vegetables, containing much carbon as wheat, and almost double the amount of muscle-forming food.

Small cake castile soap, shaved fine, 1 oz. ammonia, 1 teaspoon saltpetre, 1 quart water (warm). Put in a glass saucer to keep. Use one teaspoon of the mixture in a little water. Shake it well before using.

Would You Like It?

Girls, do you ever grow tired of the daily round of farm home duties; complain of the monotony of country life and imagine that if you get to the city with its noise and excitement that you would be happier? Not a bit of it. Don't deceive yourself with the idea that you will like the working girls in the city has none of the disadvantages of which you complain.

How would you like to spend all the hot days of the summer at a machine in a factory with the never-ending rumble of machinery about you and a foreman constantly on the watch to see that you turned out so much work?

Does four dollars or six or eight or ten dollars a week seem like a good deal of money to you? How would you like to pay from a dollar and a half to two to four dollars for work for your board? In the city you pay fifty cents for every dozen pieces of clothing washed; fifteen cents a quart for green apples.

How would you like to be "laid off" because of the slack time, and have no money at all coming in, and expenses going on all the time? That occurs with shop girls and factory girls all kinds periodically.

How much variety is there in the life of the average working girl in the city. Do you fancy she has much better times than you? She cannot take her work out on the porch in the summer as you often can, or get out for a breath of fresh air whenever she feels like it. She has no chance for a rest in the afternoon. She cannot do two days' work in one as you can sometimes, and go off for an outing the next day. She cannot slip off to her own room and lie down when she has a headache or is tired.

Do you like to be invited out to spend the evening or to bring your fancy work and spend the day with a friend? You might be in a city for years before you would know how nice it was to sit down at a home table for a meal in the family.

Do you like to have your friends come to see you? Do you enjoy getting up nice "homey" suppers for

A NEW PREMIUM CATALOGUE

We have just issued a new premium catalogue that will interest you. It contains a complete list of premiums are listed in this catalogue, to it is illustrated, and full descriptions are given of the various premiums. Write for a copy. You will be surprised when you see the splendid articles we are giving away. Send us a postal card and your name will be sent to you by return mail. Full instructions are given as to how to secure these premiums. Some of the articles listed in this catalogue that you want. Address:

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them? How would you like to have a spot in the city comfortably invited on you? How have no place by twelve broad you could enter home if be called on you? How do you like to have girls in the city just that way? They are often less.

This is no true to life, half so full of fun as you have in the comparatively few, as a rule, a year of training.

There is no isolation with the feeling alone in a great that of all the you meet, no one is specially interested in you, you are personally. You can turn out to do it well. When your employers, them, will soon look at you. The city is crowded and women who do compete with other workers in any line. The underbid they are only tolerated. Efficiency is proven things long and decide to give up out, comfortable life try your luck in the

OUR HO

What Do You

Some time ago in "Farm and Dairy" question and it certain with gloves. It was writer has not had esting experience counter. It is "th us, and the most disaspering to come city sports who our disasters. I on in one mix-up and a little of country home on the train automobile could be along a road. A car the opposite direction.



A DIN

Secure a CLUB of \$1.00 EACH, and English S

This set consists of plates, 12 fruit dishes, 12 cups, 12 saucers, 12 slip bowls, and 12 scarves in a refined

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HOLSTEIN-FRIESIAN NEWS

Farm and Dairy is the official organ of the Canadian Holstein-Friesian Association, all of 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.

HOLSTEIN-FRIESIAN COWS ACCEPTED IN THE RECORD OF PERFORMANCE

Madame Dot 3rd's Princess Pauline De Kol (3708), mature class: 1274.31 lbs. milk and 487.239 lbs. fat in 365 days; average per cent. of fat 3.85. Owned by N. Sangster, Ormstown, Que.

Little Grey of Ormstown (7637), two year class: 982.2 lbs. milk and 313.707 lbs. fat in 365 days; average per cent. of fat 3.23. Owned by N. Sangster.

Boisje Paul (2669), mature class: 1301.17 lbs. milk and 448.917 lbs. fat in 365 days; average per cent. of fat 3.43. Owned by N. Sangster.

Verona (6419), three year class: 1030.01 lbs. milk and 310.277 lbs. fat in 322 days; average per cent. of fat 3.07. Owned by N. Sangster.

Vida Princess 4th (2775), mature class: 1048.75 lbs. milk and 482.535 lbs. fat in 365 days; average per cent. of fat 3.26. Owned by J. M. VanPatter, Linton, Ont.

Netherland De Kol Wispy (7565), two year class: 1197 lbs. milk and 385.345 lbs. fat in 322 days; average per cent. of fat 3.23. Owned by J. M. VanPatter.

Angie De Kol Schuller (7565), two year class: 1093.5 lbs. milk and 354.649 lbs. fat in 365 days; average per cent. of fat 3.27. Owned by J. M. VanPatter.

Johanna Netherland De Kol (49), four year class: 1049.25 lbs. milk and 413.816 lbs. fat in 349 days; average per cent. of fat 3.37. Owned by G. E. Peacock, Mt. Salem, Ont.

