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THE CANADIAN DAIRYMAN
AND
FARMING WORLD

PETERBORO, ONT.

JULY 29, 1908



ONE OF ONTARIO'S BEAUTIFUL FARM HOMES

The illustration shows the house and farm buildings on the farm owned by Mr. Nathaniel Vermilyea, Hastings County, Ont. Note the neat attractive appearance of this place. A most excellent crop of grain just ready for the binder is to be seen in the foreground.

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CANADIAN COUNTRY LIFE

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The Spindle is one of the most important parts of the Separator, and is a part that has, perhaps, given more trouble than any other. Any slight accident to the spindle generally disables the entire bowl, throwing it out of balance and making it run rough and hard.

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The **SIMPLEX** spindle is made of a special high carbon steel. It is specially treated in the drop forging

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Present System All Wrong

S. Redmond, Peterboro Co., Ont.

The present system of assessment is all wrong. I really fail to see where there is any fairness in the tax at all. I am about the largest taxpayer in this section simply because I have improved the buildings and brought them to the shape they are now in. It is all very fine to say why do I not leave the buildings as they were and not improve them. If a man's business grows he has to have more and better accommodation, taxes or no taxes.

My idea of taxes is that the land value only should be taxed, not the buildings. Then there would be more of a uniformity about the tax. For instance, my neighbor and I might have two farms and on each farm is exactly the same sort of buildings, and the land is of the same value. We both are taxed exactly the same at that time. I go to work and pull down one of my old buildings and put up a more modern one as I require more room. The consequence is I am assessed up high for my improved barn, and yet my neighbor who has identically the same land as myself is left off simply because he is content to be behind the times and let things go, or in reality mostly because he is afraid of the tax.

It is high time it was altered and a more uniform method of taxation brought forward. There seems an unbecoming of feeling against it among the farmers generally. I should not be surprised if they begin to agitate pretty strongly for its removal.

Farm Motor Competition

Probably the most interesting and novel exhibit judging from the standpoint of utility in farming operations was the agricultural motor test at the Industrial Exhibition at Winnipeg. This feature attracted wide-spread attention, experts coming from as far away as Australia and the Argentine to study the machines in operation. The United States Government was also represented by an official of the agricultural department.

English manufacturers who are really the pioneers of the industry were not successful in the competition as they were not cognizant of the conditions of the soil and climate. Their agents have gone back prepared to profit by their experience. Some of the machines entered did excellent work.

Dairy Show at Chicago

The third annual dairy show will be held at Chicago, in the Coliseum, December 2nd to 10th inclusive. In an announcement about the show the management states that it desires to make this dairy show a strong representative of all dairy interests, to bring together dairymen, butter and cheese makers, farmers and manufacturers of dairy products from all parts of the country, for educational purposes; also to present the best and most up-to-date makes of dairy machinery, and to show choice herds of cattle, representing all the different dairy breeds. The occasion will be the big event of the year for dairying. The different branches of the dairy industry will be so presented that the people of the country will realize the importance and magnitude of this industry.

The purpose is to make this exhibition of cattle and machinery something more than a show. It is the purpose to make it a strong educational affair where questions of national import may be discussed, and plans made for a greater development of all dairy interests. The first two shows were a success, and it is the desire to make the coming one better, bigger and more instructive. All communications concerning

this show should be addressed to the National Dairy Show Associations, 154 Washington street, Room 307, Chicago, Ill.

Even, although it has been decided to enlarge the Guelph Winter Fair, the movement in Canada favoring the holding of such a show, should not be allowed to drop. It is only a matter of time when the need for such a show will be recognized by everyone.

Dates of Fairs for 1908

Sherbrooke, Que., August 29th to September 5th.

Canadian National Exhibition—August 29th to Sept. 14th.

Halifax, N. S.—Sept. 2nd to 10th.

Western Fair, London, Ont.—Sept. 17th to 26th.

St. John, N. B.—Sept. 12th to 19th.

Central Fair, Ottawa, Ont.—September 18th to 26th.

St. Thomas Horse Show, St. Thomas, Ont.—September 22nd and 23rd.

New Westminster, B. C.—September 29th to October 3rd.

International Live Stock Exhibition, Chicago—Nov. 28th to December 10th.

Winter Fair, Guelph, Dec. 7 to 11.

Items of Interest

Mr. Fred Dunn, of Lansing, York County, Ontario, recently shot two white crows. Such crows are very rare.

Mr. Wm. White, vice president of the C. F. E., says that the west will require \$2,000,000 harvesters to garner the crop. From present appearances, harvest operations in the west should begin by August 15th.

Farmers living in North Monaghan Township, Peterboro Co., complain of the speed of some automobiles. They state that they travel faster than the law allows and seem to have no regard for the rights of others using the road.

While a ten-year-old child named Rogers of Swedenburg was petting a horse in the pasture, the buttermilk can unruly and attacked her with its teeth. The child was very badly injured and her face was so torn that it will be disfigured for life.

James Weir, Sandilands, Lanark, Scotland, will judge Clydesdales, at the Canadian National Exhibition, Toronto, this year. It has been resolved to depend upon home talent for the judging of Shorthorns, and Mr. W. D. Flatt, Dundas, Wentworth County, has consented to act.

A case of apparent poisoning developed at Tilsonburg when Mr. Kyle and two children were rendered violently ill after they had partaken freely of buttermilk. The buttermilk which remained some time in a tin vessel which is the cause assigned for their condition.

Mr. R. J. Guthrie, a representative of the Daily Mail at Sydney, Australia, is in Canada studying agricultural conditions. Recently he called upon Mr. C. C. James, Deputy Minister of Agriculture for Ontario, while on his way to the Guelph Agricultural College. He has visited New Zealand and Europe and from Canada, he will go to Michigan.

An outbreak of hog cholera is reported from Woodstock. One hundred and eighty pure bred Yorkshire hogs belonging to Mr. J. W. Boyle were shot recently by order of the Dominion inspector. The hogs were fine animals and the loss will be considerable, though Mr. Boyle will receive two-thirds of their value from the Government. The hog cholera, it is presumed, got into the herd from passing trains. The same hogs were taken to crush out the disease and stop it from spreading. Orders have been issued that no more hogs be raised on this farm for some time. The carcasses have all been buried.

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Only \$1.00
a Year

AGRICULTURE, THE KEystone OF CANADIAN PROSPERITY

Vol. XXVIII.

FOR WEEK ENDING JULY 29, 1908

No. 28

Bee Keeping a Branch of Agriculture

R. F. Holtermann, Brant Co., Ont.

WHEN we look upon the art of bee-keeping, and the bee in the past we find that they stood high in importance. In ancient days honey was practically the only sugar known, and Scripture with all its authority points to honey as an acceptable and enjoyable food. The science of to-day, owing to the inverted condition of the sugar, the volatile oils and the aroma of honey, fully endorses any statement that in ancient times was made about honey.

For the investigating mind, the bee is food. Our most classic ancient writers found scope in the bee for research and for pen. Their judgment has been sustained and their example followed by eminent scientists of the present day.

SUBJECTS FOR NATURE STUDY

Colleges or schools that, in undertaking the work of nature study, and have not an observatory hive or hives, are not availing themselves of the opportunity of having, within available reach, at all times, during the active season, specimens showing the various stages through which insect life passes. Neither have they made use of a study in nature which can and does awaken the greatest enthusiasm and interest.

When we look upon bee-keeping in its importance to Canada and Canadian agriculture, and particularly to Ontario agriculture, we have an industry that will bear the closest scrutiny, and a business which should have every encouragement.

Intensive agriculture must play an important part in Ontario and some of the other provinces. Fruit growing, poultry and bee-keeping must enter largely into this scheme of intensive farming.

BEE-KEEPING UNJUSTLY DEALT WITH

There is no line of agriculture that has been more unjustly dealt with than bee-keeping. The treatment which it has received officially at Ottawa and by the provinces is such as we might expect from the autocrat to the humblest subject of all Russia. Bee-keeping has not been granted a fair hearing or trial. It has been in act condemned as unworthy. Bee-keeping is a legitimate child in the agricultural family, and as fair to look upon as any in Canadian agriculture, and yet it has been tossed from its legitimate home—the Department of Agriculture—in seasons of darkness and has been left largely to be nourished and developed by anyone who has had kindness and heart enough to take it in and give it a little fostering care. It was left in this way at a time when undisturbed enterprise had perhaps already

ample to occupy his care and attention, and was already handicapped by not receiving the help which other lines were receiving. All this happened to bee-keeping in the face of being taxed to foster the other industries.

TAKES NOTHING FROM THE SOIL

Bees and bee-keeping take nothing from the fertility of the farm. Honey like butter is a carbohydrate. The hives can stand in the orchard or pasture, or some other place where they displace no other crop on the farm. The food of the bees takes nothing from any crop available for sale. Moreover, the greatest scientists of the world after keen and careful research, and is it not reasonable, tell us the bee is of inestimable value in the pollenization of blossoms. Thus, one year with another, bees insure greater fruit crops, and greater returns of clover seed and buckwheat. Practical experience has borne this out. Yet, with all our boasted mediums for distributing in-

were nearly 650,000 lbs. It is unfortunate that such should be the case. The imported goods are generally much inferior to our own, and the consumption is thereby correspondingly decreased. With the increase of population in the West, as well as in other parts of Canada, the demand for honey will increase still more. We cannot expect to meet this increased demand as our output has actually fallen off.

LEFT TOO MUCH TO THEMSELVES

The average bee-keeper manages his bees as if they could run themselves. Between this mistaken notion, bad seasons and foul blood, which latter the Hon. Nelson Monteith has taken active measures to stamp out, we have a decreasing number of colonies.

If the future has brighter and better things in store for this industry, than had the past, remains to be seen. Bee-keeping is a business. It requires the care and attention that any other leg-

itimate business does. It should be left alone by those who do not intend to give it study, care, time and attention. The attitude of the Department of Agriculture should not practically endorse the idea that bee-keeping requires neither care nor attention. It should give bee-keeping the encouragement, the help that its importance, not only in itself, but in its relation to other lines of agriculture, amply justifies and warrants.

The future of the industry depends upon the work and enthusiasm of the men who keep bees as much as it does upon the action of the Government.

It can be doubly ensured by co-operation among them. To make legislation effective, the bee-keeper must do his part. He must combine, energy, skill and good judgment in caring for his bees.

Such care and attention on his part will set a standard that will convince our Government that bee-keeping is an important branch of agriculture.

The Eradication of Perennial Sow Thistle

G. A. Brechen, Peterboro County, Ont.

Until about five years ago, the Perennial Sow Thistle and I were complete strangers. However at that time upon the purchase of a farm with one field very badly infested with this troublesome weed, I made its acquaintance to my sorrow. From our very frequent arguments since that time as to who was to be owner of that field, I have learned to recognize "Mr. Sow-Thistle" quite readily and I have also learned some of his most important strong as well as weak points.

Being young and enthusiastic, I immediately got busy according to the best of my knowledge at that time, to rid the field of all trace of sow-



BEE HIVES IN AN ORCHARD

Beekeeping is closely interwoven with other branches of agriculture. The bees are of inestimable value in fertilizing blossoms, and insuring good crops of fruit, alike and buckwheat. The apiary shown in the illustration is owned by Dr. J. Harkness & Sons, Dundas, Ont.

formation, some men look upon a bee as an insect which sucks the strength out of the plant, and injures the crop.

Let the foremost agricultural province in the Dominion at least, accede to the request of the Ontario Bee-keepers' Association, and the Ontario Agricultural and Experimental Union, and conduct experiments to ascertain the effect of bees working upon blossoms. Such an act, and the resulting data, would be published over the civilized world.

REQUIRES BUT LITTLE CAPITAL

Bee-keeping does not require the large capital that general farming requires, in order to afford a living. Bee-keeping can be worked up gradually. Canada, and particularly Ontario, has at World's Fairs won a reputation for the quality of its honey that other countries have never approached.

Every portion of Canada is not suited for bee-keeping, but a very large portion of Ontario is exceptionally well adapted to this industry. Our imports of honey some ten years ago averaged about 22,000 lbs per annum. Last year the imports

thistle. The field being in hay, the year I started, I cut the hay early and plowed immediately. I worked the field well with an ordinary spring-tooth cultivator and harrows, all season, then cross-plowed it in the fall. The following spring I sowed the field to spring grain. From this I secured a pretty fair crop of grain, also sow-thistle. This season's work convinced me that this method was no good for cleaning out the "yellow scourge."

Having great faith in a root crop as a weed destroyer I placed part of the field in roots the following year, and having heard that two successive crops of buckwheat would completely eradicate sow-thistle, I placed the balance of the field under buckwheat, sowing the first crop about the middle of July, about one bushel per acre. This crop which grew very thick was plowed under about July 1st.

Both methods, root-crop, and double crop of buckwheat proved a failure, so far as cleansing the ground of sow-thistle was concerned. I did not plow after these crops, but merely ripped up the ground in fall, hoping the action of the frost would deal it the death blow. However, the hope proved vain when the warm weather appeared again.

- THE MOST SUCCESSFUL METHOD

In 1906 I tried a new scheme and I think this plan if carried out thoroughly, with probably some slight modifications to suit different farms and farmers, is the most advanced and successful for the eradication of sow-thistle yet arrived at.

Having read something of the use of broad-share or thistle cultivator points, I procured a set, and attached them to an ordinary spring-tooth cultivator. I plowed the field four or five inches deep about June 6th and cultivated at least once a week until July 14th. Then I sowed to buckwheat, one bushel to the acre. My object was to smother any remaining sow-thistles. The fall of '06 being exceptionally free from heavy frost my buckwheat ripened and produced a magnificent crop of grain of very fine sample.

But to return to sow-thistle. After the first stroke of the cultivator the ground was white with big, strong juicy roots ready for a big season's business. After the last strokes of the cultivator about the middle of July, any roots appearing at all, were shrunken and blackened like last year's stubble. That these roots lacked life was proven by their non-appearance in the buckwheat.

Unlike twitch or quack grass which must be killed by exposing the roots to sun or frost to remove its sap, the sow-thistle with its more brittle roots is best killed by encouraging roots to grow or produce plants, then cutting these plants before the leaves are produced and thereby slowly starving the root stalk.

THE PRINCIPLE OF ERADICATION

The principle as I understand it is simply this: Each plant must get nourishment enough from the root stalk to carry it to the surface. Then if unmoistened, its leaves shoot out and draw considerable nourishment from the air. This nourishment is returned to the root leaving it as strong as previously. Now if the plant is severed from the root before the leaves have a chance to work, the root immediately draws upon its supply of nourishment and starts another plant. If the cultivator arrives sharp on time and gets plant No. 2 before it breathes the life-sustaining air, the root stalk will be called upon to start a new child on its way to the surface. Now the process goes on, if the man with the cultivator "means business, and means it all the time," until the big juicy root has given of itself until its last vestige of plant nourishment is gone. The root itself has failed to a mere skeleton, and as it is too weak to give birth to another plant it just simply makes up its mind to die. Then, farmer, it is your time to laugh and sow your rapid-growing, sturdy buckwheat or rape to fatten on the skeletons of sow-

thistle, and take advantage of your thorough cultivation.

A GOOD THREE YEARS ROTATION

In dealing with sow-thistle, one of our most persistent weeds, as with any other work in life, the old maxim, "What is worth doing, is worth doing well," applies, and underlies the whole scheme. I can see no reason why any farm with proper drainage can not be made and kept

practically clean with the following three-year rotation: First year clover; 2nd year (the cleaning year) corn, roots, etc. for land infested with wild oats, herring, etc. and similar treatment to the one I have described above for sow-thistle, bindweed and kindred plants with creeping root stalk. Third year without plowing any of the land used in 2nd years rotation, sow to grain seeded with clover.

AGRICULTURE IN THE HIGH SCHOOLS

A Review of the Work that Has Been Carried on by the Agricultural Specialists at Morrisburg, and at Essex, Ontario.

IN connection with the new movement in agriculture, the work at Morrisburg has been conducted under the direction of W. A. Munro B. A., B. S. A. In a letter to The Canadian Dairyman and Farming World, Mr. Munro describes his work as follows:

The teaching of agriculture in the Morrisburg Collegiate Institute has not yet become a possibility, notwithstanding the fact that the teacher, the equipment and the grounds are all that could be desired. No students have yet expressed the desire to take up the subject in the Collegiate course. It was evident to the teacher in September, when no students registered, that something must be done to show farmers the great need of agricultural education and the opportunities that were afforded of acquiring that education in the high schools. There was no precedent and much time was lost in feeling for the best policy.



W. A. MUNRO, B.A., B.S.A.

Plans were laid for an elaborate short course to be held in Morrisburg in January and the farmers considered it the main thing in prospect, but no one could be made to promise to be in attendance for the length of time required. This was not because they lacked faith in it but simply because of the vexed labor question. There did not seem to be more men on the farm than could do the work and time could not be spent in attendance at the short course. This plan had to be rejected.

"The new policy was to hold one day of the short course in each representative centre through out the country and the work of the agricultural teacher during the whole winter has almost altogether been confined to the holding of what has been chosen to call "Day Schools" the subjects particularly dealt with being, "Horses" "Cattle" and "Grains."

