

Issued Each Week—Only One Dollar A Year

VOL. XXXI.

NUMBER 3

FARM AND DAIRY

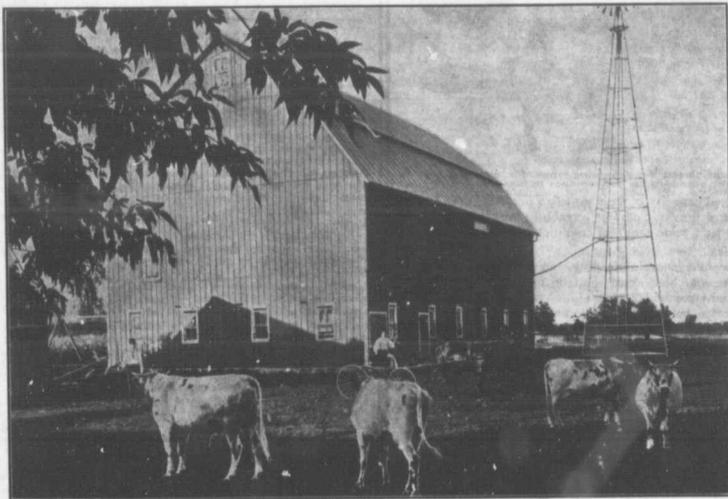
AND

RURAL HOME

PETERBORO, ONT.

JANUARY 18

1912.



LOTS OF LIGHT AND GOOD VENTILATION GAVE THESE BUILDINGS A HIGH STANDING

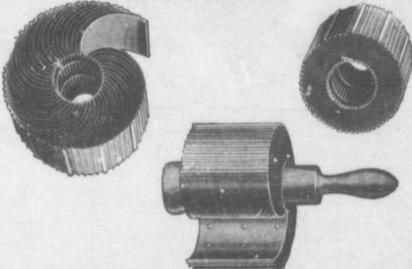
Were all the dairy stables in Canada as well lighted and ventilated as the one here illustrated bovine tuberculosis would not work the fearful havoc in our dairy herds that it now does. Disease germs do not thrive where fresh air and sunlight abound. That is why so much importance is attached to lighting and ventilation of stables in the scale of points used in judging the farms in the Prize Farms Competitions conducted by Farm and Dairy. The farm of Mr. Angus Grant, Stormont Co., Ont., whose buildings may here be seen, secured third place in the competition conducted three years ago. The buildings on his farm scored the highest of any in the district, the ventilating system and lots of windows being strong points in its favor.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

Two Leading Features OF "SIMPLEX" CREAM SEPARATORS

1. The Link-Blade Skimming Device
2. The Self-Balancing Bowl

Note the Principal Advantages of the Above-Mentioned Features:



The Link-Blades closed for skimming, open for cleaning and held by standard for convenience in cleaning.

1. Increased capacity of from 30 to 50 per cent. over the most efficient of previous devices, combined with very clean skimming under a wide range of conditions as to milk, temperatures, etc.
2. Great convenience in cleaning and handling, because the blades do not come apart, and do not have to be re-assembled in any particular order.
3. The device being expandible, and fitting the bowl snugly, it can never become loose, or shift in the bowl, and throw the same out of balance.
4. The pressure being transmitted through a series of brass rivets, there is no strain on the blades themselves, and there is no rusting formed by the points of contact of the rivets.
5. The device, being much more efficient, is a great deal lighter and smaller in order to do the same amount of work, making it still easier to handle, and requires less power to run than other devices of same capacity.

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

No Extra Charge for This Extra Service!

Notwithstanding the fact that through the efforts of our friends we have gone ahead upwards of 3,000 in circulation since a year ago and in spite of the fact that our Special Magazine Numbers cost 2 cents from 1,000 to 3,000 extracirculation over our regular issues, our rate remains the same as hitherto.

Remember, our great **Poultry** Annual is out February 1st. It will abound in interest and show that marvellous helpfulness. It will be kept as a reference by 98 per cent. of Farm and Dairy readers.

Come on in this number and plan to use special space in all eight of Farm and Dairy Special Magazines for 1912.

Forms close for Poultry Special January 25-27. Page, \$47.04; Half Page, \$23.52; Quarter Page, \$11.76. A full rate of 7 cents a line.

Adv. Dept., FARM AND DAIRY, Peterboro. Ont.

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



CONSULTATION ON THE RUN-DOWN CONDITION OF FARMER GRAY

Dr. Combine.—"After considering your case very carefully, Mr. Gray, we desire to say that you are very sorry to find that you are in such a run-down condition. Our verdict is that it is all your own fault. We are convinced that if you will only sow better seed, breed better stock, under-drain your low land and continue to take medicine out of the bottles we have here, you will soon be as fat and prosperous as we are."

Experimental Union Meets

Great indeed has been the service rendered to Ontario agriculture by the work of the Ontario Agricultural and Experimental Union, the 33rd annual meeting of which was held in Guelph last week. During the 33 years of its existence the Union has been a connecting link between the Ontario Agricultural College and the farmers of the province. Many of our best varieties of grains have first been made known through experiments conducted by the Experimental Union.

An idea of the importance of the work of the Union was given in the report presented by the secretary, Prof. C. A. Zavitz. In 1886 there were 12 experimenters throughout the province. In 1911, 4,400 farmers took part in conducting the experiments; 40 series of experiments were conducted and as many as 1,045 individual farmers took part in one experiment. In the last 26 years the number of experiments conducted has been 63,302. In those experiments all of the most important farm crops grown in Ontario have been tested, the best varieties determined, and lately the Union has added to its line of activities experimental work with bees, forestry and school garden work.

A WONDERFUL NEW OAT

The most important result of the experiments conducted during the past year will be the introduction to Ontario farmers of a new variety of oat, O.A.C. No. 72. This new variety, a strain of the Siberian, was developed at the College from a single plant selected as the best amongst 10,000 plants. In compounding the results of the experimental work with this oat, Prof. Zavitz found that it yielded 1.1 bushels per acre more than the Siberian; 1.6 bushels more than the Regenerated Abundance and five bushels more than the Lincoln. It is intermediate between the Siberian and the other two varieties in straw production, but the straw is stiffer and freer from rust than the other varieties. O.A.C. No. 72 was the most popular oat with the experimenters in 1911. Prof. Zavitz's famous No. 21 barley has always yielded more pounds of grain per acre than oats, but this year O.A.C. No. 72 exceeded it.

Great interest has again been exhibited by Union experimenters in alfalfa. The Variegated and Grimm alfalfa have both proven themselves more hardy than the common alfalfa and better adapted to Ontario conditions.

Reports from over the province indicate that the acreage planted to potatoes is increasing very slowly. Professor Zavitz attributed the small development in potato growing to the lack of uniformity in varieties and scarcity of labor. In most Ontario sections it is impossible to secure a good load of potatoes that are uniform in variety and for this reason the pattern potatoes are preferred. The Davies' Warrior, a new variety of potato sent to Union members this year, has surpassed in production all varieties tested at the College, and also throughout the province.

Prof. Zavitz, in reporting on the experiments with fertilizers, explained that results of fertilizer experiments conducted at the College would be very narrow in their application, each farmer having different soil conditions. Through the work of the Union, however, the fertilizer requirements of soils in all parts of the province are tested and are of value both to the farmer himself and to his neighbors. In connection with fertilizer experiments, Prof. Harcourt gave a synopsis of experiments that will be conducted with peach and apple trees and garden crops. As the work has just commenced, however, Prof. Harcourt had no results to report this year.

BEST SIZE OF FARM

Of peculiar interest were the two lectures given by Prof. G. F. Warren, of Cornell University. In the past five years, Prof. Warren has conducted an investigation into the business of every farm in two counties in New York State. An inventory was taken at each farm of the value of stock, machinery, etc., and the receipts and expenditures for one year. Allowing five per cent for interest on capital invested, the labor income of the proprietor was determined on each of these farms. As a result of his investigations, Prof. Warren decided that farmers with less than \$25,000 capital are poorer off than if they worked as hired men and invested their money elsewhere.

The result of the investigation was to Prof. Warren conclusive proof that the larger the farm the greater the labor income up to a maximum of 600 acres. He found that where the farm consisted of 30 acres or less the farmer received on the average only \$168 for his year's work; 100 acres to 150 acres, \$490; and over 300 acres (averaging 261), \$946. "I doubt," said Prof. Warren, "if it is worth while trying to farm with less than 100 acres or \$5,000 capital. We can farm

(Continued on page 8)

Issued
Each W

Vol. XXXI

IM

Fresh Air of

SOUND
attribu
is prof



Prof. Geo.

wider range
ently health
longer perio
stock. The
to believe th
and thrifty
point of vie
less in come

It is im

ters from a
member that
that the seed
developed be
symptoms, a
diseases that
ditions, it is
edy when the

LE

Tubercular
of diseases j
believes that
cause there
fore regard
is liable to
Many well
no clinical a
healthy cow
to the herd
afford, there
tain sanitary
we never kn
work its way
aim to main
able to the

Effective
sites of a s
tion which d
of windows
tory, for the
is scarcely a
sequently th
stable has a
system of v
it is necessa
during both

*An address

FARM AND DAIRY & RURAL HOME

Vol. XXXI.

FOR WEEK ENDING JANUARY, 18, 1912.

No. 3

IMPORTANT CONSIDERATIONS ON THE SANITARY STABLING OF CATTLE*

Professor G. E. Day, O.A.C., Guelph

Fresh Air of More Importance than Warmth in the Dairy Stable. Sunlight and Outdoor Exercise Important Factors in Preserving the Health of Animals.

SOUND health is one of the most important attributes of either man or beast. There is probably not a man present who would purchase an animal for any purpose if he had reason to doubt the soundness of its health. Unfortunately, however, there are too many of us who are not willing to admit that it is necessary to observe the laws of health in the handling of cattle, for the reason that cattle are able to adapt themselves to a wider range of conditions, and to keep apparently healthy under favorable conditions for a longer period of time than most other kinds of stock. The average man, therefore, is very apt to believe that an animal which appears healthy and thrifty is necessarily sound, and it is this point of view which makes so many people careless in connection with the health of their cattle.



Prof. Geo. E. Day

It is time, however, that we look at these matters from a different standpoint. We must remember that all things are not what they seem, that the seeds of disease may be sown and largely developed before the animal shows any clinical symptoms, and that, in the case of slow moving diseases that are fostered under unsanitary conditions, it is usually too late to apply any remedy when the symptoms become apparent.

LIKE A THIEF IN THE NIGHT

Tuberculosis is a striking example of the class of diseases just mentioned. The man who fondly believes that no tuberculosis exists in his herd because there are no apparent symptoms, and therefore regards sanitary precautions unnecessary, is liable to receive a rude awakening some day. Many well advanced cases of tuberculosis show no clinical symptoms, and what appears to be a healthy cow may be a constant source of danger to the herd in which she is kept. We can never afford, therefore, to be lax in our efforts to maintain sanitary surroundings for our cattle, because we never know how or when disease may secretly work its way into our herd, and the wise man will aim to maintain conditions which are unfavorable to the development of disease germs.

Effective ventilation is one of the first requisites of a sanitary stable. Any system of ventilation which depends upon the opening and closing of windows can scarcely be regarded as satisfactory, for the reason that there are times when it is scarcely safe to have windows open, and consequently there are sure to be times when the stable has practically no ventilation. A good system of ventilation works constantly, because it is necessary to have the air frequently renewed during both day and night. No stable can be re-

garded as fully equipped without some reasonably thorough and systematic method of ventilation.

There are two methods of ventilation which are very generally approved. One of these admits the fresh air at or near the ceiling, and has the outlets so arranged that they draw the foul air from near the floor. It is customary in this system to have openings in the outlet flues near the ceiling which may be opened if the stable becomes too warm. The main difficulty we have experi-

The Best Varieties—Experimental Union Tests

Experiments	Varieties	Comparative Value	Straw (tons)	Yield per Acre (bush.)	Grain (lbs.)	
Oats (87 tests)—						
	O.A.C. No. 72	100	1.25	39.81	1364	
	Siberian	88	1.33	36.73	1217	
	Regenerated Abundance	93	1.13	33.29	1272	
	Lincoln	74	1.13	34.82	1184	
	Six-rowed barley (35 tests)	100	1.08	—	1531	
	Emmer	80	1.06	27.67	1358	
	O.A.C. No. 10	100	1.88	33.87	1402	
	Hull-less barley (3 tests)	100	1.53	31.21	1373	
	Guy Marie	82	1.19	19.00	1176	
	Spring Wheat (14 tests)	100	1.07	15.73	1204	
	Wild Goose	100	1.06	34.24	1374	
	Black Hull-less	79	1.07	21.00	1204	
	Emmer & Speltz (3 tests)	100	1.23	18.59	1315	
	Common Emmer	57	1.20	18.25	1295	
	Alstroum Speltz	48	1.16	17.91	1274	
	Buckwheat (3 tests)	100	1.36	15.20	724	
	Eye	95	1.71	10.96	327	
	Silver Wheat (24 tests)	100	1.21	23.80	1428	
	American Banner	96	1.20	23.94	1400	
	Imperial Amber	100	1.20	23.90	1392	
	Thomasian Red	91	1.20	20.73	1244	
	No. 5 Red	65	1.20	20.73	1244	
	Crimson Red	57	1.06	19.18	1251	
	Winter Rye (2 tests)	100	2.91	54.83	1290	
	Hammoth White	100	2.90	54.83	1290	
	Common White	67	2.04	17.91	1003	
	Spring Rye (7 tests)	100	1.04	17.91	1003	
	Common	67	1.06	16.33	914	
	Field Peas (27 tests)	100	1.35	17.89	1074	
	New Canadian Beauty	100	1.05	17.84	1070	
	Early Britain	85	1.23	18.59	1315	
	Marrowfat	95	1.07	18.25	1295	
	New Prize Winner	90	1.16	17.91	1074	
	White Wonder	100	1.16	17.91	1074	
	Corn for Grain (16 tests) Whole Crop					
	Early California Flint	100	8.90	47.63	2667	
	Greenish Valley	59	6.18	45.20	2462	
	Wisconsin Little Dent	82	4.91	41.94	2349	

enced with this system of ventilation is to find some method of distributing the fresh air when it comes in near the ceiling without causing cold draughts upon some of the animals. It is also well known that the foul air, while it is warm, ascends to the ceiling, and consequently having outlets near the floor does not admit of removing the foul air immediately.

The other well known system removes the foul air through flues opening at the ceiling and running up through the roof of the barn, and brings in the fresh air through openings near the floor. The inlets are guarded both outside and inside, so as to prevent direct draughts upon the animals, and the outlets, opening as they do at the ceiling, are in a position to remove the foul air

immediately it ascends to the ceiling. The outlet flues are better to run perfectly straight from the ceiling out through the roof, and the top of the outlet should be higher than the peak of the roof.

THE SYSTEM PREFERRED.

Our experience leads us to prefer this system of ventilation to the one first mentioned, though it causes a lower temperature in the stable than the one wherein the foul air is drawn from near the floor. It is simple, inexpensive and effective, and when properly arranged does not permit of any draughts, which is an important consideration.

Many other systems of ventilation might be discussed, but it would scarcely be profitable to do so at this time, and the two systems mentioned are undoubtedly the two best systems known.

It is impossible to have a really thorough system of ventilation without materially lowering the temperature of the stable, and it is this fact which undoubtedly leads many people to neglect thorough ventilation, for the reason that they wish to maintain a fairly high temperature. Dairymen especially seem to be convinced that a high temperature in the stable is necessary to the highest milk production. There may be something in this contention, but, after all, it is worth while to run the risk of ruining the health of our whole herd in order to break a few milk records? From some incomplete experiments, indications are that a high stable temperature for dairy cows is not so necessary as many people suppose.

VERY WARM DAIRY STABLES NOT NECESSARY

If the air is reasonably dry and pure and the cow is accustomed to the conditions, results of our work would indicate that rather low temperatures apparently do not materially affect the milk yield. Of course if a cow were taken from a warm stable into a cold one she would suffer, but if she is placed in a well ventilated stable in the fall and gradually becomes accustomed to a lower temperature as the weather becomes colder, she does not appear to suffer much inconvenience. In fact, it will generally be found that the attendants are the ones who object to the low temperature, rather than the cow. Good, clean air, so long as it is not accompanied by draughts, is of far greater importance to any cow than a high stable temperature.

There is an advantage in having a fairly cool stable, in that it enables the cows to enjoy a short time out of doors each day without suffering any inconvenience; whereas, if they are kept in a very warm stable it is almost dangerous to turn them out at all, and the chances are that their milk flow will be affected if they are turned out, even for a short time, on a cold day. Outdoor exercise, though it may be for only a few minutes in very extreme weather, is an important means of maintaining the health and vigor of cattle.

OUTDOOR EXERCISE PREVENTS TUBERCULOSIS.

Those cattle which have regular outdoor exercise are much less liable to contract tuberculosis than those which are constantly stabled throughout the winter. Constant confinement in a

(Concluded on page 4)

*An address at the Guelph Winter Fair.

THE CITY LAND OWNER--HOW HE TAXES US FARMERS

ARTICLE VII.

THE main reason why we farmers do not receive a larger portion of the price the consumer pays for our products is the excessive value of city land. There are a number of other reasons but exorbitant land values is the chief.

During the past five years land values in the city of Toronto and vicinity alone have increased over \$100,000,000. A large part of that increase has been taken, or will be before long, out of the pockets of the laboring people and middle classes of Toronto. Most of it, however, has been paid, or will be in time, by us farmers. In other words we are paying the greater part of \$20,000,000 a year on the average into the pockets of the land speculators and land owners of Toronto and vicinity. The astonishing feature of this condition is that we do not realize it. But that is not all! We are pouring other millions, in a similar way, into the laps of the land holders in London, Hamilton, Ottawa and every other growing industrial center in the province. Exactly similar conditions exist in each of the other provinces, particularly in the west.

When we blame the middleman, as we so often do, for taking too large a share of the price the consumer pays him for our products we do not realize that he, as well as ourselves, is being squeezed by the land monopolist. It is all very simple when once we see it. The wonder is that we have not seen it long ago.

The city of Toronto occupies 29½ square miles of land. That land alone—buildings not included—is assessed at \$147,893,362, or at the rate of \$7,833 an acre. But the land is not assessed at more than half its actual value. Not infrequently land in Toronto changes hands at prices that exceed its assessment four and five times and more. Thus it is safe to assume that the actual value of the land is at least double its assessment or over \$15,000 an acre. But that is the average value of the land including that away out on the outskirts. In the business centers it is worth vastly more. A few of the choicest lots in Toronto are valued at the rate of \$2,000,000 to \$6,000,000 an acre. Our great industrial concerns have to conduct their business on this high priced land. It costs them thousands of dollars to do so, and as far as they are able, they make us farmers pay the piper.

AN ILLUSTRATION OF HOW WE ARE TAXED.

Let us illustrate: Take the case of a commission merchant. We will assume that he is handling eggs on a wholesale basis, in a large way. Because of this his warehouses and cold storage plant have to be located in the commercial center, where they will be convenient to the railways, express offices and other business conveniences. We will assume that his offices and buildings occupy an acre of land valued at \$100,000. Because his landlord expects to receive at least six per cent. clear off the value of the land and all taxes, excepting possibly water rates, it means that this merchant has to pay his landlord approximately \$8,000 a year in rent and taxes. (Note.—Were he paying on a farm land value basis, his rent and taxes would be \$4 to \$8 a year.) That, however is not all. He has, we will say, to pay \$75,000 a year in salaries and wages to his managers, book keepers, buyers, salesmen, office staff, warehouse men, drivers and others. These men have to live in the city. They have to pay rent for their houses that are based on city values. A warehouse man or driver receiving \$15 a week has to pay at least \$15 a month for the rent of his house. This is practically one-quarter of all he earns. (Under such conditions do you wonder that the laboring men in our cities find it hard to make ends meet or that when, through sickness or other causes they are unable to pay their rents, they are forced into the slums?) On men drawing larger salaries, say \$1,500 a year, the burden of rent will not fall quite so heavily. They should be able to secure homes at a rental of \$25 a month or \$300 a year. Thus in their case the rental tax represents only one-fifth of all they earn. Just think, however, what that means! It means that there are thousands upon thousands of men—most of them with families—in our industrial centers who have to pay each week or each month, one-quarter to one-fifth of all they earn into the pockets of the land holder—who if he owns enough such land—simply has to draw his rents, or have his agents do it for him, while he lives in luxury or travels in Europe upon money that represents the hard-won earnings of others.

WHERE WE FARMERS ARE HIT.

But! do you ask, what has that got to do with us farmers? A great deal. Because these men have to pay such high rentals they have to get wages in proportion. In the country districts they could live in even better houses for \$4 to \$12 a month. Thus one-half to two-thirds of what these men pay out in rents goes to pay interest on our excessive city land values. This represents from 10 to 15 per cent. off all they earn. Thus 10 to 15 per cent. of the \$75,000 a year the merchant we are talking about, pays out in wages to his employees, is immediately paid out by them in turn to their landlords. This represents another \$7,500 to \$10,000 a year, or approximately \$15,000 in all that this one merchant has to pay each year directly and indirectly to the city land monopolists. As far as he can, however, he strives to escape that tax by adding a part of the cost to each dozen of eggs that he sells. This is where it hits us. It means that we receive just that much less for our eggs.

But again this is not all. The wholesale merchant we are speaking about, sells his eggs to the retail dealers, that is the grocers and butchers. They in turn have to pay thousands of dollars a year in excessive store and house rents and in unduly high wages to their employees. Thus again another tax is placed on our eggs as these men sell them, and again we are deprived of that much more of the selling value of our eggs.

THIS TAX IS ON EVERYTHING.

So far we have talked only about eggs. The same tax is placed in the same indirect way on not only everything else that we produce, including our cheese and butter, oats and hay, pigs and steers, apples and poultry, that are sold in our great centers of population, but it is placed on everything that we buy that is manufactured there. This tax to the land monopolist is concealed in the prices we pay for our boots and clothing, our furniture and machinery, our roofing material and huggies, our groceries and provisions. We cannot escape it. It sucks a share of our earnings out of practically everything we produce or consume. Therefore when times are prosperous and we hear that land values in our cities have been increased another twenty, fifty, one hundred million dollars, as they do every few years, we may take it as fair warning that the land owners and land speculators in our towns and cities are increasing the cost to others of manufacturing the goods we buy and of selling the products we produce in order that thereby they may be enabled to squeeze a few million dollars more out of our pockets, and out of those of the laboring men, for their benefit, we may

know also that a few more wealthy people, possibly millionaires or multi-millionaires, are being created at our expense.

