

Issued Each Week Only One Dollar a Year

VOL. XXIX.

NUMBER 43.

FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

OCTOBER 27,

1910.



THE APPLE INDUSTRY OFFERS A BETTER OPPORTUNITY FOR MONEY MAKING THAN EVER BEFORE

While various conditions that have been referred to in recent issues of Farm and Dairy have resulted in a general depression of the apple industry, there has been brought about a condition of affairs unprecedented in our history. There is now an almost unlimited market within our easy reach and demand is vastly greater than supply. True, there is a light crop in Ontario this year, and there are few orchards that will require as many men to load the apples as is seen in this illustration taken in Halton County last year, but the conditions as stated apply to average years. Farm and Dairy will have another article on the apple industry by Professor Crow, November 10th. Watch for it.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

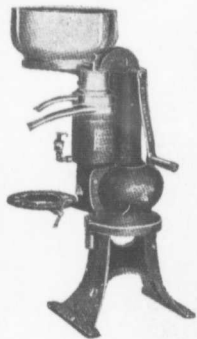
NEVER HAD AN ACCIDENT

You will have to go a long way to find a person who has had an accident with a "SIMPLEX" bowl. And, what's more! A worn out

SIMPLEX LINK-BLADE SEPARATOR

is as scarce as hen's teeth. There are several reasons why this Separator has the reputation of being a "no break, no wear" machine.

The "Simplex" bowls are made of a very ductile grade of seamless steel tubing, that even if it were subjected to an extreme pressure would stretch, but would not fly to pieces. The spindles are made of a special grade of high carbon steel, heat treated, to increase their toughness.



There is no safer or stronger bowl than the low speed "Simplex" bowl, and this is a point that you should think about especially in these days of cheaply built high bowl speed separators.

Our aim is to make a Cream Separator that is stronger than is actually necessary. When you buy a Separator, buy a good one. The safest way is to get in touch with our nearest agent.

D. Derbyshire & Company

Head Office and Works: BROCKVILLE, ONT.

Branches: PETERBOROUGH, ONT. MONTREAL and QUEBEC, P. Q.

WE WANT AGENTS IN A FEW UNREPRESENTED DISTRICTS

"BT" STEEL STALLS and STANCHIONS



With Cement Floors reduce labor to a minimum, and make bright and sanitary stables. They are practically indestructible, while the out-of-date stables are constantly in need of repairs, and are short lived compared with the latest and most up-to-date stables. You will be surprised at the low cost of them.

Our new catalogue contains a lot of valuable information for you if you are building a new barn or remodeling your old one. It is free and a post card with your name and address plainly written will bring it. WRITE:

BEATTY BROS. - Fergus, Can.
LITTER CARRIERS, HAY CARRIERS, ETC.

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

Farmers Will Go to Ottawa

On December 16 some 500 or 600 representatives of the organized farmers of Canada will meet the members of the Dominion Government and Parliament at Ottawa to present their views upon the tariff question, as well as upon several other questions of immediate interest to them. Delegates will be present from Ontario, Manitoba, Saskatchewan, Alberta and Quebec, and it is expected that there will be one or two representatives from the Marine Provinces. The voice of the Canadian farmers, represented by this organization, will, it is said be unanimously in favor of a downward revision of the Customs tariff to a revenue basis.

The Executive of the Manitoba Grain-growers' Association, according to a despatch to the "Globe", met in Winnipeg on Oct. 19 and issued a call to each of the 200 local associations in the Province to appoint one or more delegates to Ottawa. Similar action will be taken in Saskatchewan and Alberta in the course of a few days. The same subjects which were presented to Sir Wilfrid Laurier during his western tour will be taken up again at Ottawa.

It is thought that the farmers will discourage the suggestion of a tariff commission but they will ask that if a commission is appointed it be given full power to take evidence under oath, call witnesses and demand the production of all the necessary papers and documents for the thorough investigation of every industry that asks for protection. The farmers, it is expected, will declare that they ask no protection whatsoever on their own industry.

The Hudson Bay Railway as a Government road owned and operated by the public will also be urged upon the Government. The question of the chilled meat industry will also be dealt with, and the Dominion Parliament urged to enact legislation which will improve the position of the western farmers in the markets of the world.

The Peat Fuel Industry

The welcome intelligence was circulated from Ottawa last week that the experiments made at a peat-treating plant, maintained by the Mines Department of the Dominion Government, have proved completely successful. An experimental plant at Alfred, a few miles east of Ottawa, has been manufacturing peat fuel during the past year. Five hundred tons of peat manufactured into domestic fuel at this Government plant has recently been placed upon the market in Ottawa. The whole supply offered is sold within a few days at \$3.23 a ton. Since then, it is stated, there has been a deluge of orders far further supplies.

There is a general consensus of opinion amongst those who have used the new fuel that it is cheaper and more satisfactory than coal. There are hundreds of thousands of acres of bog land in Ontario, which heretofore have been of little or no value. Canada has 37,000 square miles (23,680,000 acres) of known peat bogs. These form practically a small fraction of the total. These bogs have now been demonstrated to constitute a potential national asset of enormous value.

VALUE OF THE INDUSTRY
Some idea of the possibilities of the industry may be gained from the estimate that 20 acres of peat nine feet deep should yield 50,000 tons; enough to supply 100 families for 25 years allowing 20 tons per annum to each family, or enough to furnish a power plant of 100 H.P., using steam engines, with fuel for 25 years. 25 years of 300 ten-hour days, allowing 12 lbs. of fuel per H.P. hour developed. The fuel, if used in a suitable gas producer, would last the same plant

about 100 years. Four bogs within a few miles of Ottawa, examined by Government experts, are estimated to contain over 25,000,000 tons of fuel.

The provinces of Ontario and Quebec send \$20,000,000 a year to the United States for coal. The development of some of our extensive peat bogs will help to keep some of this money at home and to furnish national employment to Canadians in Canada.

THE PLANT AT ALFRED

The Dominion Government has acquired 300 acres of the peat bog at Alfred where the peat fuel recently marketed was manufactured by a method which has proved successful in Europe. The capacity of the plant is 30 tons a day, and during part of the past summer 1,600 tons of machine peat have been produced. Allowing 140 days for season's operations, the cost of the fuel on the field is \$1.40 a ton, under conditions existing at the government plant. By the use of larger plant and mechanical excavators to replace hand labor, this cost of production can be greatly reduced.

Machine peat is claimed to have a calorific value in the ratio of 3,000 lbs. to a ton of anthracite coal. The machine peat if sold at \$3.25 a ton would therefore be the economic equivalent of anthracite coal at \$5.85 a ton.

A Packing House Merger

Editor, Farm and Dairy.—I notice in the Press where the packers are endeavoring to merge their different plants into one, as it is said, to get clear of the keen competition. I am sure that no bacon producer will complain at the packers doing anything legitimate to reduce the expense of manufacture and so forth, but let me sound a note warning to them if their object is to pull the price to the producer away down.

Through the excellent work done by the Farmers' Institute system the Agricultural Press and Agricultural Societies, farmers are just waking up to the fact that it is wise to count the cost,—and this applies as much if not more in hog producing than it does in any other line of live stock. A few sheep may be kept year after year with the one purpose in view of cleaning the weeds from around the farm. A few cows may be reared and broken up for the pleasure that the farmer takes out of breaking and driving them. Not so with the hog. Just so soon as the farmer knows he is getting nothing for his labor feeding hogs and cleaning after them (both of which are hard work) it will be but a short time until he is out of the business.

If the packers are willing to let supply and demand rule the price I think I am safe in saying they will get a reasonable supply of hogs at a reasonable price, but just as soon as they build the market so that there is nothing in it for the farmer they will have a repetition of the past two seasons and will have to pay more for the article is worth or go out of business. H. H. Harding, Middlesex Co., Ont.

Items of Interest

At the recent meeting of the Executive of the Canadian National Dairy Show, it was unanimously decided to have the First Annual Dairy Show during the week of October 2-7, at the Montreal Arena, 1911.

A deputation from Richmond Hill, York Co., recently waited on Minister of Agriculture for Ontario, requesting that a District Representative of the Department of Agriculture be located at Richmond Hill. A similar application had already been received from Newmarket.

Have you forgotten to renew your subscription to Farm and Dairy?

Iss
Each

Vol. XX

A Scientific
the O.

THE

ple
not think
be put do
particular
circumstance
and have
how we sh
set of con
that must
the questi
others are
seedling an

A heavy
quickly an
in narrow
furrows or
taking awa
not only th
the water
soil for so
on each sid
row and to
pending on
between the
tile drain
deep in el
drains bene
apart, will
soil to a
least two i
way betwee
in 48 hours

According
furrows n
deep and
apart wou
clay soil to
six and th
inches at th
the ridge
water werc
from the r
inches in th
depth of nin
for the c
spring-time
altogether fr
half full, w
centre of th
depth of ab
hours.

Since 48 h
fer the drain
of rain and
close to the
ought to be
wider than
and so far as

within
ined by
timated
of fuel,
nd Que-
to the
develop-
re part
of this
furnish
ians in

has ac-
beg at
recently
by a
cessful
e plant
part of
of me-
d. Al-
opera-
the ad-
ditions
plant.
sists of
reple J
duction
have a
3,600
al. The
a ton
onomic
t \$5.85

ger
notice
ers are
different
to get
I am
-ing
-ing sense
of let me
them if
the the

done by
the Ag-
ral so-
c up to
unt the
if not
it does
ok. A
or year
clean-
farm.
broken
farm-
driving
Just so
getting
gs and
rich are
rt time
a.

to let
prise I
y will
s at a
oon so
here is
ey will
to sea-
n than
out of
fiddle-

Ex-
ly de-
Daily
October

Bill
Min-
to, re-
cultural
sim-
en re-
your
F

Issued
Each Week

FARM AND DAIRY & RURAL HOME

Only \$1.00
a Year

Vol. XXIX.

FOR WEEK ENDING OCTOBER 27, 1910.

No. 43

SHALL WE PLOW NARROW OR WIDE RIDGES?

R. R. Graham, B.A., O.A.C., Guelph

A Scientific Article by One Who Has Been a Farmer and Now is Demonstrator in Physical Science at the O. A. College, Guelph.—Everything in Favor of Underdrained Land Plowed in Wide Ridges.

THE question has been raised as to what is the best width to make the ridges when plowing or rolling heavy clay land. I do not think that any very hard and fast rule can be put down for the guidance of farmers in this particular, as soils, seasons, crops and other circumstances vary so much throughout our country and have such a large influence in determining how we shall till to get the best results under any set of conditions. There are, however, a few facts that must be considered in an attempt to answer the question and chief among them is drainage; others are the yield, time and labor in plowing, seeding and harvesting periods.

DRAINAGE

A heavy clay soil, in fact any soil, is much more quickly and thoroughly drained by being plowed in narrow than in wide ridges, for there are more furrows or ditches for taking away the water, not only the run-off but the water within the soil for some distance on each side of the furrow and to a depth depending on the space between the furrows. A tile drain three feet deep in clay soil, the drains being 40 feet apart, will drain the soil to a depth of at least two feet at half way between the drains in 48 hours.

According to this, furrows nine inches deep and 12½ feet apart would drain a clay soil to a depth of six and three-quarter inches at the centre of the ridge if all the water were removed from the ridge for a depth of six to nine inches in the very bottom of the furrow or at a depth of nine inches. But this is very improbable in the case of a very heavy rain in the spring-time freshets the furrows may run half or altogether full. Assuming that they do run one-half full, which is a very fair estimation, the centre of the ridge would be drained only to the depth of about three and one-half inches in 48 hours.

Since 48 hours is the limit of the time allowed for the drainage of a soil after any ordinary fall of rain and since three and one-half inches is very close to the minimum depth to which a clay soil ought to drain within this time, it would seem that in heavy clay land the ridges should not be wider than 12½ feet for good surface drainage and so far as the drainage is concerned the farm-

er is on the safe side when he plows nine or 11 feet ridges.

But even with the narrowest ridges his soil is not thoroughly drained after all. He would get far better results, larger profits and have far more satisfaction if he would put in underdrains and then plow his land in wider ridges, probably 16½ feet or even 22 feet or more. The tendency at the present day among farmers in most parts of Ontario is to plow wider ridges than some of them, at least, were accustomed to plow a number of years ago. As underdrainage becomes more and more understood in this province the practice of narrow-ridged plowing will become less and less.

THE YIELD PER ACRE

A piece of land which is plowed in narrow ridges will not produce as much hay or grain per acre as

plowed in ridges of various widths. The yield per acre is taken as 50 bushels for a basis of comparison.

Width of Ridge Feet	No. of Furrows	Loss in Area per Acre	Loss in yield per Acre
9.....	24.....	.114.....	5.7
11.....	19.....	.091.....	4.5
12.....	18.....	.086.....	4.3
16½.....	13.....	.062.....	3.1
18.....	12.....	.067.....	2.8
22.....	10.....	.047.....	2.8
30.....	7.....	.038.....	1.6
40.....	6.....	.029.....	1.4

This table is interesting because it shows that the loss in yield per acre is inversely as the width of the ridges, that is if the width of the ridges is doubled the loss in yield is reduced one-half and vice versa. If a farmer plowed his land in ridges 18 feet wide instead of nine feet wide and sowed it to wheat he would make practically \$3.00 more per acre if the wheat sold for \$1.00 a bushel and for other grains 'in proportion to their selling price. This amounts to three per cent. on his investment, valuing land at \$100 an acre, as much as most farmers are drawing for their money in the savings department of their bank. If he used 40 feet ridges he would make about four and one-half per cent. and so on. This seems to me to be a strong point in favor of wide ridges.



A Fair String of Ontario's Best Blood

The illustration shows Mr. G. A. Brethen and daughter, and five bull calves raised by Mr. Brethen on his farm in Peterboro Co., Ont. Mr. Brethen's farm last year was awarded the first prize in the Special Good Farms Competition for the County, conducted by Farm and Dairy; he also won fourth prize for District No. 2 in the general Dairy Farms Competition. The cattle on this farm were awarded a high score. See Gossip Notes (Holstein News) in this issue. Photo by an Editor of Farm and Dairy.

it would if the ridges were wide, other things being equal, because the furrows take up considerable area in themselves and besides the crop is seldom, if ever, as good just near the furrows as towards the centre of the ridge because the furrows are usually the wettest portions of the surface and consequently the crops are frequently injured by too much moisture here. Assuming that the plants are not so thrifty near the furrows as on the centre of the ridges, and because they are on a lower level, they would naturally be injured by slight frosts during the period of their growth. I think that I am putting it within a safe limit when I say that there is a strip of land one foot wide wasted at the furrows on the average. For one square acre of land the following table gives the number of furrows, the loss of land and the loss in yield per acre for land

consequently more labor to plow land in narrow than in wide ridges because there is more staking, more of the slower and painstaking part of plowing, namely, marking out the ridges and finishing the furrows. I dare say we would be astonished if we knew how much more time it would require than if the ridges were made wide.

Then, furthermore, if the plowman is not a very skilled man he will be almost certain to leave the centre of the ridges higher than the edges and the narrower the ridges the greater this tendency. This will spoil the appearance of the plowed land and bring endless troubles later on. If the land becomes established in high ridges the labor of digging cross drains in the fall and shovelling them out after the seed has been sown in the spring is greater than if the land were flat on account of having to go deeper through the

ridges. Time and labor is also saved in seeding and harvesting on land plowed in wide ridges, as the operator can drive the machines faster, with less horse power, less strain on himself and the machinery and in every way with far more satisfaction and profit than if he worked on land plowed in narrow high ridges.

IN FAVOR OF WIDE RIDGES

In view of these facts that I have tried to make clear and others that might be considered, the advantages, chiefly better drainage, to be gained by narrow ridged plowing are more than offset by its disadvantages as a rule. Farmers generally have come to realize this fact, yet there may be much to say in favor of the narrow ridge in some conditions. Every farmer knows his own conditions best and it is for him to study these problems and adopt whatever practice he finds to be best for him.

Note.—Farm and Dairy welcomes discussion on the points raised in this article. What is your experience in the matter of wide and narrow ridges?—Editor.

A Prize Winning Farmer Talks

"Our system of rotation," said Mr. J. W. Richardson, of Caledonia, whose farm won second place in the Provincial Dairy Farms Competition this year, when speaking to an editor of Farm and Dairy, who visited his place, "is to take off two crops and then seed down. Corn follows sod, barley or peas. Manure is applied as a top dressing. The bulk of the manure is kept under cover and drawn out in the winter. We leave our alfalfa down generally for six years, although some of it has been down for ten years. We find that June grass and alfalfa make a great feed for dairy cattle. It stands pasturing.