"To illustrate in detail what a day school is, it might be well to outline a day on "cattle." By previous arrangement a blacksmith shop had been secured for the afternoon and a hall for the evening meeting and three cows each of Yorkshire and Holstein, and a bull of either of the breeds for the afternoon demonstration. At 1:30 o'clock a representative dairy cow was scored, plenty of opportunity being left for the farmers to ask questions and make suggestions. The scoring took up about one hour and a half. Three cows of one breed were then brought into the ring and the class asked to judge them. After each an interesting discussion took place followed by the decision of the expert with reasons. The three cows of the other breed were likewise dealt with after which a demonstration was given on the desirable characteristics of a dairy bull.

"The evening meeting was a continuation of the afternoon demonstration and took the form of

a lecture on some phase of the dairy industry.

The chairman of the evening meeting was usually appointed from the farmers at the afternoon demonstration. After the dairy question had been dealt with at full length the instructor gave a brief but definite outline of the scheme of the new movement in agricultural education.

"In nearly every place visited a vote of thanks was passed and an urgent request put in for the instructor to come again on some other subject. The best evidence of the success of the day schools lies in the fact that the second meetings were invariably better attended than the first.

"The office is no mean consideration in the new plan. The Morrisburg office is large enough to comfortably seat 70 people, is on the ground floor and has a large plate front. There are two large reading tables with over 30 newspapers and Agricultural Periodicals, and shelves containing bulletins from different American States, and books on different phases of agriculture. It is fast becoming a rendezvous for farmers without the indigency of being a loafing place.

"On March 28th a "Farmer's Club" was organized which is to meet monthly and discuss some one question at each meeting. Prospects are bright for good demonstration work being carried on, on the grounds. The public and high school children are helping in this.

"The citizens, teachers and students of the Morrisburg district are continually gaining a better opinion of the new movement and everything points to its becoming one of the prominent corner stones in the Educational development of Old Ontario."

AGRICULTURAL EDUCATION IN ESSEX COUNTY

Mr. A. McKenney, B. S. A., the representative at Essex of the Department of Agriculture, whose portrait appeared in our issue of July 8th, has written us as follows: "The geographical situation and climatic conditions of Essex County place it in a position very much by itself in so far as its agricultural possibilities are concerned. Situated on the 42nd parallel of latitude, the climatic conditions are such that the farmers of the county are enabled to grow with a fair degree of success, almost any crop that can be grown in any other part of the world. Such crops as corn, tobacco, and even sweet potatoes may be grown to a degree of perfection nearly equal to that of the countries to which these crops are indigenous. The great variety of special crops which are grown in the county makes the field for investigation work a very broad and interesting one.

"It has been my duty since coming to the County to make a special study of the crops and conditions as well as of the special needs and problems of the growers. The interests of the farmers of Essex County are many and varied. The board of the Essex High school is composed of men who fully recognize the value of education to the farmer, and they have done much by their personal help and generous financial assistance to give the new department a proper start. The Essex county council also supported the work of the work being handicapped for lack of fin-

of the work being handicapped for lack of finances. The farmers of the county had not asked that a department of agriculture be established in connection with the Essex High School and, though we met with no active opposition, in the greater number of cases we had to contend with indifference. This was, however, chiefly due to the fact that the work was not thoroughly understood.

"As it was necessary to open the schools in September, there was scarcely sufficient time to demonstrate clearly to the farmers exactly what it was intended to take up in the school. The course in agriculture was, however, explained as fully as possible through the medium of the local press and by means of printed advertising matter which was thoroughly circulated throughout the county. This, supplemented with a great deal of personal work, was the plan of our campaign conducted before the school opening. When the school opened, we had, as a result of our efforts, two students who registered for the work in agriculture. These boys spent four half days a week of their time upon agricultural subjects, the remainder being taken up with the regular obligatory subjects of the high school. The course so far has been very popular with these boys who

Essex, it has been more difficult for the Department of Agriculture and the college at Guelph to keep in touch with the farmers than perhaps any other part of the province and, for this reason, it is necessary for the Department of Agriculture to have a man on the spot to get acquainted with the conditions as they exist and, knowing the conditions, to put the farmers in touch with the solutions of the problems they are up against."

Fitting Dairy Cattle for Show

Each year one sees new faces in the show ring. As the judges perform their work, the eager look of expectancy on those faces proclaim them to be amateurs. The time to commence a little fitting being now at hand, a word as to "how" may not be amiss.

The first and perhaps the most expert work is selection. In these days of keen competition nothing but the very best need be taken into consideration. Indeed after the "very best" is selected there is danger of the prizes going to an inferior animal that has been better fitted. In speaking of fitting, we do not altogether mean fattening. A dairy animal need not necessarily be a very fat animal. On the other hand, the

not do this noble breed any credit. We hope to live long enough to see a judge with back-bone enough to give the red ribbon to an animal not so adorned, providing other things are right. However, for the present we must do "as they do in Rome" if we expect to receive any attention from the officiating judge.

Training our show animals is another feature of fitting that should not be neglected. They should all be well halter broken—trained to lead. Above all train them to stand still. Nothing taxes the patience of a judge more than to have to run all around the ring in order to get his hands on a wild creature. This may seem a useless waste of time, but when all the animals in a class are evenly matched, a very little turns the scale, and that "very little" may easily consist in some of the points above mentioned.—"Old Showman."

Just as Good with Less Work

John E. Philip, Grey Co., Ont.

Our method of handling clover, until late years, since help has been so hard to get, was to cut in forenoon after dew was off. We raked it the same evening, or as soon as the rake would gather it. Then we coiled it up and let it stand for a day or two.



THE WIND-UP OF THE HAY SEASON ON THE FARM OF MR. GEO. STEWART, DOWNSVIEW, ONT.

Though many oppose the Hay Loader, it soon becomes a favorite once it has been used, and its usefulness as a labor saver has been established. Seeing is not always believing. With the Hay Loader one must have used it in order to thoroughly appreciate its advantages. By making use of such labor saving machines, the main operations of the farm are gotten through more quickly, and more time is at one's disposal for the innumerable other things that always need doing.

have signified their intention of remaining for the two year's course and at the end of that time, entering upon a more extended course at the Ontario Agricultural College.

USED THE FALL FAIRS

"I have already mentioned the fact that we met with a great deal of indifference among the farmers when we first began to introduce the work in agriculture. In order to overcome this, it was decided to use the fall fairs as a medium through which to show them the practical nature of the course which we intended to give. At the county fair a judging competition for young men was instituted and suitable prizes were offered to induce them to enter into the different classes. Eighteen young men entered and the competition was in every way successful and did a great deal towards popularizing the work taken in the high school. As a supplement to this work we made at every fair in the county, except one, an attractive exhibit, each feature of the exhibit being such as to impress thoroughly some practical feature of the work taken up by us in the school.

"Another side to the work which we have been doing in the county is in connection with the local office of the Department of Agriculture. Through the work done in this office the agricultural department in the high school will eventually be made a success. Through this office, we are able to bring the farmers into more direct touch with the Department of Agriculture and the Ontario Agricultural College.

"Owing to the nature of the crops grown in

time has passed when a dairy animal, in order to be a good one, must be a skinny one. After we have selected the herd that we think are among the best, the next step is a little extra feed. A good pasture is essential with plenty of shade and running water. Bring the cattle along gradually, getting them accustomed to grain feed. Not too much at first. Bran and crushed oats and a little linseed meal or ground flax, a little at a time is all that could be desired. Bring the cattle up to a full ration by degrees.

The greatest difficulty the young showman has to contend with is the danger of over-feeding and getting the cattle "off their feed." This can be avoided best by commencing to fit in time, and not feeding too much at first. Always see that plenty of succulent fodder is given along with the grain feed a month at least before the show season is on, the cattle should be inside most of the time, in cool well lighted and ventilated stables. If let out for exercise it should always be at night. Keep them in the stable in day time out of the heat and away from the annoyance of flies.

Through grooming every day, washing with soft warm water and an occasional sponging over with thick sour milk or buttermilk will give that mellowness of skin that adds so much to their handling qualities.

If we are showing Ayrshires, fashion decrees that the horns get a good deal of attention—scraped with glass, rubbed with sand paper and oiled until they shine like a mantle ornament. We are old fashioned enough to think that this does

as a labor saver has been established. Seeing is not always believing. With the Hay Loader one must have used it in order to thoroughly appreciate its advantages. By making use of such labor saving machines, the main operations of the farm are gotten through more quickly, and more time is at one's disposal for the innumerable other things that always need doing.

Of late, instead of coiling the hay we leave it in the windrow to cure. Then we use a hay-loader to load it. We find we can make hay just as good following this practice as we did by the former method; and we do it with a great deal less work. Of course this practice is good only in favorable hay weather. Sometimes we are obliged to coil a little. We cannot set any cast iron rule as regards haying without knowing just the kind of weather that is in store for us.

Sows Farrowing in August

Geo. Rice, Oxford County, Ont.

Convenience in feeding hogs is the great thing. In the summer we have water in every pen and feed all the chop dry. In that way a man is able to feed a couple of hundred pigs in about 20 minutes. A lot of rape is grown for summer feed, which keeps the pigs healthy and makes cheaper and better pork.

It is better to have the pigs come in during August or early in September, in order that they may get a good start before the winter comes on. They require lots of exercise when young and when born later in the year they have to take exercise on cold stormy days and consequently do not do so well. When the pigs come in August the sow has a pen to herself in one of the hog yards and she sleeps in a hut. The pigs, when about three weeks old are allowed to run out into the lane through a hole in the fence, and they are given a little feed by themselves. They soon get so that they will eat peas or corn.

HOLSTEINS

We must sell at least 25 cows and heifers at one time, to make room for the natural increase of our herd. This is a chance of a lifetime to get a good bargain; we also have a few young bulls. Foster Herms, imp. son of Benedict DeKoi, world's greatest sire, head of herd. Come and see them.

H. E. GEORGE
CRAMPTON, ONT.

PUINERT STN., 15 MILES E. OF HOLSTEIN BULL CALVES FOR SALE

one month to nine months old, bred from the stock of J. W. Richards, of Catalonia, and J. W. Clemons, of St. George. Prices reasonable.

JOHN MACKENZIE,
Willowdale, Ont.

E-812

HOLSTEINS

I have only three sons of Brighten Canary to offer for sale. Speak quick if you want.

GORDON H. MANHARD
Leeds Co.,
E-6-53

SUNDALE HOLSTEINS

Bull calves from 1 to 4 months old, bred by Dutchland Sir Hengerville Mappin Croft, he is imported from the celebrated "Paisie" herd, champion of the world, sired by Piertje Hengerville Count DeKoi, champion bull of the world. He is the only sire that has two daughters that made over 30 lbs butter in 7 days officially. Prices reasonable.

A. D. FOSTER,
Bloomfield.

E-0-4-21-09

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WORTH**—3 young bulls in farrow to Imp. "Kn-wing King David," 3 hours ready for service, Spring litters by Imp. "Boar." Offerings to Holstein, 13 bulls, 1 bull calves, and a few females. My Motto, "Quality."

A. C. HALLMAN, Breslau,
E-6-11-09 Waterloo Co., Ont.

EVERGREEN STOCK FARM

Holstein cattle and "Amworth" sires. Bull calves for sale, with good offers. Records behind the best "Amworth" spring pigs. For particulars write Thos. Davidson, Spring Valley P. O., Brookville, Ont. O-4-20-09

AYRSHIRES

AYRSHIRES AND PONIES
A few bull calves of 1908, and a fine pair of young light gray imported Shianland mares for sale. P. A. Beaudoin, 107 St. James St., Montreal.

NEIDPATH AYRSHIRES
Bull Calves dropped this spring. By imported Bull. First prize Toronto, Ottawa, and Halifax. Long distance phone.

W. W. BALLANTYNE,
E-4-09 Stratford, Ont.

SPRINGBROOK AYRSHIRES

are noted for being large producers of milk, testing high in butter fat. Young stock of all ages for sale. A few choice bull calves of 1908 now ready to ship. Prices right.

W. F. STEPHEN,
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SUNNYSIDE AYRSHIRES

Have been bred and imported with a view to combine quality with production. The herd contains some noted winners. Nether Hall Goodtime (imported) now heads the herd. Young stock for sale.

J. W. LOGAN,
E-6-09 Howick Station, Que.

LAKEBIDE STOCK FARM

Ayrshires, Clydesdales and Yorkshires. Imported and Canadian bred. I offer for sale several young bulls, 3 months old, also bull and heifer calves of 1908, all from milking stock. I have on hand a number of choice Yearling cows several months old. Write for prices.

GEO. H. MONTGOMERY, Prop.,
E-6-11-08 Phillipsburg, Que.

STONEVEGROFT STOCK FARM

Harold M. Morgan, prop. Ste. Anne de Bellevue. Choice young Ayrshire Bulls and Heifers for sale. Seekers please from Imported Sires and Dams. February and March litters. Largest selection. Highest quality. Write for prices.

E. W. BJORKELAND, Mgr.,
E-6-09

STOCKWOLD HERD OF AYRSHIRES

stands for everything that is best in this Dairy Breed. Our success in the show yards proves the excellence of our herd. FOR SALE—Stock of all ages. D. M. WATSON, St. Louis Station, Quebec.

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

Winnipeg Industrial Exhibition

In exhibits and live stock, the industrial exhibition which is being held on the 18th surpassed any fair ever held in Western Canada, though a few heavy rain-fall in the middle of the week slightly upset the calculations of the directors.

There was a fine exhibit both in numbers and quality, in the dairy cattle section of the show. W. W. Ballantyne, Stratford, Ontario, as judge, his awards giving entire satisfaction. In the Holstein classes, the Munro Pure Milk Co. of Winnipeg won most of the prizes. The honors in Ayrshires were divided between R. R. Ness of Howick, Que. and Robt. Hunter & Son of Maxwellville, Ont. An eastern herd of Jerseys swept almost everything in their class. A few Dutch Belted cattle were on exhibition. Sir Wm. Van Horn, being the main exhibitor.

The chief competition in Ayrshires was between R. R. Ness and Robt. Hunter & Son. For cow three years and over R. R. Ness won first with Lady Clara of Burnside; Hunter & Sons came second with their imported cow, Auchenbairn Cheruq; Ness won with Miss Rose, a two year old yearling heifer. Robt. Hunter received first with a deep-bodied, well developed cow, Queen Kate; Ardroy, also belonging to

AYRSHIRES FOR SALE

Of both sexes and all ages bred from deep milking stock with good udders and long teats. Four young bulls, dropped between September and January last. Prices reasonable.

WM. OWENS, D. BODEN,
Proprietor
Riverside Farm, Montebello, Que.
E-6-16-09

HUME FARM AYRSHIRES

Our 1908 importation has landed, consisting of 12 young bulls, one year olds, yearlings and calves. In bulls, yearlings and calves, dams record up to 1,100 lbs. milk in 30 days. We also have calves from our own Record of Merit cows, which were sired by the champion sire, either Imp. or home-bred. Come and see our herd. Phone in residence, Howick Station, N. B. E-8-28-08

ALEX. HUME & CO.,
Menie, P. O.

SPRINGHILL AYRSHIRES

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

ROBT. HUNTER & SONS
Maxville, Ont.
E-6-23-09

THIS STADAGONA AYRSHIRE

deserves special mention. Bull dropped July 18, 1907—Bire, Sir Oliver of Woodroff, 1656; sire, Quebec 96 and '01; dam, Hamilton Exhibition, Sherrbrooke W. dam, Stadacona Silver Queen, 3094, now in the test. She has given in 30 days more milk than needed to qualify for a Livestock Registry, and is due to calve 70 days before sex time (month). Orders booked for calves after calving, was 4.9. Her dam was by King Silver, Price, \$50.00 f.o.b. Que. Sec. Gus. Hangerer, Cap. Rogers. O-6-2-09.

RAVENSDALE STOCK FARM

Ayrshires, Clydesdales and Yorkshires, Imported and Canadian bred. I offer for sale my stock bull "Bright Star of Glenora," 1623, and "North Star of Ravensdale," 1624. Orders booked for calves of this year, also orders taken for July litters of Yorkshire pigs.

W. F. KAY, Prop.,
St. Armand Stn., C. V. Ry., Phillipsburg, Que. O-11

Ayrshires on Ste. Marguerite Farm have been selected from the best milking strains in Scotland, are large showy animals, with great milking ability. A number of young bulls for sale ranging from 1 year to several years. Also two worth pig pens. Shropshire Sheep. Write for prices.

P. A. GOVIN, Proprietor,
E-12-19-08 Three Rivers, Que.

Hunter & Sons, came second, while Ness was third with Burnside Nellie Burns, a very straight-lined cow with a typical head and a well-developed udder and strong shoulders. In the one year old heifer class, R. R. Ness was first and Hunter & Sons second and Egerton Shore, third. For the herd prize, R. R. Ness came first, Hunter & Sons got second and third.

THE BEEF CLASSES

The Shorthorn classes were one of the strong features of the show. The chief exhibitors were Mr. Wm. Van Horn, C. E. Clark of St. Cloud, Minn., A. D. Stewart of Westbourne, W. G. Frank, Ed. Selkirk, T. E. M. Banting, Wawanesa and others. Prof. Curtis of Ames, Iowa, acted as judge. Aberdeen Angus cattle were well represented by a number of western breeders. Herefords were exhibited by James Bray, Portage la Prairie, J. E. Marple, J. S. Taber of Carleton Place, Wallace, Fenton Bros. of Selkirk and others. The chief exhibitors of Galloways were C. E. Clark, St. Cloud, Minn., and D. McKee of Guelph, Ont.

Sheep made a good exhibit, Leicester, Shropshire, Cotswold, Oxford and South Downs were represented. Swine were represented by several western herds.