There is a simple remedy. We must agitate to have land taxed according to its value. Then the money that now pours into the pockets of these city land holders would be returned to the people of the country at large through the taxes such land would pay. One acre of this city land would then often pay as much in taxes as many thousands of acres of farm land. In this way the wealth that the community at large creates, as represented by city land values, would flow back to the people who create it, and not go, as much of it now does, to enrich the already rich. When we have accomplished this we will have gone far to have stopped the depopulation of our rural districts and to make farming more profitable.

The Sanitary Stabling of Cattle

(Continued from page 3)

warm, close stable is extremely overrating and tends to lower the vitality of the animal to such an extent that it cannot throw off disease germs so successfully as one which is more rugged. Keeping in cool, dry stables, with daily outdoor exercise, is one of the best preventatives of that dread disease, tuberculosis.

Light is another important factor towards maintaining health. Dark stables favor the development of disease germs, whereas light (especially sunlight) is more or less a disinfectant. Just why it is that so many people are afraid to put large windows in their stables is difficult to understand, unless the small windows are used in order to save expense. A little extra expense in windows, however, is money well invested, and if a farmer once had plenty of large windows put in his stable, I feel quite sure that he would not be willing to go back to the dark stable under any circumstances.

TOO WARM STABLE INJURIOUS TO CALVES

In fact, an animal that is gaining rapidly in flesh should not be kept in a very warm stable, for the reason that it will suffer from heat. A few weeks ago I visited the farm of a very successful breeder and feeder of cattle, and I also found that he had a number of young cattle in one end of his sheep pen and that his experience was similar to our own. In fact, a person has only to try the method I have suggested in order to be convinced that it is better to give young cattle a cold building where the air is dry and fresh than to keep them in a warmer stable.

There is, of course, such a thing as going to extremes, and we have nothing to say in defense of the man who turns his cattle out into the barnyard and allows them to remain there all day in all kinds of weather. This is not the method I have been commending, but what I would especially urge upon breeders is to give animals protection from the weather, but along with that protection give them plenty of fresh air.

Dry cold does not injure cattle, but damp, foul air will sap the vitality of the most rugged animal. If we would bear these two facts in mind and act accordingly, I believe that we would hear less about tuberculosis in the herds of this country. To maintain sanitary conditions in our stables requires some effort and some expenditure of money, but there are few things which are worth having which can be obtained for nothing.

By using good, bright tin buckets, tin spouts, and using nothing but tin and galvanized utensils in the bush, and by keeping everything perfectly clean and in good condition, there is nothing to prevent one from making a first class maple syrup and sugar, which will bring the highest market price.—F. H. Misenor, Brome Co., Que.

Win
J. Earl
We very m
mer dairying
not the least



J. Earl N.
In speaking
milking cows
try to have o
in the year
is to have ou
first of Octo
July. In Feb
that where c
returns of
one year wi
least one-t
profit as w
with spring
ing. Our
then dry, r
work throug
months of
August. Th
all hands a
spend more
caring for
vesting for
winter feedi
We have
even with t
ing of green
under the
he care of
ble to make
good work i
August, wh
cos fresheni
member will
ily for sever
months, the
freshen up
freshening e
We have a
that calves
during the
spring born
grass in the
little differ
fall calves.

Note.—Ea
ada's great
off the old b

From 13

R. M.

Most writ
how testing
which is the
"boarder."
cow testing
he is raising
But we h
weights of
feed more p
find that on
while all the
once invest
On the oth
must be som
Testing h

Winter vs. Summer Dairying

J. Earle Ness, Chateaugay Co., Que.

We very much prefer winter dairying to summer dairying, and for various reasons, of which not the least important is the solving of the hired



J. Earle Ness

help problem. Through winter dairying we are able to give steady employment at good wages, enabling us in this way to keep good men always on hand; in fact, we have never experienced any trouble in securing good help, while those of our neighbors who do not practice winter dairying are quite often unable to secure help when needed.

In speaking of winter dairying we do not mean milking cows for the winter months only. We try to have our cows milking for about 10 months in the year as nearly as possible. Our practice is to have our cows freshen in September and the first of October and dry them about the first of July. In following this practice we have found that where city milk shipping is practiced, the returns of a cow for one year will make at least one-third more profit as compared with spring freshening. Our cows are then dry, making less work through the busy months of July and August. This allows all hands a freedom to spend more time on culling for and harvesting the crops for winter feeding.

We have found that even with the supplying of green feed and under the best possible care it is impossible to make a cow do good work in July and August, while a cow freshening in September will milk steadily for seven or eight months, then when put on grass in May she will freshen up again and do almost as well as a spring freshening cow for six weeks or two months.

We have also found in the raising of our calves that calves born in the fall are getting a start during the winter, develop much better than spring born calves. They are ready to turn to grass in the spring, and when fall comes there is little difference to be seen between the spring and fall calves.

Note.—Earle is a son of R. R. Ness, one of Canada's greatest Ayr-hire breeders; a regular "chip off the old block."—Editor.

From 130 Lbs. to 325 Lbs. of Butter

R. M. Halliday, Comox Dist., B.C.

Most writers on the subject of cow testing tell how testing the cows tends to show the farmer which is the profitable cow and which is the "boarder." Of course this is the main idea in cow testing—to help the dairyman to know that he is raising calves from only the best cows.

But we have found that setting down the weights of milk morning and night, enables us to feed more profitably as well. For instance, if we find that one cow is shrinking in her flow of milk, while all the others are doing as usual, we can at once investigate, and try to remedy the cause. On the other hand, if all are shrinking, there must be something wrong with the feeding.

Testing has shown us that anything that alarms

a cow causes a shrinkage in milk; that a warm summer rain increases the flow; that it is not possible to tell the most profitable cows by outward appearance.

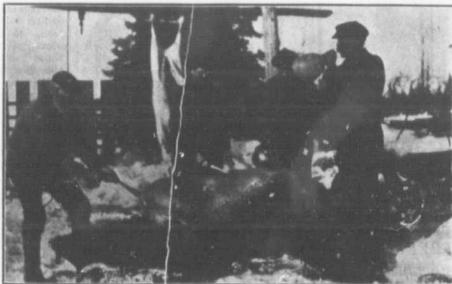
But one may ask, "Has testing actually increased your production?" Our answer is: Eight years ago our average butter production was 130 lbs. of butter a cow per year. Last year our cows averaged 325 lbs. Results speak for themselves.

How I Feed My Land

T. L. Parker, Huron Co., Ont.

The maintenance of soil fertility is my first care as a farmer. I see much in Farm and Dairy about feeding cows. That is all very well. We cannot give our bosses too much attention. But there is a more important problem still. We must feed our land also.

The waste of fertility that is going on every year on even what we consider well managed farms is something tremendous. We hear much of the crops that are reaped by the settlers of New Ontario from the new land of that country. It is not so many years since we were reaping equally good crops from the new lands of old



Work is Play When Neighbors Meet Together

This scene, not now a common one in rural Ontario, depicts one of the ways in which neighbors may come together and enjoy each other's society as well as work on the cooperative plan. In the illustration Mr. R. Barrens may be seen adjusting the hog to its proper position. Mr. Jas. Barrens holds the knife and Mr. Barrens is applying the water. Mr. Jim Connel is amusing himself in lung testing. All are readers of Farm and Dairy and live in Peterboro Co. Ont.

—Photo by Jas. White.

Ontario. Our carelessness in conserving soil fertility accounts to a large extent for our decreased yields in rural Ontario.

How are we to feed the land? On our farm we endeavor to keep up the fertility of our farm by growing the proper kind of crops, practicing a short rotation, feeding all the feed produced on the farm to dairy cattle, handling the manure in the best way we know how, and by good cultivation of the soil.

FREE NITROGEN FROM CLOVERS

Of course clovers take a prominent part in our rotation. We aim to grow clover once in four years at least on every field on the farm, hence we get our nitrogen for nothing. All the manure is applied to the hood crops. We believe that a ton of manure applied to the hood crops will do as much as a ton and a half or two tons as a top dressing on meadows. We also find that a light dressing of manure once in four years will give better results than dressing twice as heavy every eight years.

An advantage that we see in dairy farming is that dairy cows will return a profit on bought feeds—bran, oil meal, cotton seed, etc. These feeds contain much of the fertilizing ingredients. We get two profits on these feeds, first from the cows and then from the land.

Feeding the land is of first importance, for the land feeds us.

Important Points in Wintering Ewes

Abram Raddell, Waterloo Co., Ont.

The winter season, particularly the latter part, is the most critical time in the sheep's life. The ewes fare very well while there is plenty of grass for them, even in cold or wet weather. When the snow comes other means must be adopted for their welfare.

Although they are not hard to provide for when one knows how, great care must be taken in their management in order that we may come out in the spring with a healthy flock, a large crop of young lambs and retain all or nearly all the ewes.

The ewes are very liable to injury while carrying the young. This to my mind is the one thing that robs many farmers of success with their flocks. It does not pay to keep a ewe over winter and lose her with her lambs in the spring. Many farmers lose altogether too large a percentage, more from injury than any other cause.

CROWDING MAY MEAN INJURY

It is not wise to have a flock crowding to obtain feed, salt, water or anything else. Where they are permitted to crush together, even three or four ewes when thirsty will make such desperate efforts to get to a pail of water that they will injure each other. A good idea is to have water so plentiful that they can go to it one at a time. The feeding racks should be longer than required, so all may have room and to spare. If a small rupture takes place anywhere about the foetus, inflammation sets in, the lamb dies, and before the proper time of delivery comes we have a hopeless case on our hands.

We aim to get near to nature's way of handling sheep. I find that in cold weather a good plan is to spread straw, preferably pea straw, in the yard with alfalfa or other clover hay on it, so the sheep can rustle through it as they do on a pasture field. Any kind of straw, if alfalfa or clover hay is thrown on top, is good. In the early part of the winter breeding ewes will do well with four or five pounds of turnips a day per head when they have access to the hay. A liberal supply of salt must always be on hand.

PREPARE FOR LAMBING

A little grain should be added to the ration as lambing time approaches, so that there will be a good flow of milk for the young. There will then be no difficulty in the ewes owning their young. Once a lamb has taken nourishment it will need very little more help if these precautions are taken. The so-called abortions among ewes that we hear so much about, under the management I have recommended will be scarce indeed.

Now comes the time to feed more liberally on roots and other good feed until the sheep go to grass. Ewes that have early lambs may have their wool taken off in 10 or 12 days after lambing if they are put in a comfortable place for a week or two after shearing.

ADDITIONAL SUGGESTIONS ON FEEDING

Too many turnips fed to ewes in lamb will have the effect of bringing large, soft lambs that are often affected with gut-rot—large lumps around the throat. A little oil cake fed to ewes through the winter will help to keep them in better health on account of the soothing effect it has on the digestive organs.

Exercise should be given if possible, as ewes will be inclined to lie about too much. But the exercise should not be too violent. A sudden rush of a dog into the yard or any sudden fright should be avoided up to the lambing season.

I keep my sheep in a frame shed open to the south and they seem to be very comfortable. Sheep handled in this manner will not be costly to winter and should bring good profits in return for cost of feed and labor.

Sheep Sorrel is Troublesome

Have moved into a new section, and I find that the meadows are covered with a small reddish colored weed called sheep sorrel. Hay from these meadows is of very little use. What is the best method

of eradicating this weed?—A. P. Wentworth Co., Ont.

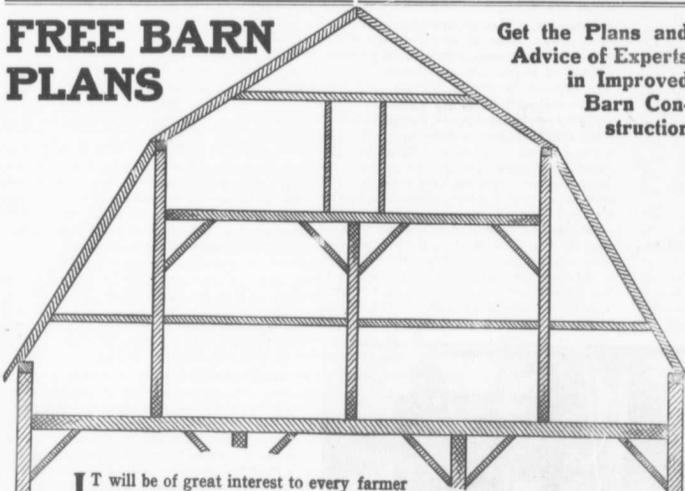
Sheep sorrel is found most abundantly in thin or worn out meadows, crowding out the grass and greatly reducing the crop. It thrives best on

soils that are deficient in lime. An application of lime to such soils produces a more vigorous growth of cultivated crops and curtails the growth and spread of the sorrel.

As with most other weeds, the only

really efficient method of getting rid of the sorrel is to plow up the meadow and follow a three or four year rotation. A good plan would be to plow your meadows shallow directly after the hay crop is removed and give frequent cultivation until autumn. Ridge up in the fall and plant to hard crops, corn or roots, and cultivate well through the season. Follow this with grain seeded to clover. An application of lime (1000 to 1,500 lbs. per acre) in the fall of the first year will be found profitable. This pest is hardly ever found on fertile, well cultivated land.

FREE BARN PLANS



Get the Plans and Advice of Experts in Improved Barn Construction

It will be of great interest to every farmer and builder throughout Canada to know that we have established what we call our "Builders' Service Department."

For years we have been gathering information in regard to the planning and erection of farm buildings. Now, we have everything in readiness to give all this information FREE to every farmer who intends building or remodeling, and will give us detailed information as to his wants. Almost every barn builder follows the type of construction usual in his territory. Here is where our "Builders' Service Department" will help by providing suggestions and information obtained from all parts of Canada. "The Builders' Service Department" will co-operate with the barn builder to give you the ideal building.

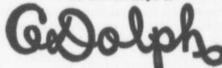
Our Board of Advisers

We have a Board of Advisers, consisting of ten of the best barn builders and contractors in the country. These men have given years and years to the planning and erection of farm buildings. You can have all the information from these men FREE of all cost if you will make known your wants. You wonder why we do all this FREE? It is for this reason: We feel that with this

Builders' Service Dept.

we can help the farmer and builder to erect Ideal Farm Buildings. As the farmer builds he will want to build better and safer, so that his stock and grain and implements, etc., are absolutely safe from lightning, wind, rain and fire.

Address envelope to



MANAGER

Mail the coupon. Get the help of our "Builders' Service Dept." Remember this: Whether you buy from us or not we will give you the co-operation of our "Builders' Service Dept." free.

Metal Shingle & Siding Co., Limited, Preston, Ont.

CUT ALONG HERE Branch Office and Factory, Montreal, Que. MAIL IT TO-DAY

Send me Portfolio of Barn Plans, showing framework construction and plans of interior. I intend building a barn ft. by ft.

Are you interested in all steel buildings? (Yes or No)

Do you want roofing or siding for an old building? (Yes or No)

Name P.O. Address

County Province Publication Farm and Dairy 104

About Noxious Weeds

Interesting and valuable is the report recently got out by the Seed Branch of the Dominion Department of Agriculture. This report covers the work of the Seed Division for a period of six years from January, 1905, to March, 1911. A sketch of the work that is being done by the Seed Division is given and some of the results that they hope to achieve in the near future are forecasted. Of a special value is that part of the report that deals with the identification and control of noxious weeds. Illustrations are given of the plants and seeds of all our worst weeds, which make them easy of identification. Where special methods can be used in the eradication of any weed these methods are given along with the description of the plants. This report can be had free on application to the Seed Commissioner, Department of Agriculture, Ottawa.

Free Distribution of Seeds

A distribution will be made during the coming winter and spring of superior sorts of grain and potatoes to Canadian farmers by the Dominion Department of Agriculture. The samples for general distribution will consist of spring wheat (five pounds), white oats (four pounds), barley (five pounds), and field peas (three pounds). These grains will be sent out from Ottawa. A limited number of potatoes in three pound samples will be carried on from several of the experimental farms, the Central Farm at Ottawa, supplying only the provinces of Ontario and Quebec. All samples will be sent free, by mail.

Applicants should give particulars in regard to the soil on their farms; and should also state what varieties they have already tested, and in what way these have been found unsatisfactory, so that a promising sort for their conditions may be sent. Only one sample can be sent to each farm. As the supply of seed is limited, farmers are advised to apply early to avoid possible disappointment. No applications can be accepted after Feb. 15.

All applications for grain and application from the provinces of Ontario and Quebec for potatoes should be addressed to the Dominion Cerealist, Central Experimental Farm, Ottawa. Such applications require no postage. Applications, for potatoes, from farmers in any other province should be addressed (postage prepaid) to the Superintendent of the nearest Branch Experimental Farm in that province.

Items of Interest

A meeting of the Canadian National Live Stock Association will be held at Ottawa, February 12 and 13.

The annual meeting of the Canadian Jersey Cattle Club will be held in the board room of the Prince George Hotel, Toronto, on Thursday, February 8, at 1.30 p.m.

The annual meeting of the Holstein-Friesian Association of Canada will be held in the Temple Building, Toronto, on February 8, 9.30 a.m.

The Fe... The Fed... use of our... terated ar... tious or s... All questi... situation

Regularis

A good obs... has made the... excellent time... alarm clocks... to keep the s... in their min... that if you t... what irregula... your farm w... you to invest... your own us... can safely... which the clo... clock.

It will pay... In other wor... other animal... about being f... is your fat... (ouse, contin... which annoya... means the la... fat and flesh... be allowed t... handling of... habit of losi... rough in ma... working abou... As a matter... is this matter... you cannot... stranger abou... sheep are be... costing you... the loss of fl... of the sensat... —Shepherd.

Thoughts o

The precer... dairy herd... and content... quired only... or stabling... food suffici... palatable an... the animal.

Perhaps the... made by dai... supply suffic... provide food... palatable an... in larus sen... sanitation.

Economic... word of the... be reached t... and good... Many good... pects blast... through un... able surround...

The answer... to feed" is... ly and wiel... food, both... never forget... eat with th... results than... even if of... Never fee... the cow will... manger and... goodly porti... cow is confi... the barn.

Succulent... nips, silage... pronounced... fed shortly... mit the volu... from the sys... ing and t... odors in the... the food... dence harm... product of t...

It matters... the pri... grow the al... coarse feed.

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.

Regularity in Sheep Feeding

A good observer of sheep and lambs has made the remark that sheep are excellent timekeepers. They have no alarm clocks of their own, but seem to keep the sense of time very clearly in their minds, so clearly, in fact, that if you are disposed to be somewhat irregular in your hours of doing your farm work it would be best for you to invest in an alarm clock for your own use. In such a case you can safely charge the investment which the clock represents up to the flock.

It will pay you back with interest. In other words, there is perhaps no other animal that is more sensitive about being fed on time each day than is your fattening lamb or sheep, you, confusion—anything, in fact, which annoys and disturbs the flock, means the loss of good money-making fat and flesh to you. No one should be allowed to have any part in the handling of the flock who is in the habit of losing his temper or who is rough in manner or speech when working about the flock.

As a matter of fact, so important is this matter of sheep feeding that you cannot so much as show a stranger about the shed where the sheep are being fed without the act costing you in good hard money from the loss of flesh and the distraction of the sensitive animal will produce. —"Shepherd."

Thoughts on Feeding Dairy Cows

The prerequisites of success with a dairy herd are cleanliness, comfort and contentment. These can be acquired only by gentle handling, proper stabling and a punctual supply of food sufficient, rich, succulent and palatable to fully supply the wants of the animal.

Perhaps the most frequent mistakes made by dairymen are the failure to supply sufficient food or failure to provide food sufficiently succulent and palatable and too frequently stabling in barns seriously lacking in proper sanitation.

Economical production is the watchword of the dairymen. This can only be reached through liberality of feeding and wholesome environment. Many good cows have had their prospects blasted by scanty feed, or through unwholesome and uncomfortable surroundings.

The answer to the question "how to feed" is to feed liberally, regularly and wisely. Feed a well balanced food, both succulent and palatable, never forgetting the fact that a meal eaten with a relish will give better results than one consumed reluctantly even if of equal nutritive value. Never feed more at one time than the cow will eat up clean. Let the manger and the rack be empty a goodly portion of the time when the cow is confined for long periods in the barn.

Succulent food, such as kale, turnips, silage, or in fact any foods with pronounced odors, should always be fed shortly after milking, so as to permit the volatile oils to be eliminated from the system before the next milking and thus obviate undesirable odors in the milk. Even feeding valuable foods injudiciously may produce harmful results to the dairy product of the cow.

It matters not where one is dairying, the primary factor should be to grow all the protein possible in the coarse food. Protein in cow feed is

like gold in the circulating medium. It is the standard of value. Where alfalfa can be economically produced this should constitute the coarse feed. Clover is good, and no mistake will be made if this constitutes the principal hay of the dairy herd. Its nutritive value and palatability will be increased if alsike and red clover are mixed.

A ration of good protein-bearing hay such as alfalfa and clover, with 40 pounds of silage and six pounds of ground grain or bran and wheat shorts will give excellent results.

The dairymen should produce as much as possible of the feed that the dairy herd consumes. The ordinary cereals grown on the farm, such as wheat, barley and oats, make an excellent combination with alfalfa, vetch and clover hay. If, however, these cereals are worth considerably more per ton in the market than an equal mixture by weight of bran and wheat shorts, then it would be good business to sell the grain and purchase the mill feeds.

The modern cow has been designated the wet nurse of prosperity, which indeed she is. Stable her well; keep her clean; feed her wholesome food; treat her kindly and she will pile up a bigger bank account for her owner than will any other animal on the farm.

Dairy Thoughts

The wise breeder of cows always keeps his eye on the sire. The wise breeder of bulls traces back for a long line of high-producing mothers.

A cow may not know anything about the theory of dairying, but most cows have got the practice down fairly fine.