G. W. CLEMONS, Secretary.

HARVEST 100% OF YOUR CORN CROP THIS YEAR AND EVERY YEAR INSTEAD OF 60%

You would soon want to quit farming if you could harvest only 60 per cent of your hay crop, for instance. But how about the corn crop?

Forty per cent of the feeding value of the corn crop is in the stalks, leaves and husks just at the time when the ears reach maturity.

If you leave the stalks standing or cut them slowly by hand the fodder is little more than woody fiber by the time the live stock gets it. You have lost practically 40 per cent of the protein, starch and sugar which the crop contained as it stood in the field, just at the time the ears began to glaze.

And none of that 40 per cent of food value goes into the ears. It is just lost—wasted. Turn over a new leaf this year. Double the value of the crop by using machines.

Using I. H. C. Machines Is The 100% Way

The right machine will give you the 100 per cent feeding value, because it will enable you to cut the entire crop just at the time when the corn plant is at its best for feeding purposes.

If you are prepared at this time with a Deering—McCormick—Milwaukee—off-shore corn binder, you can go over the field rapidly, as fast as the team can walk, cutting and binding it into bundles, already to stack, in one operation. One man and a team is all that is necessary.

You have then confined within the stalk, all those nourishing elements which make the fodder, when properly prepared, almost equal to timothy hay for stock feeding.

Then you are ready to put this crop through the husker and shredder. A Peering, McCormick or Plano husker and shredder will husk every ear, with practically no shelling, and will cut the entire plant, stalk, pith, leaves and husks, into fine, nourishing fodder, which every head of your live stock will relish to the last shred.

Think it over—The purchase of two machines and 100 per cent of the corn crop—or hand work and 60 per cent of the crop. Talk it over with the International agent in your locality. He can give you many facts and figures that we have suggested here, and every point will show you the way to larger profits. If you want our interesting pamphlets on the subject, ask the dealer for them or write direct to nearest branch house.

EASTERN CANADIAN BRANCH HOUSES. Hamilton, Ont.; London, Ont.; Montreal, Que.; Ottawa, Ont.; St. John, N. B.

INTERNATIONAL HARVESTER COMPANY OF AMERICA (Incorporated)

Chicago, U. S. A.

HOLSTEIN-FRIESIAN OFFICIAL TESTS ACCEPTED IN THE RECORD OF MERIT

DIKING FORD

Daisy Pieterje Johanna (6190), at 4 years 4 mos. 7 days of age, 1573 lbs. fat, equivalent to 18.35 lbs. butter; milk 399.33 lbs. Owned by D. C. Platt & Son, Millgrove, Ont.

Jenny Bonneres Ormsby (8216), at 2 yrs. 3 mos. 11 days of age, 15.61 lbs. fat, equivalent to 18.21 lbs. butter; milk 395 lb. Owned by D. C. Platt & Son, Millgrove, Ont.

Daisy Jane (6697), at 4 yrs. 8 mos. of age, 1547 lbs. fat, equivalent to 17.63 lbs. butter; milk 484.7 lbs. Owned by Thomas Hartley, Downsview, Ont.

Fatty Proudfoot (3589), at 8 yrs. 1 mo. 19 days of age, 1413 lbs. fat, equivalent to 16.46 lbs. butter; milk 814.7 lbs. Owned by Thomas Hartley.

Maggie Borlaka (7252), at 5 yrs. 11 mos. 18 days of age, 14.06 lbs. fat, equivalent to 16.40 lbs. butter; milk 453.25 lbs. Owned by David Goughall, Yarmouth Centre, Ont.

Malahide Calamity Borlaka (7259), at 2 yrs. 9 mos. 19 days of age, 13.91 lbs. fat, equivalent to 16.34 lbs. butter; milk 277.27 lbs. Owned by David Goughall.

Malta Pieterje De Kol (7416), at 5 yrs. 5 mos. 23 days of age, 13.72 lbs. fat, equivalent to 16.02 lbs. butter; milk 467.7 lbs. Owned by C. J. Gilroy, Glen Buell, Ont.

Silver Bell (4175), at 6 yrs. 11 mo. 13 days of age, 13.57 lbs. fat, equivalent to 15.84 lbs. butter; milk 419.5. Owned by M. H. Haley, Springford, Ont.

Retta De Kol Waldorf (5985), at 4 yrs. 1 mo. 1 day of age, 13.52 lbs. fat, equivalent to 15.79 lbs. butter; milk 429.86 lbs. Owned by G. A. Gilroy, Glen Buell.

Esther Darkness (4624), at 7 yrs. 5 mos. 9 days of age, 13.46 lbs. fat, equivalent to 15.64 lbs. butter; milk 428.5 lbs. Owned by M. H. Haley, Springford, Ont.

Rhoda 6th (6251), at 4 yrs. 3 mos. 10 days of age, 12.64 lbs. fat, equivalent to 14.96 lbs. butter; milk 465.5 lbs. Owned by G. A. Gilroy, Glen Buell, Ont.