HEAVY HORSES

Great interest was taken in the Clydesdale classes. Prof. W. F. Carlyle, of Colorado, was the judge and he had a difficult task to perform. In the brood mare classes there were 14 animals appeared in the ring. Baroness of Hillcrest, sired by Baron's Gem and owned by R. H. Taber of Comrie, Sask. was first. The excellent upbreeding and true action of this mare accounted for her position as she was somewhat out of condition. In the stallion classes, the four year old Prince of the East, belonging to Hogzie of Brandon, came first. There were a large number of exhibitors, the chief of whom were Hogzie of Brandon; Sir Wm. Van Horn of Mercer and O'Neill, Macdowell, Ont.; Bryce of Arcola, Man.; Steele of Glenboro, Man.; John Graham, of Carberry, Man.; John Hay of Hannah, N. D.; Banting, Wawanesa; Hodgson, Roland, Man.; and others.

The Percheron exhibit was a fairly strong one, the breeders, represented were Hogzie; Geo. Lane of Pelkisko, Alta.; Tonnelle, Maple Creek, Sask.; Upper Bros., North Portal, Sask.; and others. The lighter horses—Standard-bred, roadsters and thoroughbreds, as well as the hackneys and ponies made strong exhibits in their various classes.

HORTICULTURAL EXHIBIT

In the fruit building, the principal exhibits were those from British Columbia and Ontario. The exhibits were well displayed and made a very attractive exhibit. A good range of fruit from several of the principal points in British Columbia such as Nelson, Kelowna, Kaslo, Chilliwack and Victoria were much admired. The exhibit of tomatoes packed by the St. Catharines Cold Storage and Forwarding Association, particularly worthy of mention. Some branches of red currants also were very fine.

An attraction of the fair that created great interest among the farmers was the hog motor on exhibition. With this machine, the hog grinds his own feed, the grain being supplied to him just as he grinds it. Through practical demonstration this motor displayed its usefulness and apparently it is bound to gain favor with the hog raiser.

A telephone in every house would work a great revolution in our farm homes.—J. Lockie Wilson.

Talks with Farmers

Ed. The Dairyman and Farming World, on It is a pleasure to visit the home of Mr. S. Redmond, Elm Grove stock farm, Otonabee township, Peterborough County. Mr. Redmond has 34 head of cattle stable in two barns, the best built and best ventilated barns in the county. One barn, built of solid brick, on stone foundation, is 80 x 40 feet. There is room for 11 horses and 2 cows. The other barn is 125 x 45 feet. It is being got ready for the cattle to be fed next fall.

Mr. Redmond farms 200 acres, every part of which is under drained. "The benefits of under-draining cannot be over-estimated," said Mr. Redmond; "I can get on the land a week or two earlier in the spring now than I could before the farm was drained. Besides, the land is easier to handle, as it does not cake, and it dries out much sooner. You can see the difference in the crops on the drained and on the undrained land. Under-draining pays for itself twice over the first year the land is worked, after the tiles are put in. I am surprised that there are not more farmers that have their lands drained, but in increased yield, and the easier manner in which the land can be worked, it is well so easily done."

"I have heard quite so lately about the general failure of the mangel crop. In nearly all cases such failures are on farms that are not drained. I got my mangels in early when we were having the lot of rain, and they have turned out first class."

RURAL FREE DELIVERY

"The idea of rural free delivery, which I have read considerable of in The Canadian Dairyman and Farming World, is a good one. However, I do not think that many of our farmers are agitate for it. Whatever we have got in the past we have always had to get for ourselves, and I expect that this idea of free mail delivery will be about the same. It would be very nice to get the daily papers and your mail every day, but I am afraid that the farmers generally will want to be convinced that it will not cost much more than the amount that they are already paying for a box in the city post office, namely, \$2 a year."

"The special edition of The Canadian Dairyman and Farming World, which I see is advertised for the benefit of farmers in the immediate vicinity of Peterboro, is a good one, and I wish it every success. As for the regular edition, it is a fine, healthy paper, and should have the hearty support of all that are interested in farming—dairy farming in particular."

ROAD WORK SYSTEM CONDEMNED

"The statute labor system of road work is not what it should be, says Mr. Nathan Payne, of North Dummer. "If the value of our labor was spent on hiring qualified men to make and repair the roads, better work would be done and we would be able to have them at work during the fine weather, instead of only a few days as at present."

AN OLD LOG HOUSE

"On my farm is the first log house that was built in Dummer. It was erected by my grandfather. When the time it was built this section of the country was over-run with wolves, and the farmers often had a dangerous time. "A Mr. Forsyth and a Mr. Kidd brought the first No. 2 plow, with the old cast iron mold board, from Peterboro, into Dummer. They carried it all the way, a distance of about 18 miles."

Continued on page 12

With the Experimentalist at Guelph

The Experimental Department at the Ontario Agricultural College, has always been a centre of very keen interest to the thousands of farmers who take advantage of the June excursions. These excursions, although of inestimable value, are somewhat early for observing the spring grains and hoeed crops to the best advantage. To those interested in agriculture, an inspection of the plots just before the wheat is harvested, invariably proves to be intensely interesting, and very profitable. Visitors during the early part of July this year, found the rapidly ripening plots of wheat to be standing up well, and to be, from all outward appearance, exceptionally good. All the other crops, in spite of the lateness of the season, were equally as promising in appearance.

Near the entrance at the central roadway, on comparatively low ground, is an experiment to determine the comparative strength of different varieties of oats. The Yellow Russian, which holds first place among all the varieties in the average yield for five years, and Liberty, which withstood the lodging test well last year, showed but very slight trace of lodging. The Tartar King, which is frequently recommended for use on land where oats usually lodge, was the least affected. Last year, however, the variety lodged very badly, and Liberty Plant breeding has grown to be a large, important and peculiarly at-

tractive phase of the experimental work. Skill, patience, perseverance, and sound judgment, on the part of the workers are absolute essentials in the successful cross-breeding of varieties. A glance at a few plots of new varieties produced by Prof. C. A. Zavitz and his staff, shows that they have obtained very promising results. There are several plots of oats produced from a cross between the Joannette and the Siberian. The cross was made with a view to securing a new variety with one stooling and thin hull characteristics of the Joannette, and the length of straw of the Siberian. A few plots of these new oats resembled the Joannette in stooling and shortness of straw while others were not so well stooled but possessed, like the Siberian, very long straw. One of the plots possessed even longer straw than the Siberian, and also showed the much desired stooling characteristic of the Joannette. The evenness of growth of these newly headed oats was marvellous in stooling and shortness of straw to the majority of the varieties.

NEW VARIETIES OF BARLEY

Equally as wonderful and promising results were to be seen in plots of barley produced from a cross between French Chevalier and Mandschouri. French Chevalier is a two-rowed variety, possessing a somewhat weak and long straw, with long, slender, nodding heads, while the Mandschouri is a six-rowed heavy yielding variety with very good length of stiff straw. The object in view in making this cross, was to obtain six-rowed late-maturing barley, with a long head, like the Chevalier and with straw equal in length to that of the Mandschouri. It has been proven that the heaviest yielding crop for grain production is a mixture of oats and barley. Mandschouri is found to grow well with the early-maturing and comparatively light yielding Daubeny oat, but with the production of a barley corresponding to the ideal aimed at by the experimentalists, Si-

berian, Banner, or other heavy yielding varieties, could be used, and the yield should be greatly increased. A few of the resultant plots were more or less lodged—a weakness inherited from the Banner. Others were standing up well and showed considerable more length of straw than either of the parent varieties. The indications pointed towards the desired lateness in maturity. Excellent crosses of spring and winter wheat were also to be seen.

The first crop of alfalfa on the variety plots had been cut when about one-tenth of the blossoms had made their appearance. The second growth was, at the time of inspection, quite pronounced. A plot to demonstrate one method for securing a good catch of alfalfa had been sown in the spring at the rate of 30 lbs. per acre, with a crop of one bushel of barley per acre. The soil is a clay loam with good underdrainage, and a fine stand of lucerne has been obtained.

HOME GROWN MANGEL SEED

A small nursery crop that has been set aside for the production of mangel seed, proves to be of considerable importance. Seed produced from home grown seed in 1906 gave in 1907 higher values per acre than any of the 26 varieties grown. The rows sown with College-grown seed shows fewer spaces than at least the majority of the varieties. Apparently Canadian seed is superior to European seed, which is the most part, used throughout Ontario.

THE ANNUAL PASTURE CROP

About ten acres of land were sown on the 20th of May with Prof. Zavitz's annual pasture crop: oats, 51 lbs.; early amber sugar cane, 30 lbs.; and common red clover, 7 1/2 lbs. per acre. About six weeks later eleven head of steers were placed on the pasture. The oats formed the greater part of the food for the animals at first. The sugar cane was growing well and will form the greater bulk of the food, a little later, while the clover will make good pasture in the fall. It was quite evident that the pasture would feed more than eleven head. Every animal had gained in flesh, and their general appearance spoke volumes for the feeding value of the crops. This annual pasture is undoubtedly filling a long-felt want. Year after year the amount of land in Ontario devoted to grazing has been increasing, but there is ever the cry in July and August, of shortage of pasture, and too frequently there is a very rapid decrease in the output of dairy products and beef animals. No serious checking of the milk flow need be feared; no alarm for loss in weight of butchered and exported cattle need be entertained, and no excuse can be given for allowing young stock to feed on the highway, or, virtually, to starve on bare pastures, when a crop such as the one which has proven to be unquestionably successful at the College, can be grown by any farmer at a very small cost and with very little labor.—D. H. Currie, Wellington Co., Ont.

Weight of Hay in Mow

Kindly inform us how to calculate the weight of hay in the mow. The Canadian Dairyman, Ont.

The quantity of hay in a mow can only be approximately ascertained by measuring. It is estimated that it takes about 500 cubic feet to make a ton. Of partly cut hay, from 400 to 450 cubic feet, while of new hay, it takes 500 cubic feet and over.

Farmers should hand feed the fields they keep for seed. They would then get absolutely pure seed. We cannot expect to get pure seed on the market unless farmers produce it.—T. G. Raynor, B.S.A., Seed Dept.

Better Crops Less Work




Every farmer wants to get better crops and he wants to lessen the labor of getting them—that is the reward he gets when he uses

THE BISSELL STEEL ROLLER

The roller that increases farm profits and lightens the labor. It is light, does splendid work and lasts a lifetime. Don't buy any roller until you have seen this roller. Write for a free literature. Address Dept. 1000.

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Only Clydes now on hand are all price winners; their breeding is legitimate. Our Hackneys, both stallions and mares, are an exceedingly high-class lot. We also have a few high-stoppers and carriage horses. Young Street cars pass the door every hour. Phone North 4423

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Our stables have won Firsts and Championships at America's leading Shows, and a few individuals of the show-ring kind are always on hand. Come and see them. 0-4-15

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"4 In Hand" Harness Polish gives a brilliant, waterproof polish with just a few rubs with brush or cloth.

It softens the leather and is guaranteed non-injurious. Brighter, quicker and lasts longer than any other.

If your dealer does not handle it, send his name and 25c. and we will send you a full sized can post paid.

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HORTICULTURE

Fruit Crop Conditions

There has been a falling off in fruit crop conditions. The prospects are not as good as they were earlier in the season. Apples have fallen badly; early varieties promise an average crop; winter sorts, medium.

P. G. B. CO., N. S.

Hectanooga.—The outlook is for a fairly good crop, although dry weather is beginning to tell on the fruit.—A. J. D.

HANTS CO., N. S.

Gore.—The outlook for apples and cherries is good. Pears and plums will be scarce. Small fruit is very plentiful.—J. A. W.

ANNAPOLIS CO., N. S.

Falkland Ridge.—Although blossoms were abundant, the fruit set sparingly. Dry weather has caused many apples to fall.—C. R. M.

HUNTINGDON CO., QUE.

Maritana.—In my orchard there is a wonderful crop of Fameuse, the trees being as full as they can carry, but this is not general. Other kinds promise a medium crop.—W. G. P.

HOCHELAGA CO., QUE.

Westmount.—It has been very dry for raspberries. Cherries were a big crop; plums, good; pears, medium. Apples have dropped badly, and this will save a lot of thinning. Early varieties are a heavy crop; late only medium.—R. B.

DURHAM CO., ONT.

Newcastle.—Apple crop will be from light to medium, being somewhat thin on bearing trees. If growing conditions are favorable, the fruit will likely be large and of good quality. Pears are almost a complete failure. Small fruits are light.—W. R.

PRINCE EDWARD CO., ONT.

Rednersville.—Cherries are a medium crop; plums, a failure; pears, very light; Duchess and Fameuse apples, a good crop; Spys, light; other fall and winter varieties, only medium. The quality promises well. The rain of July 17th saved the crop to a certain extent, as large numbers were dropping on account of the heat and dry weather.—H. D.

LINCOLN CO., ONT.

Grimsby.—Cherry crop has been light. Raspberries promise to be excellent in quality and quantity. Early peaches will be light and all of the Crawford type very scarce. Later varieties are more abundant. Elbertas are making a fair showing. Plums and pears in my orchard are only medium.—J. M. M.

LAMHTON CO., ONT.

Forest.—Apples promise about two-thirds of last year's crop. Sprayed fruit is good; unsprayed, the worst I have seen in years. Peaches will yield a medium crop; plums and pears, a full crop.—D. J.

Foreign Money in Our Orchards

F. J. Carey, Dominion Fruit Inspector, Toronto

The practice of foreign dealers ruthlessly advancing money early in the season to all classes of men to operate in the orchards is responsible for a great many of the troubles of the apple business. This system encourages the wildest and most unbusinesslike transactions in the way of

purchasing and handling of fruit. The business man who is using his own capital, and wants to work on a business basis, has little chance against such opposition.

We would have a much healthier trade if the orchard operations were in the hands of the growers or reputable dealers who have their own money invested. Then, when our fruit is properly and honestly packed, we are ready for the Englishman and his money, and will be prepared to give him a square deal.

Changes in Prize List

Several important changes have been made in the fruit prize list of the Canadian National Exhibition, Toronto. In the sections for plate fruit, the prize list calls for nine specimens on each plate instead of five as formerly. These sections cover apples, pears, and peaches. In the case of plums, 20 specimens are called for instead of 12 as formerly. Prizes have been added for pyramids of fruit. The management of the exhibition

has felt that the display of fruit in the past has not been as attractive as it should have been. It is believed that the prizes offered warrant these changes being made.

If the readers of The Canadian Dairyman and Farming World are having trouble with insects and plant diseases that they are not acquainted with, send specimens for identification and for remedial suggestions to the horticultural editor of The Canadian Dairyman and Farming World.

LANDS ARE MAKING MILLIONAIRES IN MINNESOTA

Millions of tons of iron ore underlie the farm lands in the Cuyuna District. Heavy options for leases on Cuyuna Range have been paid since the discovery of iron ore in this locality. In one instance \$10,000.00 cash was paid for the privilege of exploring fifteen 40-acre tracts. The Northwestern Improvement Company, organized by the Northern Pacific Railway interests to develop iron deposits along their railroad paid a \$40,000.00 fee on a tract of land which only a few years previous was sold by their agent for \$30.00.

Now is the time to invest in ore lands for future developments. Don't hesitate and then always regret it afterwards.

The increasing demand for iron makes the development of new iron producing fields a profitable enterprise and one which offers attractive inducements to conservative investors, being a much different proposition than ordinary mining schemes.

The commercial standard of iron ore has continually lowered the demands of the trade increased. Ores considered worthless a few years ago are in demand now. In the iron lands of Cuyuna Range in Minnesota are vast tonnages of this lower grade material awaiting development. The Iron Producing Lands Company, an organized corporation with an authorized capital of \$1,000,000.00 for the purpose of developing Minnesota iron lands, owns a choice section in the heart of the Cuyuna Range. On all sides of this company's property are drillings showing vast deposits of iron ore, and within 80 rods of them, forty million tons of ore have been blocked out.

The accompanying illustrations show examples of the active mining operations now going on in the Cuyuna Range.

Railroads Guaranteed 250,000 Tons

Both the Northern Pacific and Soo Railroads are interested in becoming shippers of ore from this region. One of these roads has been guaranteed shipment of 2,000 tons per year. Expert mining engineers have offered to finance the expense of developing our property in return for a share in the resulting profits.

Countless Wealth for Future Investors

Approximately one billion one hundred and fifty million tons of the two billion tons of iron ore still contained in the Lake Superior region underlie the Minnesota iron lands. Could any stronger argument be advanced in favor of investing in their development as an opportunity for profit?

Every dollar invested in shares in this company participates directly in all operations carried on by the company and in all dividends declared.

Write to us at once for our free booklet containing prospectus and full particulars of our position. Now is the time to invest in Minnesota iron lands. Take advantage of this opportunity and write today.