J. B. HOGATE

Weston, Ont. Brandon, Man.
Importing Barns

J. B. HOGATE, Prop.

Direct Importer of

Percheron Stallions and Fillies, Clydesdales and Shire Stallions. Fifty head to select from, the best that money could buy, Percherons in Blacks and Greys. Weights of Stallions from 1700 to 2200 lbs. Mares from 1600 to 1900 lbs; some safe in foal. No reasonable offer will be refused.

Terms to Suit Purchaser

For further particulars write:

J. B. HOGATE
WEST TORONTO - ONT.

Abe Lincoln said: "I will study and get ready and maybe my chance will come." It will pay you to study during these winter evenings. Then you will be ready to take advantage of your chance. All Agricultural books are to be had at lowest prices through **Farm & Dairy, Peterboro.**

YOU CAN MAKE GOOD PAY working your own engine and getting them to subscribe to Farm and Dairy. Work for spare time or steady for Winter. We have a positive proposition for any Cheese Maker or Butter Maker. If you will send for us we will pay you well. Write **FARM AND DAIRY, PETERBORO, ONT.**



PERFECT Maple Evaporator

Price low—quality high—product the best possible—the kind you like syrup—it retains its maple taste—all unnecessary expense and middlemen's profits cut out. Sold at a price the poorest man can buy. Every one guaranteed. Write for pamphlets and recommendations. Do it now.

Steel Trough & Machine Co., Tweed, Ont.

ARE YOU READY FOR WINTER?

The snow is here again, and present conditions indicate a great depth of it this winter. This will make the cleaning of your stables a very heavy job, as it is no light work to shove a wheelbarrow full of manure through snow and mud, or up a slippery plank. You do not have to do this, however, as you can

MAKE YOUR STABLE WORK EASY

by using a **BT LITTER CARRIER**. Running as it does on a level overland track, it is very easy for you to place the manure any distance from the barn, no matter what condition the yard may be in. If desired, a swing pole, anywhere up to 40 feet in length, can be used. This is made to swing out over the yard, and distributes the manure evenly.



HOW TO INSTALL A LITTER CARRIER YOURSELF

A simple expert will install a **BT LITTER CARRIER** in an ordinary sized stall. The expert is necessary to place anywhere complete, ready to nail the hangers can be placed anywhere along the track, so that it is necessary to use something for attaching them to. Wherever you strike a joist or sill, a hanger can be put on, and the track is strong enough to carry the load between them. No bolts are used in attaching the hangers, so that they are very easy to put in place. The track, owing to its shape, is easily curved to suit any corner. Now is the time of the year to put in an outfit, and when it will be of most use. Write us to-day.

Cleaning the stables with a barrow is such heavy work, especially in winter, that the manure generally does not get far away from the stable door. The water is backed up, and the result is that the yard is almost impassable. As well, the fumes from the manure are constantly pouring into the stable, affecting the health of the stock and injuring the framework of the barn and the implements stored in or near it. You cannot afford to be without a **BT LITTER CARRIER** any longer. Get our catalogue and learn the many points of advantage which the **BT** has. It will pay you to know these. Fill out the coupon now, and we will send you (free) our catalogue and give you an estimate on what a carrier would cost for your stable.

BEATTY BROS.

Fergus Ontario
Kindly send me (free) your book on Litter Carriers and prices.

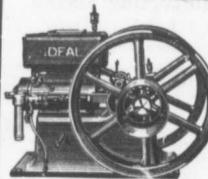
I will need about.....feet of track.
And expect to put in a Litter Carrier about.....
Will you need any Steel Stalls or Stanchions this year?

Name.....
Post Office.....
Province.....

BEATTY BROS., Fergus, Ont.

GASOLINE ENGINES

1 1/2 to 50 H.P.
Stationary Mounted and Traction



WINDMILLS

Grain Grinders, Water Boxes, Steel
Saw Frames, Pumps, Tanks, Etc.

GOOLD, SHAPLEY & MUIR CO., LTD.
Brantford Winnipeg Calgary

FREE
TO SYRUP MAKERS

Write for our illustrated booklet giving all the information useful and necessary to Syrup Makers. It tells you how to get more dollars out of your Maple grove.

Eight good reasons why you should use a "Champion" Evaporator.

1-Corrugated bottom, doubling the heating surface.

2-Freedom from icing in the middle or elsewhere.

3-8 in all interchangeable parts.

4-Less trouble with lime and other deposits.

5-Wearing the Evaporator uniformly.

6-Greatest convenience in handling or cleaning.

7-Finishing the syrup without reheating.

8-Better syrup, therefore better price.

The Givem Mfg. Co. Limited
18 Wellington St. MONTREAL, QUE.



WE ARE OFFERING

For Quick Sale, a First-class Dairy Farm in Oxford County CLOSE TO WOODSTOCK

Being 150 acres of choice land in good state of cultivation. Buildings splendid. Dwelling has hot water heating and light and gas. A large milk route in connection if desired. Proprietor going west. We have also a large list of farms of all sizes. Send for Pamphlet. Apply to

ORMSBY & CLAPP
WOODSTOCK - ONTARIO

WANTED

10,000 Readers of this paper to show Farm & Dairy to their friends and neighbors. Steady work for representative in your locality. Liberal pay in cash.

FARM & DAIRY PETERSBURG, ONT.

HORTICULTURE

Sunscald on Apple Trees

I have 20 apple trees, half of them set out last spring and the other half the year previous. I now notice a gummy juice oozing out of the south side of some of them and the other half the year previous, causing them to die. Is this sunscald? Do you recommend winding wood slivers around the trees? Or should manure around the trees after the ground freezes, covering a space about six feet in diameter. Was this the proper thing to do?—J. C.R., Huntington Co., Que.

I judge that sun-scald is more or less common in your section, as I have looked you up on the map and find that your section is not dissimilar to certain sections in Ontario where sun-scald is very common. You do not state whether the gummy exudation was noticed on the trees planted last spring, or on those planted the previous season, or on those planted usually occur in late winter, and if you find this trouble on trees planted last spring, I should say that the effect of sun-scald is responsible. If you find it, however, only on trees planted a year ago last spring, it might and probably would be the effect of sun-scald. It is more likely that this trouble which you describe is the effect of sun-scald rather than the cause of the same.

The wood veneers have proven very satisfactory, but for one objection. Ice storms such as we have in this section very often fill the veneer up with ice, and owing to the protection of the veneer this ice remains in close contact with the tree often for a very considerable length of time. If you can so place wood veneers that there is no possibility of ice entering the top and becoming permanently locked up about the trunk of the tree, you will probably find the method satisfactory.

I would suggest, however, that you simply use ordinary newspaper or light colored building paper. Dark colored or black paper would be dangerous on account of absorbing the heat and thereby increasing the trouble. We find that two or three thick coats of light colored building paper are entirely satisfactory as well as being cheap protection from sunscald. They are also useful for protection from mice and rabbits, and as you state they have mulched the ground around the trees with manure it is just possible that you may eventually require some protection from mice. As I can see no objection, so far as I can see to the placing of manure around the bottom of the trees, and if there should be a lack of snowfall it might prove decidedly beneficial by preventing deep freezing of the soil and consequent root injury.—Prof. J. W. Crow, O.A.C., Guelph.

Short Courses in Fruit Growing

Fruit growing from A to Z will be dealt with in a practical, instructional manner at the horticultural short course to be held at the Ontario Agricultural College, Jan. 23 to Feb. 2. The course will include lectures and

practical demonstrations on pruning and handling spraying machinery.

In addition to the regular short course, two courses in barrel packing and two in box backing will be conducted at the same time. The first course will be from Jan. 29 to Feb. 10, and the second Feb. 12 to Feb. 10. Mr. James Gibb, head packer for the Kelowna Farmers' Exchange, Kelowna, B.C., has been secured as instructor in barrel packing.

Full information concerning any of these courses can be secured on application to Prof. J. W. Crow, O.A.C., Guelph.

Experimental Union Meets

(Continued from page 2)

250 acres quite as easily as our grandfathers did 50 with their flails, cradles and wheatons.

SEVERAL SPECIALTIES BEST

"Do not put all your eggs in one basket" was a further deduction made by the Professor. He had found that the men who were making the most money were those who had two or three large specialties. For instance, one farmer with \$2,750 labor income, dairy and potatoes were the two specialties. Another farmer was cited had a man who specialized on some one thing to the neglect of all others came very high up on labor income. He raised milk.

At the Tuesday evening session two interesting illustrated addresses were given. Professor J. E. Howitt, of the Ontario Agricultural College, after a general talk on the eradication of weeds, had illustrations thrown on a screen showing the weeds in their natural colors. A short talk was given on each weed and special methods of eradication discussed. Prof. E. Z. Zavitz showed very clearly the necessity for reforestation of waste lands.

Professor Zavitz would not advocate throwing out the land but he re-forested. But by the illustrations thrown on the screen he made it evident that in many parts of Ontario waste sandy lands that can be used for no other purpose than timber production. In Ontario we have 200,000 square miles in large areas that are in need of reforestation. The forestry department are now sending out 375,000 to 400,000 trees a year to supply the demands for replanting waste lands. Altogether 2,500,000 trees have been sent out. Doctor Creelman said he believed that the township councils should take more interest in reforesting the lands within their bounds, and he appealed to his audience to use their influence in the carrying out of this proposal.

In summing up their seven years' experience of cooperative experiments in the use of legume bacteria with alfalfa, clover, peas, etc., Prof. S. F. Edwards stated that the largest amount of work has been with alfalfa and red clover. From alfalfa the percentage of valuable results from inoculation was 20.4 and from red clover 56.6, which shows conclusively the value of inoculation.

"There are now over 90 schools operating school garden units," he heard from," said Prof. S. B. Creedy in reporting on this phase of

the Experimental Union's work. "These schools are distributed all over the province, but Western Ontario has taken the greatest advantage of the work. Mr. Morley Pettit, in a short report, told of the good results of the work being done in the experiments for the control of the sawfly on the apple.

ELECTRICITY FOR FARMERS

On the concluding evening of the session, Hon. J. S. Duff, Minister of Agriculture, was the guest of honor. He spoke as Hon. Adam Beck, who spoke on electricity on the farm, told of the work that has been done by the Hydro-Electric Commission and of the plan they were making to extend the work in rural sections. Mr. Beck made clear the numerous advantages of electricity can be applied on the farm by means of lantern slides, showing electrically-driven machinery in operation.

The election of officers for the ensuing year results as follows: President, F. W. Goble, Woodstock, who, in the absence of the president, W. J. Lennox, presided at the meetings this year. Vice-presidents, Lewis Toole, Mount Albert; Board of Control, Dr. G. C. Creelman, Hon. Nelson Monteith, F. C. Hart, Jas. I. Dennis, H. Groh, and Jas. Miller; auditors, Messrs. Graham and W. Mason. Prof. C. A. Zavitz, who has done so much to bring the Union to its present state of usefulness, will continue as secretary, and Prof. H. L. Rutt as treasurer.

How to Stimulate Production of Nitrogen in the Soil

Extract from "Artificial Fertilizers; Their Nature and Use."

By B. Ledie Kuster, C.D.A., P.A.S.I., F.G.S.

"If the farmer grows a crop of clover or other leguminous crop, having in view the enrichment of the soil in nitrogen, he will naturally wish to have as big a crop as possible, and the way to ensure the proper development of a nitrogen-gathering crop, so as to enable it to rob the atmosphere of the quantity of valuable nitrogen, is to see that the crop is provided with a sufficient supply of the other plant foods, viz., phosphoric acid and potash.

"No factory can be kept going unless regularly supplied with the motive power necessary for the evolution of the finished product; no more can this nitrogen factory in the soil maintain its productive capacity unless a regular supply of power in the form of phosphoric acid and potash be available. Legumes, although independent of an artificial source of nitrogen, are nevertheless very dependent on an easily assimilable supply of the other plant foods."

Farmers can obtain copies of this and other bulletins, treating of this important subject, by applying to GERMANY PATENT SYNDICATE, Temple Building, Toronto, Ont.

In an old tree that is inclined to split apart, two branches can be brought together and wound into each other. This will hold the tree together better than running a bar across it.—J. W. Clark, Brant Co., Ont.

Compare the "BISSELL" with other disks

Thousands of Canadian Farmers have tested the "Bissell" Disk Harrow in the same field with other makes and found that the "Bissell" HAS THE GREATEST CAPACITY. The plates on the "Bissell" Harrow are the correct shape. It cuts, turn and pulverize the soil where others only scrape ground and set it on edge.

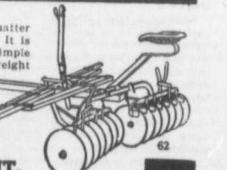
"Bissell" does clean work where others make a poor job of it.

The "Bissell" Scrapers meet the plates clean and keep the plates clear. Moving Clod rollers are an exclusive feature — keep the space between the plates clear.

The "Bissell" stays RIGHT DOWN TO ITS WORK. It won't bind,

buckle or bump in the centre no matter how stiff or hard the soil may be. It is built to hold together under any condition of balancing the driver's weight removes neck weight. It is the Harrow you should know more about.

Write to Dept. R for catalogue with description.



T. E. BISSELL CO., LTD., ELORA, ONT.

Notes

J. W. F.

In our feed the horse

roost for the

scattered over

of the roasts

for their circulation

We practice dry

dry mashes

our dry manure

oats are prepared

ed oats. If

we give clover

buttermilk

wheat is fed

at night

corn for the

t frost out of

in this way

they will

The habit

eating their

to lack of

of the

Buttermilk

for all but

at night

takes the

Without it

Crushed of

grit.

Peter

With 700

1,000 birds

Shaw held

Hill, Peter

successful in

John Bent

ways place

said that

had much

ability

ference. W

largest cal

second plan

breeds Buff

numerous

many entr

Dairy

The win

petition co

Western O

ion were

annual co

The win

the patron

Peter Ar

Black Cree

in farms,

grades, 79

of milk a

Swaburg

14 Holste

7,622

cal. of mil

London,

acres in f

horn grad

lbs. of mil

per acre

most Fac

lbs. of mil

acres

Section I

brook, New

built to s

Holstein g

ter fat, 26

42 lbs. of

acres. 2;

daga, Bra

POULTRY YARD

Notes on Feeding Poultry

J. W. Clark, Brant Co., Ont.

In our fresh air house, we always feed the hens after they have gone to roost for the night. The feed is scattered in a litter and the hens have an opportunity to pick through it. On the roasts in the morning to scratch for their food and get their blood in circulation.

We practice hopper feeding with dry mash exclusively. The basis of our dry mash is crushed oats. Crushed oats are preferred to whole oats. Rolled oats, if fed in any quantity, will cause indigestion. For green feed, we give clover leaves or mangels; buttermilk to drink. Whole corn and wheat is fed in the litter. On very cold nights, it will pay to warm the corn for the night feed to get the frost out of it. Where hens are fed in this way, I will guarantee that they will lay and hatch in winter.

BEST RESULT OF AID FEEDING

The habit which hens acquire of eating their own eggs is generally due to lack of animal food. Feather eating is often due to the same cause. Buttermilk takes the place of animal food and is preferable to sweet milk for all but very young chickens. The grit which hens take as food takes the place of teeth in humans. Without it indigestion is inevitable. Crushed oyster shell makes first class grit.

Peterboro Poultry Show

With 70 exhibitors showing over 1,000 birds, the Peterboro Poultry Show held last week in the Market Hall, Peterboro, was the most successful in the history of the show. Mr. John Bennett, of Peterboro, has always placed the awards at this show, said that the quality of the entries had much improved this year.

Utility breeds were most in evidence. White Wyandottes were the largest class, with White Rocks in second place. In the Mediterranean breeds Buff and Brown Leghorns were numerous, there being four times as many entries as two years ago.

Dairy Herds Competition

The winners in the dairy herds competition conducted last year by the Western Ontario Dairywomen's Association were announced last week at the annual convention of the association.

The winners were as follows among the patrons of these factories: 1, Peter Arbogast & Sons, Schribringville, Black Creek Cheese Factory, 196 acres in farm, 10 Holstein and Shorthorn grades, 79,726 lbs. of milk, 7,972 lbs. of milk a cow, 47 lbs. of milk produced per acre; 2, Seydell's Lumber, Swagbar Factory, 76 acres in farm, 14 Holstein grades, 106,727 lbs. of milk, 7,622 lbs. of milk a cow, 1,420 lbs. of milk per acre; 3, Fred Borkin, London, White Oak Factory, 160 acres in farm, 12 Holstein and Shorthorn grades, 77,357 lbs. milk, 6,111 lbs. of milk a cow, 888 lbs. of milk per acre; 4, Wm. W. Hartley, Belmont Factory, 50 acres in farm, 8 Holstein, 44,444 lbs. of milk, 5,555 lbs. of milk a cow, 888 lbs. of milk per acre.

Section 2: 1, W. G. Pearson, Holbrook, New Lawson Factory, 100 acres in farm, 17 Holstein and Holstein grade cows, 126,655 lbs. of milk, 7,476 lbs. of milk a cow, 1,236 lbs. of milk per acre.

CREAMERY PATRONS

Section 1: 1, R. M. Borrie, Beachville Creamery, 50 acres in farm, 8 Holstein grade cows, 2,101 lbs. of butter fat, 202 lbs. of butter fat a cow, 42 lbs. of butter fat produced per acre. 2, A. W. VanSickle, Onondaga, Brant Creamery, 230 acres in

farm, 14 grade Shorthorn cows, 2,815 lbs. of butter fat, 165 lbs. of butter fat a cow, 10 lbs. of butter fat per acre.

SWEETSTAKES MEDALS

Peter Arbogast & Sons, Schribringville; R. M. Borrie, Beachville. The winners in both classes again raised the standard for the amount of milk and butter fat per cow over previous years.

The annual meeting of The Canadian Shire Horse Association will be held on Friday, Feb. 2nd, at 10 a. m., in Room F, King Edward Hotel, Toronto. Members from east of Port

Arthur should purchase single fare tickets to Toronto and secure standard certificate receipt from the ticket agent.

The next annual meeting of the Dominion Grange will be held in Victoria Hall, Toronto, Jan. 24 and 25. In addition to routine business, plans will be discussed for pushing the work of the Grange, and addresses on economic subjects will be arranged for. Mr. Geo. Keen, Brantford, has agreed to lead the discussion on "Cooperation," and Mr. W. C. Good, Brantford, will speak on the Initiative and Referendum.

WESTERN ONTARIO DAIRYMEN HAVE SUCCESSFUL CONVENTION

Dairy Production Increasing. Creameries Have Record Year. Dairy Commissioner Ruddick Looks for a Continuance of High Prices for Dairy Produce

WHILE the prices of dairy products have been high, they are likely to remain so, was the important prediction made last week by Dairy Commissioner A. Ruddick of Ottawa at the 45th annual convention of the Western Ontario Dairywomen's Association held in Ingersoll, Ont.

That the dairy industry in western Ontario is in a thriving condition was made manifest by the reports read and addresses given at the convention. Convention week is one of the most important periods of the year to the dairymen in the western district represented by the association. Last week was not an exception, in spite of the heavy storms, that delayed trains for hours and prevented some of the leading speakers from being present, the attendance was large, almost as large as usual, and the addresses and discussions instructive and helpful.

THE HIGHEST TROPHY

As usual, the exhibit of cheese and butter proved one of the most interesting features. While the number of exhibits was not quite as large as usual, due in part to the prevailing high prices, the quality and finish of both classes was of a very high class. This is shown by the fact that every prize winner but one scored 97 points or over out of a hundred. Chief interest, as always, centered in the winning of the handsome cheese buyers' trophy, valued at \$150. This year the honor fell to D. Menzies of Molesworth, who won a number of other awards. This cup must be won three times or twice in succession before it becomes the property of the party winning it. This is the first year Mr. Menzies has won the cup. It was first offered for competition in 1903.

THE DAIRY FARMER CENTRE

Considerable interest was aroused by the presentation to Mr. Isaac Holland of Brownsville of a handsome silver tea service as the second prize for western Ontario, in Farm and Dairy prize farm competition held last year. The presentation was made by Mr. E. T. Henderson, president of the Canadian Salt Co., Windsor, who during the past three years has given \$400 to assist the committee of management in the conduct of the competition. Mr. Henderson praised Farm and Dairy for the good work it is doing and urged dairy industry holders the farmers and manufacturers of Canada should work together to make this the greatest country the world has ever seen. He congratulated Mr. Holland highly on his success. Mr. Holland, in his reply, spoke of the benefit he had derived from the competition and was pleased that it had brought the honor to Oxford county.

OFFICERS ELECTED

President, D. A. Dempsey, Stratford; 1st vice pres., E. B. Burgessville; 2nd vice pres., S. E. Facey, Harrietsville; 3rd vice pres., J. B. Smith, Alton; sec.-treas., Frank Herna, London. Directors: Stratford group, D. A. Dempsey; Woodstock group, S. R.

Wallace; Listowel group, Thos. Balauntey, Stratford; Brantford group, J. N. Paget, Canboro; Simcoe group, Holert Myrick, Simcoe; Ingersoll group, S. E. Facey, Ingersoll; London group, J. H. Maur, London; and Jas. Bristow, St. Thomas; Western and Northern creamery group, J. H. Scott, Coluden; Eastern and Southern creamery group, J. B. Smith.

Auditors: J. A. Nelles, J. C. Hogler; representatives to Western Fair, Frank Herna and John Brodie, Mapleton; representatives to Canadian National Exhibition, Toronto, Frank Horns and R. Johnston, Woodstock.

PRESIDENT'S ADDRESS

President Wm. Waddell of Kerwood showed that while there had been a slump in prices early in the season last year, the later prices realized established new records and showed the sound basis on which the industry is now established. The total exports for the year will equal, if they do not exceed, those of 1910. While there has been a decrease in manufacture of about 68,000 boxes of cheese, there has been an increase of 170,000 boxes of butter. The exports of cream to the United States were only about one-half of what they were in 1910, owing largely to lower prices in the markets on the other side and higher prices in Britain. Canada's home consumption of dairy produce continued to increase. The increase cannot be less than \$2,000,000 in value every year, including milk and all its products. The total home trade cannot be far from \$80,000,000 a

year, which means that our home market is by far the most important one for the dairy farmers.

