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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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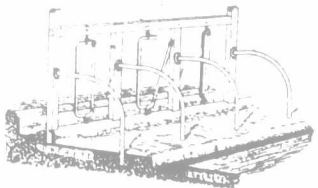
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Vol. XLIV.

LONDON, ONTARIO, JULY 22, 1909.

No. 878

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They will make it brighter and neater, are stronger, more durable, and cost less than any other tie when all is considered. Your cows will be kept clean and comfortable. Ask us how to lay out your stable, and why it pays to use "BT" STANCHIONS.

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Hay Carriers. Litter Carriers, etc.

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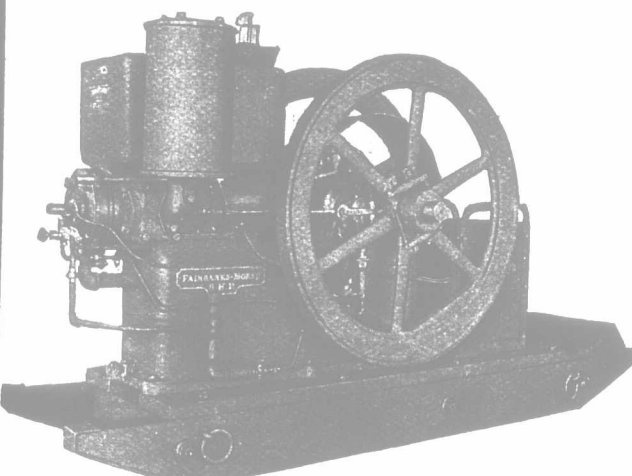
Every Spring or Summer the torn and discolored paper has to be replaced—a dirty, disagreeable job. Do away with this labor and expense, lay

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They can be had in a great many artistic designs, and are so sanitary—no falling bits of plaster—no vermin or insects that cling to papered walls.

Our free booklet, "Interior Decoration in Metal," tells you all about it. Write us for one. Phone Park 800.

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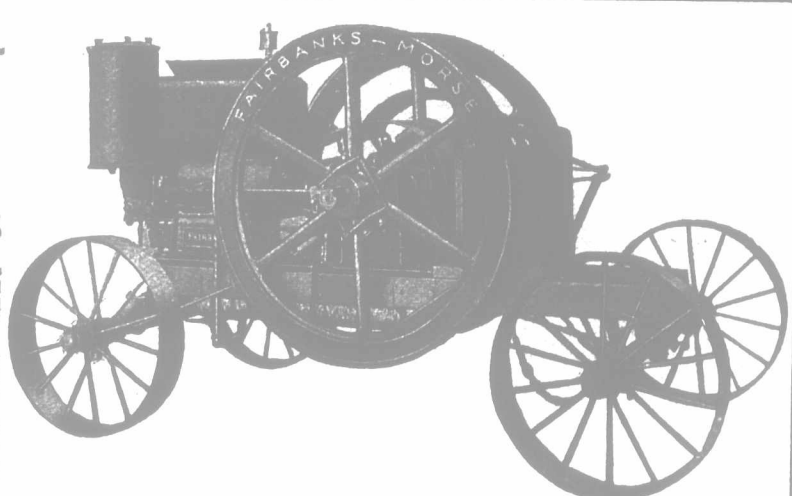
Improved Skidded and Portable Evaporator Tank
GASOLINE ENGINES

These engines are built along the same lines as our Fairbanks-Morse Standard Horizontal Engines, with the exception that our improved Cast Iron Evaporator Tank is cast on top of cylinder, as shown in illustration.

No cooling tank is required, thus overcoming the difficulty of carrying the usual great volume of water. The lubrication difficulties of Air Cooled Engines are overcome in the above. There is very little water in the tank to take off by drain in the cold weather, thus saving time and trouble, and there is no water pump to freeze up. We provide a shield to prevent water slashing out of the Hopper Jacket.

The skidded engine is a very desirable outfit where it is necessary to move the engine, providing a means whereby the engine can be drawn about on its iron-shod runners, or can be placed on a farm truck or a bob sled. The engine itself is Fairbanks-Morse in every respect, and ensures to the customers the best there is in Gasoline Engine construction.

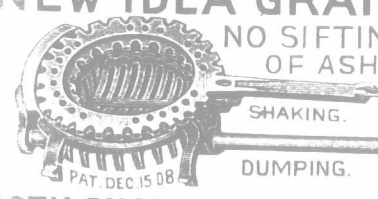
Send for our FREE CATALOGUE G E 102, showing our full line of Fairbanks-Morse Vertical and Horizontal Gasoline Engines and Machinery for farm work. It means money saved for you.



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FACTORY: TORONTO, ONT.