THE IRON PRODUCING LANDS CO.,
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POULTRY YARD

Colony Poultry House

The colony system of housing poultry, which is little practised except by poultrymen, might very profitably be adopted on the farm. The farm conditions are ideal for the success of this system. Messrs. Edward & Will Brown, instructors in charge of the Theale College Poultry farm,

tended to be continued over a complete year, this was not so important as might at first sight appear. It is suggestive to note that although only two cocks have run with the pullets, that is, twenty-four females to one male, the fertility has been remarkably good. The system, however, is used more for laying than breeding stock, and, as it is undesirable to use yearlings as brooders except for the production of chickens to be killed at an early age, it was not intended that good close walls, with no cracks for drafts, the front facing the south and plenty of light. The lower half of the windows may be glass, and the top part covered with cotton. This sounds chilly, but experience has proved that the cotton front house is the warmest and healthiest. The front of the scratching shed may be closed with wire netting, and have a curtain to let down on stormy days. The floors in both parts should be earth or gravel, and is better if filled in a little so as to be above the level outside. No ventilation system is required if the cotton is used, as that does the work thoroughly and correctly.

lows only 6 square feet to the fowl. If kept clean, good results may be got from such quarters. Some allow as high as 40 hens to run together and get lots of eggs in cold weather, but their pens are very roomy, and the birds have outside scratching sheds. The ideal house for 100 or more hens is the long building with 5 sections, each section divided so that one part is used for sleeping quarters and the other part as an open scratching shed. The sleeping quarters should have good close walls, with no cracks for drafts, the front facing the south and plenty of light. The lower half of the windows may be glass, and the top part covered with cotton. This sounds chilly, but experience has proved that the cotton front house is the warmest and healthiest. The front of the scratching shed may be closed with wire netting, and have a curtain to let down on stormy days. The floors in both parts should be earth or gravel, and is better if filled in a little so as to be above the level outside. No ventilation system is required if the cotton is used, as that does the work thoroughly and correctly.

lud, the fattening process has been rapid, and it killed and marketed at once make prime roasters. If kept a little longer in order to get some eggs from them, they soon deteriorate, and take on the usual toughness of the old hen.

Ducks grow faster when they have no pond or water to swim in. However, they must always have a plentiful supply in troughs. Have their troughs set up, they soon deteriorate, and cannot puddle up the soil alongside.

Boys who find it hard to secure money enough to buy some good stock to make a start in the poultry business, can easily and quickly earn a choice pair or two of pure bred fowls, of the variety they select, by getting a few subscribers to The Canadian Dairyman and Farming World. Write us and we will tell you all about it. State what variety you wish, and we will send you sample copies of our paper with full instructions. Try it. It's easier than you think.



COLONY HOUSES AT WYLAND FARM, BROCKVILLE, CANADA

Showing flocks of Wright strain White Wyandotte chicks. This five acre plant is exclusively to this breed, owned by Wright Bros.

England, tell of their experiments with colony houses as follows:—
For the purpose of this experiment a section of one field, in permanent pasture has been allocated. It consists of 3,154 square yards, or rather less than two-thirds of an acre. It is good land with a capital belt of trees and hedgerow on the south and east sides, where is a running stream, so that the grass very seldom dries up, even in a hot summer. The shape is uneven, almost triangular. A fence of 4 ft. wire netting encloses it completely, and the birds are not allowed out on the adjoining fields. The grass kept abundant during the entire year, so that there was always plentiful supply of green food, but, it may be noted, the summer of 1907 was cool and moist, and there was no check to the growth of herbage. Within the enclosure are two ordinary open-fronted poultry houses, but without scratching sheds. There are no divisions of the ground, over which all the birds can roam as they think fit.

KIND OF BIRDS USED

Fifty Buff Orpingtons were selected for this experiment, namely, forty-eight pullets and two cockerins, all of which were hatched in the month of May, 1906, from purchased eggs. As records were kept from January 16th, 1907, they were at that time about eight months old. Probably a much better result would have been obtained had earlier hatched pullets been chosen, and from selected stock, but these were not available, and the experiment was intended to determine the cost rather than egg production. As none of the birds had commenced to lay, and the experiment was in-

kept remarkably healthy, and there have been no deaths during the twelve months.

Feeding for Feather Growth

The growth of feather is not often taken into consideration in feeding young stock and moulting hens, although much can be done to assist old birds at a critical time by providing some food of an oily character. Among the best feather-forming foods are hemp-seed, linseed, and sunflower seeds. The last-named is not generally known to be so useful, but we can strongly recommend all gardening poultry-keepers to grow a crop of sunflowers, the heads of which are generally ripe about moulting time, and the seeds can easily be beaten out.

A proper proportion of one-eighth part of hemp-seed, with other grains, given to young stock between the ages of four and a half and seven months, will greatly assist in growing the new feathers, and for old birds in the moult, a fourth part of hemp-seed will not be too much. Linseed meal may be given in the same proportion mixed with other meals, but it is not necessary to give this when hemp-seed is being provided.

Building for 120 Hens

Would you kindly answer in your column what size of building is necessary to house about 120 hens. How would you construct such a building?—J. F. Huron Co. Ont.

A rule that used to be given for the guidance of poultrymen in just such matters, was to allow ten square feet of floor space for each hen. That would mean a pen ten feet square for ten hens. One hundred and twenty hens would require a house 120 feet long by 10 feet wide, divided into 12 pens. This is a good rule but is an expensive one. However, we think 120 hens may safely be wintered in five pens containing 24 hens each. Each pen to be not less than 12 feet square. This al-

If one can get a house that is dry, free from draughts and in which there is no smell of hens then he has obtained the ideal house.

The hopper style of feeding the growing chicks is not only a labor saver, but has many advantages. The chicks soon learn to eat only what they require and there is no waste, at the same time, the birds are never underfed. A gain in growth is claimed by those who have tried it, and that is sufficient reason for its adoption. The hopper should hold from a bushel to a bag of grain.

One year old hens that have hatched and reared a flock of chicks, generally wean the chicks when they again come to laying condition. After being run down thin during the incubation per-

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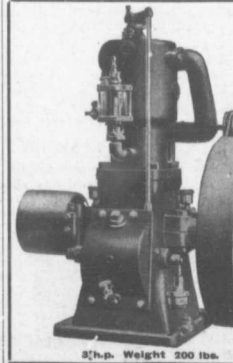
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The paid-in-advance subscriptions to The Canadian Dairyman and Farming World exceed 16,000. The actual circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and sample copies, varies from 15,000 copies (not more than that) to 15,900 copies. Subscriptions unless renewed, are discontinued as they expire. No subscriptions are accepted at less than the full subscription rates. Thus our mailing lists do not contain any dead circulation.

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

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THE CANADIAN DAIRYMAN AND FARMING WORLD
PETERBORO, ONT.

TORONTO OFFICE:

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

THE HORSE INTERESTS NEED MORE ATTENTION

Why are Ontario and the other eastern provinces of Canada so far behind other divisions of country in the matter of advancing the horse breeding interests? In Manitoba, in Wisconsin, in Pennsylvania, in Utah as well as in most European countries, legislation has been enacted that makes it a difficult matter to travel anything but pure bred stallions to advantage, and which practically prohibits the use of unsound stallions of any kind. We need similar legislation in Ontario and in Eastern Canada.

We have too few pure-bred stallions to serve the needs of the country. As quickly as possible, how-

ever, their numbers should be strengthened, all unsound animals should be weeded out, and the pampered pure-breds should be made potent and muscular by work. Nothing should be done that would be unfair to the owners of grade stallions but steps should be taken to replace such animals by good pure-breds. It is astonishing that our horse interests have been neglected hitherto as they have been. It is time for a change. More and better horses should be kept at the Guelph Agricultural College and better accommodation should be provided for them. At the earliest possible date, also, we should have legislation that will serve to ensure our farmers obtaining value for their money when they breed their mares to the stallions that are allowed to travel throughout the country.

THE HONEY BEE

For some time the interest, on the part of agriculturists, in things pertaining to the apiary, has been on the wane. Farmers as a class apparently have come to realize that owing to the comparative insignificance of bees, as against what might be termed our larger live stock, they are not worth the trouble it takes to care for them. Probably this is putting it too strongly. Nevertheless, the fact remains that year by year the product of our apiaries is falling off, and larger and larger importations of this important food article are being made.

It is to be regretted that we farmers do not take a greater interest in the bee. Did we take a greater interest in that industrious servant of mankind, we would profit thereby in many ways. It is difficult to estimate the real value of the honey bee to our present day agriculture. Bee keeping is as much a branch of agriculture as any other line of enterprise in which our farmers engage. Considering the importance of this industry to our country at large, it should receive some fostering care from the hands of our Government, and something should be done to encourage our farmers to take a deeper interest in matters pertaining to the bee and the apiary.

Bees, when properly handled, are a valuable asset. When wisely managed, and in any fair season, they not only return a direct profit to their owners, in the form of marketable honey, but they do much towards ensuring a full crop of fruit, alkise and buckwheat. It is a well-known fact, and it is vouched for by many of our leading fruit and clover seed growers, that where bees abound, larger yields are obtained than where bees are not so plentiful. So strong is this belief with some, that they offer free sites to the apiarist on which to locate his bees, as well as holding out other inducements for him to locate upon their premises. These men are men of experience, and well know what they are about. We can profitably take a lesson from their enterprise.

A few colonies of bees, at least, should be on every ordinary farm. It costs but little to establish them, and

it requires very little time, except on one or two occasions in the season, to care for them. Aside from the swarming time, the bees can be cared for in almost any spare period. Some, however, have carried this practice to the extreme, and the careless way of handling bees that exists in many sections, is accountable for their lack of popularity, and the lack of profitable returns therefrom. With a few skeps of bees located on his farm, the farmer insures himself the fullest set of fruit from his blossoms, a larger yield of alkise, if he grows that crop, besides doing a good turn for his neighbors, who might be benefitted by any work from the bees. Besides this consideration, what could be nicer for the farmer than to be able to extract from his few colonies of bees, from 300 to 600 lbs. of honey a year? This product he could always sell at a remunerative price, or if he cared to keep it for himself, it would form one of the most delicious and wholesome of foods that he could place upon his table.

EARLY AND LATE THRESHING

Threshing time is an important time on the farm. The custom with many is to thresh fall wheat as soon as it is harvested. This means two threshings in the one season, for the process must be gone through with again when the spring crop is harvested, though it may be delayed well on in the fall, when the busy season is over.

One reason why fall wheat is threshed early, is to procure seed for September sowing. Were it not for this it would be better to postpone all threshing till September is well over. It is an inconvenience to many farmers to have to turn out in the midst of harvest to help their neighbors thresh. In these days, when grain ripens up so quickly from the time having begins till the last crop is in the barn, there is hardly a day to spare for anything else. It is a real hardship, and sometimes a loss, to have to put in a day or two threshing at this season. If there were some other way of procuring fall wheat seed, such as saving enough from the previous year's crop, it would be better to postpone all threshing till, at least, the harvest is over, or, better, till the fall wheat is sown, and the corn and wheat crops prepared for winter.

There has been considerable improvement in threshing machinery of late years. The blower or stacker has got rid of one of the most dirty jobs at threshing time, that of taking the straw away from the head of the carriers. This has improved the labor side of the problem. But the tendency is for machines of larger capacity, consistent with clean work. All of which means that every farmer is still dependent upon his neighbors to help him out with his threshing. Nothing in the recent improvements of threshing machinery tends to eliminate this feature, and it looks as if the present plan would continue for all time.

There may be no practical way of

improvement in this respect. If, however, instead of increasing the capacity of their machines, manufacturers would turn their attention to the production of a small separator of fair capacity, that would enable a farmer to do his own threshing, or enable two of them to combine for that purpose, would it not help to solve the difficulty, and do away with this dependence upon the whole neighborhood for help at threshing time? Such a machine would enable a farmer to do his threshing at odd times, when he was not busy at anything else, or when wet weather prevented working in the fields. Most of the threshing could be postponed till late fall and winter, when there is little else to do but look after the stock. A great deal of threshing, even under the present plan, could be better done at the later period when farmers have plenty of idle time on their hands. Early threshing seems to be the rule in most sections, and it seems like a waste of valuable time.

There are, no doubt, drawbacks to postponing threshing to late fall or winter, whether it is done by the farmer himself, or with the help of his neighbors. It would prevent taking advantage of the early market to sell the grain. But, with the exception of wheat, most of the grain is kept for feeding purposes, and is only needed when stock are housed for the winter. So far, therefore, as marketing the grain is concerned, that should not prove a serious objection to late threshing.

The whole question is worth considering by farmers generally. As it is now, threshing is rushed through in a few weeks. This means more threshing outfits, and a higher cost for the work. If spread out for a longer period, and extended well into the winter months, the thresher would have a longer period during which to make a profit on his large outlay for engine and separator, and should be able to do the work at a cheaper rate. It would be easier to get help and all interests would be better served. There would be more work for people in the winter months, and threshing would be transferred to a period when it would least interfere with other work on the farm. This was more the practice some years back, when farmers had less to do at harvest time, and the few weeks following, than they have to-day. Might not a return to the old order of things be wise? We shall be glad to have the opinion of our readers in regard to this.

The horse, that faithful friend and helper, deserves much more consideration than he very often receives. Do your share to make him comfortable. Do not forget that a tight check rein is very painful to a horse, that a sore shoulder is a great source of agony, that thirst torments a horse in the same manner that it does a man. Heat brings on the latter discomfort worse than anything else. Be merciful, and receive the merciful man's reward. Horses must work, but their comfort should be looked after when laboring in our interests.

A LESSON IN HEREDITY

(Hoard's Dairyman.)

The Canadian Dairyman and Farming World presents on its cover page a large picture of Daniel Hogarth and wife, of Solina, Canada, with their 14 children, all living, and the 34 grandchildren, and 28 great grandchildren. This worthy couple, now in the 86th year of their ages, have 98 living descendants. It is a remarkable record of health and hardihood, as well as a most fortunate coupling in marriage. Fortunate, indeed, is the child who is born of such a line of heredity. Some day we hope the common sense of the American people will consider the breeding of healthy children as important as that of farm animals. The same laws of parenthood govern in men as in animals. How often have we seen strong well developed parents with weak, sickly children. The trouble primarily lay in the fact that husband and wife were temperamentally unsuited for each other. As we say in breeding, it was an ill-fitting "nick." As a rule, the strongest children are born from parents where the temperaments are opposite to each other, one a blonde and the other a brunette, providing both are healthy.

But few young men and women think of these things when contemplating marriage. Yet they should be thought of, for future happiness depends greatly on the physical vigor of the resulting children.

Our Land in Retrospect

As we look backward to Confederation, we see a few separated provinces from the Atlantic coast to Ontario. To-day we have nine provinces in the Dominion, stretching from the Atlantic to the Pacific, and from the boundary line—the 45th parallel—to, shall I say, the North Pole. Then there was no Greater Britain, in the twentieth century sense; no Empire spirit, as now understood; no Canadian spirit, as to-day exists. Then the Indian roamed our western plains; to-day they are made to yield rich harvests. Then our water-powers were unknown and undeveloped; to-day we are only beginning to realize what a vast resource we have in these, for operating electrical and mechanical works. Then the wheels of industry to-day hum and spin, in all the centres of population, as to-day. Then the implements of our agriculturists were rude and cumbersome; to-day they are of the latest pattern, of the finest mechanism, and almost anything on the farm may be done by machinery. Then no tracks of steel girdled our hemispheres to-day, when one can ride from Halifax to Vancouver in luxury and ease in as many days as it formerly took months. A generation ago, three and a half million Canadians were scattered in a narrow fringe of settlement, along the rivers and lakes of the central part of our land. The few thousands beyond Lake Superior were today, in its vast unpopulated spaces, and the western population centres were less than half a score in number. To-day we find over six millions scattered from the eastern coast to the western coast.

Despite the hardships, lack of privileges and opportunities, those early settlers were a type of people that we have not to-day. They were simple in manner, buoyant in spirit, with clear heads and sound nerves—a strong, true type of an age and country—a country of which the world is speaking now—an age of

brave men and great events. A country then neglected or unknown, but full in the lime-light now; an age not like this luxurious one we live in, but one that tried the temper of men's souls, and showed the virtue stuff that they were made of. These were the types of men that laid the foundations of our fair Dominion. Shall the younger manhood and womanhood of our fair land, descendants of those noble pioneers, carry on this work of "making a nation" to a successful issue, until we become, in commerce, industry and intelligence, righteousness and truth, one of the foremost nations in the world, a few years hence? My young co-patriots, it is "up to you" to so develop character that you may be a "nation builder" in the broadest sense of the word. To you, my young co-patriots, this is my message at this time—"Habitat."

A Bright Boy's Success

The following is from a letter received recently from Master Ray E. Wells, New Westminster Co., B. C. Ray is only 13 years old, and sent us in a list of 21 new subscribers to The Canadian Dairyman and Farming World, at \$1 a year, for which he received three pigs as premiums.

"I thank you very much for sending me three very choice pigs as premiums for only 21 new subscriptions to your valuable paper. The pair of Berkshires are extra choice, and you will likely hear from them later as winners at the fair. A great many of our neighboring farmers have called to see them and all are much pleased with them. It only took me a day and a half on the pony to secure the 21 new subscribers. I know they are all well pleased with the paper, and I am sure I am well pleased with the pigs. I gave my father the Yorkshire for paying all expenses, so this choice pair of Berks, from imported prize winning stock, have only cost me a day and a half of pleasant labor calling on my neighbors."

Have you thought of trying to win any of our live stock premiums? These premiums are very easily obtained, and have always given entire satisfaction to the people who have won them, as you will understand from the above letter.

OUR BIG CASH OFFER

Our \$150 cash prize offer is attracting a good deal of attention among the readers of our paper. Have you taken any notice of it yourself? You do not have to wait until you get the full one thousand subscribers before receiving any reward for your work. On each new subscription that you send us, we allow you a commission of 50 per cent. Then, when you have sent us in 50 new subscriptions, we will pay you the first cash prize. In this way you are sure of being repaid for whatever work you do for us in obtaining new subscriptions to The Canadian Dairyman and Farming World. We will willingly do everything we can to help you in the work.