It is the report of the directors regret was expressed that while prices for cheese and butter had been high, the cheesemakers did not share in the results, because of the increase of the decreased output of many factories on account of the dry season. The membership of the association last year was 315.

Continuing, the report said: "It is just possible that undue competition between factories is not having a good influence on the industry as a whole. Might it not be possible for the manufacturers in certain districts to meet and decide on respective territory, thus dispensing with the expense of having wagons from different factories hauling the milk and cream over the same routes.

"A special officer was again employed to deal with cases of deterioration or watering of milk. Your directors respectfully recommend the incoming board of directors to continue this system. The association is in debt for this work for last year \$59.70.

"In some localities cheese factory and creamery managers notice a decline during the factory season of a few producers to ship milk and cream (Concluded on page 15)

WANTED RAW FURS

Write for my prices before selling Ernest Howell, St. George, Ont.

WOMEN CAN EARN MONEY or secure useful articles of household furniture, clocks, dishes, kitchen books, etc., by seeing their friends and neighbors and getting them to subscribe to this paper. Cash commissions allowed on order sales. Get us 26 new subscribers at only \$1.00 each. We will pay you \$16.00 cash. **FARM & DAIRY, Peterboro, Ont.**

125 Egg Incubator \$10
 and Brooder **10**
 If ordered together
 20%
 Profit paid out of them.
 Borkin, Hot water, walk, double glass, floor, front railing.
 Describe it them, send for it today.
 Wisconsin Incubator Co.,
 Racine, Wis.

SKATES Given Away Free

to every boy and every girl and every other person too who reads this advertisement and would like to have right now a brand new pair of skates. **HOCREY SKATES OR SPRING SKATES**, which do you want? Take your choice of either kind. We will give one pair to you **FREE** in return for only one new subscription to Farm and Dairy taken at \$1.00 a year.

A better pair of Athletic Skates of extra quality steel and beautifully nickle plated—for only two new subscriptions.

These are "giant skates" and you will be proud to own them. You'll be proud to own them.

See a friend or a neighbor. Get him to take Farm and Dairy for one year (including all our Special Magazine Numbers and Illustrated Supplements), send us his subscription and we will send your skates at once. You can have them in a few days.

We'll do our part. Send in the new subscription and we'll be ready to enjoy the fun of having a brand new pair of bright shining skates now while the skating is good.

In ordering skates send the size of the boot in inches from the extreme heel to the extreme toe!

FARM AND DAIRY - Peterboro, Ont.



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, Alberta, Saskatchewan, Western Ontario, and Bedford, Ontario, Dairy-men's Associations, and of the Canadian Holstein, Jersey and Jersey Cattle Breeders' Associations.

2. SUBSCRIPTION PRICE, \$10 a year, 6 months, \$5.50. Single copies, 15c. Strictly in advance. In Canada, \$12 a year. For all countries, except Canada and Great Britain, add postage. A year's subscription free for a club of two new subscribers.

3. REMITTANCES should be made by Post Office Money Order, or Registered Letter. Postage stamps accepted for amounts less than \$1.00. On all checks add 2c cents for exchange fee required at the bank.

4. CHANGE OF ADDRESS.—When the old and new addresses must be given.

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

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

CIRCULATION STATEMENT
The paid subscription to Farm and Dairy exceed \$1,300. The actual circulation of each issue, including copies of the paper sent subscribers free but sold in arrears, and sample copies, varies from 11,000 to 12,500. Single copy subscriptions are accepted at less than the subscription rates. Thus our mailing list does not contain and will not contain sworn detailed statements of the circulation of the paper, and this is in accordance with county and provincial, 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 advertiser's reliability. In order 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 fully. Should we find reason to believe that any of our advertisers are unscrupulous in the slightest degree, we will discontinue immediately the publication of their advertisements. Should the circumstances warrant, we will expose them through the columns of the paper. When we will not only protect our readers, but our reputable 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 "see our advertisement in Farm and Dairy" Compliments must be sent to Farm and Dairy within one week from the date of any unsatisfactory transaction, with proof thereof. Thereafter, no refund from the date that the advertisement appears. In no case will we be held liable for the guarantee. We do not undertake to adjust trifling differences between readers and responsible advertisers.

FARM AND DAIRY

PETERBORO, ONT.

ECONOMY THAT TENDS TO POVERTY

The problem of securing teachers in our rural schools is promising to overshadow in difficulty the problem of securing efficient farm labor. Teachers there are in numbers almost sufficient to fill our schools, but really good teachers are scarce indeed. Why are our young men neglecting this, one of the noblest of all professions—the imparting of knowledge to future generations?

We Canadians have often been accused of wasteful extravagance. As a nation we are said to be drifting into the same expensive habits that are attributed to our United States neighbors. National extravagance is supposed to be one of our great sins. But in some things we have been too economical. When it comes to hiring school teachers we have been so economical that good teachers are scarce and trustees of many school districts find difficulty, particularly in the

rural sections, in getting teachers at all.

Economy in teachers is the last economy to which a wise people will descend. We should keep our best teachers no matter what the price.

We should make the financial returns such that instead of being a stepping stone to other lines of endeavor that are more profitable, teaching will become a profession, an occupation for men of wide vision. Cramming in facts and figures is not teaching. We need school teachers who can teach our children not only to mechanically repeat what others have written in books but to be able to think and plan for themselves. That is true education, and such education can only be given by thoroughly trained men and women who are making a life work of the profession.

We have not this class of teachers in our rural schools. Our economy in dealing with the school teacher problem lies in a more liberal view of the importance of the profession and financial returns to the teacher that are comparable with the returns for similar service in other lines of endeavor. Let us loosen our purse strings and make the teaching profession worth while to the best men, who now pass it by.

TEST FOR BUTTER FAT

"We never got the greatest value from keeping individual records of production of our dairy cows until we started to use the Babcock test as well as the scales," said a successful dairy farmer to an editor of Farm and Dairy recently. "We are paid for milk on the butter fat basis at our cheese factory. Through records we have found that several of our cows that we had thought inferior were really bringing us more money than others that gave more milk."

A record of the weight of milk given by each cow in our herds is valuable as an indication of the producing ability of the cow. Truly accurate records, however, must take account of both the weight of milk and quality of milk. For instance, a cow giving six thousand pounds of three per cent. milk will produce in the season one hundred and eighty pounds of butter fat, which, paid for at the rate of twenty-five cents a pound, would be worth forty-five dollars. Another cow giving only five thousand pounds of milk, did her milk test four per cent., would produce two hundred pounds of butter fat worth fifty dollars. If records of the milk production only were kept, this second cow would probably go to the butcher before number one, when as a matter of fact it was bringing in a revenue of five dollars a year more than the first one.

Many dairymen, when milk is paid for by weight, are making the mistake of not taking into account butter fat production. At the majority of our cheese factories milk is still paid for by the pooling system. But this system is bound to go, and in the next few years the dairymen who will find themselves ahead on

their cheese cheques will be the ones who have kept records of both milk and fat production and bred accordingly.

INSTRUCTORS' SALARIES

Mr. John McGregor, a director of the Eastern Ontario Dairymen's Association, estimates the expenses of a dairy instructor at \$304 a year. This leaves the instructor \$394 to clothe himself and keep his family. While this estimate of expenses is too large in some districts, in other districts it is moderate, as travelling expenses are large, and these the instructor must meet from his meagre salary. Truly a small return when the importance of the service rendered is considered.

The great improvement that has taken place in the quality of cheese manufactured in Ontario factories has been due in no small measure to the excellent work of the dairy instructors. So beneficial have been the results of the inspection and instruction work that it is now proposed to carry instruction to the patrons on the farms. To carry on this work to best advantage the staff of instructors will have to be increased.

To attract the best men, however, higher salaries will have to be paid. A salary such as the instructors now receive that affords them only a bare livelihood will not attract good men to the profession. The recommendation of the Dairymen's Association that the instructors' salaries be \$1,200 is moderate and should be acted on by the Provincial Government.

The progress that the industry of fruit growing is making in Quebec province and the increased interest in the fruit industry

Fruit Growing that farmers of that province are taking is reflected in the Pomological and Fruit Growing Society of Quebec.

Optimistic indeed was the outlook taken on the fruit possibilities of the province by the many fruit growers who gathered at the last meeting of the society held at Macdonald College recently. Portions of Quebec supposed to be entirely unsuited to the production of fruit have been proven by members of this society to have almost ideal conditions for the growing of the very highest classes of dessert apples. Some of the more optimistic fruit growers claim that there are only two or three counties in the whole province that cannot be made to produce apples profitably. Quebec farmers are taking much greater interest in this most profitable industry than in the past. Truly the fruit belt is extending.

Of the short courses to be held at the Ontario Agricultural College, two in particular should be encouraged by fruit men: We refer to the

Valuable courses in box Courses, packing of apples announced on page eight of this issue. One of the most serious difficulties under which Ontario fruit men have labored in competition for the fruit trade of Western Canada has

been the unpopular packing of the Ontario fruit. The barrel pack with which our fruit men are so familiar is not popular in Western Canada, where consumers are well acquainted with the box packed fruit from the Western States and British Columbia, and prefer that style of packing. These courses are intended to instruct Ontario fruit shippers in the styles of packing preferred on one of their best markets. The first course of this kind in Ontario was given at the O.A.C. last winter, and proved successful. If these courses prove popular it is expected that the work will be extended to all the fruit growing sections of the province. Those who are interested in seeing Ontario fruit take a first place will take advantage of this opportunity to inform themselves as to the best methods of packing apples in boxes.

The year 1911 was marked by a great increase in Canada in the number of cows tested for milk and fat production.

Tests for a Canadian Holstein Dairy Cattle tests conducted by the Breeders' Association, there has been a large increase in the number of cows under test, and, better still, many new breeders who have never before been in official test work, have entered cows that have made good records. The increased interest shown in Record of Performance work is still more marked. So great has been the number of entries of cows in this test that the present staff of inspectors have found it difficult to keep up with their work. This interest that breeders of dairy cattle are showing in production tests shows how far we are getting away from the show ring standard of judging dairy cattle.

The dairy cattle that command the high prices now-a-days are the ones that make the big records, not the ones that take the first prizes at the shows. This means more intelligent breeding and a much more rapid improvement in the producing ability of our dairy cattle.

"Eternal vigilance" has been interpreted as "indefatigable diligence." Either will bring success in farming. Both mean close application to business.

Improve Stock by Cooperating (Breeder's Gazette)

Cooperation has been such a potent factor in Denmark in the development of the dairy industry, which forms the basis of the nation's prosperity, that the system has been largely extended to breeding affairs. The census of 1909 showed that there were then 1,884 cooperative breeding societies in Denmark, of which 1,250 were devoted to cattle, 270 to horses, 253 to hogs and 102 to sheep. About one-fourth of the cattle and horses, and six per cent. of the hogs were kept by members of the breeding societies. The cooperative dairies numbered 1,167. If the results of cooperation in breeding are so satisfactory as they have been in dairying, much may be expected from Denmark as a producer of improved live stock. Cooperative systems patterned on the Danish idea are being introduced with expectations in America. They introduce high-class sires, which rapidly improve the average character of the stock in their localities.

A com-ly been ap- of Victori-increased-vines. F-it used to-been raise-

A great cent week where we the tail-p-eks each We pro-to tell you the story

It had FOUR YEARS published organized ness of tw-formed in one-to be DAIRY.

At that policy that one of HIGHEST regards its regards all public.

We plan WHAT IT-ADVERTIS-ements Electric QUESTIONS-MENTS of be permit-its column

We for-torial policy the greater trest to to fight his b-thin; to be-believed t of opposi-quer.

The pap-TO-FARM- chair the-SITION. and be a farmers' d-

Such a and de-HAVE BE-ING. OU-ated our e-by us. T-THIS PA-DELFULL-years.

While s-over a ye-House. To-chating w-farm paper- "I don't-your little- THE FA- BY YOU.

And so-how this-DAIRY, c- "A Paper-

Increased Land Values in B. C.

W. J. L. Hamilton, Nanaimo Dist., B.C.

A committee of enquiry has recently been appointed by the City Council of Victoria, B.C., to enquire into the increased cost of living in this province. Farm products are dearer than it used to be, and lately milk has been raised two and a half cents a

XII

A great number of people in recent weeks have been wondering where we got the slogan that forms the tail-piece of the advertising milks each week.

We promised some weeks ago to tell you, so shall proceed with the story herewith.

It had its beginning at least four years ago when THE RURAL PUBLISHING COMPANY was organized to take over the business of two farm papers that were formed into one, which has since come to be known as FARM AND DAIRY.

At that time we laid down the policy that this paper should be one of CHARACTER.

It would have to be THE HIGHEST CHARACTER—as regards its articles and news, as regards its advertisements, and as regards all its dealings with the public.

We planned, that NO MATTER WHAT IT COST US in immediate loss of revenue, NO FALSE ADVERTISEMENTS, no advertisements of Patent Medicines, Electric Belts, Liquor NOR QUESTIONABLE ADVERTISEMENTS of any nature would ever be permitted to gain entrance to its columns.

We formulated a definite editorial policy to make this paper of the greatest possible help and interest to the average farmer; to fight his battles, through thick and thin; to stand ever for what we believed to be the right in spite of opposition from whatsoever quarter.

The paper must be a FARMER-TO-FARMER—not a swivel arm-chair theorist to farmer PROPOSITION. It must lead the way and be aggressive on the great farmers' questions of the day.

Such a policy we have followed and developed. RESULTS HAVE BEEN MOST GRATIFYING. Our people have appreciated our efforts. They have stood by us. THEY HAVE CAUSED THIS PAPER TO GROW WONDERFULLY during the past three years.

While seated at dinner one day over a year ago in the Walker House, Toronto, one of our editors chatting with an editor of another farm paper was thus addressed—"I don't know what there is in your little paper, but SOMEHOW THE FARMERS ALL SWEAR BY YOU."

And so this is the history of how this paper, FARM AND DAIRY, came to be—

"A Paper Farmers Swear By"

quart in that city, and that, too, in spite of a great increase in population and the consequently increased consumption of milk.

One great cause of the high price of dairy products is the high price of labor, about \$3 a day on the average, so that it is difficult to obtain farm lands.

LAND WORTH OVER \$600 AN ACRE
Another and very important cause is the phenomenal rise in land values. Many of the farms around Victoria are now being built over, having been sold at fancy prices. Land values for many miles out have been greatly enhanced, so that farming, which was profitable on land worth \$200 an acre, becomes a losing proposition when that land is worth anywhere from \$600 to several thousand dollars an acre; especially when this money, invested in safe mortgages, will bring interest at the rate of eight per cent.

This increase in land values has largely affected the dairy interests. Soiling has been the exception rather than the rule, and a large acreage has, therefore, been necessary for the maintenance of a dairy herd. With changed conditions and more intensive methods of dairying are being employed, but by no means universal, so it has been incumbent on the dairymen to raise the price or see their profits seriously diminish. Even with the best methods speculation has made dairying precarious on the land nearest the city.

Truly the sudden awakening into phenomenal expansion of a province creates problems which only a few of the forehand can utilise to their advantage.

Why I Believe in Sheep Raising

John A. Turner, Calgary, Alta.

Sheep are easily managed and are the most profitable animal any farmer can keep. One reason why they are the most profitable is that they yield two profits a year,—wool and mutton.

There is a breed of sheep that will do well in every location. Where one breed would starve, another will thrive. We must not confine ourselves to the breed we like best, but adapt ourselves to the conditions in which we live and select animals best suited to bring us success and profit.

We do not neglect secure the best ram that can be bought. He will more than pay for himself in one season's crop of lambs.

Sheep help to keep the farm clean. They are fond of many weeds that are destructive to crops, and will even eat them in preference to good, green grass. They will clean fence corners and keep down weeds in the summer fallow.

A pure bred flock will pay much larger returns than a grade flock. At least that is my experience. I had 1,000 grade ewes from 1886 to 1889, and did very well with them. As the range became settled, I went into a pure bred flock on a good foundation, and have made for several years over \$1,000 annually from the flock, selling the lambs as rams and a few of the later ones as yearlings, and keeping the flock down to about 50 breeding ewes.

My advice to beginners in sheep breeding is to start in a small way. It is a business one learns by experience. In raising stock of any kind, one makes his own luck.

I cannot emphasize too much the necessity of good care. That is the only way profits will be realized. If one is interested in his business it becomes a pleasure, and, as well, it is interesting.

It costs \$33 to \$40 a year to feed a cow a maintenance ration. The feed that we give her over and above this amount is the feed that returns the profit to us.—R. W. Ward, Peterboro Co., Ont.

"MEN WHO KNOW"

USE THE

DE LAVAL CREAM SEPARATOR

Does it not mean a great deal to YOU, the prospective buyer of a Cream Separator, that such men as

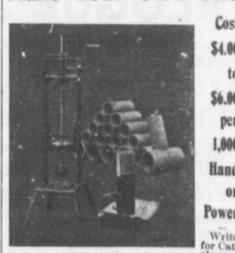
- Andrew Carnegie, the great steel magnate
- F. G. Bourne, Pres't Singer Sewing Machine Co.
- Prof. H. H. Deaa, Ontario Agricultural College
- Henry Williams, Pres't Sherwin-Williams Paint Co.
- Hon. Sydney Fisher, Ex-Minister of Agriculture
- Wm. MacKenzie, Pres't Canadian Northern Railway
- Arsene Lamy, Ltd., Montreal's Great French Store
- C. W. Seamans, Pres't Remington Typewriter Co.
- W. H. Stevens, Sec'y Ayrshire Breeders' Ass'n
- Hon. Wm. J. Gaynor, Mayor of New York City

and many others like them, good dairy farmers as well as great leaders in every sphere of human endeavor, each of whom is possessed of much personal experience and a thousand authoritative sources of separator information, are among the 1,375,000 satisfied users of DE LAVAL Cream Separators?

It's always good policy to profit by the experience of others.

DE LAVAL DAIRY SUPPLY CO., LIMITED
173 WILLIAM ST., MONTREAL 14 PRINCESS ST., WINNIPEG

Make Your Own Tile



Farm's Cement Tile Machine Company
WALKERVILLE, ONT.

How to Completely Cure

Cost \$4.00 to \$6.00 per 1,000 Hand or Power

Write for Catalogue.

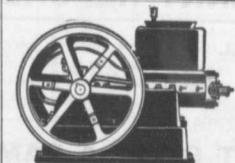
farm stock ailments is sold in FLEMING'S VET. POCKET REF. VETERINARY ADVISER. We will send you this page-book, illustrated, indexed, and will bound, free on request. It tells how to cure

HEAVES
Generally considered a lung or wind-pipe trouble, Heaves is really caused by stomach indigestion, which, through the nerves, affects the breath. The heaving disappears when the stomach is put right and the whole system tonics up.

Fleming's Tonic
Leave Remedy

Small packet for \$1.00 per packet. Your money back if any of them fail. (See how to use when you receive one.)

FLEMING BROS., Chemists
83 Church St., Toronto.



This \$15 Down
and balance in easy instalments without interest.

IT IS EASY TO BUY the wonderful Gilson "Goes Like Sixty" Powerful, simple, durable, dependable, cheapest running, easiest to operate of any engine made. A positive guarantee given with every engine. Ten days' trial—free if satisfactory, hold subject to our shipping directions, and we will return every cent of your first payment. Can anything be better? Made in Canada—no duty. The Gilson engine. Ask your banker about our reliability; founded 1850. Tell us just what work power. All sizes. Send for free catalogue. Big money for cents—write for our proposition.

GILSON MFG. CO., LTD.
101 York Street, Guelph, Ontario, Canada.

EATON'S SEMI-ANNUAL SALE

EATON'S SEMI-ANNUAL SALE

MONEY SAVINGS OPPORTUNITY FOR EVERY WOMAN AND CHILD NOW

40 PAGES OF WONDROUS BARGAINS

26 DECEMBER 1928

29 FEBRUARY 1929

T. EATON CO. TORONTO CANADA

BARGAINS YOU'LL APPRECIATE

LOW PRICE OPPORTUNITIES IN HOUSE DRESSES AND PETTING COATS

LET YOUR SHAPE NOW

WICK BUY

YOU'LL SAVE MONEY BUYING NOW

PAGE AFTER PAGE OF THIS CATALOGUE BRIMMING OVER WITH BIG BARGAINS

HAVE you received this Catalogue? If not, please say so on a postcard or a letter, and don't delay either—because this Semi-Annual Sale ends 29th February, and with it your chance to save greatly. Remember, also, that this is a special sale of specially bought merchandise at specially low prices, and in voluminous variety. That's the keynote of this greatest of all **EATON** sales. Never before have we excelled what is now offered in all round goodness and genuine helpfulness. Consider this your opportunity to make money go farther—to bring you just what you want and need most at a price much less than usual. **EATON** values are known in all sincerity and this is no exception in value-giving—so why hesitate when all this saving is within your reach. Send your order without delay and share in this bargain carnival. We anticipate bustling, bustling busy days, and we're in fine fettle to meet the rush satisfactorily.

EVERY PENNY REFUNDED IF NOT SATISFIED

WE TAKE ALL THE RISK Just to think, that what you may choose comes to you on approval, that's really so—no matter what may be the circumstance—you have to be suited absolutely or else we refund your money and also pay all transit charges. Could any offer be more favorable—and so pronouncedly beneficial. We say in all sincerity—use this Catalogue—test its values, make it your guide to greater economy with this far-reaching assurance—The **EATON** guarantee.

JUST SEND A SAMPLE ORDER—NOW THEN YOU'LL APPRECIATE ALL THE MORE THE WONDERFUL SAVINGS NOW OFFERED

IF YOU HAVE NOT RECEIVED YOUR CATALOGUE YET TELL US QUICK

THE T. EATON CO LIMITED TORONTO CANADA

Abou
Did
week
nary
ranged
you w
Dairy
the la
page
to give
This
book
(over
cas
tons,
Over
of Ca
how t
Poult
are al
serlio
The
by 5
as is
tion
Medic
and P
salves
etc. a
Train
Train
We
The
MAN'S
40 JOH
REPAIR
away
us tw
Dairy
The l
and t
of the
of spr
In
ere m
we h
own
with
and t
the o
script
If
dural
extra
We
book,
Hand
ing, c
on th
month
The
your
you
next
don't
subsc
one s
Pre
ticed
ment
and l
of S
No. 1
has
years
well.
verti
4th s
ad. I
quiri
to ac
adver
We
98 c
ward
what
barg

PUBLISHERS' DESK

About Free Horse Doctor Book

Did you see our announcement last week of the Horse Doctor and Veterinary Hand-Book, which we have arranged to give you free? If not you will be wise to look up Farm and Dairy of last week and read carefully the large advertisement published on page eleven, telling all about our offer to give you this great book.