Queenie Pieterje De Kol (7671), at 2 yrs. 9 mos. 8 days of age, 12.48 lbs. fat, equivalent to 14.68 lbs. butter; milk 455.5 lbs. Owned by Geo. Wm. Pallitt, Summersville, Ont.

Corra Countess Echo (9120), at 2 yrs. 5 mos. 14 days of age, 11.85 lbs. fat, equivalent to 13.53 lbs. butter; milk 362.08 lbs. Owned by Smith & Dymond, Dundas, Ont.

Abbecker Trynjet's Blossom (6256), at 3 yrs. 11 mos. 6 days of age, 11.43 lbs. fat, equivalent to 13.15 lbs. butter; milk 368.31 lbs. Owned by A. H. Peeples, Carver's, Ont.

Lillian Abbecker De Kol (7255), at 3 yrs. 4 mos. 23 days of age, 11.07 lbs. fat, equivalent to 12.92 lbs. butter; milk 317.05 lbs. Owned by M. H. Haley.

Ruby Laid Lyons (9453), at 2 yrs. 23 days of age, 11.00 lbs. fat, equivalent to 12.83 lbs. butter; milk 322.18 lbs. Owned by W. S. Schell, Woodstock, Ont.

Princess Margaret 3rd (6988), at 3 yrs. 7 mos. 16 days of age, 10.93 lbs. fat, equivalent to 12.35 lbs. butter; milk 321.34 lbs. Owned by H. E. Hamby, Rockford, Ont.

Delta Gem Bell (6644), at 1 yr. 11 mo. 23 days of age, 10.22 lbs. fat, equivalent to 11.33 lbs. butter; milk 322.96 lbs. Owned by H. C. Flint & Son.

Clarry S. Calamity Poosh (6991), at 2 yrs. 2 mos. 13 days of age, 9.56 lbs. fat, equivalent to 11.46 lbs. butter; milk 345 lbs. Owned by George M. Pallett.

Palatoff of Downsview (7313), at 2 yrs. 3 mos. 6 days of age, 8.49 lbs. fat, equivalent to 11.30 lbs. butter; milk 329.5 lbs. Owned by Thos. Hartley.

Bessie Spink Beauty (5201), at 2 yrs. 3 mos. of age, 9.41 lbs. fat, equivalent to 10.96 lbs. butter; milk 393.4 lbs. Owned by T. W. McQueen, Tillsonburg, Ont.

Filly (19590), at 1 yr. 8 mos. 25 days of age, 9.37 lbs. fat, equivalent to 10.94 lbs. butter; milk 265.9 lbs. Owned by H. M. Haley.

Emmace Watson (8159), at 3 yrs. 13 days of age, 9.23 lbs. fat, equivalent to 10.77 lbs. butter; milk 291.75 lbs. Owned by G. A. Gilroy.

Iva Norine De Kol (7607), at 2 yrs. 18 mos. 23 days of age, 8.54 lbs. fat, equivalent to 9.97 lbs. butter; milk 319.93 lbs. Owned by A. H. Peeples, Carver's, Ont.

Violet Lutske Gem (1645), at 1 yr. 11 mo. 6 days of age, 8.30 lbs. fat, equivalent to 9.48 lbs. butter; milk 299.34. Owned by D. C. Platt & Son.

Dandy De Kol's Bess (7935), at 2 yrs. 6 mos. 8 days of age, 8.08 lbs. fat, equivalent to 9.15 lbs. butter; milk 285.5. Owned by Thos. Hartley.

RECORD MADE EIGHT MONTHS AFTER CALVING

Queen Butter (7658), at 2 yrs. 23 days of age, 7.34 lbs. fat, equivalent to 8.57 lbs. butter; milk 195.5 lbs. Owned by M. H. Haley, Springford, Ont.

W. CLEMONS, Secretary.

COW TRANSFERS FOR MAY, 1909.
(Continued from last week.)

The publication of these transfers is made by the Holstein-Friesian Breeders' Association:

COW TRANSFERS FOR MAY, 1909.

Pointe Pauline De Kol, H. E. George to J. M. VanPatter, Linton, Ont.

Fontine Sarcastic, H. E. George to R. J. Bell in Lockport, Ont.

Oesch Bonhoefer, C. J. Gilroy to D. C. Platt & Son, Millgrove, Ont.

Princess Calamity Columbia, George Rice to Alfred Rice, Springford, Ont.

Pride of Thurlow, D. H. Leavens to Louis Alf, Belleville, Ont.

Princess Augusta Peach, J. W. Cameron to W. H. Busby, Reston, Man.

Princess Belle de Kol Ormsby, Thomas Hartley to William T. Hood, Belleville, Ont.

Princess Calamity Cody, George Rice to W. A. Patterson, Ayrinport, Ont.

Princess Calamity Pearl, George Rice to George Herbstfeld, Ont.

Princess Mollayne, Ben McInuire to Wesley McKay, Maltes, Ont.

Queen Ann Spotted Lady, Samuel Lemon to F. Patterson, Alford Junction, Ont.

Queen Beulah, Mace to Emily Rich, Bishop's Crossing, Que.