HOGS AS A BY-PRODUCT

"We find it profitable to keep enough hogs to consume the feed that would otherwise be wasted. About 100 hogs are turned off each year. They are fed pasteurized whey, which we believe is nearly as valuable as skim milk. During the winter they are fed considerable quantities of roots. We aim to have our litters come during February and March. That enables us to market one of the main litters about August when the price is high. The young pigs are fed whey, skimmed milk, roots and a little shorts. We exercise care when feeding, as growing pigs will not consume many roots, when heavily fed on shorts or mixed grain.

As soon as clover is good in the spring, we turn growing pigs out and let them run. When pasture gets short they are fed a mixed chop of oats and barley, and some shorts. This mixture is fed also to finish them.

We prefer Yorkshires and aim not to keep more than we will have plenty of feed for. We aim to carry less hogs during the winter than summer, as we can grow the hogs on good clover pasture cheaper than any other season of the year. Under these conditions we have proved that we can produce pork for four cents a pound when the value of the grain and mill feed only are taken into consideration. We do not charge for the by-products as we would have no other use for them. Many farmers keep too many hogs and lose money on them in consequence. A man cannot keep 40 or 50 pigs profitably if he has only 10 cows. When grain is high, it is a mistake to keep more hogs than just enough to consume the by-products of the dairy, along with a reasonable amount of grain.

THE LABOR QUESTION

"In our section the farm labor problem continues to be a very serious one. It is driving farmers out of the business. The Provincial Governments in the west and the railway companies continue to put forth every effort to draw our men to the West. We feel that our Ontario Provincial Government should do more to advertise our province, as there are many men who go out

west who could do as well here if they only realized the opportunities that this province offers.

Quality and other Points about a Horse

The first point to be considered when we talk of quality in horses is that of general appearance. In noting this characteristic, the student studies the size and weight of the horses before him, noting the symmetry of body, to see that the forehand is not too long or too short, and the student makes a study of the style and "air" exhibited by the horse, together with his disposition and character.



Horses of Some Considerable Value

The illustration shows the prize winning heavy draft team at the Norwood fair. The team is owned by a Northumberland Co., Ont., farmer, Mr. Henry Waters, who may be seen seated on the wagon.

Conformation is the next point noted, and this includes, of course, the build of the horse in detail. It includes the shape of the head, neck, forehead and barrel, croups, thighs, hocks, and in fact every part of the horse in detail. Constitution is a point I always lay special stress upon, including therein the size of the nostril, width and cleanness of throat latch, cleanness about the windpipe, width of chest and spring of rib, together with the correlated point, width through the heart and the size of the heart girth.

Then comes the point in question, quality, which includes the fineness and denseness of the bone about the head, with veins apparent, evidencing a fine mellow skin, and fine hair, then fineness and denseness of bone about the canon, knees, hock and hind legs. I would consider a horse that is meaty about the hock as lacking in quality, and probably he would lack quality in other parts as



General Utility Horses of Popular Breeding

This splendid team of Percheron grades were first in their class at the Norwood (East Peterboro) fair. They are owned and were exhibited by Mr. John Doherty, of Peterboro Co., who may be seen holding the reins. Photo by an editor of Farm and Dairy.

well. The horse that has quality is one that has refinement and denseness of texture throughout. A horse lacking quality is coarse in hair, bone and skin and has not the refinement desired. A dense hoof is another indication of quality.

In my work I have the students particularly examine the feet and legs and report thereon. This includes the conformation of feet and legs, the proper muscling of forearm and wrist using the uppermost joints examined under this special heading. Then the set of limbs, size of bone below the knee and flatness thereof, size and shape of feet are considered.

The heading "Quality in Horses", includes an

examination for unsoundness and the students are particularly taught to guard against any malformation that would give rise to unsoundness. When the horse is put in motion, his wind is observed as well as the eye when standing still.

Action is the last, but one of the most important points considered; and this includes a consideration of trueness of the gait, discrimination being made against winging or paddling or closeness of gait. The saddle horse is scored on his ability to go properly the three or five gaits. During the time that the horse is in action particular attention is paid to the first characteristic mentioned above—namely, the general appearance (style and vigor).

I am writing this article merely to give my ideas in regard to what is meant by each of the above terms used by the horsemen. It is necessary that we should have some universally understood terms in order that every one may understand what is indicated when each term is employed.—Professor Hooper, United States Department of Agriculture.

Harvesting Roots in Nova Scotia

J. R. Semple, Colechester Co., Ont.

In harvesting the turnip crop we do all the work of pulling and trimming by hand. Two rows are pulled at a time. We pull with one hand and with a sharp knife in the other hand the turnip is quickly trimmed and dropped outside of the rows the operator is working on. Coming back on the next two rows the turnips are dropped in the same row, making four rows of turnips piled together. When the next four rows are piled in the same way a sufficient space is left between for the horse and cart.

If the turnip tops are to be hauled off for feeding they are thrown in a windrow outside of the space left for horse and cart making eight rows of tops in a windrow. If they are not intended for feeding they are dropped as cut which leaves them spread evenly over the ground for plowing under. The loading is done by hand. We have tried loading with a fork but find it to be too slow. We find the dump cart the most convenient style of wagon for hauling.

Mangels are handled in about the same way as turnips excepting that the knife is dispensed with, especially for the globe and tankard varieties. The tops are twisted off with the hands. Sugar beets can be pulled taking a row in each hand, and with a quick jerk the work of topping is quickly done. The roots are stored in the barn cellar where they are convenient for feeding.

The Cost of an Inferior Bull

Prof. M. W. Harper, Cornell University

The average farmer who is raising his own dairy calves little appreciates the net cost of a cheap or inferior bull, when in search of an animal to head his herd. This is well illustrated in a herd of dairy cattle of which we have very accurate data as to the flow of milk and the amount of butter fat produced during the past four generations.

In this particular herd the condition, such as the breeding of the cows, the feeding and the management were as even throughout the four generations as could be obtained in practice, so that any marked increase or decrease in the production of the offspring can be credited to the sire used.

The first sire under observation got three producing females that averaged 300 pounds of fat a year. The second bull even exceeded the first, as he got nine producing females that averaged 392 pounds of fat a year. The third bull used was rather inferior, and illustrates the point at issue. He got eight producing females that averaged only 285 pounds of fat a year. This is a falling off of 107 pounds per cow a year. For the eight females this means a loss of 856 pounds of Lutter fat a year, which at 40 cents

a pound as these

If they length to 1/2 of then the presents cost of

Good

stead

We state some 15 y

bred bull

calves comm

have had

to get th

well pleas

Only re

work. Th

hard for

No. 1 p

No. 2

No. 3

No. 4

No. 5

No. 6

No. 7

No. 8

Nc. 9

No. 10 p

No. 11 g

No. 12

During t

early wint

deavor to

for the c

the chea

operation

turnips wh

We always

in the stat

feeds her

clover hay

cut green

hay and al

will eat.

Our cows

as soon as

and the cow

comfortable

that we get

by stabling

nights. We

until within

freshening

longer than

habit of mil

Commer

W. G.

When the

on whatever

straw and en

condition are

water in the

when the dr

stand around

Sometimes I

or two at a

giving her a

handful of sa

water to mak

cows. I had

that would n

clever hay at

few days.

I do not f

students
any mal-
wundness,
and is ob-
hittill.

important
consider-
ation be-
causeless

as ability
bring the
or atten-
tioned

give my
h of the
necessary

herstood
berstand
loyed.—
mont of

tia

the work
ows are
and and
turnip
of the
back
pped in
s piled
illed in
between

or feed-
of the
ded for
s them
nder.
and load-
r. We
style of

way as
d with,
es. The
r beats
d, and
quickly
cellar

ity
s own
t of a
of an
trated
very
and the
e past

such as
and the
e four
nactive,
in the
ted to

the pro-
of fat
e first,
eraged
I used
aint at
that
This
year.
of 856
cents

a pound means an annual loss of \$342.40 so long as these cows are retained.

If they are retained five years after they begin to produce, which is, perhaps, the average length of time for animals of this kind to breed, then the loss amounts to over \$1,700. This represents the actual loss to the farmer on account of the use of this particular sire.

Good Records and How Obtained

Geo. A. Robertson, Lanark Co., Ont.

We started to grade up our herd of dairy cows some 15 years ago. We made use of the Lost pure bred bull we could get. We have kept the heifer calves each year from the best cows amongst our old common cattle. During these 15 years we have had five different bulls and have always tried to get the best milking strain available. I am well pleased with the investment I have made.

Only recently have we been into cow testing work. The records for individual cows in my herd for four months are as follows:

No. 1 pure bred.....	5,367 lbs.
No. 2 " ".....	5,288 "
No. 3 grade.....	6,721 "
No. 4 " ".....	5,368 "
No. 5 " ".....	5,756 "
No. 6 pure bred heifer.....	4,178 "
No. 7 grade.....	4,897 "
No. 8 grade heifer.....	3,736 "
No. 9 " ".....	5,514 "
No. 10 pure bred heifer.....	4,187 "
No. 11 grade.....	5,554 "
No. 12 " ".....	5,775 "

During the late fall and early winter we always endeavor to have roots enough for the cows—mangels till the cheese factory ceases operation, and then we feed turnips while making butter. We always feed the turnips in the stable so that each gets her own share. We feed ensilage once a day, clover hay or peas and oats cut green for feed once a day and all the straw they will eat.

Our cows are stabled just as soon as the nights get cold and the cows would feel uncomfortable outside. We find that we get a lot more milk by stabling the cows on cool nights. We milk the cows until within two or two and one half months of freshening. We generally milk heifers a little longer than this so as to engender in them the habit of milking for a long period.

Comments on Feeding Dairy Cows*

W. G. Huffman, Hastings Co., Ont.

When the cows are dry my plan is to feed well on whatever is on hand. Dried corn, clover hay, straw and enough grain to keep the cows in good condition are the feeds commonly used. I have water in the stable and do not let the cows out when the day is not warm enough for me to stand around with comfort in my shirt sleeves. Sometimes I do not have them cut for a week or two at a time.

When a cow freshens I make a practice of giving her a warm drink. Scalded bran, a small handful of salt and the pail, filled up with enough water to make a good drink is enjoyed by most cows. I had one or two cows this year, however, that would not look at it. Follow this with nice clover hay and a small quantity of bran for a few days.

I do not feed as heavily on grain as some

*The records of Mr. Huffman's herd appeared in the Sept. 29th issue of Farm and Dairy.

dairymen advise; from six to 12 pounds is my usual feed. This grain ration is kept up until the grass is good enough to warrant dropping it. This year it was nearly the first of August before I stopped feeding grain.

When all is said and done good pasture is one of the many considerations with most of us dairymen. To get the most from pasture change from one field to another every few days.

Salt is one of the things a great many forget about in the winter. Give it regularly. I try to have salt in front of the cows all the time, winter and summer. I don't let small boys or dogs chase the cows. I spray them in summer to keep flies off. With treatment such as this a good dairy cow will give returns that are pleasing to the dairyman.

Broad Sows Wintered Cheaply

R. H. Bonham, Dundas Co., Ont.

The only hogs which we carry over winter are the broad sows. We regard the hog as a profitable animal only when used to consume the by-products of the dairy, such as skim milk or whey. As we all practise summer dairying in this neighborhood and would have to buy most of the feed which the hogs consume in the winter, we do not believe that there would be much profit in winter hogs. In the summer, however, we not only have a large amount of dairy by-products to be disposed of, but the pigs can be fed very cheaply on green feeds which are not available in the winter months. A few broad sows, however, we must keep through the winter.



Fine Looking, Heavy Producing Cattle, the Result of 15 Years of Grading
What kind of a photograph would your dairy herd make? Wouldn't it be fine to have them all of uniform conformation and color? And wouldn't it be 12—yes, 24 months? Perhaps you have them, if not, the adjoining article will tell you how Mr. George A. Robertson of Lanark Co., Ont., who owns the cattle illustrated, came by these fine cows.

In wintering our brood sows, we endeavor to house and feed them as cheaply as possible: By erecting buildings and winter feeding entirely on mill stuffs as some of our neighbors do, it is possible to have them eat up all the prefits which might be made from them in the whole year.

WINTER QUARTERS

The six brood sows which we usually carry through the winter, find accommodation in a shed 8 by 16 feet with a shanty roof. This is tightly boarded to keep out the wind; it is well banked with straw manure and is kept thickly bedded. The doorway is covered with several ply of burlap which the sows can push aside and go in and out at will. If kept well supplied with straw for bedding, they pass the winter very comfortably in this inexpensive shelter.

In order to make the sows take sufficient exercise, the feeding platform is located near the barn about 50 yards from the shed. It is therefore necessary for them to go out three times a day for feed and this provides plenty of exercise to keep them in good health.

WINTER FEED

Mixed oats and barley which we grow on the farm forms the basis of the grain ration during the winter. This is supplemented with middlings and sometimes a little corn meal. As much pulp-

ed mangels as will be eaten quickly and not left in the troughs to freeze is given once daily. Well cured clover hay run through the cutting box and steamed with boiling water in a barrel is fed three or four times a week mixed with a little middling. We believe that this feed has a very good effect in keeping up the health and appetite of the sows. As farrowing time approaches, they are removed from this cold shelter to warmer box stalls in the stable.

Views of an Ontario Dairyman

R. S. Stevenson, Wentworth Co., Ont.

A Nova Scotia dairymen writing in Farm and Dairy, Sept. 8th, places the gross revenue from the average cow at \$40. This is too high for the average Ontario cow. The average production of Ontario cows is not over 3,000 lbs. of milk, which if made into butter and sold for 25 cents a pound would bring \$30 and allowing \$5 as the value of the skim milk we should have a gross average return for each cow of \$35 which is about right.

The cows of Ontario should give double this amount of milk, 6,000 pounds is the lowest standard any man calling himself a dairymen should fix for his cow. This amount could easily be increased one or two thousand pounds more per cow, simply by breeding, selection and feeding. These are the three great essentials for successful dairying. One is no good without the other.

SELECTING THE BREED

The selection of a breed must rest with the man himself. I would suggest that it would be wise to choose the breed that has produced the largest average of good cows. A few phenomenal records do not prove the value of any breed of cattle to get at the true value of a breed. After making a choice of any breed by all means stick to that breed. Never cross breed. Cross breeding has always resulted in disaster.

To gain success we must have an ideal, and breed towards it all the time. Any man who applies himself honestly can in a few years grade up a herd of cows that will be a source of pleasure to him as well as profit. There are no secrets in the business. One of the most important factors in grading up a herd, is the regular weighing of each cow's milk,—guess work will not do, in dairying any more than in any other business.

Jottings from Farmers

It is conceded by our best orchardists that one acre of apple orchard well cared for will give as much profit as 10 acres of any other crop.—J. C. Harris, Oxford Co., Ont.

Sow thistle prevents the growing of crops, and where it exists fields of grain are often not worth cutting. Summer fallowing is perhaps one of the most effective remedies. It will not thrive as well where sheep raising is practised, for sheep are fond of sow thistle as well as of other weeds.—W. S. Fraser, Simcoe Co., Ont.

Corn should be harvested before there is any danger of it being injured by the frost. The easiest way of cutting it is of course with a corn binder. As soon as possible after cutting it should be filed into the silo and thoroughly tramped so as to exclude all air. After filling it should be covered with chaff and the chaff moistened to assist in keeping out the air.—T. H. Binnie, B.S.A., Carleton Co., Ont.

When the season arrives for digging potatoes, much care should be exercised to prevent any decayed ones being picked with the good ones. If rot is prevalent, before they are stored away in cellars it is better to put them in a shed where no frost may get at them; then when all affected potatoes may be discovered they can be assorted and put in the cellar for winter.—John N. Watts, Leeds Co., Ont.

LAEMENESS from a Bone Spavin, Ring Bone, Splint, Corb, Side Bone or Stink lar trouble out. Use the storied with

ABSORBINE

Full directions in pamphlets with each bottle. Also a bottle as desired or delivered.
Horse Book 2 D Free.
 Mr. Robt. Jones, Sr., Marmora, Ont., writes: "I have used a valuable horse with a big leg and used one bottle of ABSORBINE and it cured him completely."
W. F. YOUNG, P.O., 123 Temple St., Springfield, Mass.
 178484 Ltd., Montreal, Canadian Agents.