This Veterinary and Horse Doctor book tells about the Diseases of Horses (over 200 pages describing all the diseases of the horse, telling the symptoms, cause and treatment or cure). Over 70 pages describe the Diseases of Cattle and give instructions on how to cure them. The Diseases of Poultry, Sheep and Swine and Dogs are also described and treatment prescribed for each.

The book contains 620 pages (7-1/4 by 5 inches), and is just such a book as is worth while having. In addition to describing all these diseases, it tells about Horses and Cattle Medicines, and gives Prescriptions and Preparations, including drenches, salves, liniments, ointments, poultices, etc. It also teaches Practical Horse Training, telling how to Break and Train Colts and Teach Trick Horses.

We have arranged to give this book



Book Teaches Horse Training

away free to our people who will send us two new subscriptions to Farm and Dairy each taken at only \$1 a year. The book will be sent postage paid and free of all cost to you on receipt of the two new subscriptions.

SPECIAL TO OUR OLD SUBSCRIBERS
In order that our regular subscribers may more readily obtain this book we have decided to accept each year's own renewal subscription at \$1, along with one new subscription at only \$1, and the book will be sent promptly to the old subscriber sending in the subscriptions.

If you desire this book in a more durable cloth binding send 25 cents extra to cover the extra cost.

We anticipate a big demand for this book, which is Gleason's Veterinary Hand-Book and System of Horse Training, and may not be able to supply it on this unusual basis after the next month.

Through enrolling you to doctor your own stock, this book may save you hundreds of dollars during the next few years. If you want a copy, don't delay, but send in the two new subscriptions or your own renewal and one new subscription right away.

Probably most of our readers noticed the small one-inch advertisement in the last two issues of Farm and Dairy, in which Mr. H. R. Nixon, of St. George, Ont., offered O. A. C. has advertised with us for several years now, his ads. having paid him well. Four days after his first advertisement this year appeared, Jan. 4th issue, Mr. Nixon wrote us: "The ad. is all right. Received five enquiries to-day." More people could, to advantage, sell their seed grain by advertising it in Farm and Dairy. We charge only our low flat rate of 95 cents an inch, and this will tell upwards of eleven thousand farmers of what you have for sale. Isn't this a bargain? It cannot be duplicated

elsewhere. Start your advertisement with Farm and Dairy next week.

Subscriptions have been rolling in to us of late. People seem to be liking Farm and Dairy better each year. The date on your label each week tells you when your subscription is due. Send in your renewal promptly and you will greatly oblige us. Then you will not run any chance of missing any issues.

Farm and Dairy is becoming more and more popular with our commercial advertisers too. Mr. Geo. P. Maude, manager of the Superior Barn Equipment Co., of Fergus, Ont., a new advertiser in Farm and Dairy, wrote us recently about his advertisement that appeared in our Breeders' Magazine Number, Dec. 7th; he says: "Our advertisement was most pleasing to us in the way it was set up, and also in the results thus far obtained. We will endeavor to have copy for your next issue and regularly throughout the coming year." This advertising appears again this week in Farm and Dairy. If you have not received their book on stable equipment it will pay you to write for it.

The Bartlett Company, of Detroit, who have been advertising cotton seed meal, state: "We are getting excellent results from Farm and Dairy; in fact, we believe the best results obtained from any paper in Ontario, considering the amount of money invested."

We would again ask you to familiarize yourself with our Protective Policy as printed each week on the editorial page, and remember we accept none but reliable advertisers with whom you can deal with every assurance of fair treatment.

Don't forget our great Poultry Annual now in its fourth annual series to be out in two weeks' time—Feb. 1st. It will be sure to please and interest. Why not tell a neighbor about it and have him subscribe in time to get it?

Dairy Thoughts

Wooden milk pails are usually dirty pails. We need something easier cleaned.

It is a false economy to breed from the poor cows; better sell three of them, and buy one good animal with the proceeds.

It is not enough to know that a cow gives a painful milk when she is fresh; we want to know what she produces in a year.

There is no doubt that the dairyman is well advised who sticks closely to the breed which suits his district.

There are too many animals in our yards to-day saved from bulls bred to cows for no other purpose than to "freshen them again."

Do not flush the separator bowl with milk to secure the separation of what whole milk is left in it. Use warm water instead.

Give the cow every opportunity to drink all of the good pure water she wants to drink, a little rest of her milk. The best way to give it to her is by individual basins in the stable. Out in the cold she will not drink enough.

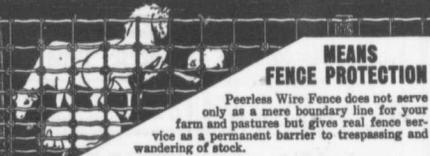
Some cows are such persistent milkers that it is almost impossible to dry them off before freshening. This should be done, however, for every good reason, a little rest.

There is lots more room for breeders of pure bred stock. Not more than one per cent. of the cattle in this country are pure bred. Who is going to supply the other 99 per cent. with better stock?

An empty stall in the barn is a poor place for a creep separator. Even throwing a horse rug over it will not keep the dirt off.

It is all right to learn by experience, but better still to learn by the experience of others. The farmer who refuses to acknowledge or to profit by his neighbor's greater success in dairying is standing in his own light.

PEERLESS PERFECTION



MEANS FENCE PROTECTION

Peerless Wire Fence does not serve only as a mere boundary line for your farm and pastures but gives real fence service as a permanent barrier to trespassing and wandering of stock.

You Should Fence Your Land With PEERLESS

We use high grade fence wire well galvanized. The joints are mated by the non-slipable Peerless Lock, making a fence that will stand up against the most severe and sudden shocks without damage. The horizontal wires are all crimped, making ample protection for contraction and expansion, keeping the fence always tight even under extreme variations of temperature.

Write for our Illustrated Booklet at Once

We also manufacture a wonderful line of poultry fencing and farm gates. Agencies almost every here. Agents wanted in all unassigned territory.

The Banwell Hoxie Wire Fence Co., Ltd.
Winnipeg, Man., Hamilton, Ont.

Are you anxious to save Time and Money on the Work you are doing on your Farm at present and to get Larger Crops from your Farm or Orchard? If so, let us send you Free of Charge our Pamphlets on the use of

STUMPING POWDERS

USED FOR—

REMOVING STUMPS AND BOULDERS
DIGGING WELLS AND DITCHES
PLANTING AND CULTIVATING ORCHARDS
BREAKING HARD PAN, SHALE or CLAY SUBSOILS, Etc., Etc.

Figure yourself what Clearing your Farm is costing now or what you are losing in crops through not clearing

Write Us About Arranging Demonstrations

CANADIAN EXPLOSIVES, LIMITED

MONTREAL, P.Q.

"A good roof adds materially to the value of your building especially if it is fire and water-proof."—The Philosopher of Metal Town.



25 Years of Actual Use

is the guarantee behind "Eastlake" Steel Shingles. We do not ask you to accept a paper guarantee, but simply point to the roofs that were covered with

"EASTLAKE" METALLIC SHINGLES

25 years ago. They are in perfect condition today, have never needed repairs. "Eastlake" Shingles are made of the best sheet steel and can be laid in one quarter the time that it takes to lay any other metal shingle. They are so different from the four-lock shingle which only overlaps 1 1/2 inches, the "Eastlake" has a full three inch overlap, absolutely preventing the drifting snow and rain reaching the wooden sheathing.

Our free booklet, "Eastlake Metallic Shingles," will save you money and worry. Send for it and get the information you want about roofing. Phone Park, 50.

MANUFACTURERS

The Metallic Roofing Co.
Limited
1774
OPPOSITE THE BANK OF MONTREAL

Sold Over 850,000 Acres
in Five Years

WESTERN LAND FOR SALE

In areas to suit purchasers
from 160 acres upwards, situated
on or near railways in the

Best Wheat, Oat and
Stock - Growing
Districts of

SASKATCHEWAN AND ALBERTA

450,000 acres to choose from
PRICES LOW

Terms most generous and helpful

Special Inducements
Given Actual Settlers

Our crop payment plan requires
no payment on land bought until
the purchaser sells his first
crop. He can use all his capital
for cultivation and improve-
ments.

Write for particulars.

RELIABLE AGENTS WANTED
IN EVERY COUNTY

F. W. HODSON & CO.

Room 102, Temple Building
TORONTO, ONTARIO, CANADA
Branch Office: North Battleford, Sask.
Also Agents Canadian Pacific Lands

Cheese Department

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

Objections to Pasteurization

The objections that are raised to
the practice of pasteurizing whey
at cheese factories were well summed
up by Mr. Frank Hems, Chief Dairy
Instructor for Western Ontario, at
the Conference of Dairy Experts held

enough to interfere with the proposi-

1. The possibility that the patrons
would be less careful in washing the
cans—This assumes that the more dif-
ficult the conditions are made for
washing the cans, the more likely are
the patrons to be particular, which
does not look reasonable. Four years'
experience with pasteurization indi-
cates improvement in can washing
rather than the opposite.

2. The possibility that the heat-
ing will not be properly done at some
of the factories and the result be
worse than the original condition—
In working out any change for the

1. When the whey is short they
get none and therefore object to pay
for heating the whey which the other
fellow is getting. They seem to as-
sume that the surplus of the spring
should be kept in the tanks for mid-
summer.

2. They object to paying the small
sum necessary for the remedy, that of
having the whey measured for heating.

3. They object to someone getting
the surplus whey or to provide any
other means of disposing of it. Fear-
ing that someone "sneakers" may go to
some other factory the matter is not
pressed. Thus on account of failure
to deal with details the main point is
lost sight of. In such cases makers
can hardly be blamed for following
the line of least resistance and mak-
ing sure that there is always plenty
of whey, such as it is.

If some measure could be worked
out whereby all factories would pas-
teurize, thus placing them on the
same basis, the drawbacks, which al-
though local in character, hinder the
voluntary extension of the system,
would be largely overcome. The hope
patrons are alive to the importance
of having the whey, if it must be re-
turned, as free as possible from ob-
jectionable features. If conditions are
sufficiently favorable the major-
ity of factories may be depended on
to do the heating properly and look
after the details.

When necessary, provision can be
made for measuring out the whey or
arranging to handle the surplus in
septic tanks, or have it drawn away
and the tanks cleaned regularly,
which should be done in any case.

Dairy Notes

At a meeting of the directors of
the E. O. D. A., at Campbellford, the
retiring president, Mr. Henry Glen-
dinning of Banilla, was presented
with a handsome satchel and gold-
headed cane by Mr. Edward Kidd,
M.P., on behalf of the directors, as
a mark of appreciation and recog-
nition of his services as president.

A resolution was passed at a
meeting of the directors of the as-
sociation, arranging to pay the in-
structors for attendance at annual
factory meetings on the same basis
as last year.

The executive committee was re-
quested to consider the advisability
of holding a dairy herd competition
in Eastern Ontario, as has been done
for several years by the Dairyman's
Association of Western Ontario, in
Western Ontario.

An application from Alfred Street
was referred to be appointed public
prosecutor for all Eastern Ontario in the
case of patrons tampering with their milk,
was read. The matter was referred
to the executive committee.

At the E.O.D. Convention, Mr. H.
H. Short, from Ottawa, introduced a
new cheese box made from wood fibre
by a new process. This box made a
favorable impression. These boxes,
which appear to be made from very
tough, pliable material, are not liable
to split readily, and are also said to
possess great resistance against mois-
ture, besides being considerably light-
er in weight than the wooden boxes
now used. They can be secured for
reasonable prices and may be soon
used in the cheese trade.

If milk comes to the factory with
other fermentations developed, the
cheese maker can then add the night
starter to get the right flavor. With
proper cool curing facilities, the de-
sirable flavor is retained, and we have
a cheese that the consumer will pay
a premium for.—R. W. Ward, Peter-
boro Co., Ont.

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



Some of Those Who Made Things Interesting at the E. O. D. A. Convention

The officers and speakers at the recent Eastern Ontario Dairyman's Convention at Campbellford are the ones to whom credit is due for the success of the Convention. Most of those here shown are well known to Farm and Dairy readers by reputation at least. No. 1 is Hy. Gledinning, retiring president; No. 2, Senator D. Derbyshire, Brockville; No. 3, T. A. Thompson, Almonte, Secy.; No. 4, John McGregor, Alexandria; No. 5, J. H. Grisdale, Dir. of Exp. Farmers, Ottawa; No. 6, G. G. Publow, Chief Dairy Instructor for E. Ontario; No. 7, J. H. Huntington, Smith's Falls, the new President; No. 8, Prof. W. H. Day, Guelph, and No. 9, A. D. MacIntosh, District Representative in Hastings County.

—Photo by an editor of Farm and Dairy.

at Ottawa last December, as follows:
OBJECTIONS TO HEATING
1. Cost—Averages about 75c (not
greater than \$1) a ton of cheese; 20,
000 lbs. whey. This is not great

but there are always a few who
cannot be trusted to do the work cor-
rectly. However, our experience is
that about 70 per cent. of the factor-
ies pasteurizing carry out the neces-
sary details; of the other 30 per cent.
probably 15 per cent. do the heating
properly but are handicapped on ac-
count of surplus whey, wash water, or
lack of water supply. The other 15
per cent. are simply careless and make
little effort to do good work.

4. The assertion that not cleaning
the tanks will prevent yeasty flavors—
to the contrary, this excuse for not
cleaning the tanks. We find fac-
tories where the tanks are not cleaned
that are troubled with fruity and
yeasty flavors, so that this argument
does not hold good.

5. It is said that in checking the
development of lactic acid by heating,
putrefactive bacteria that may sur-
vive will grow more rapidly than if
the whey is allowed to sour naturally.
—From a practical standpoint the
writer has as yet observed no bad re-
sults from this source. In the tem-
perature employed and time of expos-
ure sufficient to control this point?

6. Dilution of the whey from con-
densed steam—Hardly worth consid-
ering.

WHERE PATRONS OBJECT

A rather narrow view is occasion-
ally taken by some patrons and per-
haps by some makers. For instance,
suppose the case of a factory where
the majority of the patrons desire
the whey pasteurized. At the meet-
ing someone will object on one of the
following grounds:

CALVES RAISE THEM WITHOUT MILK
Booklet Free
*write, Briggs Seed Co., Ltd., Toronto, Ont.

\$95
AND UPWARD
SENT ON TRIAL
FULLY
GUARANTEED.

—AMERICAN— SEPARATOR

A brand new, well made, easy running, easily
cleaned, perfect skimming separator for \$15.95.
Skims one quart of milk a minute, warm or cold.
Makes thick or thin cream. Thousands in use
giving splendid satisfaction. Different from this
picture, which illustrates our large capacity
machines. The bowl is a sanitary marvel and
embodies all our latest improvements. Our
richly illustrated catalog tells all about it. Our
wonderfully low prices on all sizes and generous
terms of trial will astonish you. Our twenty-year
guarantee protects you on every American Sepa-
rator. Shipments made promptly from ST. JOHN,
N. B. and TORONTO, Ont. Whether your dairy
is large or small, get our great offer and hand-
some free catalog. ADDRESS,



AMERICAN SEPARATOR CO., BOX 1209, BAINBRIDGE, N. Y.

Creamery

Butter makers
contributions to
this department
butter making
matters for dis-
cussion in the
Creamery

Dairy Exhibitions

The exhibition
one of the best
each year at that
of the Western
Association. The
report of the
showers in this
out the quality
high. The prizes
were captured
Molesworth, Ont.

THE PRIZES

- The prize won by
September, white-
ton, 97.48.
- Atwood (won flav-
Brown, Ethel, 97.65;
wrote, 97.49; J. V.
97.48.
- September, color
south Middleton,
Sparta, 97.30; J. E.
W. Hamilton, Mon-
October, white-
ton, 97.60; 2. H.
97.41; 3. B. F. 1
October, colored
97.82; 2. B. F. H.
Yonka, Palmer, 97.
nelly, Strassfordville,
One 56-pound
Manchester, 96.45;
Kerwood, 96.66;
Thomas, 95.15; 4. H.
Twenty one-pound
Tavistock, 96.42;
stock, 96.32; 3. E.
96.99; 4. J. H. M.
96.92.
- Fifty-six-pound
H. Martin, 96.33;
35.49; E. L. Duns-
W. Patrick, St. T.
Three Canadian
October, white-
Donnelly, Scotteville,
Thompson, 97.15.

SPECIAL PRIZES

Special prizes for
Cheese buyers' tri-
value \$150, must
Molesworth, Ont.
Imperial Bank
property of the
the highest
times or twice in
cheese, one chosen
ored, D. Menzies
Gold watch, va-
cial prize of \$15
securing the high-
est (except Stillton,
tain brand of
Molesworth, Ont.)
Special for high-
est colored cheese
Ont.

Specials for bur-
derney Butter Co.
St. Leon, Que.
Woodstock, Ont.
Special for Sep-
made with Hans-
and Color, W. S.
October colored,
wood.

For highest suc-
ceeded, John Fran-
Ont October white
For best finish-
ing cheese or-
by a cheesemaker
Dairyman's Clean
C. Allan, Wood-
and most excel-
butter, same con-
tin.

For second high-
est, Stillton's
J. A. Brown, E.
tie.
For highest suc-
O'Flynn, Tavistock
St. Leon, Que.
For highest a-
white cheese, R.
J. K. Brown.

Creamery Department

Butter makers are invited to send contributions to this department...

Dairy Exhibit at Ingersoll

The exhibit of cheese and butter is one of the best educational features each year at the annual conventions of the Western Ontario Dairymen's Association...

THE PRIZE WINNERS

The prize winners were as follows: Starter, white, J. R. A. Thompson, Astwood (won flavor), 97.65; J. K. Brown, Ethel, 97.65; J. D. Menzies, Molesworth, 97.49; W. S. Stocks, Britton, 97.48. Separator, colored-1, John Francis, South Middleton, 97.49; J. L. Donnelly, Astwood (won flavor), 97.65; J. K. Brown, Ethel, 97.65; J. D. Menzies, Molesworth, 97.49; W. S. Stocks, Britton, 97.48...

SPECIAL PRIZES

Special prizes were given as follows: Cheese buyers' trophy, challenge cup, value \$100, must be won three times or twice in succession, D. Menzies, Molesworth. Bank cup, to become the property of the cheesemaker securing the highest total score, three times or twice in succession, on two cheeses, one cheese either white or colored, D. Menzies. Gold watch, value \$25, and a special prize of \$15 to the cheesemaker securing the highest score in the "Special Stilton's", made with a certain brand of rennet, D. Menzies, Molesworth. Special for highest score on October 2nd cheese, D. Menzies. Specials for butter colored with Alderney Butter Color, J. H. Martin, St. Leon, Que. C. A. Barber, Woodstock, Ont. Special for September white cheese made with Hanson's Renpet Extract and Color, W. S. Stocks, Britton. On October colored, B. F. Howe, Astwood. For highest score on September colored, John Francis, South Middleton. On October white, W. S. Stocks. Special for best finished and most stylish looking cheese on exhibition, shown by a cheesemaker using Wyandotte Dairymen's Cleaner and Cleanser, P. C. Allan, Woodstock. For the neatest and most attractive exhibit of butter, same conditions, J. H. Martin. For second highest score on cheese except Stilton's, R. A. Thompson, J. K. Brown, Ethel; W. S. Stocks, tie. For highest score on butter-1, T. O'Flynn, Tavistock; J. J. H. Martin, St. Leon, Que. For highest score on September white cheese, R. A. Thompson and J. K. Brown.

For highest score on 56-lb. box creamery butter, J. H. Martin. For highest score on 20 one-pound creamery prints, T. O'Flynn. The prizes won by Mr. Menzies were presented to him at the public meeting Thursday evening.

Western Ontario Dairymen

(Continued from page 9) away from, thus weakening the local factories. Should the output of some of these factories be reduced to any extent the result will be an increased cost of manufacturing while those who do not patronize the home factories may not at certain seasons of the year get a profitable increase in price, especially if the local factory is obliged to close early in the season owing to a curtailed milk supply. Can not we get satisfactory arrangements made to change these conditions?

MAKERS' CERTIFICATES "During the past season all competent factory operators were granted 'Makers' Certificates' by the Ontario Department of Agriculture. This seems to be working out well so far, and we trust will have a good effect on the business.

"It is expected that at this session of the Dominion Parliament the 'Inspection Sales Act' will be amended to include the branding of 'Wholey Butter.' The inspection of scales used for weighing cream samples for testing will also likely be dealt with."

FINANCIAL STATEMENT

The financial statement showed total receipts of \$4,981.85 and a balance of \$4,829.46, leaving a expenditure on hand of \$161.39. The principal receipts were: Legislative grant, \$2,000; sale of dairy exhibits, \$2,008.96; money received from prosecutions, \$440; members' fees, \$300. The main items of expenditure were: Purchase of dairy exhibit, \$2,012.02; postage, stationery, printing, \$473.32; prospector's salary and expenses, \$270.30; periodicals for members, \$229.04; half of fine paid for C. J. Torjes, \$220; stenographer's salary and directors' fees and expenses, \$500.80; convention expenses, \$149.03.

THE WORK OF INSPECTION

The reports covering the work of instruction and sanitary inspection in the cheese factories and creameries in Western Ontario were presented by Chief Inspector Frank Horns. These reports will be published in Farm and Dairy. They showed an increased production of butter of 1,758,000 lbs. and an increase of 4,328 in the number of patrons of creameries. Six new creameries were erected, involving an expenditure of 16,183. There was spent in the improvement of buildings \$13,496.

THE DAIRY OUTLOOK

The manufacture of cheese, according to the inspectors' reports, showed a decrease in 144 factories and an increase made in only 25, while 25 made the same quantity as last year. The returns for 1911 are not yet complete but are likely to show the smallest make in many years. There were 2,017 less patrons of cheese factories

than in 1910. Only 20 patrons were prosecuted for adulterating their milk. All paid fines ranging from \$5 to \$50 each. Some valuable experimental work was conducted during the year, the results of which will be announced later.