Richard Clabe, H. E. George, M. L. Haley to M. C. Mackay, Reston, Man.

Queen Clabe, H. E. George to George H. Bentley, Belleville, Ont.

Queen Miriam Poosh, J. W. Cameron to W. H. Busby, Reston, Man.

Queen of the South, Col. W. L. Wolf to A. McDonnell, Shannonville, Ont.

Princess's Butter Girl, George Rice to T. H. Bell, Woodstock, Ont.

Rachel Beryl Wayne, Gilbert Gray to Rachel Beryl Wayne, Gilbert Gray & Sons to Gilbert Gray, Ventnor, Ont.

Rhoda Beulah, Gilbert Gray & Sons to Gilbert Gray, Ventnor, Ont.

Rhoda des Landels, Geo. N. Deland to Joseph Lord, St. Blaise, Que.

Retta De Kol Waldorf, H. E. Layne to G. A. Gilroy, Glen Buell, Ont.

Retta De Kol Waldorf 2nd, H. E. Layne to Arch. Stevens, Ferrickville, Ont.

Rhoda Beulah De Kol, W. S. Stevens to Arch. Stevens, Phillipville, Ont.

Rhoda Beulah, Gilbert Gray & Sons to James Retty, Norwich, Ont.

Ruby Edgely, Jon. Harris to Byron Stephens, Bridgeton, Ont.

Schulling of Maple Grove, E. C. Chamberlain to Edmond Minge, Bookton, Ont.

Sevangeline, Alfred Junction, Ont. to Samuel Lemon to F. Patterson, Alford Junction, Ont.

Silver Bell, James Lowrie to M. H. Haley, Springford, Ont.

Silver Belle, Edmond Schokholme, E. S. Stevenson to A. E. Bishop, Norwich, Ont.

Spink's Butter Girl, Samuel Lemon to F. Patterson, Alford Junction, Ont.

Sara De Kol Veeman, George Rice to P. D. Egan, Centre, Ont.

(Concluded on page 17.)

OUR FA
 Costs
PRINCE E
RING

CARDIGAN—The exception of usual owing to the summer. Fair outside hay. One of the best crops years. The weather has escaped it or grab which got of the wheat and breaks down. M. up owing what oats instead of ground. Oats are wheat, \$1.50 to \$2.00; potatoes, 25; to 3.25; milk cows, 80 to 84; butter, 18c down; cheese 12c having; nice warm milk occasional at 12c.

Q
COMPTON
 WATERVILLE— of a crop compared and root crops a fair but the country is poor. A shortage of water in autumn is very plentiful can't continue high prices. The grasshoppers and the pastures and garden anything else done to kill them. Reason for tame stock man picking over 1 patch. More attention than by the farmer money makers. There has seven acres of cured well he will continue high-biting. For 4c; butter 12c the dox—H. C.

ONT.
HASTING
 ELDORADO—Owning fall cover all winter half a crop of hay, oats, peas, corn, beets, milk, beans and late sow turnip and some did not crop late rains. Late cover what is no good. By well—F. A. C.

ANTINOLITE—Farr their hay. The hay crop wonderful. Grain promises to be Pasture was getting bad weather and few, some very few. Some berries, huckleberries, are going to be picked. Looking very good. Another hard winter.

CHOOKSTON—The close the 19th of July, full improvement in the July. Timothy hay is liberably, making the improvement. The being as fresh as in the are looking fine, though long. Barley and fall

Black Watch

flavor. The pure chewing

OUR FARMERS' CLUB

Contributions Invited.

PRINCE EDWARD ISLAND

KING'S CO., P. E. I.

CARDIGAN—Crops are looking fine, with the exception of hay, which is lighter than last year. Farmers are getting in early in the season. Summer crops are about through cutting hay. Oats, potatoes and turnips are the best crop that they have been for some time. The wheat is looking good where it has escaped the joint worm, an insect or grub which gets into the second joint of the wheat and weakens the stalk till it breaks down. Many farmers have 15 or 20 sowing wheat on this account, and row oats instead of their last year's row or ground. Oats are worth 50c to 55c a bush; wheat, \$1.50 to \$1.75, and is very scarce; potatoes, 25c to 30c; horses from \$100 to \$250; milk cows, \$25 to \$40; lambs \$2.50 to \$4; butter, 18c to 20c a lb; eggs, 17c a dozen; chickens 12c to 15c a lb. We are having nice warm growing weather now, with occasional showers—H. W. P.

QUEBEC

COMPTON CO., QUE.

WATERVILLE—Hay is about two-thirds of a crop compared with last year. Grain and root crops are looking fairly well, but the country is in need of rain. A shortage of water similar to that of last autumn is feared. Grasshoppers are very plentiful causing much damage to pasture lands. One Frenchman says he has diminished a great deal—J. M.