Mr. D. Thompson of Bristol Corners, Quebec, was recently appointed our agent in the county of Pontiac, Quebec. After making use of his spare time for a week canvassing for us, he secured nine new subscribers, and we expect that he will shortly win his first cash prize. Requests come to us daily for particulars of our big cash offer. A post card will bring these particulars to you. Here are some of the requests we have received recently:

"I have noticed your offer of cash prizes in The Canadian Dairyman and Farming World. Kindly send me full particulars, and oblige."—Mr. J. M. Singleton, Leed's Co., Ont.

"Kindly send me agents' outfit, and



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"Please send me sample copies of The Canadian Dairyman and Farming World, and all necessary outfit, to canvass for subscriptions."—Miss Etta H. Shaw, Carleton Co., N. B.

"I am interested in your cash prizes for obtaining new subscriptions to

The Canadian Dairyman and Farming World. Please send me further particulars."—Mr. H. H. Lee, Wentworth Co., Ont.

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Creamery Department

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

Defects in Butter

The Dairy Division of Washington employs inspectors at large receiving centres to inspect butter and give advice to makers as to where improvements can be made. The work is giving satisfaction, and is proving of value to the trade. In a recent interview the inspector at New York city gave some information about the work that may be of value to Canadian butter makers. He said:

"I seldom called to look at strictly fancy butter. The butter mixers who nearly always make high quality and never get any kicks, don't have any need of my help, and consequently don't call on me. Once in a while a single tub is marked in a shipment of these fine goods, and the buttermaker requests that I score the butter. This I am always willing to do, but my work is mainly to help the fellow who needs it. You will, therefore readily see that I am called to examine mostly creameries that have some faults.

"The defects that are most common at present are sour and summery flavors and curdy character. The extreme heat that has prevailed in many sections has made it difficult to keep down the temperature of the cream, and considerable of the butter gives evidence of over-ripened cream. This is the cause of much of the trouble, and will be during most of the summer. If it was merely a question of controlling the temperatures in the creamery, many of the butter makers would stay by their cream vats, but a great deal of the cream is shipped in too ripe, and it is impossible to fully overcome that difficulty.

"A great many of the creameries are pasteurizing at too high a temperature, and this produces a spongy, light-bodied butter, as well as an oily flavor, though I am inclined to think that the latter is mostly where the cream arrived quite sour. Occasionally I run across a creamery that is very heavily salted—so salty, in fact, that it tastes like brine when one bites into it. There is positively no excuse for this. If by accident too much salt got into the churn, it can be washed out and made usable, but in some cases it looks as if the excessive salt were put in deliberately."

Dairying Progressing in Australia

The dairying industry in Australia has made rapid progress in recent years. In 1890, the net exports of butter from that country only amounted to 4½ per cent. of the production. In 1898 the exports had increased to 31½ million pounds of butter. In 1906, the total exports reached 59 million pounds.

This expansion does not tell the whole story. There has been a large increase in the local consumption of butter. Butter is now within the purchasing power of all classes. In 1890, local consumption was 16 lbs. of butter per head; in 1906, it was 24 lbs. per head of the population. Ten years ago six million out of the 20 million pounds produced were made on the farm. To-day only 4½ per

cent. out of the 49 million pounds produced, is so made. The co-operative creamery plan is being generally adopted, lessening the drudgery on the farm.

Some recent British regulations looking to the restriction of the importation of all butter carrying preservatives, may interfere with Australia's trade somewhat. The use of preservatives has been very limited in that country, but a small percentage has been allowed by law. It is doubtful if Australia can be shipped to England in a marketable state without the use of some preservative. Hence the proposed restriction on the part of the British authorities is causing some consternation in dairying circles there. It is conceded that the shutting out of all butter containing preservatives from the British market would be disastrous to the dairy business in Australia, at the present time, and people there are hoping that the threat will not be carried out.

The amount of borax used is about ¼ lb. to every 100 lbs. of butter. It is usually put in during the early stages of manufacture, and the borax is gradually worked out until, so it is claimed, not half of it remain. It is contended that such a small percentage could not harm the consumer. There are those who claim that the restriction would be beneficial in the long run, as it would lead to the production of a quality of butter that would carry to England without preservatives.

How Separators Separate

The force that is used to separate the milk is known as centrifugal force. This may be described as the pull that is felt when a weight is attached to a string is whirled about by hand. It is pulled outward and the faster the weight is whirled the stronger the pull becomes.

In the old system of creaming, the separation is caused by the action of gravity. The fat globules, being lighter than the other portions of the milk, are forced to the top; that is gravity acts stronger, or pulls harder on the heavier portions than it does on the lighter, and the milk is gradually arranged in layers, the light portion at the top, and the heavier portion at the bottom.

The force acting in the separator has precisely the same action on the milk. It acts outward from the centre of the bowl the same as gravity acts downward from the surface, only many thousand times stronger, accomplishing in a few moments, and far more completely, what it takes gravity several hours to do.

As the milk goes into the bowl it is at once thrown to the outermost parts and fills the bowl completely until an opening is reached where it will flow out again. The surface of the milk is on a line parallel with the centre, or axis of the bowl, and is exactly in line with the cream outlet. A cross section through the bowl from this surface to the outside presents much the same appearance as would a pan of milk after the cream had been raised by gravity.

The cream is on the surface, which might be called the top, and the heavier portions of the milk are piled farthest from the centre, which would represent the bottom.

With this understanding of the arrangement of the milk in the bowl there are a number of things to be observed which influence the separation. The difference in length of time it takes to separate cream by gravity and by centrifugal force shows plainly that the time varies with the amount of force applied. The shorter the time the greater the force must be.

Skin-milk from the separator contains a far greater percentage of fat than that secured by the gravity system, showing that

the greater force causes more perfect separation.

From the above statements the following conclusions regarding the use of the separator may be drawn:

1. If the amount of milk that passes through the separator in a given time is a fixed quantity, any increase in the speed of the machine will tend

to cause closer skimming because of the greater force exerted.

2. If the amount of milk that passes through in a given time is increased, the skimming will not be so perfect, for the centrifugal force is not exerted on the milk so long a time.

It is evident, therefore, that the closeness of skimming is the result of two factors—time and force. If either of these is decreased, the result will be poorer work. If either is increased, better work will result.

The hand separator is often the scapegoat upon which the inefficient butter maker unloads his own shortcomings.—E. H. Webster.

Prof. G. L. McKay, of Iowa Agricultural College, speaking of a proposal to fix the minimum standard for milk at 3.25 per cent. fat, said: "If this were to become a law hundreds of dairymen could be constantly prosecuted for adulteration of milk, over which they have no control. This is quite evident to every creamery man. Many of our fine Holstein cows that have made wonderful records as butter producers, would come under the ban of the law, and some of our grades and breeds that are not Holstein would at times be condemned. Three per cent. at the most should be high enough for a standard of this kind."

Cheese Department

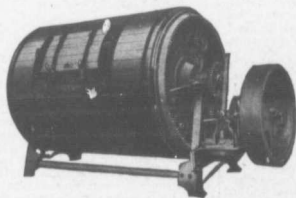
Makers are invited to send contributions to this department, to ask questions on matters relating to cheese-making, and to suggest subjects for discussion. Address your letters to The Cheese Maker's Department.

Looks Do Not Always Count

In a great many things, looks, or the appearance of a thing counts for a very great deal. The surrounding and outside appearance of a cheese factory or creamery count for much. An untidy and slovenly appearance gives a different impression from that produced by neatness and good taste. So in a great many things, looks count for much, and the cheese and butter maker should see to it that the factories present a neat and attractive appearance, both inside and out.

One of the things in which looks don't count is in the milk cans, cream cans, milk pails, etc. A milk pail rinsed out in water after milking may look clean, while it may be far from being in that condition. There may be minute particles of dirt left in the seams of that pail, where innumerable bacteria will propagate, and be ready to operate on the fresh milk at the next milking time. So with milk and cream cans. At many cheese factories the sour whey is returned to the patron in the milk cans. Upon the whey being emptied, the can may be merely washed out with cold or lukewarm water, and may present a clean appearance, so far as looks go. But it is far from clean, and cannot be considered as clean until it is thoroughly washed with boiling hot water, and placed in the sunlight to dry. So with the factory

THE VICTOR Combined Churn and Worker



Easily the world's leading Butter Making Machine. It is a labor saver and a quality maker. The butter is not removed from Churn until ready to pack. Butter is protected while working from unfavorable room conditions. Working is absolutely uniform, Cannot injure the grain of the butter, Made in all sizes from 50 to 1000 pounds capacity, Canadian Customers supplied from Canadian Factory; no duty. Write for full particulars and prices mentioning the Canadian Dairyman.

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utensils. Butter makers often make the mistake of thinking the churn clean, because it looks that way. But if left without a thorough cleaning and scalding after each churning bad flavors may develop and cause injury to the butter.

The patron supplying milk to a cheese factory, or cream to a creamery, and both the cheese and butter maker cannot, therefore, depend upon looks alone. They must make sure that everything is clean. Half way washing will not do. Thorough washing and scalding are necessary in every case. It is the unseen things in dairying that do the most harm. These little infinitesimal things, they call bacteria, cannot be seen. If they could one would have them lurking around in milk pails, milk cans, churns and vats to work their own sweet will. For this reason more than looks is required in cleaning all dairy utensils. A medium must be used that will reach these unseen things, and put them out of business, and that medium is plenty of scalding hot water. It will penetrate into all the cracks and crevices, and leave the utensils sweet and pure, as well as clean in appearance.

If everyone who handles milk in any way could be made to realize this, and to act upon it, what a revolution in the quality of our dairy products would be effected. Clean milk handled in clean utensils remains clean if properly kept, and it assures cheese and butter of the highest quality being made. The dairyman goes so deeper than mere looks. A box of butter may look good, and also a cheese, and looks good for a great deal, too, with these. But both may be far from being of prime quality. There must be something more than this, and that something can be attained by strict attention to cleanliness all along the line.

FOR SALE AND WANT ADVERTISING

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CHEESE FACTORY FOR SALE.—Known as "Honey Grove," near Poole; twelve miles from Stratford. Capacity, one hundred tons. Good house and hog pens in connection. Terms: Cash. For information apply to, ALEX. F. CLARE, Poole, Ont.

FOR SALE.—Newly cheese factory, situated in first-class locality; good dwelling house and four acres land. Make in 1800 lb. tons. Terms: Cash. For information apply to, MARY AND AGNES MORRISON, Newry P. O., Atwood Station, Ont.

OWNERS OF CHEESE FACTORIES AND CREAMERIES desiring to make direct shipments to retail outlets, will have an opportunity of meeting a large British importing firm. Full particulars may be obtained by writing Box F, Canadian Dairyman and Farming World.

Short Weight Cheese

There are always more or less complaints from shippers of short weight cheese. These may be due to one cause and another, for which the factory men are not always to blame. Mistakes may occur in balancing the scale, or stenciling the weights on the cheese, which may work to the advantage of the buyer, and sometimes not. Cheese shipped green will lose greatly in weight before reaching the old land.

This season these complaints have become serious, and it may be possible that some factories are not doing the fair thing in the matter of weights. The Montreal Trade Bulletin of last week publishes a letter from a Bristol importing firm, in which some Canadian makers are blamed for systematically perpetrating fraud in weighing cheese, or in marking the weights on the boxes. This firm cites a case where a cheese marked 82 lbs., only weighed 70 lbs., or a loss of ten pounds or more to the buyer. The Trade Bulletin also cites several cases of shortage in weight. In one lot of 32 boxes there was a loss of 110 lbs. In another lot 14 boxes, 7 boxes lost 1 lb. each, one lost 11 lbs., and 6 boxes being out O. K. Another lot of 20 boxes showed a loss of 131 lbs.

Cheese will shrink some in the shipping but when it comes to losses like those noted the natural shrinkage in cheese will not account for them. Factory men or makers will gain nothing in the long run by endeavoring to give short weight. Straightforward dealing is the only safe course. Every factory should give good, honest weight in every box of cheese shipped. When cheese are shipped a weight less than the hoops some allowance should be made for shrinkage. In some places it is the rule to allow a pound a box of cheese. The Montreal Trade Bulletin says it is hardly the fair thing for the buyer to demand this of the factories. If every factory had given fair and honest weight in the past, perhaps this practice would not have become the standing rule. But it is better to do this than to have reports coming from the trade in Great Britain that our makers are defrauding in the matter of weight.

Getting Rid of White Whey

Is it possible to make Cheddar cheese with no loss of white whey? How can it be prevented? These are questions asked and answered in a recent issue of the New York Produce Review, an American Creamery. One of the answers, by William Winder, a Wisconsin cheese maker, is given below. We would be glad to have the experience of Canadian makers on the above discussed question. "In answer to the first part of this question, I would say, yes. How it may be done would require rather a lengthy paper. There are many conditions when it is an impossibility. The first requirement is a vat of sweet milk free from any bad odors or taints, a small quantity of good cream started with 1/2 per cent. of acid added to the milk, and then set sufficiently sweet or rather with the right development of acid to insure a sufficient time for a good cook. Raise the temperature to the cooking point in 1 1/2 hour and 40 minutes or thereabouts. If the acid development is about right the curd should be ready to remove when it is 1/2 to 3 hours. A string of 1/2 inch of the hot curd should be 15 per cent. acidity, will be plenty at this stage. Although not necessary, a curd sink and racks are a real benefit and help in setting the curd. With the above acidity quickly get the curd on the racks and keep loose and free from matting until the curd attains a crisp and quite dry feeling. A hand-

ful will require quite a little pressure to expel any moisture if the curd is in proper condition. This may require four or five times stirring through with short intervals for draining, but it is not a difficult matter if well cooked and the proper amount of acid at dipping. File curd 6 or 7 inches deep evenly over sink and when well matted—probably 20 minutes—cut into strips of 6 inches wide and turn, and repeat an inch or more between each piece.

"In a short time, or as soon as the underside of curd has faced up so as to pick up all loose particles, turn again. It may be left single or if real firm and dry two deep will be all right. Turn at intervals until ready to mill. Two deep will be sufficient. Mill with 1 1/2 to 2 inches of acid on hot iron or about .75 per cent. acid. Keep well stirred and at a depth of 6 or 8 inches. If curd is rather too stiff and firm a trifle higher salting will not hurt, but not usually necessary if conditions are favorable and the curd has been properly handled. A curd of this kind will get ready to salt quite quickly, and I have had them when no moisture would drip from vat or sink until salt was added.

"The finest cheese I ever made were made in the way I have just described. Perfect as to texture and closeness and ready for the market in the same length of time as curds worked in the more moist and more general style. These firm curds, of course, require lighter salting. I do not say that one can keep from having white whey day after day, as common conditions will not permit it. Under proper conditions it is not only possible, but the finest results can be obtained."

The Acidimeter

The acidimeter is rapidly coming to be recognized as a great aid in almost every step of cheese making. By its use the percentage of acid is determined in the milk and the proper time of adding rennet is known. It shows also when the whey should be drawn when the curd should be milled, and when other operations should take place. Thus it is seen that the acidimeter may replace the rennet and hot iron tests, and it serves other useful purposes as well. It is not advised, however, that the other tests be forgotten, as they are useful in connection with this latest one. The acidimeter is extensive used by the largest and best conducted cheese factories in Canada, and quite a large number throughout the United States.

The state college has lately issued a little circular entitled "Some Essentials in Cheese Making," by Prof. Publow. It contains as much good solid information as limited space as could possibly be included.—New York P. R. and A. C.

An Up-to-date Factory

"We, in Central Smith, consider that we have one of the most up-to-date and commodious cheese and butter factories in Western Ontario," said Mr. A. H. Campbell, cheese and butter maker for the Central Smith factory, and I can bear out in every particular what he says. The factory is beautifully fitted with all the latest improved machinery, and as clean as it well can be. The curing room is an excellent one. There is ample storing accommodation, and it is kept delightfully cool. The make is about 15 cheese a day.

The patrons of this factory are up-to-date and energetic farmers, and take a great amount of pride in their factory. "I very seldom get any bad milk," said Mr. Campbell, "and if I should happen to do so I send it back to the farmer. I have never

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THINK OF IT!

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Have used U. S. Cream Separator for perfectly satisfactory. I made 17 pounds of butter this week before using the U. S. The following week I made 11 pounds of butter before using the same separator, under the same conditions. It has been the best investment I have made.
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An Investment Paying 33 1/2%

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If you are not using a reliable

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but skimming your milk by some other method, you are losing out. It costs a few cents more (which is money as it is) but it is clean skimming that counts, and the U. S. holds the record for clean skimming, therefore invest in it, so that every one ought to purchase.

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It illustrates practically in U. S. and Canada

U. S. FARM MACHINE CO. BURLINGTON, Vt.

known one to complain on that score yet as they realize that one can of bad milk spoils the whole vat, and that all the patrons suffer through the fault of one.

"Monday is our best and busiest day as we then have to handle the Sunday's milk, but I find that it is in the best of condition, as the patrons generally keep it nicely cooled, and so it arrives at the factory in good order."

The general condition of the factory attracts great credit on Mr. Campbell, both it as a cheese and butter maker. It is a pattern of cleanliness. Mr. Campbell at one time lived over the factory, but the patrons have completed a fine new residence for him with all improvements, which he greatly appreciates. He thinks the Canadian Dairyman and Farming World is a fine paper, and has taken it for quite a while. He intends to get as many subscribers for us as possible.—F. E. Durieu.