Dairy Commissioner J. A. Ruddick of Ottawa spoke on the outlook for the cheese and butter making industries as the one he considered the most promising before at Campbellford. Australia and New Zealand are going to be the great dairy competitors of the future. Their exports of butter to the United Kingdom had grown from 10,025 long tons in 1908 to 60,247 long tons in 1911. Cheese, principally from New Zealand, they sent 2,710 tons in 1902 and 20,873 tons in 1911.

DAIRY HISTORY

All the speakers for the Wednesday evening session were prevented from being present by the storms that blocked the railways. Dairy Commissioner Ruddick and Chief Dairy Inspector G. G. Fallow of Kingston took their places. Mr. Ruddick gave an outline of the history of dairying in Canada along the lines contained in his recent interesting 'Lectin dealing with that subject.' Mr. Fallow spoke of his trip last summer to Great Britain covering the same ground that he did at the Campbellford convention. The things he said, are essential in the manufacture of Canadian cheese, a cleaner, sweeter delivery of the milk at the factory, a temperature of 60 degrees at the factory, and the keeping of the cheese until they are well matured. He also urged the makers, who are doing good work, to brand their cheese.

MILK VALUES

"Casein in milk and its relation to the manufacture of cheese" was discussed by Prof. H. H. Doan. An outline of this address was given in Farm and Dairy. He recommended the fat test plus two as about the best method of paying for milk, not practical, and said that there is at least one factory in Western Ontario that is adding three to the test. Mr. C. F. Whitley of the Dairy Records Division, Department of Agriculture, Ottawa, gave the same address on "The Present Value of Cow-testing" that he gave at Campbellford. This address was published in last week's issue of Farm and Dairy. Mr. Geo. H. Barr, chief of the dairy division, described different methods of handling gathered cream. An outline of this address will be published in Farm and Dairy.

COMPOSITION OF MILK

The question, "What Is Milk?" was answered by Prof. R. Harcourt of Guelph, in a paper that will be published later. Great interest was manifested by a number of the butter makers and creamery men in the address. Mr. C. Barker of Calgary, dairy commissioner for that province, described the system of paying for cream that has been adopted by the creameries in that province and proved most successful. The dairymen of Alberta have taken the stand that

JOIN THE WORLD'S BIGGEST ARMY of Satisfied Users. Own a SHARPLES Tubular Cream Separator

Careful buyers choose the Dairy Tubular Separator... The Sharplese tubers are rapidly discarded... THE SHARPLES SEPARATOR CO. Toronto, Ont. Winnipeg, Man.



FOR SALE 1 CYLINDRICAL 300-GALLON CREAM COOLER

We are using Mechanical Refrigeration and have room for same at Point Abino Creamery, Ripley, Ont.

FOR SALE Up-to-date, cheese factory

One acre land; received \$1,500 per 100 lbs. cheese for manufacturing; 1/2 mile to school. Reason for selling-accepted Government position. This factory runs year round, and receives \$4000 run year per day in summer. Address: FRED S. HADLEY, GREEN LEAF, WIS. U.S.A. R. R. No. 3, Box 5

FOR SALE AND WANT ADVERTISING TWO CENTS A WORD, CASH WITH ORDER

WANTED-Young man to learn Butter and Ice Cream Business; also two men to travel. Must be experienced in Creamery Business. Good salary and commission for the right man. Address: Ideal Creamery Co., Portage la Prairie, Man.

FOR SALE-Iron pipe, Pulleys, Belting, Balls, Chain Wire Fencing, Iron Posts, etc., all sizes, very cheap. Send for list. Waste and Metal Co., Dept. F. D., Queen street, Montreal.

just as the farmers are paid prices that vary according to quality for the horses, cattle and other similar products they sell, so they should be paid on a quality basis for their cream. It is the universally accepted view. The address was similar to the one Mr. Markor gave at the dairy conference in Ottawa last month, extracts from which have been published in Farm and Dairy. Further reference to it will be made later.

CLOSING PROCEEDINGS

The principal feature of the closing session Thursday evening was an address by Dr. G. C. Creelman of Guelph Agricultural College, on the work of the college. Mr. T. Mayberry, M.P.A., also spoke briefly. The prizes won by Mr. Menzies in the dairy exhibition were presented to him by Mr. J. C. Hegler, K.C., one of the oldest members of the association.

Audels Answers on Refrigeration (2 Vols. \$4)



This is a well-timed work which explains in plain language the practical science of refrigeration in its most necessary and interesting applications. It gives in detail all necessary information with 35 illustrations on the practical handling of the machines and apparatus in use today.

To make the work an easy guide for careful study and ready reference the subjects are arranged in the form of "Answers," giving in plain language all the information requisite for successfully and economically operating a plant of any size.

Audels Answers on Refrigeration are in every way up-to-date, both contents and the manufacture being generously good. They contain 780 pages, strongly bound and handsomely printed in black cloth with gold edges and titles. They measure 5 1/2 inches by 8 1/2 inches and weigh over four pounds. Price \$4.00 delivered to any address. So certain are we that the work will please you, that we will send it subject to examination. We take all risk in sending you.

FREE EXAMINATION Books Will Speak for Themselves

CUT OUT AND MAIL TO-DAY Date... Please ship me, express prepaid subject to my examination and approval, Audels' Answers on Refrigeration (2 vols.) (Price \$4.00) if I find them as represented I will remit four dollars, otherwise I agree to return them to you at my expense. Signature... Occupation... Residence... Where Employed...



"N looking back over our lives, we often see that what seemed at the time the worst hours and the most helpless in their wretchedness, were in reality the best of all. They developed powers within us that had hitherto slept; developed energies of which we never dreamed.—James Freeman Clarke.

The Second Chance

(Copyrighted)

NELLIE L. MCCLUNG

Author of "Sowing Seeds in Danny"

(Continued from last week)

Pearl, the oldest daughter of John Watson, a C. P. section man living in Milford, Mass., receives a large sum of money from the relatives of a young Englishman she had nursed when ill. She decides to educate herself and the rest of the family. The Watsons are joined by their Aunt Kate, who proves not an unimaged blessing. Pearl proves an efficient and clever scholar and has dreams of being a school teacher. She sees that her small brothers are learning bad habits in the town and gives up her ambition to be a school teacher and suggests moving the family onto a farm, to which John Watson agrees. We are introduced to the children at a country school. Tom Steadman, a bully, in a game thrashed by Bud Perkins. Libby Anne does not dare to say the blow was intentional, as her father owes Mr. Steadman money. Bud Perkins is angry, but forgives Libby Anne, as he understands the circumstances. In the meantime the Watsons are getting established on their farm. The Watson family begin to attend the country school. Pearl calls on Mr. Burrell, the pastor, and asks him to conduct service in their school house. All attend the Pioneers' picnic. Sandy Braden, hotel keeper, promises Pearl not to give Bill Cavers liquor, but his brother does. Bill is found almost dead.

SANDY BRADEN put up his hand as if to ward off her fury. Bill moved his lips and she knelt beside him once more, her thin gray hair falling over her shoulders.

The sick man gazed into her face, and a look of understanding came into his bloodshot eyes.

"Ellie," he said with great effort, "—did—not—want—to—at first," and with his eyes still looking into hers, as if mutely pleading with her to understand, the light faded from them, and the last long, staggering breath went out. Then fell silence, that never-ending silence, and quite perceptibly the colour went in patches from his face.

Dr. Clay gently touched Mrs. Cavers's arm.

"Yes, Doctor, I know, he's dead." She talked like people do in their sleep.

"I did my best, Will," she said, as she smoothed his thick black hair. "I tried my hardest to save you, and I always thought I would win but they've beat me. Will! They were too strong for me, and I'm sorry!" She bent down and tenderly kissed his forehead, damp now with the dew of death.

There was not a leaf stirring on the trees. Every bird in the valley was still. Only the gentle lapping of the Souris over the fallen tree in the current below them came to their ears.

Sandy Braden's face was as white as his shirt bosom as he stood looking at Bill's quiet face.

A cheer from the lacrosse grounds came like a voice from another world; the world of life and pleasure and action.

Mrs. Cavers, roused at the sound, stood up and addressed the hotel-keeper.

"Excuse me, Mr. Braden," she said, "I was almost forgetting. Mr. Cavers, I know, had not enough with him to pay for . . . all this." She

motioned toward Bill's dead face. "This . . . must have cost a lot." She handed him some silver. "It is



A Stately Farm Home in an All-year Setting

Evergreen, pine or spruce, can be used to much better advantage than many of us suppose in arranging the "setting" of a country house. Evergreens are attractive the year round and give the farm home a very cozy appearance in winter when broad leaf trees are bare of foliage.

Photo by an editor of Farm and Dairy.

all I have with me to-day. I hope it is enough. I know Mr. Cavers would not like to leave a debt . . . like this."

Mechanically Sandy Braden took the money, then dropping it as it burned him, he turned away and went slowly up the road that he had come, reeling unsteadily. A three-seated democrat, filled with drunken men, was just driving away from his stable. They were a crowd from Howard, who had been drinking heavily at his bar all the afternoon.

They drove away—madly lashing their horses into a gallop.

Sandy Braden hid in a clump of poplars until they got past him. Looking back toward the river he saw Mrs. Cavers kneeling beside her husband, and even at that distance he fancied he could see Bill's dead face looking into hers,

and begging her to understand. Just as the democrat passed the poplars its occupants burst into mauldin song:

"Who's the best man in this town?
Sandy Braden, Sandy Braden.
Who's the best man in this town?
Sandy Braden, Sandy Braden."
And then it was that Sandy Braden fell prone upon the ground and buried his face in the cool, green grass, crying: "God be merciful to me, a sinner!"

When the victorious lacrosse team came down the street, they were followed by a madly cheering throng. They went straight to the hotel, where, by the courtesy of the proprietor, they had always been given rooms in which to dress.

Bob Steele met them at the office door, all smiles and congratulations, in spite of a badly blackened eye.

"Come on in, boys!" he called, "It's my treat. Walk right in!"

Most of the boys needed no second invitation. Bud Perkins hesitated. His father was just behind him.

"Take a little Schlitz, Buddie. That won't hurt you," he said.

Bud went in with the others. Every one was in the gayest humour. The bar-tender called in the porter to help him to serve the crowd. The glasses were being filled, when a sudden rush fell on the bar-room, for Sandy Braden, with a face as ghastly as the one he had just left on the river-bank, came in the back door.

He raised his hand with a gesture of authority.

"Don't drink it, boys!" he said. "It has killed one man to-day. Don't touch it."

Even the bar-tender turned pale, and there was a moment of intense silence. Just then some one rushed in and shouted the news of Bill Cavers's death. The crowd fell away until Sandy Braden, and the bar-tender were left face to face.

Who see your cherished ones go forth
And come not back, thro' weary years.

There is a place—there is a shore
From which they shall go out no more.

Kate Tucker Good.

When sympathetic neighbours came to visit with Mrs. Cavers that night, and "sit up" with the dead man, she gently refused to attend on them. "It is kind of you, dear friends," she said, "but I would rather stay alone to-night. It is the last thing I can do for him, and I shall not be lonely. I've sat here plenty of night, waiting for him, not knowing how he would come home—often afraid he would be frozen to death or kicked by the horses—but tonight he is safe from all that, and I am not worrying about him at all. I've got him all to myself, now, and I want to sit here with him, just him and me. Take Libby Anne with you, Martha. I am thinking of a sweet verse that seems to suit me now: 'They shall go out no more.' That's my comfort now; he is safe from so many things."

The next day was the funeral, a cloudless day of glittering sunshine and bright blue sky. The neighbours came for miles; for Bill's death and the closing of the bar had made a profound impression.

"I wonder will Sandy Braden come," Thomas Perkins said, as he tied his horse to a seeder in the yard.

"Bill was a good customer of his, and I wouldn't be surprised if Sandy came."

"You're a good guesser, Thomas," another man said, "for here he comes."

"Sandy'll open up again, I think," said George Steadman, "in a few days, when he gets over this a little. He's foolish if 'e doesn't, with the busy time just past, and money beginnin' to move."

"Well, I don't know," said Sam Motherwell. "From what I hear, Sandy says he's got his medicine, and won't take chances on getting any more. It'll be a good thing for the town if he has closed for keeps. Sandy has made thousands of dollars over his bar."

"Well," George Steadman said, in his most generous tone, "I don't begrudge it to him. Sandy's a decent fellow, and he certainly never made it out of me or mine. He's a fool if he closes up now, but if he does some one else will open up. I believe a bar is a help to the town all right!"

"It hasn't been much of a help here," Thomas Perkins said, waving his hand at the nearby graveyard.

"Oh, well, this is an exception. There's always some man like Bill that don't know when to quit. This business here is pretty rough on men, though," Mr. Steadman said, in a truly grieved tone; "losin' my tenant just before harvest; but I blame used me some of 'em, too."

"Stop, George, stop!" the broad Scotch voice of Roderick Ray's voice had not been heard before in the conversation. "Hoo hae we used Bill? He was ay fond o' it an' ay drank it to his bur' an' couldn't stop. That hae we done to help him? D'ye think it fair to leave a trap-door open under a child's feet?"

"I'll be sure you'll all know that," he grettin' in at the bottom, "but ye no tak' him up an' shut the door?"

"Puir Bill, we found him grettin' an' bruised an' sore many times, but nae o' us had the humanity to try to shut the door until he was dead."

"often, an' could rise na more, an' now Sandy h' msel' has shamed us a' an' I to ye he'll no open it again, for he has etter be in his grave that, and our sins will lie upon our own heads it we ever let you death-trap be open t' again."

(Continued Next Week.)

The U

Our Secret

For as he is—Prove

There is n

in value with

read our first

once learned

understand h

to read the m

be obtained i

d how much a

From those a

Bill, governed

love and die

as they are,

in our hearts

rect our thou

and to an ext

ever be able

clearly did

the Bible rec

ing principle

again emphas

necessary it

the inner thi

words of Solo

our hearts w

in them are

erhs 4.23.)

Who that i

the soulless

often stood a

have therein

and felt like

of the proph

is doubtful a

perately wic

Jeremiah 17

Once, howe

and thro' th

ing true spi

entering into

for it is his

from which

lives on and

to let him. In

at our discov

bravely and

good light of

ing the assur

resist Satan

(James 4.7.)

(One of the

tan is his pu

while we are

cupation of

he shapes our

our secret w

us to pray fo

God's will in

however, Sat

never deceiv

and through

revealed to

ture of the

prayers and

are sinful ha

ceive not, be

ye may cons

(James 4.3.)

When we are

unable to dec

worthy petiti

we are in pi

things and th

only. All ma

creep into ou

thoughts of G

those people

ly reproved

cries, well d

saying: This

unto me with

oreth me wh

leas is far f

15:7-8.)

There is no

can ever lear

the words of

God, saying

and know m

know my mo

be any wick

in the w

130:23-24.)

well pleasing

which He del

The Upward Look

Our Secret Thoughts the Test

For as he thinketh in his heart so is he.—Proverbs 23.7.

There is no wisdom that compares in value with that of being able to read our own thoughts. He who has once learned through God to read and understand his own heart has a power to read the motives of others that can be obtained in no other way. In spite of how much we may think we differ from those around us we are, after all, governed by the same impulses of love and distrust, likes and dislikes as they are. These are buried deep in our hearts, and influence and direct our thoughts and words in ways and to an extent that none of us will ever be able to fully comprehend. So clearly did the inspired writers of the Bible realize this great underlying principle of life, they again and again emphasized how important and necessary it is that we shall look on the inner things of the heart. In the words of Solomon, we are told to keep our hearts with all diligence, for out of them are the issues of life. (Proverbs 4.23.)

Who that has ever tried to guard the impulses of the heart, has not often stood aghast at the things that have therein been revealed to him and felt like crying out in the words of the prophet Jeremiah, "The heart is deceitful above all things, and desperately wicked; who can know it?" (Jeremiah 17.9.)

Once, however, we discover the sinful nature of our hearts, we are making true spiritual growth. We are entering into close grips with Satan, for it is his favorite abiding place, from which he would gladly guide our lives on to destruction would he but let him. Instead of becoming alarmed at our discoveries we must face them bravely and steadily and fight the good fight of faith, always remembering the assurance that if we will but resist Satan he will flee from us. (James 4.7.)

One of the awful things about Satan is his power to deceive us even while we are in the attitude and occupation of prayer. Only too often he shapes our petitions by playing on our secret selfish desires and leads us to pray for things that it is not God's will that we should have. While, however, Satan often fools us, he can never deceive God. God sees through and through us and Satan ever stands revealed to Him. He knows the nature of the motives that prompt our prayers and in the case of those that are sinful has said: "Ye ask and receive not, because ye ask amiss, that ye may consume it upon your lusts." (James 4.3.)

Often when Satan finds that he is unable to deceive us into framing unworthy petitions, he leads us while we are in prayer to think of other things and thus to treat God irreverently. All manner of worldly thoughts crowd into our minds and crowd out thoughts of God. Then we become like those people whom Christ so severely reproofed when He said: "Ye hypocrites, well did Esau prophesy of you saying: This people draweth nigh unto me with their mouth, and honoreth me with their lips; but their heart is far from me." (St. Matthew 15.7-8.)

There is only one way in which we can ever learn to read our hearts. In the words of David we must cry unto God, saying: "O God, O God, and know my heart: try me, and know my thoughts: And see if there be any wicked way in me, and lead me in the way everlasting." (Psalm 139.23-24.) That is a prayer that is well pleasing in God's sight and one which He delights to answer. Let us

utter it often and earnestly and God will grant us our desires. He will do so in exact proportion to the strength and sincerity of our petition.—I.H.N.

Things Worth Knowing

When oilcloth is dull and shows signs of wear it will be greatly improved by a thin coat of varnish.

If your iron sticks, rub it on brown paper that has been previously rubbed with yellow soap.

Your starch will not stick of you stir with a wax candle directly it is made.

When blacking a kitchen range mix the blacklead with vinegar, if

you want it to have a really good polish.

Select lamp wicks which are soft and loosely woven. Soak them in vinegar, and dry in a cool oven before using.

When lolling rice add lemon juice to the water to make the grains white, and prevent them sticking together.

Finely chopped cabbage scattered over carpets before sweeping is a wonderful cleanser, and to be preferred to tea leaves.

Grated cheese is more digestible than plain cheese, moreover, it makes a prettier dish. Serve it

small dish of it for the cheese course and see how it will be appreciated.

Will of the Soul

"One ship drives east, and another west,

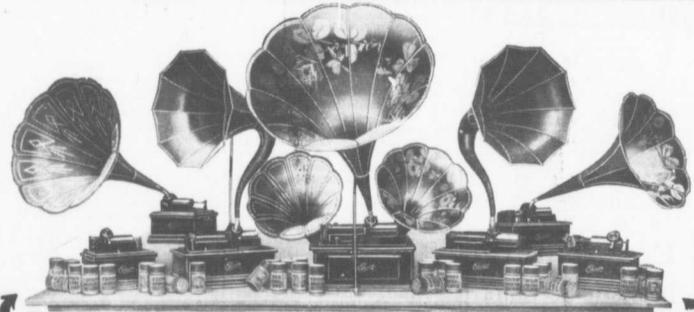
With the self-same winds that blow; 'Tis the set of the sails,

And not the gales, Which decides the way to go.

Like the winds of the sea are the ways of fate,

As we voyage along through life; 'Tis the will of the soul

That decides its goal, And not the calm or the strife."



YOUR CHOICE FREE

Of These Wonderful New Style EDISONS Shipped

Yes, FREE. Shipped positively and absolutely free as per offer below. You do not have to pay a single penny either now or later. We do not even ask you for any deposit or any guarantee, not even a C. O. D. payment to us. All we ask is that you tell us which of the magnificent Edison outfits you prefer so that we can send that one to you on this free loan offer.

Mr. Edison Says: "I want to see a Phonograph in every home."

For the Phonograph is Mr. Edison's pet and hobby. He has worked, for years, to make this Phonograph excel all others, and now you may obtain any of these wonderful new style outfits on an ultra liberal offer.



Just Take Your Choice To Buy Anything

The Edison Offer

I will send you a new model Edison Phonograph and your choice of all the Amberol records on an absolutely free loan—no obligations, no deposit, no guarantee nor C. O. D., to us whatever. I want you to have all the waltzes, two-steps, vaudeville, minstrel, grand opera, also the sacred music, etc., by the world's greatest artists. Entertain your family and your friends. Give plays and concerts right in your own parlor. Hear the songs, solos, duets and quartettes, the pealing organ, the brass bands, the symphony orchestras, the choirs of Europe's great cathedrals, the piano and violin virtuoso concerts—all these I want you to hear free as reproduced on the Edison phonograph. Then—when you are through with the outfit—send it back to me—and I will pay the freight.

My Reason:

Why should I make such an ultra liberal offer? Why should I go to all this expense and trouble just so you can have these free concerts? Well, I'll tell you. I am tremendously proud of this new instrument. When you get it in your town I know every body will say that nothing like it has ever been heard—so wonderful, so beautiful, so king of entertainers—so I am sure that at least some one—if not ten some somebody else, will want to buy one of these new style Edison's (especially as they are being offered to you at the most astounding rock-bottom price—and on easy terms as low as \$2.00 a month). Perhaps you yourself will be glad to get this outfit. But even if nobody buys I'll be glad anyway that I sent you the new Edison on the free loan—for that is my way of advertising quickly its wonderful superiority.

Get Free the New Edison Book

We will send you our handsome new Edison book and full particulars of our wonderful free loan offer absolutely free and prepaid. You should see our grand new Edison book. It will give you the list of the thousands of records and all the machines that you have to choose from. Write today—do not delay. Get the free book and learn about this wonderful free trial offer. Send postal or letter, or just the coupon without any letter—but WRITE NOW!

Edison Phonograph Distributors

Address: F. K. Babson, Vice-President and Gen'l Manager
Dept. 7673, 355 Postage Ave., Winnipeg, Canada
Western Office: P. O. Box 1000, San Francisco
E. B. O'Brien, Edison Block, Chicago, Ill.