COMPTON CENTRE.—The principal talk just now is about the hay crop. Some hay has finished but others are just started. Hay will not be much more than half a crop. There is a great fear of grasshoppers and they are destroying grain, pastures and gardens. They are worse than anything else because it can't be done to kill them. It has been a great season for tame strawberries, one young man picking over 1000 baskets of one young patch. More attention should be given to the farmers as strawberries are a money maker. One Frenchman says he has seven acres of tobacco; if he gets it cured well it will do well on it. Pork continues high being at 115c a lb, veal 50c to 4c; butter from 20c to 25c; eggs 16c a doz.—H. C.

ONTARIO

HASTINGS CO., ONT.

ELDOURD.—Owing to the drought last fall clover all killed out and have only half a crop of hay. Barley is light, but oats, peas, corn, beans, potatoes and early root crops look fine. Oats are light, but late corn turnips are and are growing rapidly. Much more wheat was eaten with clover and some did not come up until after the late rains. Late sown grain look well. Feeding is no good. Cows are milking fairly well—F. A. C.

ACTINOLITE.—Farmers are busy with their hay. The hay crop is light but it has grown wonderfully since the late rains. Grain promises to be a fairly good crop. Pasture was getting very poor owing to the dry weather, and the flow of milk has been small. Small fruits such as raspberries, huckleberries and blackberries are going to be plentiful. Marsh hay is looking very good. Farmers are afraid of another hard winter—J. K.

BOOKSTON.—The change of weather since the 15th of July has made a wonderful improvement in the condition of the country. Timothy hay has thickened up considerably, making the crop much richer than expected. The old pastures are looking as fresh as in the month of May. Oats are looking fine, though the straw is not long. Barley and fall grain are below the

average; corn and late crops are looking well. Hogs are bringing 6c a lb., the highest price shipped ever paid in this section. Cheese is 115c; eggs, 16c; oats, 55c a bush.—J. O.

NORTHUMBERLAND CO., ONT.

EDVILLE.—The late bountiful rains were quite beneficial to the growing crops, although they came too late for the hay crop. One farmer turned his cows into a great good meadow of seven or eight acres of grass before they got to the end of the production up. Since the rains there has been a great improvement in the pasture. Tomatoes, which were raised in the front of Bramble and Brighton are looking well. Apples are paying well this season.—S. H.

PETERBORO CO., ONT.

APSELEY.—Haying is in full blast. Old meadows are very light; new seeding is a fair crop where it was not winter killed. We have had splendid rains which will bring a great deal to the farmers. Early rains will be on the short side but late rains will be much better. Pasture promises to be extra looking fine. The fly has damaged the turnip crop to some extent. Pasture has been pretty well dried up since the rains however things have put on a different appearance and have put the milk is coming up to what it was before the dry weather set in.—A. G.

VICTORIA CO., ONT.

LINDSAY.—A short description of my bookkeeping operations from beginning of the season up to date might be of interest. My books were taken out of winter quarters (closed) on 5th and 6th. Winter loss was less than 2 per cent, though April and the first half of May the weather-lytle brooding even in the very late. The fruit and dandelion bloom came very late, commencing about May 14th; the fruit buds were in the ear, but the fruit bloom lasted only a few days, and bees could not make any progress unless they were fed. This did for about ten days. Extracting sugar was usual about June 15th instead of 8th usual about the 15th. The white honey sea was practically all over. The white honey sea was season that I ever remember. The white honey was very little more than half of the weather shot was a dark honey crop of it. It may be that the weather shot was a dark honey crop of it. Farmers have sown a good deal of buckwheat. Comparing notes with other beekeepers, we decided that our bees were exceedingly good, and had to handle this year. Bees from same queens that we had set year were troublesome this year. Have any readers of Farm and Dairy had the same experience?—J. S.

WATERLOO CO., ONT.

WATERLOO.—The season has been very favorable for our crops. The late rains have helped barley and oats. Hay making out a fairly heavy crop on most farms. It is sold at \$13 a ton from the fields. The wheat is all out and is a pretty heavy crop. Farmers are busy hauling in wheat. Barley will be a little light but oats promise well. Root crops and corn are also coming along nicely. Owing to the great use, peas have been raised for a number of years but this year some are trying them again. They are doing well.—C. H. S.

MIDDLESEX CO., ONT.

TEMPO.—Crops have suffered for lack of moisture. Wheat was never better than says, "It's O.K." The crop was splendid, and scores of farmers have sown in good condition over 50 tons each. Cattle's feed is getting in quickly and cows have milked fine. Products well. Butte: 25c; eggs, the same; live hogs, 85c; hogs, 82c; oats, 55c to 60c. To show what a great use canned tomatoes are put to, I give the following: The manager of the branch of the Wm. Davies and Co. of the branch of the writer that he had sold retail is three tons in 150 cases or 500 dozen cans of tomatoes in one little box alone.—J. E. O.

HURON CO., ONT.

GODFREY.—Plentiful rains since July 11th, have turned a gloomy outlook for grain crops into a bright one. The crops of wheat, which were brighter than earlier in the season have lengthened out and are nearly a average crop. Hay and corn are nearly a average crop. Haying is completed, very few fields crop having been stored, very few fields crop more than a ton to the acre. What is mostly cut, some fields are not yet cut, not yet commenced to change color. The small fruit crop has been good. Cherries were abundant also while apples, especially on

LIVE HOGS

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

THIS WEEK'S PRICES FOR HOGS DELIVERED AT FACTORY \$7.90 a Cwt. FOR HOGS WEIGHING 160 TO 220 LBS.