This Cylinder Shows Why The "EUREKA" Root Cutter



is the best on the market. See how it is designed. Grooved knives, with the grooves on one blade opposite the teeth on the next. Instead of slicing or pulling, the "Eureka" turns out roots in shreds—thin narrow strips—suitable for any kind of feeding. The "Eureka" shreds from one to two bushels a minute, and turns so easily that a child can operate it. In the "Eureka" the feed is kept free from dirt, the feeder bottom being made of iron rods, thus allowing all dirt to drop out before it can reach the shredding cylinder.

The spring form of the cylinder makes the machine a self-cleaning. Write for catalogue which explains fully.
 The Eureka Planter Co., Limited, Woodstock, Ont.



The Belleville Business College

Has one thousand Graduates filling prominent positions. College open the whole year. Write for Catalogue D. The Belleville Business College, Limited, P. O. Drawer "B," Belleville, Ont.

LEARN WIRELESS & R. R. TELEGRAPHY!
 Shortage of fully 10,000 Operators on account of 2-hour law and extensive "wireless" developments. We operate direct supervision of Telegraph Officials and positively place all students, when qualified. Write for catalogue—N. T. L. TELEGRAPH INST., Cincinnati, Philadelphia, Memphis, Haverport, Ia., Columbia, S. C., Portland, Ore.

THE ONTARIO PROVINCIAL WINTER FAIR

GUELPH, ONT.
 DECEMBER 5TH TO 9TH, 1910

Large Prizes and Classes for
Beef Cattle, Dairy Cattle, Sheep, Swine and Poultry, Seeds, Judging Competition and a HORSE SHOW

Entries close November 15th.
 Single Fare Rates on the Railways.
\$16,000.00 in Prizes

For Prize List apply to the Secretary,
J. BRIGHT, Pres. A. P. WESTERVILT, Sec.
 Myrtle Station Toronto

ADVERTISERS, ATTENTION!

On December 1st, the last of our Eight Big Magazine Numbers for this year will be published.
OUR SECOND ANNUAL BREEDERS NUMBER

It is not too early to decide what space you will use in this number. The earlier you make your reservation the better location you will secure. With our regular subscribers looking for this number, with an increased circulation, and with no advance in the advertising rates, an important opportunity for enlarging your business unless you miss this BREEDERS' NUMBER. Write today for further particulars.

Advertising Department

Farm and Dairy - - - Peterborough, Ont.

FARM MANAGEMENT

A Small Dairy Farm

We have 32 acres which we can use for rotation, apart from bush, orchard, eight acres of hay and two or three acres for roots and potatoes. The soil is fairly loam with patches of sandy loam. The land is of good drainage.

1—How should I use this land to carry the most profitable number of cows? 2—How should I apply the manure? 3—What is a good absorbent for liquid manure? Saw dust can be obtained at 75c or \$1 a load. 4—Which breed of dairy cattle would be best where pasture is little used? 5—Could you inform us where good grade cows can be obtained of each breed?

As you propose to feed your cattle in summer rather than pasture them I am of the opinion that a three-year rotation would give you best results in enabling you to keep most cows and to produce milk most cheaply off the limited area you mention.

The rotation would be: First year, corn, roots and green feed, such as peas and oats; second year, oats and barley mixed, or pure oats, seeded down with eight lbs. red clover, six lbs. alfalfa and 12 lbs. timothy.

3—Manure might be applied on the soil in the fall and winter preparatory to plowing down for corn the next spring. The manure should be spread evenly as either large or small piles for in small tarfats odours etc more than a few days. If hauled out on deep snow, it might be advisable to leave it in small piles until the soil surface was thawed out, when it should at once be spread before the ground under the pile has softened and become absorbent.

4—Sawdust is a good absorbent for liquid manure; cut straw, or even long straw is better. As to the price of sawdust, a load, sawdust is probably cheaper than straw for the purpose. Hardwood sawdust or sawdust of other than pine or fir woods would be the better to use. Sawdust from resinous woods does not rot very quickly and would not have in itself a very beneficial effect upon such light soil as you describe.

5—Choice of breeds
 3. Any of the regular dairy breeds, Ayrshires, Guernseys, Jerseys or Holsteins or their grades would do satisfactory work as milking cows. The one in view would probably influence you. Holsteins and Ayrshires would probably be most satisfactory if shipping milk to a city, or for cheese factory work. The Jerseys and Guernseys would probably be more satisfactory if selling cream or making butter.

Good grade Jerseys could I think be picked up in the neighborhood of Brampton. Grade Holsteins are in evidence almost anywhere in Ontario, but probably more commonly in Oxford County than most other districts.

Grade Ayrshires are common in Eastern Ontario and in Quebec but I do not know of any district where they are plentiful in Western Ontario. Grade Guernseys are not to be found in great numbers anywhere in Canada.

Second Crop Clover and Timothy

I cut a piece of clover and timothy this season and the second crop is now in bloom. It is better to mow it and let it lie, or leave it standing—G. B. Drummond Co. Inc.

The best way to handle the second crop of clover and timothy in the field in question would be to pasture it off. If no cattle are available to use this way then your best plan would be to let it go to seed. It is so late in the season now that it would not be advisable to cut.—J.H.G.

Seeding Wet Land

I am clearing a piece of swamp land and would like to know what kind of grass would be suitable for seeding. This swamp cannot be drained, and will be covered with water in both spring and fall.—James W. Gavanagh, Pictou Co., N.S.

The grasses most likely to grow un-

measure 700 to 1,000 feet of lumber each.

Farm and Dairy is not inclined to give too much credit to the scheme since it is well known that walnuts of the common black variety are found naturally on soils varying from a loam to a heavy clay nature. The native white pine would be a much more certain proposition on these waste sand areas.

Ontario County Road Expenditures

Seventeen counties in Ontario have established county road systems under the Highway Improvement Act. These are: Carleton, Frontenac, Halton, Hastings, Lanark, Leeds and Grenville, Lennox and Addington, Lincoln, Middlesex, Oxford, Peel, Perth, Prince Edward, Simcoe, Waterloo, Wellington, and Wentworth. The Act is applicable to 31 counties, so that nearly one-half of the Province is working under the Act. The Act was passed in 1901, and in the next year the County of Wentworth created their present county road system; this being followed in 1903 by the Counties of Simcoe, Wellington, and Lanark. With this nucleus, the number of



A Splendid Stretch of Road in the Prince Edward County System

The Prince Edward County road system was organized in 1907. It includes 54 miles of road. It is anticipated that the entire mileage will be completed during 1910. The county is equipped with modern road-making machinery, amongst which is included two road rollers. The road herewith illustrated is in decided contrast with roads not finished with a

der such conditions are red top and timothy. The land should be drained as well as possible, then worked during July and August. Keep the weeds down by harrowing as late as possible in autumn, then in the spring cut as soon as it is possible to walk dry shod over the field, sow the grass seed above mentioned at the rate of 10 lbs. timothy and 12 lbs. red top per acre. Harrow lightly after seeding and roll. If it is possible to roll at all it would likely be advantageous to roll two or three times after seeding.—J. H. Grisdale.

Planting Waste Land

It is reported that about 10,000 acres of waste sand land in Simcoe Co., Ont., has been acquired by a New York millionaire at a price ranging from \$1.50 to \$6.00 an acre. Agents have been quietly purchasing the land for several weeks and it is alleged that they have their plans made for reforesting the land next summer.

According to information gained by the Alliston Herald, it is anticipated that within 10 years, walnut trees planted on these waste areas will yield at least \$1.50 each in nuts per year and that the revenue from these will increase to \$5.00 a tree as the trees mature. At the end of 25 years, it is estimated that the trees will

county systems has steadily grown. In 1909, the last two counties, Leeds and Grenville, and Carleton, passed the necessary by-laws. To the end of 1909, the average has been equal to 15 counties, each operating for four years, in which period 1,125 miles of stone, or good gravel roads, have been built. This neglects a large amount of minor, incomplete and scattered improvements which will eventually be a part of the permanent work.

Expenditure under the Act since 1902 has been as follows:
 Toll roads purchased.....\$153,807.98
 Sundry grants to townships, villages and towns..... 89,057.02
 Permanent bridge construction..... 366,225.21
 Machinery, plant, etc..... 113,544.84
 Road construction and supervision..... 1,404,497.88
 Total.....\$2,128,122.93

Of this amount the counties have spent \$1,418,748.63. The Provincial expenditure, extending over eight years, has been \$709,374.30, the Province contributing one-third of the total, or one dollar to each two dollars raised by the counties.

I congratulate Farm and Dairy on its great improvement in all matters of personal interest to the farmer.—A. Barrett, Norfolk Co., Ont.

The
 interest
 proceed

Fee
 Does
 for wine
 contain h
 Does it t
 pleased t
 this mat
 Sugar
 first-clas
 somewhat
 for pork
 roots are
 able food
 best meth
 and feed
 objection
 in cold w
 cided adv
 maturely
 this kind
 As suit
 these roo
 lbs., corn
 the Feed
 each 50 l
 part of th
 equal we'
 finishing

Meal wit
 We have
 strong ena
 grains wou
 in connect
 much woul
 giving 25 p
 Prince Edw
 As a mem
 with clove
 cribed 1 p
 meal, 2 p
 part, by w
 five to six
 best results
 cribes. It
 added it m
 into the m
 added to g
 Oil cake
 gluten meal
 replace the
 In the case
 used if w
 increase the
 either case,
 exceedingly
 cers but no
 —J.H.G.

Cost o

Prof. A. S.
 bratic Agri
 tion inform
 butter-fat a
 a pound the
 used to a p
 per cent o
 farmer or da
 understood t
 under favor
 has devised,
 with a little
 equip the dai
 Each indiv
 pacity for p
 butter-fat. A
 productive by
 the best cow
 the poor cow
 lbs. butter-f
 used of a cov
 average grade
 250 lbs. a y
 instance, it
 butter-fat wh
 pays to get
 from the cow
 feed and com
 weight and v
 to determine
 milk or other

The Feeders' Corner

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

Feeding Roots to Swine

Does cooking add anything to the value of sugar mangels or sugar beets as a food for swine? Would the sugar whiting contain have any injurious effect on swine? Does it tend to fatten them? I would be pleased to receive any information on this matter.—J. F. H. Inverness Co., N.S.

Sugar beets and sugar mangels make first-class pig feed. Sugar beets are somewhat superior to sugar mangels for pork production. Both sorts of roots are wholesome and make profitable food for fattening swine. The best method of preparation is to pulp and feed raw. There is however no objection to feeding cooked. In fact in cold weather feeding warm is a decided advantage. Cooking does not in this kind of root affect the composition of it.

As suitable meal to feed along with these roots I would suggest shoria 200 lbs., corn meal 200 lbs., barley 100 to each 50 lbs. of meal during the early part of the feeding period and about equal weights later on toward the finishing off.—J.H.G.

Meal with Clover and Ensilage

We have plenty of good clover hay and strong ensilage. I present prices what grains would you advise me to buy to feed in connection with this roughage? How much would you advise feeding a cow giving 25 pounds of milk per day?—L. K. Prince Edward Co., Ont.

As a meal mixture suitable to feed with clover hay and ensilage as described I would recommend gluten meal, 2 parts, bran 4 parts, oats 1 part, by weight. Of this mixture from five to six lbs a day should give the best results with such cows as you describe. If corn meal is readily available it might advantageously enter into the meal mixture; say one part added to the quantities already given.

Oil cake meal would replace the gluten meal. Cottensed meal would replace the gluten or oil cake meal. In the case of cottensed meal being used it will be found advisable to increase the bran or oats by one part in either case. Cotton seed meal is an exceedingly valuable feed for dairy cows but not very palatable at first.—J.H.G.

Cost of Producing Milk

Prof. A. L. Haecker, of the Nebraska Agricultural Experiment Station informs us that he can produce butter-fat at an average of 15 cents a pound the year round. This amount to about 60 cents a hundred for 4 per cent. milk for the Nebraska farmer or dairyman. It is, of course, understood that he produces milk under favorable conditions, which he has devised, and which any dairyman with a little means can secure, and equip the dairy similarly.

Each individual cow has her capacity for production of milk and butter-fat. A herd can be made more productive by selecting calves from the best cows and by culling those from the poor cows. It requires 200 lbs. butter-fat to pay for a year's feed of a cow for a year. A good average grade cow will produce about 250 lbs. a year. Since, in such an instance, it is the last 30 lbs. of butter-fat which makes the profit, it pays to get the maximum capacity for feed and comfort. By estimating the weight and value of each feed, we can determine the cost of producing milk or other dairy products. For

instance, if a cow consumes the following ration, the cost is 16 cents a day for her feed:

30 lbs. silage at \$1.50 a ton.....	\$.02
15 lbs. alfalfa hay at \$8.00 a ton.....	\$.06
3 lbs. bran at \$20.00 a ton.....	\$.03
5 lbs. corn at 70¢ a bush.....	\$.05

Total.....\$.16
Figuring on a basis of 30 days, this amounts to \$4.80. If a cow produces an average of 18 lbs. of milk a day, testing 4 per cent. butter-fat, the value of her products for the 30 days would be 18 lbs. by 4 per cent, equals 72 lbs. butterfat by 30 days equals \$8.21 or \$3.40 profit a month. Placing the milk on a basis of 100 lbs., it amounts to 400 lbs. milk, costing \$4.80 to produce, or practically \$1.00 a cwt.

Now, if a cow, instead of giving 18 lbs. of milk a day, as does the average scrub, produces 40 lbs., which is not uncommon among purebred dairy cattle, the cost of production will be as follows: The food consumption will be slightly increased, say from two to four cents, amounting to milk for 30 days is 1,200 lbs. The cost of feed at 20 cents a day will be \$6.00 or 50 cents a hundred for milk produced. We consider the amount of milk when we consider the amount of milk produced by many purebred cows, an example of which may be found at the Alamo Farm. Last month, one of our Holstein cows produced an average of over 60 lbs of milk a day, testing 3.6 per cent. butter-fat. Her cost of production is only about half this as much as that of the average cow. This is another instance where it pays to keep purebred dairy cows.—Alamito Dairy Economist, Omaha, Neb.

Drying Potatoes for Food

A German company has undertaken to save the old 5,000,000 tons of potatoes lost annually in this country through lack of immediate market by desiccating, or drying the vegetable, so as to preserve it in useful form. Pressure, confined with vacuum, is used to withdraw the bulk of the water from the potato, and artificial heat dries the resulting "meal." This meal has one-quarter of the original weight and occupies one-eighth the space. It tastes and smells somewhat like newly made bread. It may be used or kept in this condition for considerable periods. Pressed into cake, it is used for animal feed.

In practice, three and eight-tenths tons of potatoes yield one ton of potato meal, at a cost of about 50 cents a ton. Twelve cents a ton added for pressing makes the cost of the cake 68 cents, which is not high for fodder of such quality. Chemical analysis shows the following percentages of food value: Water, 11.50; fat, 0.31; protein, 3.73; ash, 2.06; fibre, 1.71; carbohydrates, 80.69. The residual liquor, after evaporating, is about 80 per cent. pure albumen, which has a ready market.—Canadian Trade Review.

Notes on Swine

R. H. Harding, Middlesex Co., Ont., keeps a mixture of salt, sulphur and charcoal constantly before the little pigs. It will aid digestion and consequently give greater returns for food consumed.

Brood sows wintered wholly on mangels or sugar beets are liable to produce weak litters. Mangels or sugar beets are however excellent feed if the sows are allowed to have plenty of exercise and a light meal or grain ration in conjunction therewith.

Alfalfa is a splendid feed on which to winter brood sows or growing pigs. It can be fed either whole or cut, but cut and mixed in the swill barrel with meal (wet) is preferable to feeding whole.

Questions on Feeding

1. Is it advisable to feed sugar beets to horses during the winter? 2. With corn how much of these feeds and in what proportion should I feed in connection with clover hay and mangels?—M. G., Kings Co., N.S.

1. Horses do not take kindly to sugar beets or mangels. If the horses can be persuaded to eat them there is no objection to their being fed.

2. A good ration prepared from the meals in question would be corn meal 100 lbs., gluten meal 200 lbs., bran 300 lbs. If available, 100 lbs. crushed oats added to the mixture would be found to do much good.—J.H.G.

Dairying on a Large Scale

W. J. Elliot, Strathmore, Alta.

There is no section of Canada that is better adapted to the dairy business than Southern Alberta. Our streams are cool as the water comes from the melting snow of the mountains. Our soil is very productive and will produce any of the grass feeders very luxuriantly. Alfalfa is one of the immense district lying east of Calgary will be a great dairy country. Irrigation lends itself admirably to intensified agriculture and in all systems of true intensified agriculture dairying must find a large and important place.