Free Catalogue Edison Phonograph Distributors

F. K. BABSON
Vice-President & Gen'l Manager
Dept. 7673, 355 Postage Ave., Winnipeg, Canada
Western Office: P. O. Box 1000, San Francisco
E. B. O'Brien, Edison Block, Chicago, Ill.

Without any obligations on my whatsoever, please send me your new Edison book, full particulars of your new special free loan offer on the new style, improved EDISON Phonograph.

Name: _____
Address: _____

OLD COUNTRY DOMESTICS

Capable Scotch, English and Irish maids; also Danish girls. Parties arriving twice a month.

Apply now. The Guild, 71 Drummond Street, Montreal, 47 Pembroke St., Toronto, or 227 Bank St., Ottawa

FARM DAIRYING A New Book by Charles Rose Price only \$1.35 postpaid. Order through Book Dept., FARM AND DAIRY, Peterboro, Ont.

WIPE YOUR FEET

Mud, snow, dust and dirt will not be tracked over your doors if you use **Grab's Foot Scraper** outside your door. The only shoe made which means business and saves you time in one operation. Has ten parallel plates for scraping soles and two stiff bristles for scrubbing sides of shoe. Adjustable to any shoe. Looks neat. Can be removed or dropped or put on any hand. Best one and save twelve work. Price \$1.00 if you order direct to us. Illustrated folder FREE. **Grab's Foot Scraper** is made in Canada. Made in Canada. Made in Canada.

Dealer will not supply you, don't take substitute, but send your order direct to us. Illustrated folder FREE. **Grab's Foot Scraper** is made in Canada. Made in Canada. Made in Canada.

Farm Help AND Domestic Servants

Can be had on application to the

Salvation Army

Immigration and Colonization Dept. Head Office, 22 Albert St., Toronto, Ont.

Our men have given satisfaction. We bring out the best class of men and take care in the placing of them.

Acetylene Light for the Farm

J. H. Lamb Simcoe Co., Ont. A lighting system for the farm approximating the equal of city lighting services may be had from an acetylene plant. At the mere mention of acetylene I reckon many of my readers will scent danger. With a good machine and it properly installed and the exercise of reasonable precaution any danger is more imaginary than real.

Acetylene lighting, once the plant is installed, is comparatively cheap. It has the advantage over oil lighting of giving much more light and better light, and then the work of cleaning and filling oil lamps is made a thing of the past.

ABOUT THE GENERATOR

When about to install an acetylene generator one should make certain of the following points:

(1) That there is no possibility whatever of the entrance of an explosive mixture in the generator. (2) The generator must ensure cool generation.

(3) The construction must be tight and the material heavy enough to resist rapid deterioration. (4) It should be simple in construction so as to be readily understood and not apt to get out of order.

(5) It should be capable of being released and recharged without loss of gas into the room.

(6) There should be a suitable indicator to show how much carbide remains unused.

(7) The carbide should be completely used up generating the maximum amount of gas.

NATURE OF ACETYLENE

Acetylene is a colorless, tasteless gas composed entirely of carbon and hydrogen. It is lighter than air, but much heavier than coal gas. It burns with a very white light almost like sunlight. It is easy upon the eyes,

and enables them to distinguish colors accurately. The flame, for equal candle power, produces less heat than a kerosene lamp. The combustion of acetylene deprives the air of about 24 cubic feet of oxygen for each cubic foot burned.

Acetylene being a rich gas will form a dangerous explosive mixture with air. The difficulty in securing an explosive mixture, however, which must contain between 20 and 22 per cent of air, is so unlikely on account of the ease by which gas leaks are detected and the small amount of gas that is stored at any one time in the system that accidents by explosion are exceedingly rare.

NO DANGER OF ASPHYXIATION

Acetylene gas will cause asphyxiation, yet not nearly so readily as coal gas, which is the gas used for illumination in this city. No fatal results are from inhalation of acetylene are upon record, and it is claimed that it could not occur until the gas was present in the proportion of at least 20 per cent. Mantles are not used with acetylene burners owing to the fact that it is almost impossible to light the gas without a slight explosion, or jar, which would destroy the mantle, although if mantles could be used they would raise the efficiency of the lamp many fold.

For an ordinary farm house it has been estimated that the total cost of installing the entire equipment as is necessary for acetylene lighting is somewhere between \$200 and \$250. In some of our more prosperous farm homes, and as the advantages of acetylene lighting and the lack of danger with good machines become more generally known we may hope to see acetylene lighting a part of all well equipped homes such as are now the pride of our well-to-do farmers.

To Prevent Typhoid

When one is compelled to live in a house or in a neighborhood where typhoid fever prevails he should make it his invariable rule to eat and drink only such foods as have been recently heated to above the scalding temperature. Salads should be avoided, and water and milk should always be scalded before use. Fruits should be pared. The typhoid fever organism is very susceptible to heat, and slight boiling or even a good steaming is sufficient to destroy it. So far as possible the house fly should be screened out of the house, while any that gain access should be diligently pursued and destroyed. A bit of wire netting attached to a wooden handle is a convenient weapon. If these measures were consistently practised a large part of the now generally prevalent typhoid fever could be prevented, especially if in conjunction with these measures the discharges of the sick were consistently and thoroughly disinfected before being thrown out upon the soil or into latrines.

In many cases the typhoid organism persists in the bowel discharges and in the urine for quite a number of weeks after recovery, so that great care should be taken for a month or two that these discharges are not allowed to contaminate soil or water. In the case of a few unfortunate known as typhoid carriers, the organism becomes acclimated, and these persons then are a source of constant danger to their fellows.

To bowel and kidney discharges should be added an equal volume of five per cent carbolic acid solution (phenol) or five per cent solution of liquor cresol compound (United States Pharmacopoeia). Soiled linen should be put at once into boiling water. Soiled hands should be washed for five minutes in mercuric chloride water (1:1,000) colored with methylene blue to distinguish it from ordinary non-poisonous fluids and kept out of reach of children and animals. Tablets of

this character are on the market. In no case should mercuric chloride solution be put into metallic vessels, as it soon becomes inert.—U. S. D. A.

Never Say Fail

Keep pushing—'tis wiser Than sitting aside. And dreaming of sighing. And waiting the tide, In life's earnest lattle They only prevail Who march onward, And never say fail.

With an eye ever open, A tongue that will not dumb, And a heart that never turns To sorrow succumb; You'll battle and conquer Though thousands assail; How strong and how mighty Who never say fail!

The spirit of angels Is active I know, As higher and higher, In glory they go; Methinks on bright pinions From heaven they sail, To cheer and encourage Who never say fail!

Ahead, then, keep pushing. Be active I know, Unheeding the anxious Ases that Bray, All obstacles vanish, All enemies quail, In might and wisdom, Who never say fail!

In life's rosy morning, Be active I know, Let this be your motto, Turn by your feet, Your footsteps to guide; In storm and in sunshine, Whatever assail, We'll onward and conquer, And never say fail.

Hints for the Home

Equal parts of tea and lukewarm water is a good solution for sponging plants.

A great convenience when cleaning a house is a stick with a notch in the end that will lift picture cords off from hooks without so much stepping up and down.

When patching wall paper tear the edges of the piece about to be used. When pasted upon the wall a tear in paper shows less than a cut with knife or scissors.

If a meal has been taken within two or three hours of going to bed to sleep the left side to give the stomach a task which is difficult in the extreme to perform.

Pillow slips should be a half inch narrower than the pillows they are to cover. This snugness in fit insures the pillows standing upright when the bed is made up.

A clean brick represents an excellent makeshift stand for a flat-iron. Brick retains heat better than the ordinary metal rests which are usually employed for the purpose.

If cooked meat is ready for the table and it is required, place in a dish and set over a pan of boiling water placed on the back of the range and covered with cloth.

If a baby has swallowed a fish-bone and is in danger of choking use your finger in the form of a hook, and even at the risk of considerable pain relieve the little sufferer.

A little kerosene added to warm water when washing windows, especially outside, will remove the sticky condition of oil much better than alcohol, ammonia, or whiting.

Try washing of the hands with a little sugar added to the soap. This greatly increases the lather and cleansing power, and will remove dirt and chemical stains in a wonderful manner.

"If Wis Then Beg

Some peo some pocke advantage and earn so

Here is you much as \$30.

During the of our people ciums and chowng FAF friends and ne to subscribe t

We want neighbors or away and ge Dairy this y

We will paty as \$6 new Dairy each a

We will paty us \$2 new su a year.

Why not n now and hel Dairy among bora? You w turn by oriz their notice.

We will gi commission- you get them the S. Ther

Now is yo your opportu to get new s

FARM AN

Note.—This nity for you our charitv people's durt

GRAND

THROUGH AND PUL

Between TC

POR

NORTHBOND to 4.0 p.m.

Percepine 12 Toronto 7.30

SOUTHBOND Percepine 12 Toronto 7.30

The

WINNIPEG A

IS VIA

Steamship tim Make yo Full

Books

Do you wa Dairyng, Stock Farming, etc. farming? We greatly increase the value of our book catalog

Bo FARM & I

WINDSOR DAIRY SALT

"Expect to get the prize for the best butter, this year?"

"Of course I do.

I have the best cows in the country— and here's my Windsor Butter Salt.

You can't beat that combination.

You know, I have won first prize for the best butter ever since I began to use Windsor Butter Salt!"

"Hope you win"

"Thank you, so

do I"



**"If Wishes were Horses
Then Beggars might Ride"**



Some people wish they had some pocket money. Others take advantage of their opportunities and earn some.

Here is your opportunity to earn as much as \$30.00 or more.

During the past few years hundreds of our people have won valuable premiums and cash commissions by following FARM AND DAIRY to their friends and neighbours and getting them to subscribe to this paper.

We want you to see one of your neighbors or one of your friends right away and get him to take Farm and Dairy this year.

We will pay you \$30 cash if you get us 25 new subscribers to Farm and Dairy each at \$1 a year.

We will pay you \$15 cash if you get us 25 new subscribers each at only \$1 a year.

Why not take a few days off right now and help us introduce Farm and Dairy amongst your friends and neighbors? You will do them a right good turn by bringing Farm and Dairy to their notice. And you will make good time.

We will give you a very liberal cash commission on each new subscriber you get should you not be able to get the \$25. Therefore you cannot lose.

Now is your slack time. Here is your opportunity, start in right away to get new subscribers for us.

FARM AND DAIRY PETERBORO ONT.

Note.—This is an excellent opportunity for you to make talent money for your church, Sunday school or Young People's Guild.

GRAND TRUNK RAILWAY SYSTEM

THROUGH TRAIN SERVICE AND PULLMAN SLEEPERS

Between **TORONTO** and

PORCUPINE

NORTHBOUND—First train leaves Toronto at 8.30 p.m. Dec. 2nd, arriving South Porcupine at 10.45 p.m. following afternoon.

SOUTHBOUND—First train leaves South Porcupine at 12.30 p.m., Dec. 2nd, arriving Toronto 7.30 a.m. following morning.

Winnipeg and Western Canada

IS VIA GRAND TRUNK AND CHICAGO

Steamship tickets on sale via all lines. Make your reservations early.

Full particulars from Grand Trunk Agents.

Books for Farmers

Do you want to secure a good book on Dairying, Stock Raising, Poultry Raising, Farm Crops, or anything in relation to farming? We can supply you with the best books of this nature. Get a copy of our book catalogue. It is free.

Book Department
FARM & DAIRY, PETERBORO

Home or House?

The very first requisite of a home is happiness. To make a happy home atmosphere, there must be no fear. There must be no friction or discord. The furniture must be not too good to use, the floors too beautiful to walk upon. The divans must be couches for repose, and if a tired body feels like lying down upon a mattress here and there, no terror of disarranging lace covers and wonderful shams should stand in the path to rest.

A woman of tact and resource can manage to make her home comfortable and keep the appetites of her family appeased, while she allows each member of it to find comfort and freedom within its precincts and retains leisure for the development of her mind. It is all a matter of disposition and executive ability—and tact.

Parental Responsibility

The father I had known for years. To-day for the first time I saw his boy. It was as if I gazed and I had been struck into my heart. Terrible—terrible—terrible—only that, and nothing else could be said. They sat there on the wagon seat, father like son, son like father—and such a father. You have seen grouches—but, no, you never saw such a grouch as this father. Never. It was this fact that emphasized the fact.

This man never laughs. His face is a continual advertisement to this effect. To boot, misfortune brought to him a sickness, which marred his face. The summing up spells about as dampening an individual as one anywhere to be found. And the boy, poor lad, is the pattern of his father, result of a lifetime of association. At fourteen or fifteen he carried a load that would bow down nine out of ten strong men. It may be habitual—but they think of what he is being de-frauded.

If the fathers and mothers who read this could see this father and his lad, they would be very careful indeed as to what a pattern they set for their loved ones. Undoubtedly they have read many articles covering just this particular phase of development, but often the full value of such articles can be realized only by seeing actual examples.

The father who shows his boy how to give short weight is preparing his son, perhaps, for the wide open prison door. The mother who tells another woman before her children, "Your hat is lovely, Mary. It is wonderfully becoming and beautiful. You must wear it to the church picnic!"—and then comes into the house to say, "Say, isn't it a fright? Did you ever see such a combination of colors? How little short of a fool. Does she not know that such words and deeds either mar the characters of her children—or cause them such feeling of rebuke that never again can they look upon the one who should be most dear to them with the respect they had for her before?"

Think it over—your fathers and mothers. Reckon well—before you show an unlovely side to precious young souls. Smile with the little ones. Counted with the older ones. Always, though, play the game of life honestly and squarely. Boys and girls will sometimes go wrong despite the most loving and efficient care of capable parents—but such cases are truly rare. Efficient parentage, efficient children—that's the rule. Just look around. Weigh the fathers and mothers you know. Weigh them carefully without prejudice. The result will satisfy you that you can lead the child-plant aright or wrong.

When the mother weighs her son as against you—what shall it say—what shall it think—of his inherited characteristics—of his acquired characteristics—because of close association with you? Shall it say "a stiff like his father?" "a grafter like his father?" "a rako like his father?" Upon the answer "the world" depends. Let us hope that the answer will be "A man—like his father."—Fred G. Kneassmann, in "Nathalia."

By the Way—

Charm of manner is a far greater attraction in woman than great beauty.

When preparing to rise from a chair, the feet should be placed firmly on the floor, one in front of the other, the body brought upward by balancing it on the balls of the feet. It is more difficult to lift the body to a standing position when the feet are placed side by side than when one foot is slightly advanced. This position prepares one for the first step in walking once one is up.

A cheerful manner is a particularly attractive one. The girl who always seems happy and bright, no matter how she feels, is over a welcome guest in any gathering, for when she enters a room she brings sunshine with her. She has a pleasant word for everyone, a gracious bow and a merry twinkle in her eye, a good story to tell, something bright to say, and with it all she is natural. You must like her, for she has that subtle attraction so hard to define, but which you call charm of manner.

THE COOK'S CORNER
Recipes for publication are requested. Inquiries regarding cooking, recipes, etc., should be sent to the Editor, at the Household Editor, Farm and Dairy, Peterboro, Ont.

From Left Overs

Fish is to be bought in slices or chunks for boiling, rather than as a whole fish, which has a head and tail to be removed. The left-overs may be creamed and baked into salad with mayonnaise.

Slices of stale cake may be made into puddings, or dried, rolled and used as macaroon crumbs would be, in custards and creams. When only one small portion of anything is left, such as an orange or an apple or small dish of prunes, these need not be wasted. The orange may be sliced evenly and laid on lettuce for a salad; the one apple transformed into a glass of jelly; the prunes either made into soufflé, for dessert, or into prune jelly with gelatin. Even two spoonfuls of apple-sauce need not be wasted, but with custard it may form a pudding.

Deep fruit tart, baked with only apples are plenty and a little left-over crust makes tartlets for a second day. Cottage pudding may be varied by having chocolate added, or fruit baked in the crust. Bread pudding may be served in individual molds with a highly flavored sauce. Left-over puddings, if firm, may be sliced cold and fried, to be eaten with jelly.

In general, all sorts of left-over may be saved. The white fat from the top of the soup or stock is good for frying potatoes. Browned lard may be clarified by baking it with water and then straining it through cheesecloth. Half slices of bread may be toasted and put under stewed meats may be made into pudding or rolled and sifted for crumbs. Cereals may be recooked with chopped figs or dates. Boiled rice may be made into croquettes or fried; or it may be mixed with tomato and baked with cheese on top. Brown bread grown stale may be toasted and put under poached eggs, or bread may be sliced into small, thin pieces, buttered, crisp-ed in the oven and served with coffee in the place of toast.

The Sewing Room

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

CHILD'S ONE-PIECE DRESS, 774

Dresses that are cut all in one piece are the preferred ones for little children. This one is charming. For the 4 year size will be required 2 1/2 yards of material 27, 1 3/4 yards 36 or 4 inches wide with 54 yard for yoke when measure of contrasting material.

This pattern is cut in sizes for children of 4 and 5 years of age.

GIRL'S DRESS, 771

WITH OR WITHOUT SEPARATE GUMPE. The material to be worn either with or without a gump is available at all seasons. This one is made in that way and has an additional advantage of being both smart and simple.

For the 8 year size will be required 3 1/2 yards of material 27, 2 1/2 yards 36, 1 3/4 yards 44 inches wide with 54 yard 27 for the trim and 1 1/2 yards 36 and 7/8 yard of all-over material for the side for the gump.

This pattern is cut in sizes for girls of 6, 8, and 10 years of age.

BLOUSE WITH FRONT CLOSING, 777

Here is a blouse that shows the very latest features of the season. It is finished with a high revers on the right front and a round collar is cut to form a wide deep shawl and it can be worn over or under the skirt.

For the medium size will be required 3 1/2 yards of material 27, 1 5/8 yards 36 or 44 inches wide with 7 1/2 yard 21 inches wide for collar and cuffs.

This pattern is cut in sizes for a 34, 36, 38, 40, 42 and 44 inch bust measure.

SEMI-PRINCESS DRESS FOR MISSES

AND SMALL WOMEN, 772 WITH HIGH NECK AND V-OR V-SHAPED NECK AND COLLAR THAT CAN BE MADE ROUND OR SQUARE, WITH LONG OR ELBOW LENGTH SLEEVES.

Semi-princesses' frocks are exceedingly smart and well liked this season and this one will be found excellent for small women as well as for young girls. It can be made in two quite different ways, as shown on the figure. Size will be required 5 1/2 yards of material 27, 3 1/2 yards 36 or 44 inches wide with 1 3/4 yards 27 inches wide for collar.

This pattern is cut in sizes for misses of 14, 15 and 16 years of age.



HOLSTEINS

Centre & Hillview Holsteins

Head headed by Sir Sadie Cornucopia... dam, and grand dam is 24 lbs. milk...

We own the Champion of Canada... 7 days and 8124 in 30 days...

FOR SALE: Bulls up to one year old... all ages, with official backing.

P. D. EDE

Oxford Centre P. O., Ont.

Long distance phone. Woodstock Station.

Lyndale Holsteins

Offers two, young bulls born September, 1910, one of them from a tested daughter...

BROWN BROS., - - - LYN, ONT

PENINSULA FARM HOLSTEINS

Young bulls for sale from Record of Merit cows and Winter Fair prize winners.

H. T. PATTERSON, ALFRED JCT., ONT

RIVERVIEW HERD

Offers bull calves from 2 to 10 mos. old... 2018 LBS. BUTTER IN 7 DAYS and 115 87 lbs. in 30 days...

P. J. SALLEY, LACHINE RAPIDS, QUE.

FOR SALE HOLSTEIN BULL CALVES

Bull calf, born Feb. 2, whose four nearest dams average 27 lbs. of butter in 7 days...

AUCTIONEER

My lifetime has been devoted to Breeding Holsteins and selling Dairy Cattle...

Summer Hill Holsteins

Present offering: 15 yearling heifers in calf... 1 bull calf from a 29 1/2 lb. dam...

D. C. FLATT & SON HAMILTON, ONT.

Maple Grove Stock Farm

King Lyons Hengerveld, whose 7 nearest dams average 30 1/2 lbs. in 7 days...

for lambs are up to 87.10; ewes, 84 to 85; bucks and culls, 84 to 84.25; calves, 85 to 810, according to size and quality...

MONTREAL HOG MARKET

Montreal, Saturday, Jan. 13.—As high as \$7.50 a cwt. was paid this week for selected lots of live hogs...

EXPORT BUTTER AND CHEESE

Montreal, Saturday, Jan. 13.—There is very little new to say about the cheese situation here...

The Dominion General Offices of the Potash Syndicate has decided to change the name of their firm...

GOSSIP

Thursday, Feb. 1, 10.30 a.m., Canadian Standard-Bred Association, Toronto.

ANNUAL MEETINGS OF LIVE STOCK ASSOCIATIONS

Thursday, Feb. 1, 10.30 a.m., Canadian Standard-Bred Association, Toronto.

TEMPEST POSH

No. 8664, calving Feb. 1, 1911, dam, ed. July 1st, 1910, sired by Cornelius Posch No. 2259...

OFFER A FEW YOUNG COWS AND HEIFERS

Imported and home bred, bred to Sir Cremella, the richly Ormsby bred bull...

Yorkshire Breeders' Association, Walker House, Toronto. Wednesday, Feb. 7, 11 a.m., Ontario Berkshire Breeders' Association...

More Testimony

"My advertisement in Farm and Dairy brings me many answers. I find it most satisfactory."—E. F. Bronie, Ont.

"I have had excellent results through advertising my Ayrshire in the Farm and Dairy. Two-thirds of my inquiries for stock come from readers of Farm and Dairy..."

"It is only natural that all breeders of dairy stock should get such satisfactory results from their advertisements in Farm and Dairy..."

"This paper is taken and read by all the leading dairy cattle breeders in this country. They are progressive men who know and appreciate good stock..."

"When you have surplus live stock of pure breeding—if you have it now—it will pay you to sit right down and write out an advertisement and send it to us to place in these columns..."

Breeders' Association, Temple Building, Toronto.