Co-operation among the proprietors of creameries, cheese factories and city milk supplies will tend to bring about cleanliness among patrons, and the use of better utensils.

FOUNTAIN PEN FREE.
A 14 kt. Gold Fountain Pen will be given to any person who secures only one new subscription for The Canadian Dairyman and Farming World. These pens are guaranteed to give satisfaction. Try and win one.

What part of Cheese-Making is more important than salting the curd? On this depends the flavour—the even colour—the keeping quality—the texture—the market-value.

Pure, dry, well-savoured salt—that dissolves uniformly, staying in the curd—makes each all these ought to be.

You can find no other so perfect in these qualities as

Windsor
cheese
Salt



Let Something Good Be Said

James Whitcomb Riley.

When over the fair fame of friend or foe, The shadow of disgrace shall fall, instead Of words of blame or proof of thus and so, Let something good be said.	No generous heart may vainly turn in In ways of sympathy; no soul so dead But may awaken strong and glori- fied, If something good be said.
Forget not that no following yet May fall so low but love may lift his head; Even the cheek of shame with tears is wet, If something good be said.	And so I charge ye, ly the thorny crown, And by the cross on which the Sav- iour bled, And by your own soul's hope of fair renewal, Let something good be said.

Bridget's Broth

Mrs. Kate Tunnatt Woods.

IT WAS nine o'clock in the morning, and the doctor had paid an early visit to his patient, Mrs. Appleton, leaving instructions with her faithful attendant, Bridget.

"She is past the danger line now, Biddy, so feed her up; we must make her take nourishment whether she cares for it or not.

"What will I be giving her, doctor, she just acts like a bird at the best of times?"

"Try a good, strong, lamb broth, and give her two raw eggs per day; now feed her up, and we will soon have her out again."

"Indeed, and I will, doctor; it do seem as if the whole house was gone with her so still."

"Well, Biddy, it all depends on you now, if you do not feed her well, I shall have to send in one of my trained nurses, and you know how much you like them, eh, Biddy?"

The doctor closed the front door softly, and went out laughing. Biddy was a good friend of his, but he loved to tease her a bit.

As he got into his carriage, he recalled with much amusement Biddy's indignation some two years since, when Mrs. Appleton was stricken suddenly with an acute attack, and he had installed a trained nurse.

Now, there are trained nurses and trained nurses, as every one knows. The dear, gentle, faithful souls, who get into our hearts as well as our homes.

Biddy could never forget that experience. The first act of the nurse was to forbid Bridget to enter the room. The patient, although speechless and suffering, longed for her ever devoted helper, and Biddy was heart broken.

This time, with young Harold away at school and Bridget the sole comforter of his widowed mother, Bridget was to reign supreme.

Why not pray? Had she not lived with the dear lady in her father's home from the time Miss Bessie first entered a kindergarten, and then did she not prepare the new home for the bride? Who but Biddy knew the agony of those dreary days of early

widowhood, and who could read the face so dear to her as the one who knew her best?

It was a sweet, old story of misadventure and maid, and the doctor well knew how dependent his frail patient was upon the great-hearted Irish woman, who had no other home and cared for none.

When the doctor's carriage was out of sight, Biddy crept softly up stairs to find her charge resting with closed eyes. "Dear heart of her," said Biddy, softly, "she do be making the sign of the cross with her white hands, and it's the best broth in the town I'll be making for her."

Down stairs went Biddy, and soon she was telephoning for supplies.

That duty over, she went into her well ordered kitchen, and while making necessary preparations for the broth, talked as was her custom, to herself. "The doctor was laughing, he was, but praise be the saints, there will be no more sticking of that nasty little thermometer in her mouth, and no more messes for her to eat, and she that dainty. It do be coaxing her all the while. Oh, but the airs of her made me so angry that I was doing penance for it." Bridget, sez she: "I want some steak for my breakfast, at eight o'clock, sez she, and do you think be cutting it an inch thick, an don't put it on the broiler until I smoke the word, or I must have it smoking hot."

"Another time she came down, and sez she:—'Bridget, I don't like your omelettes, or the way you cook eggs, sez she; I will have to show you how it was taught in the diet kitchen hospital.'"

"'All right mum,' sez I; 'my cooking pleases the one who pays me for it, and that is the chief concern of Bridget O'Connor.'"

"Oh, the way she would come down ordering me around, was enough to put me in a fever. I do pride myself that my range and my kitchen is as neat as in the city, and it's the dear doctor, himself, who has said so many's the time; but the high and mighty nurse, down she came, and sez:—'Bridget, you need some lessons

in sanitary science, indeed you do.'

"In what, Miss? sez I. "Which was wicked of me, all about it, and was very particular, too; why not, when she is a director of a cooking school, but I was stupid on purpose, Heaven forgive me.

"Sanitary or domestic science," sez she, in her usual way, wid the head of her up in the air.

"And what is it like, Miss? sez I, 'do you boil it, or cook it in the oven? We never eat fried meats here.'

"Bless me, sez she, 'what dense ignorance one finds even in good families. You see, Bridget, she went on. 'Mrs. Appleton is never very strong, and you should know what to do for her.'

"Yes, Miss, sez I, 'seeing that I have done for her since she first put on short frocks, mebbe I might learn, if she asks it.'

"Well, the woman turned our house upside down, and she kept me that worried that I lost ten pounds of flesh, which I might well spare, but I lost my sleep, which was worse. At last she went. The doctor needed her somewhere else; and I clapped the two hands of me 'till they ached, when she went out of the door, and the dear missus, she said 'Amen' as hearty as the Methodist man who lives next door.

"That's why there is no trained nurse this time. A good, strong broth is it, well the doctor shall have it as quick as I can make it, for this morning, when she said to the doctor: 'let no one take care of me but Biddy, doctor,' for she knows just what do.' I was happy.

"All right," sez the doctor, and I was that proud I wanted to hug my poor, dear, and the doctor, too, indiscriminate like."

All day Biddy trotted back and forth wearing her felt slippers, and the invalid was happy, knowing how pleased her kind servant was.

Down in the kitchen, the "strong broth" was being made, not according to any formula of the hospital diet kitchen, but as Biddy pleased, and her mistress liked to have it done.

At last it was ready; and Biddy prepared a tray on which she placed two well-browned crackers, a pretty china bowl, a few flowers in a tiny vase, and some glossy damask napkins.

Love had taught Biddy some things which were beyond the ken of many blessed with a more liberal education. She knew that the best dish in the world would never tempt Mrs. Bessie unless it was served in a dainty manner. She had learned, also, never to cook the rice in the broth, but to add it after it was thoroughly cooked. The broth was warmed and seasoned, and Bridget surveyed her work with great satisfaction. But Fate, the rascal, was on the alert to disturb Biddy's confidence. Just as Biddy mounted the stairs, a rat, or so, well rang sharply, and a sudden movement caused one of the felt slippers to slip on the smooth, waxed floor, and away went Biddy, tray, broth, flowers, dishes and all, clattering down to the room below. Even one lamp chimney or one small plate can make not only a terrible noise, but with fenshish gee they are capable of producing endless bits and pieces, and grave the unfortunate victim of the break.

The patient nearly sprang from her bed, as the crash was heard. The silence at last became unbearable, and she called in anxious tones:—"Oh, Biddy, are you hurt?"

No answer.

"Bridget, do tell me, are you injured, have you broken a leg or anything else?" she inquired.

Still silence down below.

It was too much for poor Mrs. Appleton, whose mind pictured a dozen evils; and in spite of bandages, anti-

phlogistine and hot water bags, she sprang from her bed and crept into the hall.

The sight which met her eyes as she gazed over the banisters into the living room, was ludicrous beyond words.

The new post was decorated with a napkin, from which dripped a slow stream of water, the floor was littered with Hee, far too moist for a bridal party; and bits of china were to be seen here and there.

In an oriental rug, the eyes of Biddy bob upright, rubbing her face with a fat, broth-bathed hand.

She had not heard her mistress; and was simply dazed by the accident. "Oh, she likes of it," she murmured, half to herself; "and the poor dear needing nourishment."

A voice from above interrupted her. "Bridget, tell me at once, have you broken any bones; if you do not tell me I shall come down."

Looking up, Biddy saw the white face of her patient, and in an instant, she forgot herself and her keen disappointment. Her mistress was lying prone to remonstrate, Mrs. Appleton was hurried to bed and nearly smothered with blankets.

"Oh, my dear, my poor dear," said Biddy, "I'm getting a death cold you'll be, and all for that old bell-ringing."

"I'm all right now, Biddy; and you must excuse me for laughing, but you did look so odd sitting there, and—" "Shure I was that mad," said Biddy. "I lost me voice, and me breaking that pretty bowl you brought from France; and strong broth wasted and me a sight to behold."

Then both mistress and maid began to laugh, and the merry laughter increased the circulation, which was the very thing that was wanted to do, and Bridget was happy when she remembered that more strong broth could be had in her kitchen, and no one was hurt.

Many times during the day, Mrs. Appleton found herself laughing over the mishap, as she thought of Biddy's picture on the oriental rug.

"What a snap shot Harold would have made of it," she said to herself, and then she laughed again.

The next morning, the doctor found his patient much better, and the temperature nearly normal.

"Biddy," he said, "did you make the strong broth?"

"Indeed and I did, doctor."

"And did Mrs. Appleton relish it?"

"Very much," said that lady, and then began to laugh again. The doctor insisted on hearing the story, and he too, laughed merrily with them.

As he said good morning, he could not refrain from teasing his friend, Bridget, and remarked with a twinkle in his handsome eyes: "Biddy, the next time I order strong broth just make it strong enough to get over the stairs."

Mrs. Appleton recovered rapidly, and insists upon it that a "merry heart doeth good like medicine."

Why Young People Leave the Farm

There is so much said and printed on the subject of keeping young people on the farm, in my opinion the only way to solve this problem is to go at it in a practical, common sense way. In the first place, grow good garden stuff, and plenty of it, and set a good table. Also grow choice fruit and grapes, and small berries, and keep bees and poultry. Of course you ought to have good stock, too, cows, pigs, and chickens. Don't send the best of everything to city markets. If you do, you may have some day to give up your boys and girls to city claims. Good "feed" has

an awful lot to do with making home "sweet home."

AMUSEMENTS

After having done your best for the "inner man," see that you do something to satisfy the esthetic senses. Plant flowers, vines and bushes, clear up the back yard, have a nice lawn around the house, a shady porch with a comfortable hammock and rockers, and for the winter see to it that there is plenty of good reading matter in the house, for pleasure and profit, and also some sort of musical instrument and games to pleasantly while away leisure hours.

Don't overwork your boys and girls. Install time and labor-saving devices in the house and on the farm, and give your boys and girls something that they may call their own, to dispose of as they please, and retain the profits. If you treat your boys and girls right they will be glad to stay on the farm, and if in their youth and inexperience, they should make the mistake of leaving home, they would discover their error pretty quickly, and be glad to return to the home nest at the first opportunity that offers.

If home offers nothing better than hardships and a perpetual "grind," it is undeserving of that sacred name. My advice to parents who wish to keep their children on the farm is to bring a spirit of fairness and common sense to bear on the "problem," and a satisfactory solution will inevitably follow. Of course, if your bank account is of more value to you than your own flesh and blood, all that I have said will be lost upon you, but in that case you deserve what is coming to you, a lonely old age, and, maybe, an intact bank account, or property over which the children can wrangle after you have made your departure from this "vale of tears." Turn on the sunshine now; don't make the children wait until you are dead, before they can enjoy the comforts and pleasures of life.—A Country Boy.

Economy in Housework

Read at Fenelon Falls Women's Institute.

How can one woman attend various meetings, do the housework, schooling and care for the children? Housework, like learning, has no royal road to attainment. Success is the price of everlasting diligence. Housework or homework. What does the name imply? The work of the house or home, and how many and varied are the duties which must take up the time, attention, and energy of the house-maker?

Before beginning, the first thing to do is to look the situation over, and

BELL
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CANADA'S BEST MAKE

The home is not complete without a BELL.
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QUELPH, ONTARIO

find out what there is to do; bring everything to its simplest form, then work with strict regard to time.

CARE OF BEDROOM

First, we will take up the care of the bedrooms. What do we want? We want a room that is bright, airy and cheerful, with close regard to hygiene. In this, as in all other rooms of the house, do away with all the useless bric-a-brac, which are only trappings to the eyes of breeders. Train the boys and girls before leaving their rooms in the morning to turn down the bed clothes and shake up the pillows, so as to give the bed a chance to air. I am supposing there are children in the home, as the member that suggested this subject has a family of boys and girls. It is well to train them when they are old enough, have the care of their own room.

I was speaking of simplicity. Why not begin here. Furnish your room with necessary furniture. White curtains on the windows; tint the walls with any desired shade of alabastine, in preference to paper; do away with carpets, using rugs instead; ornament the walls with a few good pictures. In all make your bedroom as simple and pleasant as possible.

Go to every room in the house, and see where you can simplify the work, doing away with anything and everything that is superfluous and unnecessary.

True greatness does not consist in what we possess but in what good we can do, and what service we can render unto others. The home maker must leave to her family an inheritance grander and better than any worldly possessions. She must not forget that the home is the lever which raises the nation to its highest pinnacle of fame.

BREADS

Quickly baked breads lack the sweetness which are the result of long-standing, well-baked breads. Less of the starch is converted into sugar. The moment that moisture is added to the flour to which baking powder has been added, gas is the result of the union of the materials. It is necessary that the batters and the doughs be prepared quickly and the oven ready to immediately place the articles of food in, for allowed to remain standing, the result will be breads dry and full of coarse holes. So it is a wise plan to attend to the oven first, that it may be the right temperature, then put the ingredients together, and bake them. Egg and baking powder breads are more wholesome when served warm as they retain the moisture and become soggy when cold. Yeast breads are better when cold, excepting toast, zwieback and pulled breads, which should be thoroughly cooked that there is no danger of ill results.

Bread made with milk, instead of water is more tender and palatable,

and less shortening is needed in the mixing.

Batter is applied to any mixture of liquid, shortening and flour that will pour easily from the spoon or utensil in which it is made while dough is thick enough to handle.

YEAST BREADS

In preparing yeast breads it is worth your while to place the yeast, if the cake variety is used, in a glass, catch half full of lukewarm water, then add a tablespoonful of sugar, but no salt. The latter ingredient being sifted with the flour. As the yeast plant, in its native element thrives on sugar, one can readily see that by placing the sweetening in the cup with it that the plant will grow. Cover the cup with a plate, set the cup in a warm place, or in the sun's rays, and the yeast plant will soon fill the cup, and the bread in which it is used will be more tender and delicious.

QUICK WAFFLES

To one pint of sweet milk, add three eggs, one tablespoonful of melted butter, one teaspoonful of salt, three teaspoonfuls of baking powder. Separate the whites from the whites, and beat the former until creamy and the whites stiff. Put all the ingredients to the yolks, excepting the whites, and mix to a smooth batter; then add the whites, and bake.

PRESERVING THE FRUIT

Decide upon the amount of fruit you will cook at one time, then have two bowls of water and a strainer for the fruit that will hold just the quantity of each. As the fruit is pared or hulled, whichever the case may be, drop it into its measuring bowl. When the measure is full put the fruit and sugar in the preserving kettle. While this is cooking, and other measure may be prepared and put in the second preserving kettle. In this way the fruit is cooked quickly and put in the jars and sealed at once, leaving the pans ready to sterilize another set of jars.

If the fruit is to be preserved or put in jars, it may be put into the jars as far as it is prepared. As soon as a jar is full, pour in enough syrup to cover it.

If several people are helping, and large kettles are being used for preserving, or where fruit (like quinces and hard pears) must be first boiled in clear water, the pared fruit should be dropped into a bowl of cold water which has been slightly acid with lemon juice (one tablespoonful of lemon juice to a quart of water). This will keep the fruit white.

All large, hard fruit must be washed before paring. Quinces should be rubbed with a coarse towel before they are washed.

If berries must be washed, do the work before stemming or hulling them. The best way to wash berries is to put a small quantity into a colander and pour cold water over them; then turn them on a sieve to drain. All this work must be done quickly that the fruit may not absorb much water. Do not use the fingers for hulling strawberries. A simple huller can be bought for five cents.

A Subscriber's Letter

"For mentioning The Canadian Dairyman and Farming World, and I purchased some goods from its advertisers. I received some very fine plants as a premium. I am very much pleased with the plants, and never expected to receive such fine ones, and much admired the careful way in which they were packed. I thank you much for the premiums." Mrs. W. Knoch, B. Toronto.

We would urge our readers to mention our advertisers whenever possible. It helps them, helps us, and helps you, as in the case cited above.—Editor.

Asked and Answered

Readers are asked to send any questions they desire to ask. The editor will aim to reply as quickly and as fully as possible. Address: *Farming World*, Canadian Dairyman and Farming World, Peterborough, Ont.

How can I get good fat from meat, and cooked meats, etc?—Mrs. Ed. Turner, Trent Co., Ont.
Cut the fat in small pieces, cover with cold water, and let stand overnight; pour off this water, add fresh water or milk—a cup to each two pounds of fat—and let cook very slowly until the pieces are light brown in color, and the fat is clear and still (no sound of bubbling or cooking.) Strain through a cloth, and press the fat from the pieces for a second quality of fat.

When the liquid is cold, remove the fat to a saucpan, and part or a whole cup of cold water and let cook slowly until the water has evaporated, and the sound of cooking has ceased, then strain through a cloth. Much of the flavor and odor of the fat passes off in the water during the evaporation.