We are at present milking 75 cows and are putting an addition to our present barn to hold 100 milch cows. We find a ready sale for butter, milk, and cream at profitable prices. For instance, butter fat never went below three cents a pound and those who have been engaged in dairying will know that there is considerable profit at those figures.

From a 40 acre piece of flat rye pasture we have already taken some \$1,400 in the way of milk and cream from our dairy herd. Using a system of irrigation, as soon as the water is cropped close, water is turned on excellent pasture again.

Renew your subscription now.

Let us Send You Expert Advice on Constructing Rural Lines



Our Engineers are at your service. Write and ask for their expert advice on constructing your rural telephone line. This service will cost you nothing, yet it may save you a good deal of money and trouble.

Thousands of Canadian Independent Telephones are giving complete satisfaction in rural districts. You buy Canadian Independent Telephones and construction materials outright, instead of paying a high rental to the trust. Consequently, Independent rural phone companies can give lower rates.

Canadian Independent Telephones are guaranteed for ten years. Their quality is so superior that we offer to arrange a free trial for the sake of comparison with others. If interested, just write us at once.

Also ask for the new book, "Canada and the Telephone," with thirty-two clever illustrations showing the value of the telephone in rural homes.

Canadian Independent Telephone Co., Ltd.
24 Duncan St., Toronto

CORRUGATED IRON

Galvanized, Rust Proof, Made from very finest sheets, absolutely free from defects

Each sheet is pressed, not rolled, corrugations therefore fit accurately without waste. Any desired size or gauge, straight or curved.

LOW PRICES—PROMPT SHIPMENT

Metallic Roofing Co. LIMITED
MANUFACTURERS
TORONTO and WINNIPEG

WINDMILLS

Towers fitted every five feet apart and double braced

Grain Grinders
Pumps
Tanks
Gas and Gasoline Engines
Concrete Mixers
Write for Catalogues

GOLD, SHAPLEY & MUIR CO., LIMITED
BRANTFORD, CANADA
BRANCH OFFICE WINNIPEG, MAN.

Watering Milk



is honest if you put it through the cow.

OUR SYSTEM OF

Woodward Water Basins

increases the milk flow and increases your DAIRY PROFITS. Not only that but

IT SAVES MUCH TIME AND LABOR

There is only one Woodward but lots of imitations—BEWARE

ONTARIO WIND ENGINE & PUMP CO. LIMITED

TORONTO, - - - - - ONT.

"ONE FOR ALL, NO. 1"

Wool Grease, Arsenate of Lead, Lime and Sulphur. Both a Contact and Insect Spraying Compound.

Wool Grease is harmless, but it keeps all together and sticks through rain or shine. Will kill chewing, sucking insects and prevent rot, scab, etc. Nothing to add but water; easy to mix; pleasant to add but not harm flesh. When you spray for chewing insects you also kill the larvae. End of season should show scale to be exterminated. Only one remedy needed against pests upon any vegetation. This year's reports verify our claims.

"ONE FOR ALL, NO. 2"

A Contact Spray Only. Wool Grease, Lime and Sulphur. For scale and other sucking insects, also to spray animals against pests and for dind to kill parasites and cure scab.

Barrels, 425 lbs.	No. 1	One for All
1/2 Bbls., 200 lbs.	2	1
1/4 Bbl., 100 lbs.	4	2
1/8 Bbl., 50 lbs.	8	4
1/16 Bbl., 25 lbs.	16	8

Order Early—Save Time
Established 1852
55 FRONT STREET - - - NEW YORK

SENIORS OF CANADIAN NORTH-WESTERN LAND SETTLEMENTS.

ANY person who is the sole head of a family, or any male over 18 years old, may homestead a quarter section of arable Dominion land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person at the Dominion Lands Agency, or Sub-Agency, for the District. Entry by proxy may be made at any agency, on certain conditions, by father, mother, son, daughter, brother or sister of intending homesteader.

Duties—Six months' residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 50 acres solely owned and occupied by him or by his father, mother, son, daughter, brother or sister.

In certain districts, a homesteader in good standing may pre-empt a quarter-section alongside his homestead. Price \$10.00 per acre. Duties—Must reside upon the homestead or pre-emption six months in each of three years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres extra.

A homesteader who has exhausted his homestead right and cannot obtain a pre-emption, may enter for a purchased homestead in certain districts. Price \$30.00 per acre. Duties—Must reside upon the land each of three years, cultivate fifty acres and erect a house worth \$200.00.

W. W. COBY,
Deputy of the Minister of the Interior
N. B.—Unauthorized publication of this advertisement will not be paid for.

HORTICULTURE

Apple Situation Unchanged

Reports of the apple crop and prices received from Farm and Dairy correspondents during the last week do not differ materially from the reports published in Farm and Dairy October 24th. A short crop of winter varieties is reported from all sections. Prices range from \$1.25 to \$4.00, the latter price being given for straight Spys, L.o.b. on cars.

It is interesting to note that where over more than \$2 a barrel has been received, it has been through cooperative associations. Mr. Chas. H. Weaver, Secretary of the Dunville Fruit Growers' Association, reports that some sales have been made in car lots at \$3.00. E. J. Borrowman, Secretary Wyoming Fruit Growers' Association reports sales selling at \$3.00 to \$3.20. Mr. D. Johnson of the far-famed Norfolk Association reports the price to growers at \$2.50 a barrel.

The crop is not quite so heavy as last year. Prices range from \$1.25 to \$1.75 free run.—Norman Montgomery, Northumberland Co., Ont.
Price offered ranges from \$1.00 to \$1.50.—Thos. L. Leslie, Halton Co., Ont.

Apples are not more than one-quarter of a crop but are of fair quality. Buyers are paying from \$1.00 for fall apples to \$1.50 for winter varieties. Chas. J. Staratt, Halton Co., Ont.

Not enough apples for local consumption.—J. Davidson, Bruce Co., Ont.
The apple crop is away below the average but the quality is good; \$1.75 per barrel, is the average price and \$2.00 for choice ones.—W. J. Little, Bruce Co., Ont.

Crop is below the average. Price range from \$1.00 to \$1.75 a barrel. Rebt. Woods, Oxford Co., Ont.
Apples are almost a failure, price about \$2.50 a barrel.—D. Johnson, Norfolk Co., Ont.

Apples are about one-third of a crop.—Price, \$1.00 a barrel.—George Pitman, Norfolk Co., Ont.
Crop is almost a failure. Apples are selling from \$3.00 to \$3.20 a barrel.—E. J. Borrowman, Lambton Co., Ont.

Spys are a short crop, Baldwins about two-thirds of a crop. Apple dealers are paying about \$1.25. Some sales have been made in car lots at \$3.00. Straight Spys are bringing \$4.00 f.o.b.—Chas. H. Weaver, Ontario Co., Ont.

Horticultural Notes

A. McNeill, Chief, Fruit Division, Ottawa

Where no spraying has been done, apples and pears in southern Ontario are being affected with a second brood of codling moth. The curculio is also causing serious damage to the fruit. In many cases, the packers have not learned the sign and clean break which this insect makes in the skin, and the apples, which at the time of packing appeared sound in every way, quickly develop rot around this small puncture, which in the end results in a complete loss of the fruit.

The San Jose scale is spreading in the southwestern peninsula and in the Niagara district. It is held in check in well cared for orchards and, therefore, does not seriously affect the commercial crop.

The pear slug is reported by many correspondents, and is probably responsible for the lack of vitality in many cherry and pear orchards.

The Blister mite is becoming prevalent, especially in the orchards north of Lake Ontario.

Nova Scotia has an exceptional

amount of fungus this year on account of weather conditions. Only those orchards that have been regularly sprayed at least four times are reasonably free from it.

The Tent caterpillar is quite numerous in the neighborhood of Nanaimo on Vancouver Island. There are also some serious complaints on the coast. Speaking generally of the inland valleys, British Columbia is very free from fungous diseases and insects this year.

The evidence is overwhelming in fruit crop reports for September that systematic spraying is a practical and comparatively cheap remedy for insects and fungous diseases. An outlay of from \$12 to \$20 an acre is but a small risk to secure almost complete immunity from insects and fungous diseases.

When to Prune Raspberries

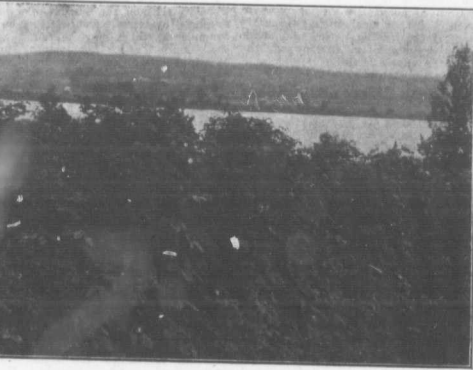
When is the proper time to trim raspberry bushes?—A. S. Oxford Co., Ont.
The canes of black raspberries should be cut back each season when they have reached a height of two or two and a half feet. This will cause them to throw out laterals and grow stocky. Unless treated in this way they are hard to manage. The

Optimistic Potato Crop Reports

While the potato crop, taking Ontario as a whole, is considerably below that of last year and in many sections will not be more than one-third of a crop, reports received from Farm and Dairy correspondents during the last week would indicate that some sections at least will have an average crop and in a few cases, potatoes are reported to be extra good. W. Broderick of Huron County reports that the crop of potatoes is extra good with no complaints of rot.

"The potato crop in this section is good and of good quality but not so large as last year", writes a Stormont county correspondent, Mr. M. McLean. Mr. A. R. Ewing reports that in his section of Norfolk county, potatoes are yielding well and there is no sign of rot. Mr. Peter McGill reports from Wellington County "The potato crop is much better this year than last, yielding 100 bags to the acre. There is very little rot."

"The potato crop is nearly up to last year. There is very little rot."—R. J. Watson, Dufferin Co., Ont.
"The potato crop is very good. Some growers have an extra yield. Others however are losing a large per-



A Good Raspberry Plantation in New Brunswick

This illustration shows a fine raspberry plantation on the farm of Mr. John C. Gilman, near Fredericton, New Brunswick. The chance for a good crop next season can be increased by proper care this fall. All the old canes should be removed and the new ones thinned out somewhat.

lateral may be cut back to a length of 12 to 15 inches in the autumn.

The bearing wood of both black and red raspberries should be removed as soon as the fruiting season is over. There is no advantage in leaving the old canes till the following spring as is commonly supposed. Suckers coming up between the rows of canes should be cut off as soon as they appear.—T.G.H.

The Dominion Fruit Inspectors report many cases of early apples, marked No. 1, that are qualified for this grade in every respect except color. Such packages have been branded "Falsely Marked". Good color for the variety is an essential quality in a No. 1 apple.

Business of great importance to the future of fruit growing in New Brunswick will be transacted at the Fall Apple Show. A series of instructive addresses and demonstrations will be given by Mr. W. T. Macoun, Prof. J. W. Crow and Mr. R. C. Thorne of Ontario and by Prof. Shaw, Mr. R. S. Starr and Mr. G. R. Vroom of Nova Scotia. It is confidently expected that the show will awaken a much greater interest in fruit growing in New Brunswick and will be followed by a considerable development of the industry.

centage from rot."—P. S. Ewing, Northumberland Co., Ont.
The bright dry weather which has prevailed during the last week is giving potato growers an excellent opportunity to get their potatoes harvested in the best of condition. Growers are taking full advantage of this fine weather and by the time this report reaches Farm and Dairy readers, much of the potato crop will have been harvested.

Many peach growers have shipped this year for the first time in peach boxes. It should be noted that, while the Inspection and Sale Act prescribed no name and addresses for the peach basket, the peach box must be marked the same as any other closed package. The Dominion Fruit Inspectors are reporting a number of cases where peach boxes have not been properly marked.

NATURAL FINE-GROUND PHOSPHATE

ADD 30 to 40 to the productive capacity of your land by applying only 200 lbs. worth to each ton of manure.

THE RELIABLE BRAND

INCREASE YOUR CROP YIELD 30 TO 75% BY APPLYING \$125 WORTH PER ACRE.

Direct, Leading Manufacturers, Experiment Stations confirm, our free Booklet shows.

Write for Free Booklet telling all about it.

Address: THE FARMERS GROUND ROCK PHOSPHATE CO., ST. CATHARINES, ONT.

PO

Tu

T. A.

Good row from the methods depends on circumstances upon the are able by adopting others apply by using keys should remain near the building eventually the good feed nothing Give a good The turkey Another the morning a little deugh. Veled by feeding oats, cracker. The soil close subject in cracks and crushing birds take Great cap turkeys are vious and be aged so muciously affect care that the stead of of where there to see where them.

Methods turkeys are the case of or. They should

Poultry

S. G. Hand
The type of British Columbia inches high in and nine feet by built of 1 by roof, back an a good proof vide the house. A dropping hole a single perch board floor is of earth and hood in front This hood is shiplap laid boxes are ma house. They easily for clea creel from the front of the one inch nett

Poultry

400 hens. The bar of hens is an acre in fro lack. The p summer and th or. The yards and covered wharley to furn the crops are the birds are not a stuff down pting will keep it.

The houses a and fresh earth boards. The infected with a or three times for air slacked The soil perches. The an excellent du birds in winter

POULTRY YARD

Turkeys for Market

T. A. Benson, Ontario Co., Ont.

Good results can often be obtained from turkeys by entirely different methods of feeding. Although much depends upon surroundings and circumstances very much more depends upon the feeder. Some poultrymen are able to obtain the best results by adopting the simplest methods; others appear to do equally well only by using more elaborate systems.

By this time of the year the turkeys should have been encouraged to remain nearer the farm buildings and be fed close to and sometimes inside the building. This plan makes it easy eventually to catch them.

The simplest and an exceedingly good feed for turkeys is whole white flint corn. Care must be taken to feed nothing but well seasoned grain. Give a good feed three times a day. The turkeys should not be cooped.

Another method is to feed dough in the morning and corn at night, adding a little condition powder to the dough. Very good results are obtained by feeding a mixture of whole parts, cracked corn and whole parts. The oats should be crushed. The object in cracking one part of the corn and crushing the oats is to make the birds take more time to feed.

Great care is necessary in catching turkeys. They are exceedingly nervous and being heavy are often damaged so much in catching as to seriously affect the market price. Take care that they roost in a shed instead of outside on the trees and where there is only sufficient light to see where the birds are when catching them.

Methods of killing and dressing turkeys are the same as that used in the case of chickens and geese. They should always be dry plucked.

Poultry Practice in B. C.

S. G. Hanson, Nanaimo Co., B. C.

The type of poultry house we use in British Columbia is seven feet by six inches high in front, four feet at the back and nine feet wide. The house is built of 1 by 12 size lumber, and the roof, back and sides are covered with a good roofing paper. Partitions divide the house into ten foot sections. A dropping board two feet wide with a single perch runs out the back. The board floor is covered with four inches of earth and six inches of straw.

The hood in front keeps out the rain. The hood is made of 1 in. by 8 in. shiplap laid to shed the rain. Nest boxes are made on the front of the house. They can be taken apart easily for cleaning. Eggs are gathered and stowed in the hood. The front of the building is covered with one inch netting.

One acre provides yard room for 400 hens. The house for this number of hens is 180 feet long with half an acre in front and one-half at the back. The north yards are used in summer and the south yards in winter. The yards are plowed every year barley to furnish about rape, kale or the crops are about eight inches high the birds are turned in. They will stuff down. The plowing and cropping will keep the yards sweet indefinitely.

The houses are cleaned once a week and fresh earth put on the dropping boards. The houses are well disinfected with a strong disinfectant two or three times in a summer. In winter air slacked lime is used occasionally on the dropping boards and perches. The earth on the floor forms an excellent winter place for the birds in winter, the sun striking the

floor all over. In summer these houses are very cool. The sun is then high and the hood makes an excellent shade.

FEEDING METHODS

In winter the birds are fed a mixture of half wheat, quarter oats, and quarter barley or cracked corn in the morning. They have a dry mash in boxes all the time. Large boxes are made so that once a week it is as often as necessary to feed this mash. This method of feeding being a great saving of labor.