J. W. RICHARDSON'S HOLSTEINS

Editor, Farm and Dairy.—The following is a list of the animals sold at our herd the Ontario Holstein Breeders' Consignment Sale at Tillburg recently:

- Echo, b. & d. Grey, April 15, 1907, 8175, Munro & Lawless. Toddita Aggie of Riverside, April 7, 1910, 8176, do. Lady Aggie Wayne, March 16, 1910, 8180, R. Easton, Paris. Aggie Zenobia, March 17, 1910, 8190, R. Easton, Paris. Hulda Wayne Pieteritz, April 30, 1910, 8175, T. T. Pattison. Colinda Johanna of Riverside, Feb. 26, 1910, 8100, T. T. Pattison. Adeline Mildred Faforit, March 23, 1910, 8175, R. Easton, Paris. Sir Inka Aggie of Riverside, March 30, 1911, 8125, J. G. Goltz, Bairdville. Palatin Aida of Riverside, Feb. 13, 1911, 8175, A. B. Potter, Langburn, Sask. Riverside Korndyke Johanna, Oct. 3, 1911, 835, E. B. Galt, Langburn, Sask. Torrella Posch Johanna, 8200, Dr. English - W. Richardson, Caladonia, Ont.

HOLSTEINS

FAIRVIEW FARM HERD

Too much money is spent every year for poor bulls. Why not buy a good one? Sons of Pontiac Korndyke, Ragge Apple Korndyke, and Sir Johanna Olantha Gladi for sale; 150 head in herd. Come and see them or write.

E. H. DOLLAR HEVELTON, N.Y.

Sunnyside Holstein

Bull born Feb. 23rd, 1911, extra fine individual of perfect type. Another born June 15, sired by 7 day Abbecker Merceda, whose seven nearest female relatives have records averaging 27.19 pounds.

FRANK M. JOHNSON, BOSTON, ONT.

FERNDALE STOCK FARM

Clydesdale Horses and Holstein Cattle were never stronger than now. We have 4 or 5 bulls from the famous Galloway Schiller, who is closely related to Pontiac Korndyke, who had over 200 lb. cows.

FIERMELLER BROS. - Mt. Elgin, Ont.

A Great Combination

Bulls, eight months old, for sale, combining the blood of Pontiac Korndyke and Hengerveld K of Kiel, with five 35 lb. and Hengerveld D, whose milk contains over 4 per cent fat. These are the two greatest Holstein-Friesian bulls in Canada.

A. A. FARWELL, OSHAWA, ONT.

\$75 BUYS A YOUNG BULL

Fit for service, sired by Lady Sylvia Beets Posch, sire of May Decca Sylvia, that sold for \$1000 at 2 years. This bull is out of an Officially Tested Daughter of Countess. Evenly marked and straight as a string.

E. B. MALLORY, FRANKFORD, ONT.

High Testing Lyndale Holsteins

25.7 lbs. of butter in 7 days testing 4.78 per cent fat. Also a cow of 10 years old, DoBoor, 25.18 lbs. butter in 7 days testing 4.38 per cent fat. Champion 3-year-old living in Canada.

S. LEMON, LYNDEN, ONTARIO

AVONDALE FARM HOLSTEINS

Arthur C. Hardy, Prop. We offer bull calves, all ages, and all out of tested dams. One of a son of Sir Johanna Olantha Gladi, being a grandson of Colantha 120 of the Park...

Address all correspondence to H. LORNE LOGAN, Manager Brockville, Ont.

HOMESTEAD HOLSTEIN HERD

Home of Helbon DeKok, Canadian champion of 7 and 8 days, viz., 31.24 lbs. butter in 7 days. Last year's 7 days testing 4.80 per cent fat.

E. LAIDLAW & SONS, AYLMER WEST, ONT.

Farm an... esp... of all mem... breeders... send them... ers for pub...

C. P. Han... Ayrshire a... man in Nov... anyone who... fair last fa... Ayrshire co... if entries in...

Much of ou... been import... Broo, made a... mer, and the... fore. Many... of Parlee an... brought dire... sion because... the presence... is a guaran... going to im... tending follo... of Asyrshire... Last year... animals fac... three did not... throught to... was very lit... dual merit. I... Halifax the... of the award...

RECORD

Name of cow... Pat of Hicok... N. Dymond... Flora of Met... A. S. Turner... Kirby led of... W. W. Bal... May Beau... W. S. Stewa... Flower of M... A. S. Turn... Leticia Glen... Macdonald... Lady Cairn... W. Thors... Mabel—1878... James Begg... Mrs. Craig... Macdonald... Brown—1218... John McKee...

FULLY—2500... Woodlisse... Mond of Hill... W. C. Cary... Woodlisse—2550...

TH... Dewdrop of... W. S. W... Ethel of Sto... W. Owens... Stony Creek... Alex. Hume... Flavia 2nd of... Dr. Evers... Maud of Ste... Macdonald... Mrs. James... Woodlisse... Lass O'Gover... Wm. Blevin...

Milkmaid Th... Andrew Mel... Holcomb Fil... Wm. Thors... Ottawa Can... Dir. Experi... Riverside L... R. R. New... Annie Lauric... Wm. Blevin... Maud End of... Macdonald... H. & J. Mc... Neidpath Hor... W. W. W... Since the... married as fo... fat: 17 four... with 2 1/2 p... and 294 1/4... the selection, Rus...

AYRSHIRE NEWS

Farm and Dairy is the recognized exponent of the dairy interests of Canada. Breeders of Ayrshire Cattle and all members of the Canadian Ayrshire Breeders' Association are invited to send items of interest to Ayrshire breeders for publication in this column.

AYRSHIRE PROGRESS IN MARITIME CANADA

C. F. Blanchard, Colchester Co., N.S. Ayrshires are making great advances in Nova Scotia, a fact apparent to anyone who was present at any of our fairs last fall. Usually at these shows Ayrshires comprise the greatest number of entries in the dairy classes.

Much of our stock in these provinces has been imported from Scotland. Retson Bros. made an importation this last summer, and the writer one the summer before. Many of the entries in the herds of Parlee and McIntyre Bros. have been brought direct from the Old Land. It is natural, however, it is not necessarily superior because it has been "imported," but the presence of so many imported animals is a guarantee that breeders here are going to much trouble and expense in selecting foundation stock, which is evidence of their intention to have a class of Ayrshires second to none in all Canada.

Last year, at Halifax, three imported animals faced Judge Kaine in the class for best bull; and the fact that those three did not hold their relative positions throughout the circuit, shows that there was very little difference in their individual merit. In the class for aged cows at Halifax the winner was McIntyre Bros' famous "White Lady." After the placing of the award I asked the judge how that

cow would show at Toronto, and his reply was to the effect that she would show well in any showing! At Fredericton, however, she had to take second place to our "Andra Perfection"; proof that "White Lady" was but one of many superior cows at our show of 1911. "Perfection" is now giving daily about 4 lbs. of 3.5 milk, 10 weeks after calving.

In the class for two-year-olds was "Bright Lass" a heifer that at the 1910 Highland Show in Scotland beat a heifer that was champion at the same show this year! I think these cases in order to give Farm and Dairy readers some proof that we in the Maritime Provinces have some really good things in Ayrshires.

There is, moreover, every reason to believe that this progress will continue, because farmers are being forced to the conclusion that the dairy cow is their main source of profit, and that the Ayrshire is far excellence the cow for these provinces by the sea. On account of her great abilities to forage for feed and to produce an economic dairy product, she is adapted especially to our conditions of climate, under which the dairy cow must get her own living for some five months in the year.

It is mainly on account of their characteristics that the writer has chosen the Ayrshire as a field for his endeavours.

GOSSIP

REDUCTION IN PRICE OF CEMENT
In November, 1910, it was announced that the price of cement had been reduced in the year. This was corroborated by the opinion expressed in the merging of the cement interests in Canada would prove a good thing for the public.

The theory of a consolidation such as the Canada Cement Company is that the

consolidated interests are in a position to effect economy in production and distribution.

That the Canada Cement Company are working upon the idea of increasing consumption by lowering price rather than curtailing production and obtaining higher prices, is clearly shown by its president's report. He stated that at the last annual meeting, the shareholders at "it is confidently expected that the increased demand and increased output will result in further savings in the cost of manufacture and distribution, and it is the policy of your directors to give your customers the benefit of these reductions."

We trust that the expectations of lower cost voiced by the president of the Canada Cement Company will be realized again next year, so that the company may continue its policy of giving the benefit of these reductions to its consumers—thereby enlarging the uses to which cement may be put—November "Construction."

IMPORTATION OF HOLLAND CATTLE
Chas. W. Wood, Peare, American H.P. Assoc.

For several years there have been no importations of cattle from Holland. I know of no other cause for this restriction of domestic animals where importation has been so severely restricted. We have practically disregarded the infusion of new blood. A careful study of the various authorities upon this subject and records from men who have crossed the water and visited Holland, compel with-in the conviction that the careful and scientific breeding of the Holland people, the kind, prudent methods employed by them in the care of their cattle, supplemented by the rich feed that grows upon these Holland meadows, conduces to the production of cattle in many ways superior to our own. But if this were not true, if they were only equal, even then, an infusion of new blood, to my mind, is absolutely wise and essential.

By reason of the existence of the foot and mouth disease, importation has been restricted for the past several years, by the United States Government. I trust this embarrassment or hindrance will soon be obviated; but we have a rule by which this association penalizes instead of encourages the man who would risk his fortune in importing to this country a few excellent specimens of the breed. I think this is wrong policy. The government, for the purpose of fostering importation, throws down the bars and removes the duty. This association doubles and triples the registration fee. One of the best things that could happen, in my judgment, would be the landing upon our cattle but would rather increase them and multiply breeders. I advise a very careful consideration of this subject. I am sure that some of our prominent members of this proposition are frequently heard to say that we raise better cattle here than they could do in Holland; they point to our Advanced Registry to prove it. I am content to use the same evidence which they themselves always use, and say to you that some of the most illustrious records upon the annals of our history comprise the names of cows that were bred or born across the water. Not only do the records sustain me in this particular, but the type and individuality are important factors which deserve careful attention—An address before the American Holstein Breeders' Association.

ABSORBINE

Cures Strained, Puffy Ankles, Sprains, Bruises, Pains, Swellings, Lameness, and all aches, soreness, and cuts. It is rubbed on the hair, or laid on the horse's body, and it is sure to cure all such ailments. Describe your case for free literature. Write to: W. F. YOUNG, P.O. Box 123, London, Ont.

NEWMERFUGE

The best and most effective remedy for Bots and other worms in horses. (Guaranteed by the Farmers' Horse Remedy Co., under the Pure Food and Drugs Act, June 30, 1906, Serial No. 2871.) It is guaranteed to kill and bring from the body dead in from 18 to 24 hours all pin worms and bots.

It is absolutely harmless and can be given to mares in foal before the eighth month. Practically all horse owners have written us Newmerfuge has removed between 400 and 800 bots and worms from a single horse. An animal whose stomach is full of worms cannot get fat or help being thin. Beware of imitations. 6 capsules, 25¢; 12 capsules, \$2.00. Farmers' Horse Remedy Co., Dept. A.A., 592 - 7th St., Milwaukee, Wisconsin.

Farmers, Hunters and Trappers in any part of the Province cannot afford to disregard the following: **RIGID PRICES LIBERAL ASSURANCE** on all shipments. Express and all charges on all shipments paid by us, no shipment too large or too small. **Canada's Largest Charges on all shipments.** "There's a Reason" Your business and correspondence solicited. **DR. D. A. JOHN HALLAM - Toronto**

WANTED FARMER INSTRUCTOR

A thoroughly practical man experienced in dairy farming, used to modern methods and machinery, willing to take a wholehearted interest in imparting his knowledge to the farmers of our province, clearly state age, if married, size of family, where experience was obtained, name of references, former employers, and so on. Applications addressed to:

G. W. O. MATHEWS
Superintendent of Boys' Farm
Shawbridge, Que.

Anything to Sell

We want to hear from every reader of FARM AND DAIRY who has anything to sell, and we will pay you for it. **FARM FOR SALE** Have you LIVE STOCK for sale? **INCUBATOR** **SCCO** **THING** that you want to exchange for cash or for other articles of value equal to yours? **U.S.A.** The small trader can connect with possible customers by placing a small advertisement in FARM AND DAIRY. Our rate is 85 CENTS AN INCH. Bargain sale at any time. In our classified columns at 2 cents a word. Send us your advertisement and send it to-day to Farm and Dairy, Peterboro, Ont.

RECORDS OF AYRSHIRE COWS AND HEIFERS IN R. OF P. TEST

MATURE CLASS		P.e. fat	Lbs. milk	Lbs. fat	Days
Dot of Hickory Hill-2129	N. Dymont, Clarendon, Ont.	4.10	13,191.00	542.18	354
Flora of Metcalfe-30257	A. S. Turner & Son, Erychmans Cor. Ont.	3.99	11,908.35	427.34	345
W. W. Ballantyne, Stratford, Ont.	3.86	11,903.53	389.54	355	
My Beauty-12400	Wm. Stewart & Son, Menie, Ont.	3.80	9,500	379.24	321
Flower of Metcalfe-30425	A. S. Turner & Son	4.02	9,157.45	368.70	321
Kyle Glen of Str. 16447	Macdonald College, Que.	4.00	9,116	365.29	333
Lady Cairn-1429	Wm. Thom, Lymalagh, Ont.	3.55	9,051.55	322.25	307
Mabel-12768	James Beeg, St. Thomas, Ont.	3.86	8,872.75	342.90	307
Kyle Craig 2nd of Newbrun-16717	Macdonald College, Que.	3.55	8,821.25	313.45	305
Brownie-12188	John McKee, Norwich, Ont.	4.15	8,739.64	362.31	339
FOUR-YEAR-OLD CLASS					
Julia-23580	Woodliss Bros., Rothay, Ont.	4.82	9,743.25	470.31	365
Maud of Hillview-23671	W. J. Carlyle, Chesherville, Ont.	3.69	9,028	333.5	327
Delay-23522	Woodliss Bros., Rothay, Ont.	4.24	8,679	367.93	300
THREE-YEAR-OLD CLASS					
Dewdrop of Menie-26875	Wm. Stewart & Son, Menie, Ont.	4.10	9,783	401.46	359
Ethel of Stonehill-29638	W. Owens, Montpelier, Que.	4.00	8,861.25	365.19	330
Stacy Croft Lake-30847	Wm. Thom, Lymalagh, Ont.	4.17	8,602	358.96	302
Alex. Hume & Co., Menie, Ont.	4.17	8,602	358.96	302	
Flavia 2nd of Ottawa-23197	Dir. Experimental Farm, Ottawa, Ont.	4.14	8,413	348.53	343
Dir. Experimental Farm, Ottawa, Ont.	4.14	8,413	348.53	343	
Maud of Ste. Anne-25793	Macdonald College, Que.	3.66	7,828.75	286.84	331
Meda-27790	Woodliss Bros., Rothay, Ont.	4.58	7,271	333.24	330
Lass O'Gowrie-25190	Wm. Stewart	4.04	6,896.5	279.16	333
TWO-YEAR-OLD CLASS					
Milkmaid 7th-26796	Andrew McKee, East Rorally, P.E.I.	4.22	11,673.5	492.75	365
Holthouse Flirt of Trout Run-27033	Wm. Thom, Lymalagh, Ont.	4.21	10,299.5	433.72	365
Ottawa Kate-29601	Dir. Experimental Farm, Ottawa, Ont.	3.76	9,017	339.45	365
Barnside Lucky Girl-30847	R. R. News, Newark, Que.	3.53	8,408.75	305.29	365
Annie Laurie 3rd-27987	W. W. Ballantyne, Stratford, Ont.	3.68	7,728.6	294.93	305
Stacie's White Swan-26566	Macdonald College, Que.	4.02	7,019.5	292.53	300
H. & J. McKee, Norwich, Ont.	3.66	6,933.7	247.38	338	
Nidpath Rose 15th-27620	W. W. Ballantyne, Stratford, Ont.	4.45	6,630.5	294.42	365

Since the commencement of the test 164 cows and heifers have recorded, as follows: Fifty-five pasture cows with 1,923,015 lbs. milk and 67,397.25 lbs. fat; 17 four-year-olds with 8,896.39 lbs. milk and 358.07 lbs. fat; 19 three-year-olds with 8,273.79 lbs. milk and 314.05 lbs. fat; 68 two-year-olds with 7,322.89 lbs. milk and 294.54 lbs. fat.—W. F. Stephen, Secretary, Canadian Ayrshire Breeders' Association, Huntingdon, Que.

BREEDERS' DIRECTORY

Cards under this head inserted at the rate of \$4.00 a line per year. No card accepted under two lines, nor for less than six months, or 2 insertions during twelve months.

FOR TANTWORTH SWINE—Write John W. Todd Corinth, Ont., R.F.D. No. 1.

CUYDESDALES, Imp. Stallions and Filled. Free importation always on hand. Every mare guaranteed in foal. J. & J. Semple Milverton, Ont., and Toronto, Ont., U.S.A.

CUYDESDALES—(Use of Acme. (Imp.) Holsteins—Home of King Payne Segis Holsteins, bred by 7 families, 1000 per week, and Broken Wheel Pointe—C. H. Heath, U.S.A., P.O., Manchester, Ont., Myrtle, G.P.R.

HOLSTEINS AND TANTWORTHS—All sizes, also S.C.W. Lehighs. Young stock for sale at any time.—J. McKenna, Willowdale, Ontario.

TANTWORTH SWINE—Chickens kept for sale at all times at reasonable prices. Correspondence invited. Wm. Keith & Son, Peterboro, Ont.

HAMPSHIRE PIGS—Canadian Champion Red Boar head headers. Bows three months, and under—Hastings Bros., Crosshill, Ont.

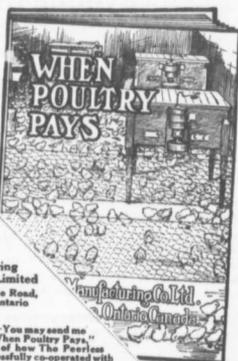


Let The Peerless Incubator Give
You Large, Healthy Hatchlings

Let The Book
Shown Below Tell You
How The Peerless Incu-
bator And The Peerless
Way Can Double Your
Profits

WE publish a handsome book which tells all about The Peerless Way. This book, "When Poultry Pays," must not be confused with The Peerless Way. It does not contain the plans, working-drawings, specifications and blue-prints that go with The Peerless Way. But it does explain—and fully—just how you can put The Peerless Way to work for you. It gives statistics showing the condition and possibilities of Canadian poultrying; tells how the Peerless Incubator and Brooder were evolved at the Poultry Yards of Canada, Limited, and how these and other things we learned about Canadian poultrying, made our own farm the most successful of its kind in Canada; and it tells, further, the story of a poultry system that is revolutionizing poultry raising in this country. The book is too expensive to send out haphazard; but if you are interested in "poultry-for-profit," have a little money, the average amount of commonsense and the willingness to look after your business, send us the coupon and we will send you one copy. Remember, we are not offering you any "something-for-nothing," or "get-rich-quick" plan, but we are offering a straight, legitimate, business proposition, which, if you go into it seriously as it deserves to be gone into, can double and treble your profits from poultry, and raise it from a side-line of your farm, to your most profitable branch of agriculture. Do you care to—

Send Us The Coupon



LEE

Manufacturing
Company, Limited
117 Pembroke Road,
Pembroke, Ontario

Gentlemen:—You may send me
your book "When Poultry Pays"
and the proof of how The Peerless
Way has successfully co-operated with
others. 44

Name _____

Address _____

Town _____

Province _____

LET THIS INCUBATOR AND THE PEERLESS WAY MAKE POULTRY RAISING YOUR MOST PROFITABLE BRANCH OF AGRICULTURE



YOU can do it—can do just what 20,846 other farmers and poultrymen have done and are doing in Canada to-day.

You can adopt The Peerless Way, take the Peerless Incubator and Brooder and with the experience that we have spent years in acquiring and which we offer you freely, double or treble your poultry-profits. Per head of population, the United States produces three dollars of poultry products to every dollar's worth produced in Canada. That means Canada should produce \$75,000,000 worth instead of \$25,000,000 worth. Canada is an under-supplied poultry market with rising prices—for example, seven years has seen the price of eggs alone just doubled. We have been so blinded with big things in Canada, that we have overlooked how really immense some of the smaller things are. The Peerless Way affords a real way to increase poultry-profits.

Let The Peerless Way Teach You Exactly What Profitable Poultrying Really Means

THE profits in any enterprise don't come from the amount of capital invested; profits come from knowledge of what to do—and, even more important—what not to do. As operators of the Poultry Yards of Canada, Limited, the largest and most successful poultry farm in the Dominion, we are prepared to teach you how to make money in poultry. You can either come to Pembroke and take a course at our poultry farm here by paying a small fee for the course—or we will teach you through the mail free all about the methods we have made so successful.

Let The Peerless Way Show You How You Can Meet The Climatic Conditions of Canada In Poultrying

OVER half the failures in poultrying in Canada are due to improper methods. Incubators, brooders, poultry-houses, etc., built for warm climates, never have and never will give, in the cold winters of the Dominion, the full possible results. The Peerless Way is the only system of poultry raising that gives recognition to this important fact. The Peerless Incubator and Brooder has been specially

designed and built for Canadian use and the blue-prints and working-drawings furnished for the erection of poultry houses, are made from houses that have actually been used and proven successful on our own poultry farm at Pembroke.

Let The Peerless Way Show You About Co-operative Marketing And Higher Prices

MORE money for your poultry and eggs—that's the secret of greater profits! To followers of The Peerless Way—those 20,846 poultrymen who use Peerless Incubators and Brooders and have adopted our methods,—we have taught co-operative marketing. We have shown them how to get top-notch prices for large or small quantities of poultry or eggs, and how to sell to the best advantage. Working along the lines that we have proven to be so successful, is making an increased revenue from poultry. You, too, can have the benefit of all our experience; for our Poultry Advisory Board is ready to teach you all these things. They are ready to give you freely all the experience that has taken them years of toil and exhaustive study to acquire, ready to set you in the right track and enable you to make profits right from the minute you start. But there is not room here to tell you all about it—the book will do that. Send us the coupon and we will send you, postage paid and without charge, "When Poultry Pays".

LEE Manufacturing Co., Ltd. PEMBROKE ONTARIO
117 Pembroke Road 44 CANADA