Why is it that sometimes cream will not whip, even after much time is spent upon it and a pinch of corn starch has been added to it?—Jennie Burns, Ont.

Milk cannot be whipped to a firm froth. The cream in question probably contained too small a quantity of cream to make whipping possible. Do not understand why the addition of any quantity of cornstarch should help the matter.

I would like a good recipe for plum jelly.—A Housekeeper, Manitoba.

Place the fruit dry in jars. Two quart jars are good for the purpose. Either place the jars in the oven on asbestos paper or in a fruit steamer, and cook till the fruit is tender. Take out the jars and place in a enamel bag. Add as much sugar as juice, and stir until the sugar is dissolved. Place on the back of the stove and heat slowly ("and let boil") we suppose in recent until it forms jelly drops on the spoon. During boiling, skim carefully. It will take but a little boiling, as this is pure juice. This process produces the clearest and finest jelly.

The pulp may be used for jams or butter by straining through a sieve and adding an equal amount of sugar and heating slowly till thick enough. Place in jars and seal as usual.

Let us be of good cheer, remembering that the misfortunes hardest to bear are those which never come.

DISORDERS, DISEASES OR BLEMISHES OF THE SKIN

Are always safely cured or removed by our treatment, nearly all of which are free of cost to the patient. There is no longer any need of the usual unsightly looking, rusty or discolored face. Our treatment is the treatment of these troubles, which has been phenomenal. It is not necessary to stop work, and can be treated except to have



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W. & A. SAMI, THE LOOMS, Box 667 NOTTINGHAM, Eng. (Est. 1857)

THE COOK'S CORNER

Send in your favorite recipes, for publication in this column, and you will be repaid to, as soon as possible after receipt of your recipe. Book sent free for two new yearly subscriptions at \$1.00 each. Address, Household Editor, this paper.

OATMEAL BREAD

Four 3 cups of boiling water over 1 cup of rolled oats, add 1/2 cup molasses or sugar, 1 tablespoonful of lard, and 2 teaspoonful of salt. When lukewarm add 1/2 or 3/4 cake of compressed yeast dissolved in a little lukewarm water, then add enough bread flour to make a firm dough, and knead. Let rise over night, then mould into two loaves, and when light bake about 1 1/2 hours.

DRIED APPLE CAKE

Soak two cups dried apples over night. Drain off water, chop fine, and cook in two cups molasses until thick. When cool add 2 cups sugar, 2 teaspoonful each nutmeg and all-spice, 1 teaspoonful cinnamon, 1 cup shortening, 2 cups sour milk, with 2 level teaspoonful soda dissolved in it, and flour to make a stiff batter. This is an excellent recipe, and makes four large loaves.

CHERRY DESSEET

Press sufficient rich, stewed cherries through a sieve to make 1 cup pulp. Add 1 cup thick whipped cream and a large spoonful of ripe pitted cherries. Flavor with a few drops of almond extract. Put in a mold, cover securely, and pack in ice and salt for 3 hours.—M. F. Smith, Welland Co., Ont.

BLUEBERRY CAKE

To 1 cup milk add 1 cup sugar, 2 cups berries, 4 cups pastry flour, 1 egg, 1 tablespoonful butter, scant 1/2 teaspoonful soda, and 1/2 teaspoonful cream tartar. 1 use raspberries, blueberries, or huckleberries with this, and sometimes make a sauce and serve as a pudding. It is very nice eaten hot, with butter on it.—Mrs. S. D. Bacon, Hastings Co.

BATTER SHORTCAKE

To 1 egg add 1/4 cup sugar, butter size of an egg, 1 cup sweet milk, 2 teaspoonfuls baking powder, and 2 cup of flour. This is fine for strawberries, raspberries or currants, and is so little trouble to make, as it is a batter.—Mrs. A. W. Waterloo Co.

SPICED CURRANTS

To 7 lbs. washed and drained ripe currants, add 1 cup brown sugar, 1 pt vinegar, 3 tablespoonfuls cinnamon, and 2 tablespoonfuls cloves. (Tie the spices in a cheesecloth bag.) Bring to a boil and cook slowly for 1 1/2 hours. Put in jars and store in a cool, dark, and dry place. Nice with cold meats and game.—A. Grant, Peterboro Co., Ont.

Convenient Kitchen Sink

In nine out of ten, the kitchen sink has not sufficient accommodations for the dirty dishes, the dish pan, and space to set the dishes when washed. The cuts shown herewith

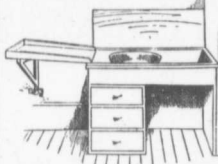


Fig. 1.

suggest a way to increase the space that is given these. Figure 1. shows a board about two feet long, with side pieces on three sides, and with the bottom followed a little along the middle. Into this the dish drainer that is shown in the same figure, fits. One end is now placed upon the end of the sink while the other is supported by a swinging arm, or bracket that is fastened to the wall, this end being a little higher than the other, so that the drip from the dishes may run down into the sink. The dishes on being wiped are set upon a table, or into a closet near at hand. When this draining board is not in use it can be set away beneath the sink, and the supporting bracket turned around against the wall, out of the way.

Fig. 2.

supported by a swinging arm, or bracket that is fastened to the wall, this end being a little higher than the other, so that the drip from the dishes may run down into the sink. The dishes on being wiped are set upon a table, or into a closet near at hand. When this draining board is not in use it can be set away beneath the sink, and the supporting bracket turned around against the wall, out of the way.

Apple Trees Free

What boy or girl on the farm would not like to have one or two nice apple trees all of their own? If you will simply send us one new yearly subscriber for this paper at \$1 a year we will send you free of cost the "Boy's Delight Apple Tree." This tree is an exceptionally fine dessert variety, and ripens about the 15th of September to the middle of October. It resembles the Fameuse in color of flesh. The apple is sweet and of excellent quality. It is quite a new variety, and is a seedling of the Snow.

For five new subscribers at \$1 each, we will send you six of these trees free of cost. Try and secure a club of five subscribers, and start an orchard for yourself. Send all subscriptions to The Household Editor, The Canadian Dairyman and Farming World, Peterboro, Ont.

Fruits on the Farm

Nowhere is there greater need for a generous supply of fruit than on the farm, where the diet is apt to be restricted in variety because of the distance from the markets. Every farmer should raise a generous supply of the kinds of fruit that can be grown in his locality. Wives and daughters on the farms should find pleasure in serving these fruits in the most skillful and tempting form. There are a large number of simple, dainty desserts that can be prepared with fruit and without much labor. Such desserts should leave the pie as an occasional luxury, instead of allowing it to be considered a daily necessity.

In the season when each kind of fruit is plentiful and at its best, a generous supply should be canned for the season when both fruit and fresh vegetables are scarce. A great deal of the fruit should be canned with little or no sugar, that it may be as early as possible in the condition of fresh fruit. This is the best condition for cooking purposes. The supply of glass jars does cost something, but that item of expense should be charged to future years, as, with proper care, the broken jar need be a rare occurrence. If there be an abundance of grapes and small, juicy, fruits, plenty of juice should be canned or bottled as refreshing drinks throughout the year. Remember that the fruit and juice are not luxuries, but an addition to the dietary will mean better health for the members of the family and greater economy in the cost of the table.

FRUIT FOR THE MARKET

If the supply of fruit is greater than the family need it may be made a source of income by marketing the fresh fruit to the market, if there is one near enough, or by preserving, canning, and the making of jelly for sale. To make such a success, the fruit and work must be first-class. There is a magic in the word, "Home-made," when the product appeals to the eye and the palate; but many careless and uneducated people have found to their sorrow that this word has not magic enough to float inferior goods on the market. For first-class home-made products, there is a market in all large cities. All first-class grocers have customers who purchase such goods.

To secure a market get the names of several first-class grocers in some of the large towns. Write to them, asking if they would be willing to try a sample of your goods. If the answer is favorable, send samples of your fruit and also a cardboard box with the fruit inclose a list of the articles sent, and the price. Write your name and address clearly. Mail a note and duplicate list at the time you send the box.

MAKING A PROFIT

Fixing the price of the goods is important. Make it high enough to cover all its expenses, and give you a fair return for your labor. The expenses will be the fruit, sugar, fuel, jars, glasses, boxes, packing material, wear and tear of utensils, etc., transportation and commission. The commission will probably be 20 per cent. of the selling price. It may be that a merchant will find your prices too high, or too low for his trade, or he may wish to purchase the goods outright. In any case it is essential that you estimate the full cost of the product, and the value that you place on your labor. You will then be in position to decide if the prices offered will compensate you for the labor and expense. Do not be tempted, however, for the sake of a little money, to deprive your family of the fruit necessary to their health and pleasure.

The Sewing Room

Patterns 10 cents each. Order by number, and size. If for children, give age; for adults, give bust measure for waists, and waist measure for skirts. Address all orders to Rural Hygiene, this paper.



BATHING SUIT, 5783
This bathing suit is made with separate pieces and waist is so arranged as to produce the continuous lines at front and back. Finish can always be varied, and suit of hem and bands of the same are quite varied, and suit can be used.
The suit is made with blouse, bloomers and skirt. It is slightly open at the neck, so allowing perfect freedom at that point. The bloomers are comfortably full, and are drawn up by means of elastic at the knees.
Material required for the medium size is 1/2 yds 27, 27, 67, 46, or 5/8 yds 52 in wide, 1 1/2 yds 27 in wide for trimming.
The pattern in sizes for a 34, 36, 38, 40, and 42 in bust, will be mailed to any address on receipt of 10 cents.

ELEVEN GORED SKIRT 5911.



The many gored skirt that flares at the bottom is a favorite. It is graceful and generally becoming.
Material required for medium size is 1 1/2 yds 27, 27, 67, 46, or 5/8 yds 52 in wide, 1 1/2 yds 27 in wide for trimming.
The pattern is in size for a 32, 34, 36, 38, 40, and 42 in bust, will be mailed to any address on receipt of 10 cents.

TUCKED OVER BLOUSE WITH GIRLDE, 5943.



Over waists not shown, are greatly in vogue, but appear to take on a momentary popularity as such incoming season.
Material required for medium size is 1 1/2 yds 27 or 34, 36, 38, 40, 42 or 1 yd 44 in wide, with 3 yds of bandings, 1/2 yd of silk for girde.
The pattern is cut for a 32, 34, 36, 38, 40, and 42 in bust, and will be mailed to any address on receipt of 10 cents.

ONE-PIECE HAT 5670.



The hat that is truly a washable one is the most practical of any, and has a certain dainty charm that renders it extremely effective. This one can be opened out, flat and laundered without the least difficulty. The pattern is cut in one piece, that is to say, the crown and brim are cut in one. There is a casing applied round the crown, and in this casing tapes are inserted that draw the fullness up to the size of the head, and which allow of laying the hat out perfectly flat when cleaning is necessary. The ribbon is simply passed round the crown and sewed in any way that fancy may suggest.
Material required is 1/2 yd 27 in wide, when one brim is used. One yd when two brims are used. 6 1/2 yds of lace for fills and 3 yds of ribbon for the bow and band.
The pattern is cut in one only, and will be mailed to any address on receipt of 10 cents.

WHY IT DOES NOT BURN

Several weeks ago we told you why **WYANDOTTE**, Dairyman's Cleaner and Cleanser did not burn. This time we want to tell you why you do not produce that burning feeling like sal, soda, and lye. Before washing the tin, cans, etc. you rinse them in cold water and then in them with hot water. Why? Because you know how hot, if used first, would set the milk sugars and butter fats. So it is with burning, scalding, pouring, and washing. The milk sugars and fats on the tin, cans, separator, etc., instead of being set by the hot water, are flushed out by the water.

Then, too, such burning washing compounds soon darken and discolor, as do the best of all cleaning agents.

WYANDOTTE, Dairyman's Cleaner and Cleanser contains no burning ingredients and will not discolor the tinned parts. It does not set the sugars and fats but removes them. It cleans and sweetens all utensils and machines.

Insist on your dealer or factoryman furnishing you a cleaning powder which contains no caustic soda, or burning caustic.

Insist on having a 5-lb. Sack of **WYANDOTTE** Dairyman's Cleaner and Cleanser; a Perfect Cleaner.

The J. B. FORD CO. — Sole Manufacturers — **WYANDOTTE, MICH.**
This Cleaner has been Awarded The Highest Prize Wherever Exhibited

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COUNTRY NOTES AND PRICES

ALBERT CO., N. B.
GAIWAY. - Hay is commenced and about half over. The crop is far from being as heavy as was at first anticipated. The old meadows are very light. The frosts in June, which were quite notable on several mornings in this locality, followed by extreme warm sunshine, had a disastrous effect on the old meadows. Hay should not be cut for more than three years. After that it should be pastured or plowed up. Oats are the chief crop grown. They look rather delicate in some places, more especially where the fertility of the soil has become exhausted. The welcome rain, which is falling today, and which appears to be quite general, may have the effect of bringing them up to the average.-C. C.

GREENVILLE CO., ONT.
PRESBOTT. - Pastures are in very good condition since the recent rains. Grain is coming on well but all is very short in the straw, except the earlier varieties. Weather is very showery at present. Hay is half over, and farmers are beginning to realize that they have to use economy in feeding to have enough to bring them through till next spring. Hogs, 5c to 10c a lb.; 4c to 5c for pigs; chickens, 15c to 16c; fresh eggs, 17c to 18c a doz; creamery butter, 27c to 30c a lb.; potatoes, \$1 a bush; corn, 55c to \$1.00 a lb.; timothy hay, \$15 to \$18 a ton; clover, 15c; baled straw, \$8; bran, \$24; middlings, \$25; oats, 55c a bush; corn, 75c.-G. W. C.

HASTINGS CO., ONT.
ELDHADO. - Crops as a whole are favorable. Hay is probably below the average in length. It is not so patchy, owing to the poor catches on the knolls and hard places due to the dry weather last year. The lower and more level lands are very thick and heavy, ensuring fully a ton and a half or better to the acre all told. Very little red clover was thick enough for seed. Alsike did well wherever sown. Very little hay was cut before the second week in July. The majority did not begin until the third week. This was evidently a great mistake, as the hay is thoroughly fine now. Wheat is fairly good as a rule, owing to the previous two weeks' drought. Barley is short in straw but fairly well headed, and is beginning to turn. Oats also are short but well headed. Peas look fine and are loading nicely. The weather has been favorable for corn. Potatoes are doing well though the bugs are unusually plentiful. The early sown root and corn crops cover the ground. The late sown ones are very thin owing to the absence of late rains. Early apples are in abundance. Late varieties are scarce. There are plenty of wild berries. Small fruits of cultivated varieties are not raised to any great extent.-F. A. U.

ESSEX CO., ONT.
There was a monster farmers' picnic at Kingsville, Essex County, on Wednesday, and Mr. G. A. Putnam, superintendent of Farmers Institute, who was present, says the crops in this section look well in comparison with other parts of the province. To some extent they are specializing in vegetables, and one farmer has three acres of melons just about ready to pick.

OXFORD CO., ONT.
NORWICH. - At the present time pastures are very poor. The hot, dry weather has dried them up badly, and there is a great shrinkage in the amount of milk received by the cheese factories. Hay is about over, and wheat cutting has started. Hay is in average crop, and has been secured in splendid condition. Wheat is not much grown but good crops will be in order. We are having ideal weather for corn and it looks like full silos this year. Spring grains are a good crop, but perhaps a trifle short in the straw on account of dry weather. Hogs, 7c a lb.; new potatoes, 30c a peck; fresh eggs, 15c a dozen; roller butter, 26c a lb; new hay, \$8 a ton; bran, \$20; middlings, \$23.-J. M.

TAVISFOCK. - Pastures are dry and hard, and there is a great shrinkage in the milk at the cheese factories. Factories average three cheeses less a day than at this time last year. Wheat is ready to cut and is a light crop. Hay was harvested under the best conditions, but was a light crop. Barley and oats are a very heavy crop, but the latter are

badly lodged. The weather is favorable, with plenty of moisture lately. New timothy hay, \$8 a ton; bran, \$20; middlings, \$23; linseed meal, \$23; oats, 50c a bush; fresh eggs, 15c a dozen; creamery butter, 25c a lb.; piglets, 10c; colored cheese, 11 1/2c; white, 11 5/8c; hogs, \$6.40 a cwt. l. w.-H. B.
ALGOMA, ONT.
MINDIMOVA. - The grasshopper plague, which we feared a few weeks ago, has not materialized. In one or two sections the crops are being damaged considerably, but the frequent rains during the past two or three months has produced such abundant growth that the work of the

grasshopper is hardly felt, except in sections already referred to. The hay crop on meadows is in better shape than the average. The old meadows are rather light, especially those which have been standing for three or four years. Grain crops are looking well. A larger acreage than usual of corn and potatoes has been planted, because these are crops which the grasshoppers did not hurt nearly last year. A smaller acreage than usual of turnips has been sown.-A. J. W.
DURHAM CO., ONT.
IDA. - The hay crop as a rule was slightly in advance of last year, making from 1 1/2 to 2 tons an acre. There is a

large quantity of hay out yet, owing to the rain the last few days. It will be damaged considerably as what was cut is nearly ripe. Fall wheat is waiting for the "sticks." It promises an advance on last year's yield. Peas promise fairly well. Barley is very short and is little better than in '07. Oats will be much benefited by the late rainfall. They look encouraging. Potatoes are growing well but there has been quite a battle with the bugs. They seem to be out in full force. Spraying for blight is not common, as we were not bothered at all with the blight last year. Root crops well, where the cultivation has been looked after properly.-H. S.