That this class of house and this method of feeding is satisfactory in this climate is proved by the profits from a flock of pullets hatched in 1909. Two hundred of them were hatched in June; some as late as June 26. Four hundred and two S. C. White Leghorn pullets fed and housed as described, laid in January, 1910, 7616 eggs, and in February, 7318 eggs. From January 1st to May 31st they laid 37,580 eggs. These eggs netted wholesale, \$1019.12. The cost of feeding for the same period was \$211.05, leaving a profit of \$808.70, on one acre of land, or \$2.00 a bird for 151 days.

We have established an egg collecting station and have no difficulty in getting five cents premium over highest market prices, freight and boxes being paid for by the buyers. Our Legin is bought by the carload. We have a few downers to hold 150 tons. We save about five dollars a ton by buying in this way. The eggs are guaranteed as new laid. Strict regulations are enforced to procure the best article.

Cooperative Fattening

M. A. Jull, Poultry Expert, B. C.

The crammer for fattening purposes is used very little in British Columbia. Its use depends upon a specialized industry, specialization in turn depending to a large extent upon cooperation. Practically nothing has been done towards establishing cooperative fattening stations, although we realize that our present methods of fattening and marketing are at fault. The value of the crammer in finishing off the roasters is weighted from 3 1/2 to 4 1/2 or 5 lbs., is not sufficiently realized by the average farmer. On the other hand, it would bring the average poultryman to buy a crammer to finish up what fowls he may have to fatten. So much depends upon the science of fattening that it is in the interests of the poultryman to leave that part of the business in the hands of an expert.

Largest profits will be realized when the farmer is in a position to deliver his growing stock to the fattening station, where they will be finished off for him. It seems to me the greatest value of the crammer lies in the first two weeks of the fattening period. In many fattening stations and on many experimental plants, results seem to show that in many cases two weeks fattening is more profitable than three weeks. There are several conditions that enter here which determine the actual value of the crammer, but certainly a fowl cannot be profitably fattened for a period of over three weeks.

Stock for a Large Plant

One thousand imported, pure bred, white Plymouth Rock fowls and chickens arrived by the G.T.R. at Beaver-creek, Ont., last week. The shipment comprised a selection of the finest birds procurable, especially selected for their laying qualities. This purchase marks the commencement of an educational campaign introduced by the large provincial houses of Gunns Limited, Toronto, and Gunn, Langlois & Co., Limited, Montreal.

This shipment of birds are for the Dunrobin Stock Farm. Mr. R. B.

Gunn, the manager, authorized the buying agent of the above farms to procure for him a sufficiently large quantity of high class poultry to warrant him in engaging the services of a poultry expert. Mansfield College of St. Anne's furnished the manager of Thes. A. Benson, who for the past month has been placing the poultry division of the Dunrobin Farm in readiness to receive the poultry, the arrival of which marks the commencement of a new era in Dunrobin Township and sets an example that will be of interest to every township in Ontario and Quebec.

Our Legal Adviser

A LINE FENCE QUESTION—A is a tenant. B and C live on adjoining farms. B and C pasture fields lie side by side and the cattle pass from one to the other. The north part of A's farm to a swamp and there is no proper fence around his cleared land. His landlord promised to build the line fence, which would furnish a full protection to the crop. This he did not do. A's cattle cropped into C's pasture and from there across the line into A's crop, and damaged it. In time the landlord built a fence along the line but the stakes were set too far apart and the wire was not tightly stretched. The result was the cattle got through the wire into A's crop, and did further damage. This occurred but once. Who is responsible for the damage done to A's crop? Is there any difference between the responsibility for damage done before and after the line fence was built? —J. B. Middlesex Co., Ont.

1. The damage first sustained was due to the fact that a proper boundary fence did not exist between the lands so rented, and the land hereafter belonging to "C." Under the Line Fences Act it is the duty of the owners of adjoining property to maintain a sufficient fence between the property, each party doing their share, and in the event of dispute as to the portion to be done by each, or the quality of fence to be constructed, fence viewers are called in to settle the matters in dispute. There being no sufficient fence at the point in question you have no right to recover damages from either "B" or "C."

2. The right to damages in the second case depends upon the question whether the fence, which had then been erected, was a sufficient one. Townships have the power, and very probably there is a by-law of a sufficient boundary fence. If the fence which your landlord constructed

complies with the requirements of the by-law, and nevertheless a neighbor's cattle broke through you are entitled to compensation, but not otherwise.

3. If you had a binding contract with your landlord that he would have a proper fence constructed, and he did not do so, you would have a right to look to him to recover such reasonable damages as you suffered by reason of his breach of contract.

Indictments against a dozen individual packers were returned recently by the Federal Grand Jury, Chicago. The packers were charged with violation of the Sherman Anti-Trust Law in organizing an alleged combination in restraint of trade.

Renew your subscription now.

FARM FOR SALE

In Sophiasburg, Prince Edward County, Ontario, 300 acres, in highest state of cultivation; 200 acres seeded—over 60 in alfalfa; about 30 in A1 order with fall wheat; 2000 apple trees—large, first class fruit; 3 ten houses; 3 large barns; factory ready for operation. Farm suitable for grain or stock-poultry of water, road; near two cheese factories, and steamboat landing. Taxes are low in Prince Edward County; under \$100 for 1909 on this valuable farm. Will sell on hire, retiring from business. For further particulars, address:

E. M. YOUNG, PICTON or WELLINGTON BOULDER, Proprietor, DEMORESTVILLE.

WHITE WYANDOTTE COCKERELS

Fine blocky birds, \$2 and \$3. Also R. C. Brown Leghorn cockerels, \$1.50 each.

ALEX. FRASER, Merivale, Ont.

ELM GROVE FARM

FOR SALE — A few good Cockerels, of the following breeds: Rose Comb Brown Leghorns, Single Comb White Leghorns, Single Comb Black Minorcas, Barred Ducks, at \$2.00 each.

J. N. RUYERFORD, Box 62, Odenton E., Ont.

FOR SALE AND WANT ADVERTISING

TWO CENTS A WORD CASH WITH ORDER

PURE BRED FOWLS GIVEN AWAY FREE in return for new yearly subscriptions to Farm and Dairy. A club of four new subscribers will bring you a pair of pure-bred standard fowls. Write Circulation Manager, Farm and Dairy, Peterboro, Ont.

PURE BRED Rose Comb White Wyandotte Cockerels, one dollar each.—G. H. Hunter, Peterboro, Ont.

FIRST ANNUAL Toronto Fat Stock Show

Union Stock Yards TORONTO

Mon. and Tues., Dec. 12 & 13, 1910

\$1,100.00 IN CASH PRIZES

Entry Free. Entries close December 1st, 1910

For Premium List, Entry Blanks and any further information apply to

J. H. ASHCRAFT, Jr. General Manager

UNION STOCK YARDS - TORONTO

Reduced Rates on all Railroads

FARM AND DAIRY

AND RURAL HOME

Published by The Rural Publishing Company, Limited.



1. FARM AND DAIRY is published every Thursday. It is the official organ of the British Columbia, Manitoba, Eastern and Western Ontario, and a Boreal, District, Quebec, Dairyman's Associations, and of the Canadian Farmers' Association, and Jersey Cattle Breeders' Association.

SUBSCRIPTION PRICE, \$1.00 a year, strictly in advance. Great Britain, \$2.00 a year. For all countries, except Canada and Great Britain, add 50c for postage. A year's subscription free for a club of two new subscribers.

2. ADVERTISEMENTS should be made by Post Office or Money Order, or Registered Letter. On all checks add 20 cents for exchange fee required at the bank.

3. CHANGE OF ADDRESS.—When a change of address is ordered, both the old and new addresses must be given.

4. ADVERTISING RATES quoted on application. Copy returned up to the Friday preceding the following week's issue.

5. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles.

CIRCULATION STATEMENT

The paid subscriptions to Farm and Dairy exceed 5,800. The actual circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and sample copies, varies from 9,000 to 10,500 copies. No subscriptions are accepted at less than the full subscription rates. The circulation lists do not contain any dead circulation. Sworn detailed statements of the circulation of the paper, showing its distribution by countries and provinces, will be mailed free on request.

OUR PROTECTIVE POLICY

We want the readers of Farm and Dairy to feel that they can deal with our advertisers with our assurance of our advertisers' reliability. We try to admit to our columns only the most reliable advertisers. Should any subscriber have cause to be dissatisfied with the treatment he receives from any of our advertisers, we will investigate the circumstances. Should we find reason to believe that any of our advertisers are unreliable, even in the slightest degree, we will immediately discontinue the publication of their advertisements. Should the circumstances warrant, we will expose them through the columns of the paper. Thus we will not only protect our readers but also our advertisers as well. In order to be entitled to the benefits of our protective policy, you need only to include in all letters to advertisers the words, "I saw your advertisement in Farm and Dairy." Complaints must be made to Farm and Dairy within one week from the date of any unsatisfactory transaction, and with receipts thereon, and within one month from the date that the advertisement appears in order to take advantage of the guarantee. We do not undertake to adjust trifling differences between readers and responsible advertisers.

FARM AND DAIRY

PETERBORO, ONT.

PEAT BOGS HAVE VALUE

Since there are vast areas of bog land in Ontario that heretofore have been of little or no value and have been a source of expense in the matter of maintaining roads and ditches through them, the experimental work, conducted by the Mines Department, at Alfred, a few miles east of Ottawa, and which has proved a great success is of far reaching significance. Many attempts have been made before in this country to find a way of treating peat that would enable it to compete with coal as fuel but without success. Now a method has been demonstrated by means of which peat fuel can be placed on the market at a profit and an immense field has been opened up for commercial exploitation in developing the large peat deposits of Canada.

Peat fuel is no new thing. About 10,000,000 tons of it are yearly produced in Europe. Russia has been

the largest producer of peat fuel. Her output in 1902 was 4,000,000 tons and this has increased 200,000 tons a year since then. Machine peat is now made in 1,300 plants in Russia.

That peat can be manufactured and placed on the market so as to successfully compete with coal as fuel is most welcome news. Now that the timber of this country, especially in the older settled districts, is becoming scarcer as the years go by and constantly increasing in price, and in view of the fact that coal in recent years is becoming higher and higher in price, it is most interesting to learn of an industry being developed that will provide a new fuel and which will make valuable vast areas of bog land heretofore practically useless.

PROBLEMS IN PLOWING

When it comes to plowing in these days of scarce and high priced labor, we need to adopt practice in plowing that is justified by results rather than by prejudice or blind clinging to practice of by-gone days. The day of the single-furrowed plow, save for special work, is rapidly becoming a thing of the past on the larger and also on the average Ontario farm. Narrow ridges, once so popular and always the pride of the good plowman, are becoming less and less common as land is more thoroughly underdrained and the relative merits of wider ridges are becoming understood and appreciated. Every farmer who plows an acre of land will find the article on page three of this issue especially interesting. Farm and Dairy readers are advised to ponder well its teaching.

Farm and Dairy holds no brief for slipshod plowing of any kind. Good plowing is to be commended, and it is an asset to any farm in more ways than one. But with quality in plowing we must needs have quantity, and the single-furrowed plow can turn its acre and a half or two acres daily most rapidly give way before the two-furrowed plows turning three acres, four acres and even more per day, with the same expense for manual labor and very little additional for horse power.

Wider ridges than are commonly plowed in some sections are a necessity with the two-furrowed plows and the larger outfits. It is a satisfaction to note in this connection that the wider ridges, excepting special cases, have the advantage even to the amount of bank interest—three per cent. on the investment, valuing land at \$100 an acre, in favor of 18 foot ridges as against ridges plowed nine feet wide. A still greater difference is in favor of even wider ridges as may be learned from studying the table on page three.

WOULD MAKE IT CRIMINAL

The resolution recently sent by the Produce Section of the Toronto Board of Trade to Hon. Sydney Fisher, Minister of Agriculture, asking that the selling of rotten eggs be made a criminal offence, brings that important problem of marketing eggs prominently to the front again. That 15 per cent. of the eggs shipped into our

cities are so bad as to be unfit for use means a great inconvenience to wholesale dealers. The financial loss however, is eventually divided up between producer and consumer. The dealer knows what percentage of bad eggs to expect and sets accordingly the price that he will pay. The solution of this problem therefore would be of great value to producers and consumers.

It is unfair to attribute the whole blame for the large number of rotten eggs to the farmer and poultry-man. The system of marketing eggs is at fault. To make the selling of bad eggs a criminal offence might help to lessen the number of eggs that leave the farm in a stale condition but it will have no effect whatever in decreasing the number that spoil in the hands of the middlemen.

Eggs frequently pass through the hands of four or five middle-men and in some cases it is several weeks before they reach consumers. In the hands of middlemen eggs are not always kept under ideal conditions and many spoil in consequence. The bad egg problem can be solved only by completely changing our present system of marketing eggs. The encouragement of a rapid formation of poultry circles similar to those that have been formed in several counties of Ontario during the last few months would do much to solve this problem. Money can be spent to great advantage in encouraging the rapid formation of these poultry circles.

EMPLOY HIRED MEN STEADILY

The ideas brought out in the article "The Farm Help Problem" elsewhere in this issue should be noted by every employer of farm labor in this country. Mr. Barnes, of the Extension Service of the Minnesota State College, puts his finger on a vital side of the question concerning the farmer's help. Farm and Dairy readers will be well advised to read his article and to treat hired help accordingly if they would solve to a greater extent their farm labor problem.

Are long thousands of men throughout the country who have been employed on farms for seven or eight months will be set adrift without a job. Many of these men will seek employment in cities, towns and villages where they will find work, and a large percentage of these will be lost ever more to the farm. Good hired help is worthy of any reasonable consideration, and a good hired man is worth retaining.

Rather than allow a hired man of value who has worked well for seven or eight months to drift away, it would be much better to provide work and retain his services for 12 months of the year upon the farm. A comfortable cottage that is a real home for the hired man solves many of the domestic problems as well as the hired help problem on the average farm. A home and steady employment with fair wages appeals to the average man; far-sighted progressive farmers of to-day recognize this fact and provide these things for their help.

A TAX ON INDUSTRY

It is absurd to heap taxes upon a man because his property is increasing in value when the increased value results from improvements that are the result of his own industry and business ability. Such a system tends to discourage all enterprise. The evil effects of our present system of taxation are demonstrated in the case of a Peterboro County farmer whose shabby and broken down pigery is a disgrace to himself and takes much from the attractiveness of the pleasant country road on which he lives. "Oh, yes, I know my pigery does not look very well," he said to one of his neighbors who was speaking to him about the disgraceful structure, "but then you see, if I built a new one, my taxes will go right up. The old pigery is just as satisfactory as a new one would be so far as housing the pigs is concerned and there is no danger of them raising the taxes on me when the old building is still there".

The sentiment expressed by this Peterboro farmer is felt quite commonly by farmers generally. If they are progressive and improve their properties, their taxes go up and they are really forced to pay part of the taxes of their less progressive neighbors who are allowing their farms to become run down and are of no use to the communities in which they live.

When the proposal that land only be taxed was brought before Premier Whitney by the Single Tax Association of Ontario, the members of the delegation were told that they did not know what they were talking about. But they did know what they were talking about. A system of taxation which is a hindrance to all industry is out of date and must go. The single tax should have the support of every progressive farmer in Canada.

POORLY BOXED CHEESE

There is a great tendency to reduce expenses in the packing of cheese by using poor boxes, which do not afford the cheese sufficient protection. J. E. Itae, Canadian Trade Commissioner at St. John's, Newfoundland, has called the attention of the Dominion Department of Trade and Commerce to a very disreputable shipment of cheese which arrived in Newfoundland recently from Canada. Some of the boxes had been partly broken open and some of the cheese had been eaten by rats on board ship. The packing he stated was for the most part responsible. The wood, instead of being of the regulation thickness was so thin that it could be penetrated with a pen knife.

This is not the first complaint that has been made on the poor quality of boxes used in packing Canadian cheese. Reports quite frequently have come from the Old Country of boxes arriving in very poor condition, many being broken completely open. Canadian cheese now has to meet much stronger competition than ever before. The imports of cheese from New Zealand into Great Britain have increased to such an extent that in eight months ending August 1910, that country shipped to the British market almost one-half as much as Can-

ada. I
it is ve
er prec
market
possible
to prov
would l
greater
would
fully
to save
cheese.

It is
States n
free for
the price
created
and
to the l
trot, as
the notice
farmer h
the deal
his good
prices la
neutral
to dispos
that the
in the
where h
terms w
the Russ
wheat g
lives on
and wear
of clothes
Why s
Canada
must pay
sell to y
protects
me your
than you
States, b
ward sec
the market

The ex
mer mon
over, and
have been
the numb
products
is, however
that the
prominent
flam art
been more
and as a
hibits ther
on have
People ha
hibition of
fairs, other
tain stand
with an ey
apparently
tions."