THE GEO. MATTHEWS CO., LIMITED

PETERBOROUGH, - HULL, - BRANTFORD

cultivated orchards, give promise of a heavy crop.—D. G. S. SYLVIA DISTRICT, ONT. HUNTSVILLE—Hay is considerably below the average, especially on light or sandy soil. The recent heavy rain has from the grain crop from serious damage from lack of moisture. Judging by the appearance of the average grain field the farmers will harvest considerably more than they have in the past two years. The crop has been very dry and destructive in the past and not nearly as plentiful, and have almost entirely left some parts. The root crop looking well, and good results are expected.—F. R. B.

ALBERTA

STRATHCONA DISTRICT, ALTA. HURNT LAKE.—Dairymen in this "Land of Sunshine" have reason to be happy. Good growing weather continues. We have an abundance of grass, promise of a bountiful harvest. We are having good make of butter and prices are steady. Cheese business is increasing rapidly and we have satisfied patrons. A Trumble of Red Deer, has swept a most everything at the fair with his recently imported Ayreshire. Dairymen in his part of the province are looking out for pure-bred stock to improve their herds.—T.B.M.

BRITISH COLUMBIA

NEW WESTMINSTER DISTRICT, B.C. MATSQUIL—Shrubby weather during July has resulted in heavy grain crops. In many cases crops are badly lodged. Root crops and pastures are doing well. Sweet cream during July brought 4c a lb for butter fat. Milk retailed at 17c a gallon. These prices are largely the result of negotiators' association and city dealers.—P.

GOSSIP

THE GREAT LIVE STOCK EXHIBITION. The management of the Western Fair, London, Ont. are preparing forth extra efforts this year to make their exhibition more popular than ever in all its different branches, but to none of them are they giving more attention than to the Live Stock Department. A large amount of money has been added to the prize list in the horse class, several changes have been made; sections are added to the roaster class for "farmers only," other sections in the high sippers for tards. The agricultural white is an event several hundred dollars have been added to the purse. In the cattle 850 has been added to the Shorthorn class alone and substantial increases to the other classes. Increases have been made in the sheep classes and one new class added to the series. A third prize list has been given the entire country list beside a fine lot of specials. The agricultural white is an event several hundred dollars have been added to the purse.

In the cattle 850 has been added to the Shorthorn class alone and substantial increases to the other classes. Increases have been made in the sheep classes and one new class added to the series. A third prize list has been given the entire country list beside a fine lot of specials. The agricultural white is an event several hundred dollars have been added to the purse.

COW TRANSFERS FOR MAY, 1909 (Continued from page 16.)

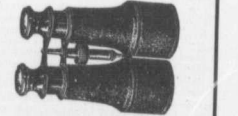
Russie of the Valley, James Lowrie to T. C. Yarrington, Princeton, Ont. Sylvia Calamity De Kol, Wm Wesley McLean to J. H. McLean, Inkerman, Ont.

Sylvia Flower, C. J. Gilroy to D. C. Platt & Son, Millgrove, Ont. Tenke May, B. E. Barr to George H. Coughlin, Middlemarch, Ont. Thelma Akkrum De Kol, A. L. Laying to G. A. Gilroy, Glen Ruell, Ont. Tidy's Snowfield, Wm. T. Hermlston to F. G. Sandy, Onemee, Ont. Tiger Lily, Ceylon Robinson & Son to Ceylon Robinson, Portsmouth, Ont. Topsy Netherlands, Alexander Barron to Topsy Frankland, Burch, Ont. Nelson Netherlands De Kol, E. S. Stevenson to D. C. Platt & Son, Millgrove, Ont. Rodney, Ramsayville, Ont. Una De Kol Dot, J. G. Acres to H. W. Hodner, Ramsayville, Ont. Una Kornykke De Kol, W. L. Woolf to Benj. Leavens, Bloomfield, Ont. Violet Leahy, Pierje De Kol, E. C. Chambers to Nelson Mingle, Bookton, Ont. Violet Latake, Hem, Fred Sturgeon to G. A. Gilroy, Glen Ruell, Ont. Violet Latake (Gem, G. A. Gilroy to D. C. Platt & Son, Millgrove, Ont. Vronka 5th Queen, Gilbert Gray & Sons to Gilbert Gray, Ventnor, Ont. Winnie Calamity Onemee, Ont. W. A. Bryant, Cairnmuir, Ont. Winnie H. Calamity Posh, George Rice to Lakewater Farm, Fronte, Ont. Winnie's Rite, Lym, Ont. Wood Van Tackebarr, Lion's Head, Ont. R. E. Woodland Fair Lady, W. H. McNeil to W. W. Brown, Lym, Ont. York Rose, R. G. Way to C. H. Curtis, Warkworth, Ont. G. W. CLEMONS, Secretary.

Renew Your Subscription Now.