"Soil Culture"?
What is the New System of "Scientific Agriculture"?
Nothing more than judgment and common sense shown in handling the soils of our western tracts so that the rainfall may be held for immediate absorption by the root fibers of growing crops. It's a system that every farmer-East, West, North or South-should probably follow. It is the very essence of practical agriculture. It is a distinct revelation to Eastern and Central State farmers who have been depending on 20 to 30 inches of rainfall yearly. They wonder how our Colorado Scientific farmers can gather such remarkable crops on lands once called "half deserts."
Happy Prospects. Denver is rubbing its eyes, stirring itself in wonder, gazing in admiration at the great tracts located into green and growing crops of alfalfa, corn, wheat and fruits, etc. (Representative of cuts below) White-faced farm houses, broad-gabled barns, hawing wagons, pink-blossomed orchards, dairy farms, wheat and corn fields green gladdened eyes at every angle. Campbell's "Soil Culture" is making wealth for Colorado farmer and manufacturer, for merchant and implement maker, for mail order concern and local merchant.
"Young Man! Go West," said Horace Greeley. Within a decade or two there will be little "West" left. Hundreds of thousands have heeded the call of the early fifties. Thousands now are heading our call.
"Hurry to Colorado" Now
Buy with a few hundred dollars one of the cheap tracts now so generously offered. Start to be independent. Have a home of your own. Come! Breathe the long-inviting, health-giving ozone of Colorado. Enjoy the gladdening sunshine. Get more gladness out of life sent to the soil. Plant trees, orchards, lawns, which then grow as you nurse and tend them. Be free!
Start Small. You can start on a small acreage--8 to 16-acre prices running from \$6.30 to \$10 per acre. We don't insist on all cash. A fifth or smaller part is sufficient if you are a settler.
Location. The Bijou Ranch is only 41 miles from Colorado Springs, 6 miles from Denver, 5 miles from two easily reached railroads--the Union Pacific and Rock Island. A new branch of the Rock Island has recently been surveyed straight thru' the property.
Crops. Alfalfa roots and grows rapidly, sucking up through its great "root pipes" the "sheep water" which underlies the Bijou Ranch. 2,000 acres overtop this great supply of moisture that comes as near as it gets to the surface. This is not a lake or open sea, but is the under-working of the melting snows from the "sugar ridges" formed by the Eastern slopes of the Rockies. This water is easily, in most places, reached by the average hand pump. Corn, wheat, sugar-beets, oats, millet, rye, potatoes, barley, fruits of all kinds, vegetables, grow readily under this system of Scientific Agriculture.
Book Free. Our new free book from the press is described below and tells why you'll be glad after you "Hurry to Colorado." Send for it now.
Explanation of Cuts Below.
Photo at left. These are stacks of Alfalfa on the farm of D. J. Shearer. Photo at right. An enormous potato field--40 acres--harvesting over 3000 lbs. to acre--\$20.00 lbs. in all and sold on the ground for \$3000.00.
"Hurry to Colorado" Now
Here's a fast passing opportunity. Here are cheap lands, fertile soil, railroads, possibilities for great increase in land values, beautiful climates, and a chance to get rich. Buy one of the two cuts of the hundreds of others. Send for our new book--free, yet valuable--"The New Colorado." For a questionnaire, fill out the form which says the location of lands, distance from great centers, markets, shipping facilities, schools, churches, etc. Tell us how much money you'll need to get started; how to figure profits; describe the life and climate with its mounting days and life-renewing nights. This book explains what "Soil Culture" is and why it is forcing Colorado to the front as a wealth-producing state far ahead of the gold and silver mines. You learn in this book about soil, water, market, schools, etc. and the crops, how and in free hand soil lodging, etc., etc. Send now to us, to Dept. 12.
The Farmers Land & Loan Co.,
145 LaSalle Street,
Chicago, Ill.

sold at \$4.90, and heavier ones, 1500 each, sold at \$5.50, and bulks at \$4 to \$4.25 a cwt. The highest quotation for butchers' cattle was steady; they sold down a few as \$4 to \$3.50 a cwt. for cows. Calves calved steady at \$4 a cwt. Export ewes sold at \$3.90, bucks at \$3 to \$3.35, and lambs at \$5.50 a cwt. Hog and pig prices are quoted at 10c a cwt lower, making the price \$6.50 1/2 at country points.

THIS WEEK'S HOG PRICES

The William Davies Company, Toronto, report that prices varied very much at country points last week. Prices here in many places as high as \$6.75 was paid. They expect this week to be able to buy at \$6.5 a cwt. for hogs.

PETERBORO HOG MARKET

Peterboro, Ont., July 25th. — The market is very weak on account of old country cabbles and fairly large deliveries. On account of this prices have dropped, and the George Mathews Company are paying the following prices for this week's shipments: 7.0 a cwt. country points, \$6.50 a cwt.; delivered at abattoir, \$6.60.

MONTREAL HOG MARKET

Montreal, Saturday, July 25th. — The market here for live hogs scored an advance during the past week on account of small supplies, coupled with a good demand from the trade generally. The ruling price paid was \$7.25 a cwt for selected lots, but as high as \$7.40 was paid in some cases.

The market for dressed hogs is firm and prices rule from \$10.00 to \$10.25 a cwt for fresh killed abattoir stock.

EXPORT BUTTER AND CHEESE

Montreal, Saturday, July 25th. As anticipated last week end, it has proved an impossibility to keep prices up to the high level reached in the middle of last week. The market has been gradually receding, and at the end of this week rule at about 15% below the middle of last week. A fraction over this figure holds good at one or two points throughout the country. Should prices go back another 2% there is no doubt but what they will have the British demand on again; as it is there is more enquiry and few orders are coming at about present prices. The volume of trade, however, is not sufficient to keep the market steady, and unless there is a decided improvement early next week prices will certainly go lower in the country. The shipments for this week give evidence that the demand during the week, the total shipments amounting to barely 7,000 boxes. Receipts are about the same as last week, although considerably behind last year at this time, and indicate the extent of the falling off in the middle of last week compared with last year. As weather conditions are more favorable now, this shortage is not likely to be continued, but at least not to this large extent. Some sections of the country look for an im-

crease over last year in the make from 20 to 25 per cent.

The butter market is firm, and prices in the country are practically unchanging from last week. The demand for exports is falling off, and the shipments of this week were barely one quarter of the quantity shipped last week. There are signs, however, that the demand will come up again provided prices are not pushed up to any extent, as there is certainly a shortage in the supply here but butter available in the United Kingdom.

MONTREAL PRODUCE TRADE

Montreal, Saturday, July 25th. — Butter. — There is a good trade in butter, and dealers have no difficulty in obtaining 25c for choice prints, and 24 1/2c for the more ordinary grades. The ordinary finest can be obtained at about 24c, with seconds at 23c to 25c. Choice dairy is very scarce and sells as high as 25c a lb.; ordinary goods fetching from 20c to 21c.

Eggs. — Eggs are firm with receipts steadily diminishing and prices firming up every week. Selects are selling freely at 22c, and No. 1 stock at 20c. The supply of seconds is very small, most of the stock on account of the cool weather and close shipments passing as No. 1's, or selects.

Cheese. — The demand for cheese from the local trade is fair, and prices range from 15 1/2c to 16c for French goods and 15c to 14c for the fancier grades.

HOLSTEIN FRIESIAN NEWS

A GROWING HOLSTEIN CENTRE
That portion of York County, Ontario, adjoining Young street, is rapidly becoming a centre for the breeding of pure-bred Holsteins. A representative of this Ontario Dairyman recently, was surprised to find how many new herds of Holsteins have been established there during the past few years.
Holsteins were first introduced into this section a number of years ago by such well-known breeders as Mr. J. E. Elliot of Bedford Park, and Mr. D. G. Gooderman of Thornhill. Some seven or eight years ago a number of other breeders, such as Bayles, Lansing, Joshua Harrison, York Mills, John Moynihan, Don C. H. Shaver, Davidville; George Cooper, Willowsdale, and W. F. Elliott, of Colborne. Not far from these breeders, although not in the

Young street district, are located several farms, including Mr. Thos. Harley, of Downsville, and Lovelock, of Agincourt. These men are among the leading farmers of the county.
Most of these breeders own excellent stock. Some of them have animals that have been very successful in the showing, and have even had animals entered in the Record of Merit and in the Record of Performance. The leading breeders in this section think there is such a good start it would be possible for them to make their section noted as a Holstein centre, and to run them along the line of the electric railway which runs up Young street from Toronto to the thousands of farmers, who visit Toronto at the time of the Toronto Industrial Exhibition, or at the time of the breeders meetings, and to bring out the breeders' herds at little cost.
The breeders in this section that are so enthusiastic are they about the future of the breed in their section that some of them are contemplating clubbing together and raising \$1,000, with which to purchase a bull from a dam with an official record of 30 lbs., of which to breed a bull, and they expect they may be one it will do much to build up the reputation of their stock in a few years. This section is rapidly becoming one of the leading centres for Holstein-Friesian cattle in Canada.

GOSSIP

Canadian shipbuilders' perishable cargo will be pleased to know that another addi-tion has been made to the already large list of steamers owned by the Thompson Line, for the carrying of cargoes from Montreal to Great Britain. The latest addition is the magnificent steamer, "Cairnora," built a length of 460 tons, breadth 52 feet, depth, 34 feet, 2 inches; twin screws, electric light, and is rated 1,100 horse power. This steamer is a large carrier, having a cargo capacity of 9,000, double weight. Her loading and discharging equipment is very modern.
With her 11 winches and 25 derricks, she can quickly discharge and load cargoes on both sides of the ship at the same time.

The most interesting feature of the boat is the compartment and cool air plants, which embraces the entire interior, any of which can be maintained at a separate temperature, running from 49 degrees below to five degrees above the surface of frozen meats, butter or fruit. Her cool air plant consists of four separate compartments, which may also be maintained at separate temperatures. A representative of The Canadian Dairyman and Farming World recently inspected the cold storage facilities of the "Cairnora," and was much impressed with the facilities provided for the proper carrying of perishable cargoes.
It has been conceded by experts that the cool air and cold storage equipment and complete of any steamer sailing out of Montreal.

The butter and cheese exporters appear to appreciate having this boat added to the Montreal service, as the "Cairnora" has had as much butter and cheese as she could carry when she sailed for London on Saturday, July 18th.

It is generally true that an external remedy that is good for an animal is also good for the human body, and Gombault's Cautio Balsam is no exception to this rule. In fact we sincerely believe that there is no liniment or external remedy on the market that is as good or as safe and reliable to apply to the human body as Cautio Balsam. We can safely recommend it for all cases where an external application could benefit. It is also cheaper according to cost because it requires very little, and that little is effective. — "Horse Review," Chicago, July 4.

Talks with Farmers

(Continued from page 1)

THE SANITARY INSPECTORS
The inspection of milk houses and utensils by government officials is very necessary," said Mr. G. A. Graham, maker at the cheese factory Westminster, "but I am afraid that one visit will not be sufficient. There are some farmers who would be just as bad even after the inspector had left. A district inspector should be appointed so that he could call at any time and see the conditions."
"I have no fault whatever to find with the patrons of this factory. They are

fully alive to the importance of clean milk and clean utensils. Should I have occasion to send a can of milk back to a farmer, he knows that it is in his own interests, I should like to see a more rigid inspection generally throughout the province, as it would raise the standard of the mase throughout all districts." — Frank E. Durian, travelling representative of The Canadian Dairyman and Farming World.

WARRINER'S CHAIN HANGING STANCHION



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

MISCELLANEOUS

FOR SALE, CHOICE SHEARLING SHROPSHIRE EWES AND RAM LAMBS
Can supply pairs or trios not akin. Shorthorns, females, all ages, and 15 months old bull calf, bred by George Johnston, Chatham, N. B., and Star (imp.) 6053.
Very choice pair of calves, also Berkshire pigs, just farrowed, will be ready for September delivery. Prices reasonable.
Osgoode Station, C. P. R., R. F. 2, 11, Kars P. O., Ont.

DON JERSEY FORD
Can furnish you with young bulls bred by Golden Lad of Thorncliffe, who was sire of the 1st prize herd at the Toronto Exhibition, and is a well known practical money making Jersey, secure of these well bred bulls.
Duncuan Station, C. N. O. Ry. 595, Ont. 64-09
D. DUNCAN, Proprietor.

FAIRVIEW BERTKESHERS
Young stock for sale from Imp. and Canadian bred stock. Also fine choice line from choice individuals. Come and see them or write to HENRY A. MARSON, Scarboro, Ont.
Street cars from Toronto, pass the door. 64-93

LOCHABER STOCK FARM, and Poultry Yards, offers two fine Jersey Shorthorn Bulls, fit for service; also Berksheires, the Montrose, and other fine stock. White and Partridge Wyandottes, \$1.50 each. Imperial Fawn Ducks, \$1.50 per 12. M. Brown Jersey eggs, \$1.00 per 12. Stock A-I-D. A. Graham, Farmington, Ont. 64-93

THE HOMESTEAD HERD OF ABERDEEN ANGUS CATTLE. Present offerings: 1 male, 100 lbs. bull, sire a Toronto champion, also cows and heifers, all of choice breeding. Must be sold to make room at farm. If you are interested, write for particulars as requested.
W. W. BROWNIDGE, Milton, C. P. R. Ashgrove P. O. 61-21 Georgetown, G.T.R.

THE SUNNY SIDE HEREFORDS
FOR SALE—A choice herd of 10 heifers and 2 bulls, imported from Canadian bred sire and dams of the choicest breed. Very pure bred, all of the best blood. Also a few choice Tamworth Swine, \$3.00 for sale.

M. H. O'NEIL Southests P.O. CHAS. CURRIE, Morristown, Ont. breeder of choice Tamworth Swine. 6-10-15 for sale.

JOS. FEATHERSTONE & SON, Strathville, Ont. Large Yorkshire hogs for sale. 6-11-19
SAMUEL CUDMORE, Huronsdale, Ont. Importer and breeder of Dorset Sheep. 6-10-16

BOARD	Date of Sale	WHITE CHEESE			COLORED CHEESE		
		Boarded	Lowest Price	Highest Price	Boarded	Lowest Price	Highest Price
London	July 19	385			1,630	11 1/2	11 1/2
Lindsay	" 20	205			1,415		11 1/2
Campbellford	" 21	1,025			11 1/2		
Madoc	" 21	740			11 1/2		
Strirling	" 21	705	11 13-10				
Peterboro	" 22				4,413	11 11-10	11 1/2
Woodstock	" 22	800			1,941	11 1/2	11 1/2
Kalexandria	" 22	205			11 1/2		
Belleve	" 23	2,070	11-16	13-10	200	11-10	13-10
Brockville	" 23	1,825			1,178	11-16	13-10
Kingston	" 23	825			11 1/2		
Pleton	" 23				2,010		11 1/2
Russell	" 23	1,160		11 13-15			
Vanhook Hill	" 23	1,857					
Winchester	" 23	781 C & C					
Bradford	" 24	288			1,200	11-9-16	11-11-16
Corwall	" 24	758			11 1/2		
Kempville	" 24				448	no sales	
Napanee	" 24	1,770 W & C			604		
Ottawa	" 24	408			604		11 1/2
Perth	" 24	1,400			111	350	11 1/2
CHESSE							
S. Haysheite	July 18	1,140		11-7-8			
Cowanville	" 20	130		11 1/2			
Sherbrooke	" 20	130		11 1/2			
Huntingdon	" 24	186		10 1/2	753	10-9-16	
NEW YORK							
Watertown	July 18	9,000	11 1/2	11 1/2			
Canton	" 18	2,900					



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Saved \$55.00

A MAGNET user wrote us that he wanted to get a larger size owing to the increased number of cows in his dairy. We informed him that he did not require to change his machine that his present one would do and that we could increase the capacity by changing the skimming device in his present bowl, which would only cost him a few dollars.

We made the change and after a full trial he writes us: "I am more pleased than ever with my MAGNET it skims the increased quantity, turning as easy as it did before, and cost me just \$55.00 less than my neighbor paid for exchanging his small machine for a larger one; of course his was not a MAGNET, and the whole machine had to be changed."

C. C. Diefenbacher of Hawksville, Ont., writes us on June 6th, 1907.

"I have used a MAGNET in my dairy over eight years. Never missed a skimming and no cost for repairs. Takes all the butter fat out and turns easy. I like the double support to the bowl. The square gear suits me; would not buy a worm gear machine at any price."

Desiring to get a larger machine, I was glad to find it was not necessary to get a new machine, and that I could get the capacity of the present MAGNET increased at the cost of a few dollars, which I have done and it is running fine.

Remember the MAGNET Cream Separator will not wear out in fifty years' use.

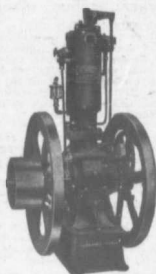
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We will give a Pure Bred Ayrshire or Jersey Bull or Heifer Calf, or a Holstein Bull Calf, for only **Thirty New Subscriptions** to The Canadian Dairyman and Farming World at \$1.00 each.

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If you would prefer Cash Premiums write for particulars regarding our

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We will give \$1,500 for **1,000 New Subscriptions** to The Canadian Dairyman and Farming World at \$1.00 a year. Cash Prizes offered for any number of New Subscriptions from 1,000 down to 50 or less. **Prizes are not simply to one, but to all.** Further particulars furnished on application.

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