The cur
ation is in
side shew
because the
is more
country pe
that farm
sh been
sive ent
flam-flam
knick-knack
ne words a
demn them
We have s
dollar for
stores for 10
a dollar for
had no ir
When peop
rior to the
to listen to
flammer, th
disappear

ada. In the face of this competition, it is very necessary that we take proper precautions to put cheese on the market in the very best condition possible. The extra expense necessary to provide strong boxes for all cheese, would be more than returned in the greater satisfaction which our cheese would give to importers. It would be folly to endanger our market in order to save a few dollars in the boxing of cheese.

Town Views on Reciprocity

(The "Globe," Toronto)

It is asserted that in the United States market becomes available duty free for our surplus of farm products the price of butter and eggs and poultry and meat will inevitably be increased in the Canadian border cities to the level of prices in Buffalo, Detroit, and elsewhere. This, it will be noted, is a confession that the farmer has been getting the worst of the deal. He has been forced to buy his goods in a protected market at prices materially higher than those of neutral markets, and he is required to dispose of the products of his farm that the home market cannot absorb in the free markets of the world, where he must compete on equal terms with the Dane and Norman, the Russian peasant and the brown wheat grower of the Punjab, who lives on rice, sleeps in a mud hut, and wears a cotton loin cloth in lieu of clothes.

Why should the town dweller in Canada say to the farmer, "You must pay me high prices for what I sell to you because the tariff wall protects my goods, and you must sell me your products at a lower price than you could get in the United States, because I will do nothing to ward securing the removal of the duties that keep you out of that market?"

Scum at Fairs

(Farm and Ranch Review)

The exhibition season for the summer months in Western Canada is over, and as a general thing the fairs have been quite successful, judged by the number of exhibits of agricultural products and the attendance. There is, however, good ground for regret that the fairer element has been so prominent. At some fairs the flim-flam artist and delousing show have been more noticeable than at others, and as a rule the fewer real good exhibits there have been the more blatant have been the rife-ruff element. People have demanded the total prohibition of side shows at agricultural fairs, others have insisted upon a certain standard, but exhibition boards with an eye to the revenue have been apparently partial to the "attractions."

The cure for the disgraceful situation is in keeping away from the side shows. These places operate only because they are patronized and what is more uncomplimentary to the country people, the side-shows claim that the farmers are their best patrons. At best the side-show is an expensive entertainment; and as for the flim-flammers who profess to give knock-knacks away for a dollar or less, no words are strong enough to condemn them as business propositions.

We have seen farmers part with a dollar for a whetstone that could be bought in the highest priced retail store for 10 cents and others paying a dollar for two bits of glass which had no intrinsic value whatever. When people go to fairs feeling superior to the side-shows and too busy to listen to the barker or the flim-flammer, then these parasites will disappear.

Renew your subscription now.

Farm Help Problem

C. R. Barnes, Extension Service, Minn.

The endeavor to introduce upon our farms and upon our larger areas, those intensive methods of cultivation which afford the only sure means of bringing production up to the higher level attained on the farms of many European and some Asiatic countries, finds itself everywhere hindered, and often entirely blocked, by the absence of efficient farm labor.

Says a writer in the Farmers' Institute Annual: "Talk as you may of better tillage, of better fertilization, of rotation of crops, and of the larger net profits per acre which adopt these improved methods of farming; if you cannot show the average farmer where he can get competent labor at somewhere near fair wages, he is going to turn his back to all your pleadings for improvement. For efficient farm labor cannot be bought, cannot be hired, cannot be contracted for."

It remains true, however, that in other countries there is a surfeit of competent farm labor. It is also a known truth that thousands upon thousands of competent farm laborers—many of them the best in the world—annually leave those countries to seek new homes in the United States. The anomaly is then presented of a constant stream of labor of the kind desired, pouring across the Atlantic and losing itself in a great volume of similar labor already here, while the landowners who need it are able to get it in little or none!

It is something wrong in the manner in which our farmers have approached the problem. May it not be that it has been approached too exclusively from the standpoint of the farmer's selfish desires, with too little consideration for the interests of either the laborer or the community at large?

Let the writer of the paragraph above quoted—let the average farmer, anywhere, who utters a similar complaint, ask himself: "What have I done to make life on my farm so attractive to the laborer, when I hire now and then, that they should wish to remain with me all the year round?" The effort has usually been merely to get as much work out of the laborer as possible during his stay, and to make his stay as brief as possible. Little, if any, consideration has been given to the fact that this is "a man," with probably the same aspirations, the same family affections and the same social needs, as the farmer himself. The transient laborer—ever the regular "hired man"—is seldom made to feel "at home" in the house of his employer. The only place on the farmstead is the barn. A barn is no place for the farm "hand" is practically isolated from womankind, from children and from nearly all helpful social influences. The only condition under which a farm-hand's wife can occasionally be received at a farmstead is that she comes as cook and general drudge—an office to which good husbands seldom like to give their wives. And it was never intended that the "hand" any more than the farmer, should live alone.

A PRACTICAL SOLUTION

To the writer it has appeared that the only practical solution of this problem lies in a radical change in the method of dealing with farm workers and far as it concerns their home and family life, the laborer should be given the preference, and he should be provided with a cottage of his own; with a piece of land on his acres, which he may cultivate for his own benefit, and of which he should be offered an opportunity to become the owner. The



Easy Street

That's where most everyone wants off. A

De Laval Cream Separator

WILL TAKE YOU THERE

1,000,000 SOLD

Send for Free Book

THE DE LAVAL SEPARATOR CO.

173-177 William St.

MONTREAL

WINNIPEG

VANCOUVER

idea could be extended so as to include the settlement, on similar tracts, of enough laborers, with their families, to supply all the needs of the farm in busy seasons. The necessary investment in each cottage, so provided, would not be large, and the possession of a little "home of his own," by each laborer, would go far to substitute, at a lower cost, perhaps, than the nomadism of the transient, which is to-day such an unwholesome feature of the industrial situation on the farm.

Bee Keeping for Women

Miss M. Trevenon, Peel Co., Ont.

Bee-keeping may be looked upon as a healthful occupation for women in comparison with many of the avocations to which she is called wherein exercise, fresh air and sunshine are denied her. It is true, there will be times when the humidity of the air, and the intense heat of the sun, aggravated by the exercise she is forced to take, through excessive activity of the bees consequent upon these weather conditions, may lead her to exclaim, "Why was I ever born to be mated like this?" But these conditions only last for a few hours in a day, and not very frequently through the season, and there are so many rare, beautiful days to enjoy during the honey harvest, that one forgets the discomforts of a few hot, damp, wilty hours, in the pleasure of those when air and sun and bees combine to make the bee-keeper's life worth living.

The possibility is that if woman with her natural house-cleaning proclivities should invade the realm of bee-keeping, this branch of the business would be well attended to, and the problem of foul brood solved without any other formula.

There are many things in connection

with bee-keeping that a woman can work at with genuine pleasure. Take that of opening up a few crates of bee supplies, and transforming the neatly made and precisely fitting pieces into hive bodies, bottom boards and cover frames with top, bottom and sides of white, clean wood that fit each other just like a charm and fit the hives just as perfectly. Then there are the folding of sections, the wiring of frames and imbedding wire in foundation, etc., all neat, clean, fascinating features of the business.

As to stings, my first serious experience with them nearly put me out of business. It was when I had only five colonies. They seemed to be trying to make a record of 200 lbs. per colony for that season, and when I attempted to take the honey off, they resented my interference with their plans with such vigor, that I left the hive open and ran to the house saying to the folks when I got there, "There is no use talking about getting used to stings; I will never be able to stand such punishment as this; it is too much for me." But I did not like to be beaten by the little bees, so I fortified myself against having another attack by covering my hands and wrists with long heavy gloves and succeeded in taking the honey off. Ever since that time I have worn gloves in handling my bees. Even when clipping queens I use gloves with finger tips cut off. I know that the wearing of gloves is not looked upon with favor by the professional bee-keepers, but when it comes to a question of gloves or defeat, wear gloves.

"Last fall Farm and Dairy sent me a pure bred pig for a club of nine new subscribers. This pig was received in excellent condition and is giving fine satisfaction." Chas. McNulty, Peterboro Co., Ont.

Cheese Department
 Makers are invited to send contributions to this department on all questions of interest relating to cheesemaking and the latest subjects. Send to the Editor of this Department, The Cheese Maker, 1000 Broad Street, Toronto, Ont.

Where are the Profits?

Editor, Farm and Dairy.—My attention having been called to Mr. A. A. Ayer's letter in Farm and Dairy, Sept. 22, I would like space to answer that gentleman's statement. Mr. Ayer claims that the farmer can produce cheese at nine cents a lb., provided his cows are giving as much or over the average of the Danish cows, that is, 8,000 lbs. a cow per year. Having been a milk producer all my life—ever since I was first made in the counties of Leeds and Grenville and our herd being above the average in Ontario, I know something of the large profit there is in the present price of cheese. The reason is that the statement of the Dairy Minister of Agriculture that there are 62,000 less of a rural population in Ontario than 10 years ago is true and 10 years more will see a greater reduction. Why is it?

Our young men figure somewhat as follows: I will take Mr. Ayer's own figures but I don't think the average for cows in Ontario will ever reach 8,000 lbs. a cow. If a young man is given \$10,000 he looks around for an opportunity to invest it. He can invest in mortgages that are good and give five per cent. This will give him \$500 a year and no time lost in leeching after it. He can go into town and if he has no trade, get \$2.00 a day in a foundry or factory, doing rough work. If he has a trade he can get \$4.00 a day. Or he may invest in a farm of 100 acres, 20 good cows, horses and implements. And \$10,000 won't buy a farm and stock it and that will feed 20 cows. According to Mr. Ayer's figures with cheese at nine cents, which will hardly give 75 cents a cow, or \$15 a ton for milk, it looks a lot like this: \$10,000; \$2 a day at 5 per cent., equals \$500; \$2 a day for 365 working days, \$730; hired man at \$3 a month, \$360; total expected each year, \$1,590. He has to work like a slave to do it, not saving anything about his wife who has to help too.

HIS INCOME

His income looks like this—20 cows giving 8,000 lbs. a cow at \$15 a ton of milk is \$600 each; for the whole herd, \$1,200. He does well if he sells \$300 worth of pork and poultry. There will be some feed to buy, as there are many farms in Ontario that can be bought and stocked for \$10,000, that will grow grain for 20 cows, some pigs and enough rough feed for cows and the necessary horses and young stock. At the end of the year he is the loser and has his own risks to carry. The farmer now-a-days figures on that basis and if he can raise the money he educates his son for a profession where he does not work so hard and gets ten times the profit for his labor. He (the son) can then afford an automobile and take trips to Europe. He will be almost as comfortable as the middle man who handles his father's produce and advises him to keep his sons at home and double his outlay.

All this, in the future when we have the heavy producing herds. In the meantime we are milking 4,000 pound cows. Mr. Ayer says the Brockville district is paying 85 cents a cwt.

FOR SALE

300 second-hand 8-gallon Railroad Milk Cans, use at present time. Outside in considerably worn, inside fair good. Don't care to sell for use inside of 50 miles of Toronto. Price—\$1.00 each, F.O.B. Toronto. CITY DAIRY CO. Limited, TORONTO

for milk. It won't average that either. Secure on the present profit of the farmer. Compare it with the primary income profit of the middlemen who are ground between the producer and the consumer and are always giving advice to the farmer to double his output.

The farmer knows that a lot of his season's make is held in cold storage and about November when he quits producing, cheese always goes up. Who really profits? Why are we looking for new markets for our milk and shipping to United States in the form of cream? Because we know we have the best food product on the market and we are trying to produce it in a sanitary condition. We also know that the profit from cheese is not nearly as large as it is 10 years ago. Before the Ontario farmer produces nine cent cheese, he will go out of the business and turn to raising horses and sheep which will give good returns without so much slavish labor. Mr. Editor, for the sake of so much valuable space in expressing the views of "The man behind the cow."—E. A. McKim, Grenville Co., Ont.

The Cheese Situation in Britain

W. Weddell & Co., London, Eng. The consumption of cheese in the United Kingdom, has for many years gone on a steady increase. The cheapness of frozen and chilled beef has been one of the chief causes of the stagnation in the consumption of cheese, despite the growth of population and the increase of cheese manufacture, according to the estimates of the best authorities, is either declining or remaining stationary. There is very little prospect of any increase in the volume of home-made cheese, as the high price obtainable for new milk to supply the population of large towns pays better than cheese making. The import of foreign cheese is not half what it was 10 years ago, and, in the year under review, it has fallen below 1909 by 3,555 tons, although the total import from all sources has increased by 6,000 tons.

The import of colonial cheese shows a welcome contrast to that of foreign for the receipts of the year ended June, 1910, show an increase on 1909 of nearly 19,000 tons, which is slightly more than the previous record of 1904. Supplies of colonial cheese come mainly from Canada and New Zealand. Up to a few years ago Canada supplied over nine-tenths of the total import, but since 1905 the cheese industry in New Zealand has developed so rapidly that, if continued at the same rate in the future, she will in a few years become a serious rival to Canada. In 1905 New Zealand supplied 4.2 per cent. of the yearly import of colonial, to-day she is supplying 22 per cent. Of the total import of all kinds of cheese in 1905 New Zealand supplied 3.3 per cent. To-day that has increased to 18.4 per cent.

RAPID IMPROVEMENT IN QUALITY

The quality of colonial cheese generally has made more rapid improvement than that of colonial butter. Canadian year by year shows steady progress without any relapse in flavor, texture and color. The improvement by the application of constant heat to the curing rooms, to the cans on the railways, and in the vessels crossing the Atlantic, has helped to reduce to a minimum the quality defects, which, heated, and probably very little more improvement can be accomplished in the treatment of cheese after manufacture.

There is however, a field for improvement in the difference that exists between the quality of English and that of Canadian Cheddar. Over depends mainly upon one thing, if the Canadian cheese-maker could receive the milk in the same sweet state that the English cheese-maker does, then Canadian cheese ought to be as good as English. It is the dif-

ference under the factory system in Canada of getting control of the milk, before it has become deteriorated or tainted, that prevents the quality of Canadian from reaching that of English.

That under the factory system colonial Cheddar cheese can be made equal to English was proved two years ago by a shipment to the United Kingdom of Australian made in a factory on the Kameruka estate, New South Wales, where cows were in such proximity to the factory that the milk was sweet while it was as perfectly pure as that which is made into English Cheddar. This cheese gave great satisfaction and nearly equalled home-made in price.

A Good Price for Milk

In a time when there is so much comment on the price of cheese and farmers are not altogether satisfied with the returns they receive for their milk sent to cheese factories, it is refreshing to note the favorable price which condenseries are able to pay for milk. Some little time ago, one of the best cheese factories in Western Ontario, the St. George factory, was fitted with equipment for condensing milk. For a considerable time the management of the new condenser was confronted with a difficult proposition in finding a market for their manufactured product. The market for condensed milk throughout the country was overstocked and the new trade.

The condensing plant at St. George now, however, is entering on an era much more favorable to the management and the patrons. Throughout the past summer since April 1st, \$1.00 per cwt. of milk, has been paid the patrons for the milk on their own stands. Dating from November 1st, the winter price will be \$1.20 per cwt. on the stand.

Through persistent effort, the proprietors of the condenser, J. Malcolm & Son, have succeeded in placing their business upon a satisfactory footing. The first-class article that they are turning out is in good demand and they now have orders ahead for several thousand cases waiting to be filled. The business is growing and enlarging to that extent where Messrs. Malcolm & Son are now contemplating a large addition to their plant in order to enable them to handle their goods to better advantage.—H.

Our make for June 1910 was 103,419 pounds of cheese, almost 52 tons. Mr. James Anderson, our best patron,

sent in 25,000 pounds of milk in June and R. A. Webber sent 20,469. The number of pounds of milk received in the month was 1,154,508.—W. A. Bothwell, Oxford Co., Ont.