THESE FIELD GLASSES FREE

How often a farmer can make use of a good field glass is something that a good many of the farmers do not make out for themselves. It is like the man who is without walking sticks, and who has a pair of field glasses. He can take them with his trip. Every farmer should have a pair of field glasses, and enjoy more fully his trip. It is just now, as you need to. We can supply them Free of Cost.



These glasses are just as illustrated above. Superior service, Day or Night, Field or Marine. Leather body, enameled mount and draws, complete with sunshade, leather case and shoulder strap. Magnifies about five times.

Send us a club of only Ten New Subscribers each at \$1.00 and you and the glasses will be sent you Free of Cost. Send for your copies and get your neighbours to subscribe.

Circulation Department FARM AND DAIRY PETERBORO - ONT.

Note—We have a large number of our useful premiums to offer in return for securing New Subscriptions. Write for our New Premium List.

Back Remarkable for richness Watch and pleasing flavor. The big black plug chewing tobacco.

MARKET REVIEW AND FORECAST

Toronto, August 9th, 1909.—The continued crop prospects for the Northwest which is having its effect on business which begins to show considerable improvement.

WHEAT

What prices are gradually coming down as more authentic reports from this season's crop come to hand.

COARSE GRAINS

The oat market is easier especially for western oats to be had. The new crop will, however be on the market shortly.

FEEDS

The demand for mill feeds is limited and the market is easy without however any change in prices.

HAY AND STRAW

The hay market continues steady at about last week's prices. Some new baled hay has been marketed at Montreal at \$12 a ton in car lots there.

POTATOES AND BEANS

The Ontario potato crop is not likely to be a heavy one. The growers must depend upon the weather for the next six weeks.

The bean market is very firm. There are practically no Ontario beans on the market, the trading being in foreign beans.

EGGS AND POULTRY

The egg market continues firm under light receipts and a good demand. Montreal dealers have been paying 25c east of last week's price.

FRUIT

Nova Scotia will have a big apple crop this season. In Quebec it will be a light one. The Ontario crop will be about the same as last year.

DAIRY PRODUCTS

The continued dry weather is shortening up the milk supply at many cheese factories and the milk is running low.

WOOL

This season's wool crop is now well out of the farmers' hands. Quotations at country points continue at 25c to 26c for washed, 1 1/2 to 1 3/4c for unwashed, and 1 1/2c for rejects.

HORSE MARKET

Dullness continues to characterize the horse market. Last week about 90 horses were sold on the Horse Exchange, W.T. Toronto.

LIVE STOCK

The cattle market has ruled firm all week with prices higher, especially for choice quality. Receipts ruled fairly large for choice butchers' cattle scores.

At the Union Stock Yards on Tuesday about 2000 export cattle were on offer, the top price reported was \$6.75, or as high as last week. The bulk of the sales were below this figure.

There was a fair trade in feeders and stockers during the week. Good steers, 850 to 1000 lbs. are in demand. The lighter kinds are wanted in quantity.

The TRADERS BANK Capital and Surplus of Canada Total Assets \$6,350,000 \$34,000,000

You would find it very convenient to have a Joint Deposit Account with this Bank, in the names of yourself and your wife, or son.

THE BANK FOR THE PEOPLE One of the 80 Branches of this Bank is convenient to you. Your account is invited.

The market for veal calves holds steady. Quotations rule at \$4 to \$5.50 a cwt. On Thursday a few new milk fed calves sold at \$6 to \$6.50 a cwt.

In this week's prices. Hogs sold at some country points in western Ontario last week at \$8 a cwt f.o.b.

PETERBORO HOG MARKET Peterboro, Aug. 7, 1909.—The deliveries of Danish hogs on the English markets last week were 33,000. The demand for bacon

Season Almost Over Take advantage of this fact. We have a few Binders left of our large stock, and why not enjoy harvesting your crop with a HAMILTON BINDER WE ARE SURE you will appreciate having an up-to-date machine that will meet the requirements of a long or short straw. Remember we guarantee our Binder. CALL ON US WRITE TO US THE PETER HAMILTON CO., LIMITED PETERBORO, ONT.

in the old country... The George Matt... f.o.b. country point... \$8.85; do.

MONTREAL Montreal, Saturday... The position remains... still small amount...

EXPORT BUTTER Montreal, Saturday... market for cheese... with a slow demand...

the finest Ontario... ranging from 11 1/2c... of the offerings sell...

Peterboro, Aug. 7, 1909.—The deliveries of Danish hogs on the English markets last week were 33,000. The demand for bacon

FOR SALE AND... TWO CENTS A WORD... FOR SALE—20 H. P. working engine...

FOUNTAIN PENS, 14... Return for one new... Patent Fountain Pen...

PURE BRED FIGS.—Give away, in return... for subscription...

CORRECT Five Lessons in Latin... hundreds for \$1. We... deftious names on pro...