WASTE NO TIME On Common Cream Separators

Waste no time on common, complicated cream separators. You don't need to. You will be better pleased to have a Sharples Dairy Tubular Cream Separator in the first place—for you know that Tubulars are

The World's Best Cream Separators

Tubulars are guaranteed forever. Back of that guarantee stands the oldest separator concern in this continent. We can make that guarantee because Sharples Dairy Tubulars produce twice the skim milk of other separators and, therefore, neither the skimmer nor contains the complicated parts all common machines have. This makes Tubulars vastly simpler, vastly more efficient and vastly more durable than all others. Write for catalog No. 253



The manufacture of Tubulars is one of Canada's leading industries. Tubulars are easily cleaned most, if not all, others combined. Tubulars probably replace more common separators than any one maker of such machines sells. They are made in sizes from 10 to 100 gallons. Write for catalog No. 253

30 Yrs THE SHARPLES SEPARATOR CO. TORONTO, ONT. WINDSOR, MAN.

Land For The Settler

160 acres of land convenient to Railways in Northern Ontario's great Clay Belt for each settler. The soil is rich and productive and covered with valuable timber. For full information as to terms of sale and homestead regulations, and for special colonization rates to settlers, write to DONALD SUTHERLAND, Director of Colonization, Toronto, Ontario. HON. JAMES S. DUFF, Minister of Agriculture, Toronto, Ontario.

A FULL MILK PAIL
 Can be secured during the fall and winter after the pasture is done, by feeding
SUGAR BEET MEAL
 This product contains all the beneficial elements of the Sugar Beet that go to produce health when fed to cattle, and a healthy condition of dairy cows insures a full milk pail at all times.
 The popularity of this feed has caused us to advise our customers to order early if they do not wish to be disappointed in securing their winter supply.
 SUGAR BEET MEAL is convenient to handle, will keep indefinitely and the PRICE IS RIGHT.
 Order to-day through your dealer or write us.
Dominion Sugar Company, Limited
WALLACEBURG, ONT.



SIMPLY do the best you know, then trust. He who seeks to live by the Spirit and who cares above all for that, will not be without guidance.

MISS SELINA LUE

MARIA THOMPSON DAVIES

(Continued from last week.)

Miss Selina Lue, generous and tender of heart, keeps the grocery at River Bluff. She feeds the five babies whom she cares for in soap boxes, in the rear of the store. Her friend, Cynthia Page, learns that she has taken a young artist, named Alan Kent, to board. They are introduced and Cynthia is annoyed at the young man's apparent assumption of instant friendliness, and leaves abruptly. Cynthia alone with Miss Kent's pictures, confides her fears that her beautiful home must be sold, and is taken to see by Cynthia. Miss Selina gives a party to all her friends for Kent and Cynthia's friend from the city is one of the guests. Cynthia now loves Kent.

AS Miss Selina Lue softly drew the shutters together to keep out the light, Miss Cynthia followed in the wake of Mr. Alan and the bucket of bran through the garden and up to the barn. It is to his credit that he served the aggrieved though complacent old lady before he threw down the bucket and drew Miss Cynthia to him.

"Tell me," he questioned, "when it happened to you? It was all over for me that first minute when I saw you, past Carrots' red head, standing in the grocery door."

"That dinner—you didn't laugh!" Miss Cynthia hid her head on his convenient shoulder.

"Ah, but I loved you so I could have—"

"Then?"

"Yes, then—and before—since the world was young."

"Moo—moo," said Charity patently for dry bran is not an agreeable breakfast, and the water barrel stood convenient.

"Do finish feeding the dear thing," insisted Miss Cynthia sympathetically. "Then you can walk up the Hill with me. I want to freshen up a little and come right back to watch Blossom. She will need very particular care today, and Miss Selina Lue has so much she must do. Oh, what if she hadn't weathered the night. I think my heart would have broken watching her struggle—if you hadn't been there! Will you always be there—when things hurt—me?"

"Yes," he answered her quietly, with a deep look into her eyes. "Now let me take you home, for you are hardly able to stand. Promise me to be hardly able to stand. Promise me to get a good rest, and I will help Miss Selina Lue, until you can come back."

And through the early sunlight he walked up the river path with her to the Hill Mansion and left her at the garden gate among her roses that were no fresher or fairer than herself. She was the incarnation of dawn, and his love encompassed her as the fragrance of her dew-wet flowers.

Below at the grocery, Miss Selina Lue was busy with her preparations for the day, and as she waked she smiled to herself and lightly brushed her fingers over the cheek that had felt the twofold kiss.

Soon, however, her pleasant thoughts were interrupted by the appearance of Mrs. Kinney at the door. Miss Selina Lue regarded her with astonishment. She was enveloped in the folds of an old black shawl and in her hand she carried a large cross

of white tissue-paper roses. Her expression on her face was one of sympathy and chastened sorrow.

"Miss Selina Lue," she said in a correctly funeral voice, "I come over as soon as I could. It took almost all night to get roses enough made



Their Last Friendly Visit. His Hour is Come. He Does Not Offer Thanks.

to fix a design for everybody. We all wanted a fitten expression of our sympathy."

"Why, Mis' Kinney, honey, I don't need no sympathy on 'count of—"

"Well, of course, she wasn't your own child, and so you can't feel the same as a mother; but a death in the family is always sad, though sometimes a great relief. You seemed so fond of—"

"Oh, Mis' Kinney, honey, stop before you go any farther and let me tell you Blossom ain't dead, but getting well by the Lord's mercy. Still, I do thank you fer your kind feelings

and—"

"Well, I wish I coudler knowed she wasn't a-going to die before I set up all night and wasted the tissue. There come the Dobbes now! now! Won't she be surprised! Mary Ellen have got her breath done, but it looks kinder wobbly."

Mr. Dobbs had put his Black Sunday coat on over his overalls, and on a visit of condolence. Mrs. Dobbs had on a black muslin skirt and waist and had tied a piece of that same material on the arm of Bennie, whose eyes were swollen with crying and whose appearance denoted real heart anguish.

"Oh, Miss Selina Lue, me and Dobbs come to say— Speak up, Dobbs!" Mrs. Dobbs' voice broke and her chubby face began to work with grief.

"All you've got to say, Mr. Dobbs, is how glad you are that my baby is getting well, and then give your coat to Mary Ellen and go on to your work, rejoicing for me." said Miss Selina Lue, coming quickly to the rescue of the floundering coward. "How did you all ever get the notion that things went against Blossom last night?" she asked.

"We seen the doctor—and then you closed the front blinds—that's the Dobbs, swallowing a sob."

"Well, ain't that too bad fer you all to be so upset about a mistake! And if here ain't all the Tynes! Merer, Mis' Tyne, Blossom ain't dead, nor like to be, and, please, ma'am, take them Llack bombazine strips off'en the children necks. It's so rough it'll rub 'em raw."

by a squirt caused by the rays of the morning sun striking her full in the face.

"That's a real comforting thought, Mis' Tyne, and I am thankful for the speech and the snuff, too. Bennie,

Thanksgiving

But for benefit of garnered harvest,

Fruit of field and tending bough;

Burstin bin, and well-filled cellar,

Father, we would thank Thee now.

Hand clasp hand in trust kindness,

Heart meets heart with inward glow;

For the gift of earthly friendships,

Father, we would thank Thee now.

honey, run all up and down the street and tell everybody Blossom is a heap better and they needn't git ready fer

"Now, you know there ain't been a death on the Bluff fit for years, since Mr. Si Bradford's ma died, and I was preparing to have as nice a funeral as ever was fer you, Miss Selina Lue," said Mrs. Kinney in a tone that might have been construed as reproachful.

"Well, I wanter say one thing; and it's that I am glad me and Blossom have found how many friends we have while we are still alive and can 'preciate them all. It never did seem jest right to hold back all the flowers and gones where white robes until people are gone none. And specially about the sermons—locks like if the funeral coudler heard all the praise spoke over them they mighter got the ambition to go on living a spell longer. Lands alive, did you know it's seven o'clock, and not a breakfast dish washed on the Bluff?"

Miss Selina Lue's call to duty sent them all hurrying in different directions.

Mrs. Dobbs was slow in getting started, and as she descended the steps she said: "I do declare I am uneasy about Ethel Maud. I coudn't find her nowhere this morning. I was jest so sorrowful about your trouble I clean forgot to worry."

"Oh, Mis' Dobbs, honey, when I opened the door this morning at day-break there was Ethel Maud scrouched down on the steps with nothing on but her nightgown, and a-moaning like something hurt. She shot past me into the room and when she seen Blossom so much better she jest laid down on the floor and cried herself to sleep plumb pitiful. Mr. Alan lifted her on the foot of the bed, and I know if Blossom stirs she will wake up and call me. Her little heart is that loving she can watch even while she sleeps. I feel this morning more than ever how we are all watched over in loving kindness that never sleeps and He ain't ever going to forget a single one of us. Ain't it a blessed thought, and perfecting and comforting in times of trouble?"

"That's true, Miss Selina Lue," answered Mrs. Dobbs thoughtfully. "And we all oughter be mighty happy with so much good being done to us."

"And ain't we? Why, I jest butter my bread of life with happiness. They bread dry, but you and me want a little sprig of happy-sugar atop of our'n. How's Mr. Dobbs a-holding out?"

"He ain't cursed a word since our grip, Miss Selina Lue. Sometimes I sees him jest chawing the weeds"

"Don't notice it, Mary Ellen. Jest hold to the thought that he ain't a-going ter do it no more, and that'll help."

(Continued next week.)

Have you forgotten to renew your subscription to Farm and Dairy?

"Abner life view to wife and have the best as mere dorpant econo

This photo Farm and Pterbor Bert Preste

as it is to crease the outside the

world, I have an excusing m performance tion only of The woman housewife, tible creat

"But the even incre fare of the real A her strong tiny of the and consid should rece to this he shirks age Americ them and est obligati are performe make for he the childre world. T dress to Fa

Buy Farm

DOES A
JU
Six Minute

Ladies! Just with my 1909 Washes a tubful quick and easy the this marvelous ask for notes of the pay for it. I'd saved me!



my 1909 Gravity just like it. It do thing from my av Every housewag a and a slave T. D. B. BACH OF CO. 357 Yong for their beauti crows offer of a R. H. Frederic This offer is a treat. Wintere urbs, as we ha place. Special made in the

The Farmer's Wife

"Above all, the conditions of farm life must always be shaped with a view to the welfare of the farmer's wife and the farm laborer's wife. To have the woman-a mere drudge is at least as bad as to have the man a mere drudge. It is every whit as important to introduce new machines to economize her labor within the house

Receiving Congratulations

This photo, snapped by an Editor of Farm and Dairy, at the Norwood, (East Peterboro) fair, two weeks ago, shows Mrs. Bert Preston and her driver. She won first prize in the class for lady drivers.

as it is to introduce machinery to increase the effectiveness of his labor outside the house.

It haven't the slightest sympathy with any movement which looks to excusing men and women for the non-performance of duty and fixes attention only on rights and not on duties. The woman who shirks her duty as housewife, as mother, is a contemptible creature.

"But the welfare of the woman is even more important than the welfare of the man, for the mother is the real Atlas, who bears aloft in her strong and tender arms the destiny of the world. She deserves honor and consideration such as no man should receive. She forfeits all claim to this honor and consideration if she shirks her duties. But the average American woman does not shirk them and it is a matter of the highest importance for us to see that they are performed under conditions which make for her welfare and happiness of the children she brings into the world."—Theodore Roosevelt's Address to Farmers at Utica, N.Y.

DOES A WASHING JUST LIKE PLAY!

Six Minutes to Wash a Tubful!

Ladies! Just see how easy I do a big washing with my 1900 Gravity Washer. I start the tub whirling. Then the gravity device under the tub begins to help and the rest is just like play. Wash a tubful in two weeks! It's that quick and easy. See the 1900 Washer Co. sent me this marvelous machine on trial. They didn't ask me for notes or cash in advance. And they let me use it for a little each week out of the money I saved. They treat everybody the same way.



You can have one shipped FREE

on thirty days' trial, the same terms I got mine. The company will let you pay for it on the same easy terms they offered me. They will actually pay for stiff in a very short time.

Mine did! I wouldn't take \$100 cash for my 1900 Gravity Washer if I couldn't get another just like it. It does beautiful work, handles any kind of heavy blankets to damnted lace. Every housewife who is tired of being a drudge and a slave to her wash should write to:

F. D. E. BACH, Manager, the 1900 Washer Co., 357 Yonge street, Toronto, Ontario, for their beautiful Washer Book and generous offer of a Washer on free trial. Mrs. R. H. Frederick.

This offer is not good in Toronto, Montreal, Winnipeg or Vancouver and suburbs, as we have branch offices in those places. Special trial arrangements are made in these districts.

THE COOK'S CORNER

Recipes for publication are requested, etc., upon receipt of the Household Editor, Farm and Dairy, Peterboro, Ont.

QUICK APPLE VINEGAR.

Into 1 gal cider put 2 cups molasses and 1 cup liquid yeast. Fill a jug full of the mixture and tie a piece of muslin netting over the top. Set in a warm place. In 24 hours fermentation will take place, and in 8 or 10 days it will make vinegar.

MOLASSES VINEGAR.

The best of vinegar can be made by adding to 1 pt pure molasses 3 or 4 qts water. Keep in a warm place until the "mother" forms. After it is very sour add the "mother" drops to the bottom, it must have more water and sugar, molasses, or any juice of fruits, as apples, peaches, or prunes—all can be utilized for vinegar.

ANISEED CAKES

The ingredients are 4 eggs, 4 oz sugar, 4 oz flour and 1 teasp aniseed. Beat the eggs and sugar to a froth, add the bruised aniseed, and then the sifted flour. Drop spoonfuls of the well-buttered tin, let stand in a cold place several hours, and then bake in a moderate oven.

ORANGE CREAM

Suak quarter of a package of gelatine in half a cupful of cold water until it is dissolved. Strain the juice of 4 oranges, stir in half a cupful of sugar. Put half a pint of cream into a double boiler. Stir in the beaten yolks of 3 eggs and continue stirring until the cream begins to thicken. Add the gelatine and remove from the fire. Let it stand for a few minutes and add the orange juice and sugar. Beat until about the consistency of custard, then add half a pint of cream whipped to a stiff froth. Mix well together, turn into a mold and set it away to get firm. Serve very cold.

PEACH TAPIOCA

This is somewhat different from the ordinary way of serving fruit and farinaceous foods together. Put a large teaspoonful of tapioca to soak in water for several hours, or over night. To prepare for dessert, put half the tapioca in a buttered baking dish, and sprinkle over with sugar. Have ready some peaches or pineapple, and put them over the layer of tapioca, mingling them with it as to sweeten. Place on top the rest of the tapioca, pour in enough water to cover, and bake in a moderate oven until the tapioca looks clear. If while baking it seems too dry, add more water. Serve cold, with cream.

PORK, PICKLED.

Mix, and pound fine, 4 ozs. of salt-petre, 1 lb. of coarse sugar, 1 oz. of sal-prunel, and 1 lb. of common salt; sprinkle the pork with salt and drain it 24 hours; then rub with the above. Pack the pieces tightly in a small, deep tub filling up the spaces with common salt. Large pebbles placed on the pork prevent it from swimming in the pickle, which the salt will produce. If kept from air it will continue very fine two years.

SALTING PORK.

Cover the bottom of a barrel with salt an inch deep; put down one layer of pork and cover that with salt, half an inch deep, continue this until all your pork is disposed of; then cover the whole with strong brine; pack as tight as possible, the rind side down or next to the barrel. Keep the pork always under brine by using an inner cover and clean stoneware. Should any scum arise, pour off the brine, scald it, and add more salt. Old brine can be boiled down, well skimmed, and used for a fresh supply.

The Upward Look

Cause for Thanking

For who maketh thee to differ from another? and what hast thou that thou didst not receive? Now, if thou didst receive it, why dost thou glory, as if thou hadst not received it? Cor. 4, 7.

When thou hast eaten and art full, then thou shalt bless the Lord thy God for the good land which he hath given thee. Beware that thou forget not the Lord thy God. . . and thou say as if thou hadst not received it? Cor. 4, 7.

But God said unto him, Thou fool, this night thy soul shall be required of thee; then whose shall those things be, which thou hast provided? St. Luke, 12, 20.

Among the beautiful assurances that stand out clearly all through the Bible are those which tell us that God takes a special delight in showering good gifts upon those who love Him. We are told that if we delight ourselves in the Lord He shall give us the desires of our heart. (Psalm 37, 4). We are instructed to seek first the Kingdom of God that all good things may be added unto us.

This year God has been very good to us. Besides the beautiful harvest, for which we have special reason to be grateful, we enjoy so many other blessings in this favored land it should be very easy for us to believe God's promises and to recognize that He has blessed us wonderfully.

And yet, how easy it is for some of us at least, as earthly prosperity increases to think less and less of our duty to God and more and more about our selfish pleasures. In this we show ourselves to be like the Israelites of old. In spite of the fact that God had led them through the wilderness for forty years to humble them, that He had said that he would lead them into the promised land and that He had warned them, as in our text, not to become ruled by us with their earthly blessings increased they no sooner became rich in this world's goods than pride gained the mastery over them and they committed the sins they had been warned against.

To many are the terrible temptations that come to us with every increase

in worldly prosperity: Temptations to give way to selfishness, to pride, to indolence, to think of ourselves better than we ought to and thus to deceive ourselves.

Let us, therefore, remember these warnings. Let us bear ever in mind that the more we have the more we will have to give an account of some day to God as to how we have used it. Let us recognize our danger, both as individuals and as a nation, and become but the more humble in proportion as we are prospered. If we will but do this we will find that we are working in harmony with God's great laws and we will enjoy a deep pleasure and a contentment of mind unknown to those who think only of their selfish pleasures. Our whole hearts should go out to God in deep gratitude for His goodness to us and thus we will learn the true meaning of Thanking.—I.H.N.



SOME PIANOS have many good features
MOST PIANOS have some good features

Courlay Pianos

have all the good features known to modern musical science.
WRITE FOR CATALOGUE
COURLAY, WINTER & LEEMING
188 YONGE ST., TORONTO

Learn How the Hamilton Kitchen Cabinet Saves Time, Labor, Health, and Pays for Itself

WRITE today for our free booklet. It tells how the Hamilton Kitchen Cabinet forever does away with Kitchen drudgery, improves the appearance of the Kitchen and saves its own cost many, many times. The Hamilton combines all the latest and most scientific Kitchen Cabinet features.

We will ship you a Hamilton Kitchen Cabinet subject to your approval. If you are not pleased with it, return it to us at our expense.



HAMILTON KITCHEN CABINET

The HAMILTON INCUBATOR CO., Ltd. HAMILTON, ONTARIO

NOTICE—WE WANT DEALERS TO HANDLE OUR GOODS IN SOME LOCALITIES

OUR FARMERS' CLUB

Contributions Invited.

PRINCE EDWARD ISLAND

CARDIGAN BRIDGE, Oct. 17.—We are having lots of wet, disagreeable weather potatoes. The potato crop is very much below the standard this fall, caused by early blight and frost. The turnip crop will be lighter than usual. Potatoes are 15c to 30c a bushel; turnips, 15c. to 20c; oats, 50c. live weight. The apple crop is good. Quite a lot have been shipped at \$1.25 a barrel. Horses are bringing fairly good prices and hard to buy. Fall ploughing is fairly well advanced, and with a couple more weeks of open weather and lots of feed for stock, we will be ready for winter.—H. P.

NOVA SCOTIA

HALIFAX CO., N. S.

LITTLE RIVER, Oct. 16.—We are having mild weather and pastures are still fairly good. Turnips are growing nicely, but will be rather a short crop. Potatoes are a new crop and are all harvested.—J. M.

NEW BRUNSWICK

KINGS CO., N. B.

SUSSEX, Oct. 16.—We are having mild weather and pastures are holding out wonderfully. Crops all around have been

ent manufacture, but all were of the circular shape. Some seed clover remains to be harvested yet, but most of the crop has now been sown in. The crop has been very heavy, and is fairly well loaded with seed of good quality. The milk yield is keeping up well, being much higher than at this time last year.—H. S. T.

HALDIMAND CO., ONT.

CALEBONIA, Oct. 17.—Since last writing, this section has visited with a serious hail storm, which nearly destroyed the corn and corn crop. About 40 acres of oats not cut will not total one quarter of a crop. Our barley and wheat was good. Wheat threshed 53 bushels an acre good. Our alfalfa seed was destroyed.—J. W. R.

WATERLOO CO., ONT.

WATERLOO, Oct. 15.—The fine, warm weather is welcome for growing the sugar crops. Potatoes yielded well, but were somewhat damaged by rot. They are selling at 60c to 70c a bag. Mangolds were a bumper crop and are all safely housed. Turnips are in a fine growing condition, and are free from lice. A considerable acreage of sugar beets are at the sugar factory at Berlin. Harvesting and cleaning beets is in full swing. The apple crop is light. Some orchards are yielding well. The demand for Apples is on the local market at \$1 a bush. No thrashing is left. The small fall plowing is finished. The usual number of feeders are being put in despite the extreme high prices.—C. H. F.

WELLINGTON CO., ONT.

MOUNT FOREST, Oct. 15.—We are enjoying good weather. Everyone is busy

It works White they work Kendall's Spavin Cure "Completely Cured Him"
If horses go lame, you don't have to lay them off to cure them. Kendall's Spavin Cure works while they work—and cures them while they earn their keep. For Spavin, Curb, Ringbone, Splint, Sprain, Swollen Joints, Lameness, etc.

EXECUTOR'S SALE OF 21-HOLSTEIN S-D-2 Wednesday, November 2, 1910 AT SPRING VALLEY, ONT. 4 MILES FROM BROCKVILLE 21 Holsteins to be sold without reserve, also a few Dorset Horned Sheep and Tamworth Swine
TERMS OF SALE: Eight months credit on approved joint note at six per cent. interest. Sale to begin at Twelve o'clock sharp. MRS. THOS. DAVIDSON, Executrix

Sight Seeing at an Ontario Fall Fair

The excellent weather prevailing on Wednesday, October 12th, enabled the directors of the East Peterboro (Norwood) Fair to break all their previous records in fair attendance. The Norwood fair is a gathering place for people for many miles around. A portion of the thousands of people surrounding the horse ring on Friday day is herewith illustrated. Photo by an editor of Farm and Dairy.

extra good this year. Farmers have been growing more roots crops as dairying has increased. All root crops with the exception of turnips will be extra good.—M. L.

QUEBEC

COMPTON CO., QUEBEC

COMPTON CENTRE, Oct. 12.—We are having good weather, but rather too dry. Many springs and wells have gone dry. Most farmers have their grain threshed. It turned out fairly well. Turnips and all root crops are good. The ground is pretty dry for plowing. Many farmers are buying silky plows. They find they can plow more and plow it easier than with a walking plow. Pork has fallen in price, being 10 cents to 11 cents now. Butter is 20 cents to 25 cents a lb.; eggs, 33 cents a doz.; chickens, 15 cents to 20 cents a lb.—H. G. C.

ONTARIO

PETERBORO CO., ONT.

HALL'S GLEN, Oct. 19.—The dairy cow will stand us in good stead this year, and in fact were it not for her, our income would be sadly curtailed owing to the great damage worked by a hail storm, which crossed this section just before the grain was ready to cut. Many of the farmers were threshed made the few moments if it were not for our hay crop and our dairy cows, we would be hard up indeed. We have a fair crop of feed since we managed to get considerable of the straw, even though it contained but little grain. The storm was not altogether an unmitigated evil, since the rain did the better grass and other feed crops grow luxuriantly, and these are coming in most welcome to fall back on.—W. B.

ONTARIO CO., ONT.

CHAPMAN, Oct. 18.—Corn cutting is finished. The crop has been satisfactory. A number of new silos have been erected and filled this year. The corn in most cases has been put in in good condition. The new silos erected have been of differ-

harvesting roots and potatoes. Roots are a good crop. Potatoes are also good, but are rotting somewhat in poorly drained land. Thrashing is pretty well advanced. All kinds of grain, excepting peas, have been turned out well. We have just had one hard frost that would do injury to man foods which were not pulled. Our Fall fairs are mostly over. The entries have been large and the quality of the exhibits is of a high order. The educational features of our Fall fairs are many and still continue to attract much interest and enthusiasm.—B. N.

PERGUS, Oct. 17.—We are having fine weather since the first of good weather hindered all kinds of very wet spell that has been the rule here. The corn is getting in the hands of the buckwheat. It is all now. Most people have their mangolds and potatoes in. The former are in good condition since the rain. The turnip crop is very good in most places. Apples are very scarce, especially in the north. There is a good deal of threshing to do yet. Grain is turning out fairly well. Hops are somewhat lower in price. Cattle for winter feeding are high in price and hard to get. Butter and eggs are still advancing.—W. A. M.

GREY CO., ONT.

BAVANA, Oct. 20.—The beautiful weather during the past two weeks has been a boon to the farmers. The root crop is about all housed and it is good. The wet soil weather for a few days in the last part of September retarded the beginning of October helped the turnip crop. Clarksburg fair was better than last year. The Clarksburg exhibition week beginning of October, the merchants display was excellent. A number took in the Faversham fair, which was good.—C. P.

KENT CO., ONT.

BLENHEDD, Oct. 18.—Late potatoes are

turning out very well. Tobacco is saved in good shape. So much work yet remains that farmers will be kept busy until snow flies.—A. D.

HOLSTEIN-FRIESIAN NEWS

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

To any one thinking of entering the purebred Holstein business, the offering of Hill-Crest Farm, page 19, should prove interesting. The females are over nine months old up to two years, and all old enough will be bred to the great "Hill-Crest" herd bull, "Pontiac Hermes," 75 lb. of fat, 107% lbs. butter in 365 days, the highest record daughter of the greatest A. R. O. sire of the breed, "Hengerveld De Kol," 115 A. R. O. daughters averaging the heifers included—over 30 lbs. butter in 7 days. "Pontiac's" calves are coming right, the heifers being of true dairy type with great udder and vein development, and 4 per cent. fat content in milk. A son of his sold earlier in the season to Mr. G. W. Contryman, an enterprising young breeder of Tweed, Ont., has done well in this show ring this fall, winning first award at both Striding and Madoc fairs, in strong company. As this young bull's dam is gr. daughter of "Butter Boy 3rd," (90 A. R. O. daughter), and she has been a frequent winner with Mr. Brethen, this bull should prove a good investment to any breeder, both from a producing and prize-winning standpoint.

The young bulls that will be mated with females are a very uniform bunch and worth every price offered in their line at both Peterboro Industrial and East Peterboro (Norwood) exhibitions. See illustration on page three of this issue. Their breeding page three of this issue, being sired by such bulls as "Pontiac Hermes," "Sara Jewel Hengerveld's Son," (whose dam gave 100.4 lbs. milk in one day, and sold for \$1500) "Hen-

serveld DeKol Pontiac Aggie," (grandson of "Hengerveld DeKol").

At Mr. Brethen wishes to dispose of surplus stock early in order to make room for this year's crop of calves now arriving, a very reasonable price will be quoted on any surplus animals. An early visit to "Hill-Crest" will pay and Mr. Brethen will be pleased to meet all visitors by appointment.

MR. HIGGINSON'S HOLSTEIN SALE

Farm and Dairy readers are again reminded of the great auction sale of pure bred Holstein cattle owned by Mr. Wm. Higginson, taking place at Over 100 head of the choicest breeding including stock in the greatest Holstein families, is included in this offering, which will be sold on Tuesday, November 2, at the place called for Tuesday, the day following Thanksgiving, enables breeders from a distance to attend on railways. Holstein breeders and intending purchasers should not miss this sale. For further particulars consult Farm and Dairy, October 20th, or write to Wm. Higginson, Inkerman, Ont.

HOLSTEIN-FRIESIAN RECORDS

Helen DeKol Pontiac Aggie (3901) at 14 years, 5 months and 4 days of age, 15.68 lbs. fat, equivalent to 21.18 lbs. butter, 542.5 lbs. milk. Owned by A. D. Foster, Bloomfield, Ont. DeKol Flora Pouch (7299) at 4 years, 2 months of age, 11.56 lbs. fat, equivalent to 14.45 lbs. butter, 455 lbs. milk. Owned by Motley Bros., Brockville, Ont. Gregeba 2nd (11476) at 2 years, 2 months and 11 days of age, 9.91 lbs. fat, equivalent to 12.39 lbs. butter, 356.3 lbs. milk. Owned by A. C. Harvey, Brockville, Ont. Cloverleaf Paforti Merona (9147), at 2 years, 6 months and 21 days of age, (test made 8 months after calving), 8.61 lbs. fat, equivalent to 10.61 lbs. butter, 327.1 lbs. milk. Owned by A. E. Smith, Millgrove, Ont.—G. W. Clemons, Secretary.

I am sending my renewal subscription to Farm and Dairy. We have taken Farm and Dairy for a number of years, and like it fine.—C. H. Tate, Leeds Co., Ont.

That Cold Room



on the side of the house where winter blasts strike hardest always has a lower temperature than the rest of the house. There are times when it is necessary to raise the temperature quickly or to keep the temperature up for a long period. That can't be done by the regular method of heating without great trouble and overheating the rest of the house. The only reliable method of heating such a room alone by other means is to use a

PERFECTION
SMOKELESS
OIL HEATER

Absolutely smokeless and odorless

which can be kept at full or low heat for a short or long time. Four quarts of oil will give a glowing heat for nine hours, without smoke or smell.

An indicator always shows the amount of oil in the font. Filler-cap does not screw on; but is put in like a cork in a bottle, and is attached by a chain and cannot get lost.

An **automatic-locking flame spreader** prevents the wick from being turned high enough to smoke, and is easy to remove and drop back so that it can be cleaned in an instant.

The burner body or gallery cannot become wedged, and can be unscrewed in an instant for reworking. Finished in japan or nickel, strong, durable, well-made, built for service, and yet light and ornamental. Has a cool handle.

Dealers Everywhere. If not at yours, write for descriptive circular to the nearest agency of the

The Queen City Oil Company,
Limited.

PURE BRED PIGS FREE

PIGS GIVEN AWAY

YOUR CHOICE OF A BERKSHIRE, YORKSHIRE, TAMWORTH, POLAND-CHINA OR CHESTER WHITE

Have you won any pure bred pigs the past year, for the securing of new subscriptions to Farm and Dairy? If not you can easily do so now. Read our offer below.

We will give a pure bred pig, of any of the standard breeds, from six to eight weeks old, with pedigree for registration, for only **Nine New** subscriptions to Farm and Dairy at \$1 a year each.

Secure pure bred stock and weed out your old scrubs.



Send for Sample
Copies at Once.



Circulation Manager

FARM AND DAIRY
PETERBOROUGH, ONT.

This 5-Ton Scale Is Easy To Buy—

You need not club with your neighbors to equip your farm with the scale you need—the CHATHAM Pitless Scale. You can afford to buy it yourself. It will save you more than its cost in one season. **YOU HAVE NO BOTHER** FOR USE Up to five tons it will weigh accurately all you buy or sell. You can erect it ready to use in a morning.

**No Pit To Dig
No Extras To Buy**



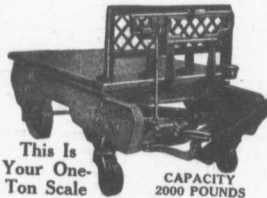
Your Chatham Pitless Scale will be YOUR Scale that you can take with you when you move. You can always get for it what you paid for it. And you need no skilled help to set up the CHATHAM—it comes to you complete, with plain directions. Built wholly of heavy steel. Nothing to rust, decay or go wrong. Government guarantees its absolute accuracy. Tested before it leaves the factory. Warranted fully.

This Is The Complete Scale

Bear in mind that you have no hard work to do in setting up a CHATHAM. It is all solid steel, stands on its own feet above ground,—no pit to dig, no fussy preparation needed before you use it. Comes to you so you can be weighing on it in a few hours after you get it. No skilled mechanic necessary at all.

Special Compound Beam — No Extra Cost

This season we include our new Compound Beam with each CHATHAM Pitless Scale without adding a cent to the price of it. You can find no bigger bargain; yet the price is 'way down low. In sections where we have agents we offer special long-time credit terms to those who would rather try the Scale before they pay for it. Write us and ask for full details.



This Is
Your One-
Ton Scale

CAPACITY
2000 POUNDS

Handy to move about as a wheelbarrow, yet accurately weighs up to a full 2,000 pounds. Swivelled pole and front wheels let you turn it short through doorways and around corners. Strong and staunch, too, like all scales we build.

You'll Never Wear It Out

Main frame is one solid and very heavy casting. Levers are special heavy and strong, so they won't spring under excessive strains. Bearings align themselves, because pivot rests on bearing loop—tilt the scale and it will still weigh right. And the price is very small!

I personally vouch for every statement this advertisement makes, and I further guarantee that my Chatham Pitless Scale is the biggest scale value you can buy for money in this or any other country. Write me about it and I will see that this is proved to your complete satisfaction. Write now.

MANSON CAMPBELL
President

WRITE US AND ASK FOR DETAILS

MANSON CAMPBELL CO. LTD.
CHATHAM - - ONTARIO