Plow More Ground Per Day and Plow it BETTER

When a BOY and Three Horses can do More (and better) Plowing in a day than two MEN and FOUR Horses

And when for the same first-cost outlay you can get a plow that will stand up to its work longer and do that work more perfectly—

What further argument is needed to convince a live farmer like you that the immense sale of Cockshutt Plows—and other Cockshutt implements—comes from nothing else than the practical, money-saving, horse-saving, work-saving merits of the whole Cockshutt Line?

It is not a matter of designing implements right—not simply a question of our doing all the experimenting at our expense instead of at yours—not is it just an advertising policy of telling the plain truth about what every Cockshutt implement actually will do, and then proving that it WILL do it IN THE FIELD.

No, it is more than that. For, even for the special-formula Cockshutt soft-centre crucible steel that makes Cockshutt plow-mouldboards, we pay more than we really would need to if we were willing to have our customers take some small chances on the wearing quality of those boards.

But we Won't have Our Customers take Chances

And we put more strength into the parts that must stand strains than seems really necessary. We add, without increasing the price to you, devices that reduce draft and lessen friction to the minimum; devices that make adjustment for width and depth a matter of moments instead of quarter hours; devices that had dust and grit from bearings.

A score of things built into Cockshutt gang and disc plows that add value to your money and cut down your labor and horse-flesh outlay in doing your farm-work.

And when we have done all that, we test and re-test and test again before the plow goes to you, so that—

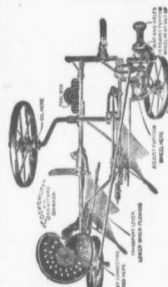
When it does get to you, you can put it to work in a jiffy, without any tinkering or fussing or need for expert aid, and you can be SURE it will work right and go on working right.

Isn't THAT worth considering very carefully next time you are ready to invest in a farm implement?

If you think so—and we are sure you do think so—there are some interesting facts and pictures for you in our catalogue. Let us send you a copy—post-paid and free, of course.

What name and address, please? (Use a Post Card, if you wish).

The Beaver Gang is the Steadiest and Smoothest-running Plow EVER Built



"BIRD-EYE" VIEW OF THE GANG-PLOW THAT CUTS TWO FURROWS EASIEST

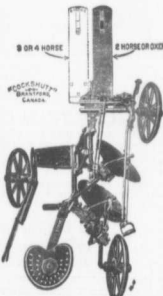
On the roughest ground whatever the soil, the Beaver Gang cuts every furrow the same depth and width, once adjusted by the Adjustable Frame and New Fine-Adjustment Ratchet. The Land-Wheel, being unusually large, carries the plow smoothly over bumps that would jolt an ordinary plow's bottom clear out of the ground. Also, the Cushion Spine on the land-wheel's axle arm takes up shocks and concussion, makes it easy for the driver and saves the team lots of strains and jerks.

A more boy, untrained in plowing, can readily handle this two-furrow gang with three horses, as all tie levers are fitted with "helper" springs and so require the merest slight pull to set the bottom for depth, the frame for width, or to lift the bottom clear of the ground.

Cockshutt Straightener Device corrects crooked furrows next time past by a slight pull on a handy lever. Friction and draft are so minimized in the Beaver Gang that it actually draws but very little—barely one-fourth—harder than a one-furrow walking plow—the draft is straight, there is no neckweight on the team, and the mouldboards, tempered as hard as glass and polished like glass, scour clean in the stickiest soils.

Fitted with three styles of bottoms, from very wide to very narrow, and thus suited to all kinds of plowing. Has dust proof wheel bearings and an oiling device ten years ahead of anything else. The ideal gang-plow for unskilled labor—practically "fool-proof." Write us direct, as below, for full details and name of nearest place where you can examine the plow if you wish to do so.

The Cockshutt Two-Furrow Disc is the Great Plow for Hardpan and Sun-baked Soils



"BIRD-EYE" VIEW OF THE DISC-PLOW THAT DRAWS LIGHTEST OF ALL

This economical, easy-draft, very staunch and strong disc plow will cut, stir and turn any soil, however hard or dry, and produces a land condition of tilth that cannot be realized by any mould-board plow. In fact, it will do good plowing under circumstances that would balk a mouldboard plow entirely.

Draws lighter than most one furrow discs because it is designed to utilize every possible ounce of horse-pull and utilize it where it is wanted—at the disc edges. This is made certain by the extra length of the chilled disc bearings, with their ball bearings to take up the end thrust, which on other plows, is apt to ride the disc out of the land. A power saver beyond comparison.

Note the great strength of the frame—the picture, a top view, shows the bracing and rigid construction that makes the frame fit to stand stresses that would wreck a plow built less staunchly. Note, too, the easily adjustable hitch, quickly changed for three or four horses as needed.

Lever are fitted with new Spring Lifts, are convenient to the hand and easily operated. Made in 1, 2, 3, 4, and 5-furrow discs, all without any limber joints, all without lost motion, parts carefully fitted and all wearable parts made separate so they can be replaced without buying a whole part.

Guaranteed to work perfectly in driest and hardest ground if plain instructions, sent with each plow, are followed. Write us direct, as below, for details.

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

COCKSHUTT PLOW CO.
LIMITED
BRANTFORD, ONT.