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NO SIFTING OF ASHES
SHAKING.
DUMPING.
BOTH SHAKES AND DUMPS



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ASK FOR FREE CATALOGUES.
SEND SIZE OF HOUSE
IF YOU WISH ESTIMATE OF
COST OF FURNACE
INSTALLED READY FOR USE
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With New Patent Side-delivery Self-buncher at Work

Patented '97, '05 and '06



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Harvesting from 10 to 12 acres per day in the most economical and complete manner. Harvests to suit all kinds of mowers. A wrench is all that is required to attach it to any mower. Every machine warranted. Our motto: "Not how cheap, but how good." Give your orders to any of our local agents, or send them direct to:

Tolton Bros., Ltd., Dept. F., Guelph, Ont.

Are you pestered with POTATO BUGS? If the old remedies won't work, try

VANCO BRAND Arsenate of Lead

IT WON'T BURN.
IT SPRAYS EASY.

IT STICKS WELL.
IT KILLS SURE.

100 lb. kegs	110. per lb.	Net cash f.o.b. Toronto.
50 " "	115. " "	
25 " "	120. " "	
12 1/2 " "	130. " "	

Use two or three pounds to forty imperial gallons water.

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Manufacturing Chemists
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Sunshine grates have maximum strength

Sunshine Furnace has four triangular grate bars, each having three distinct sides. In the single-piece and two-piece grate no such-like provision is made for expansion or contraction, and a waste of coal always follows a shaking.

On the left- and right-hand sides are cotter pins, which when loosened permit the grates to slide out. These four grate bars are made of heavy cast iron, and are finished up with bulldog teeth. The teeth will grind up the toughest clinker; and

SUNSHINE furnace

because the grates are made in sections, not only can nothing but dust and ashes pass through, but after each shaking a different side can be presented to the fire. Also, with the Sunshine grate there is no back-breaking movements attached to the shaking. By gently rocking the lever, first on the left and then on the right, the ashes are released on both sides, and fall through the pan.

McClary's

THE SPICE OF LIFE.

Small Henry had been questioning his mother about the mysteries of death, and was greatly concerned to hear that people who went to heaven couldn't take along their bodies. He was in the middle of the following night crying bitterly. His mother hastened to his bed. "Henry, Henry, what in the world is the matter with you?" With many sobs and groans the child managed to tell his woes: "O, mother, I don't want to go to heaven without my stommie."

As Mrs. Brown was going away for the day, she told her colored maid, Ella, that she might have a holiday, too, but that she must lock the house up securely and put the silver away in a safe place.

When Mrs. Brown came back in the late afternoon, her feelings may be imagined as she read the following note pinned to the front door:

"Dear Mis Brown—I hid the silver secure under yure bed. Lovingly, Ella."

A certain couple in a New England village, each the parent of six children, recently had meted out to them a kind of poetic justice in which they failed to see the poetry.

The woman, a widow, pleading that she had no home, and was, therefore, unable to care for her children, induced the local authorities to admit them to an orphan asylum. The man, a widower, pleading he had no housekeeper, and, therefore, no one to care for his children, induced the authorities to admit his six also. Thereupon, being free from all incumbrances, these two married.

All went well for a few months, when the authorities, learning of the situation, promptly dispatched the twelve children back to their parents, and the woman, no longer able to represent herself as homeless, or the man without a housekeeper, they were forced to receive them.

THE RAZOR STROPPING HIMSELF.

When the train stopped at the little Southern station, the Northern tourist sauntered out on the platform. There were the usual number of sunbonneted women, tall "crackers" and stray hogs. Under a scrub oak stood a lean animal with scraggy bristles.

The tourist was interested. "What do you call that?" he queried of a lanky native.

"That ar' a hawg," elucidated the other.

"What kind of a hog?"

"Razohack hawg."

"That so?"

"Yes, that's so."

"Well, what is he doing rubbing against that tree?"

"He's stropping himself, mister, jest stropping himself, and if you ask any more foolish questions around here we'll pull you off the train." And the tourist wisely withdrew.

TRYING FOR A SIX-DAY HEN.

A facetious correspondent of the Toronto World informed that paper, according to a dispatch dated Guelph, July 4th, that an important scientific experiment was being conducted at the Agricultural College Poultry Department, based on the Darwinian theory of selection. It proceeds on the assumption that certain hens will be found that observe the Sabbath, laying only on six days a week, while certain roosters are believed never to crow on Sunday. When a sufficient number of hens have been secured, by selection, that are known positively never to lay eggs on the Sabbath, they will be mated with the best roosters selected for their seemly silence on the day of rest, and by continued rigid selection of the progeny, it is hoped to evolve a breed that will suit the most punctilious member of the Lord's Day Alliance.

"It is believed that the idea first came through the excuse of a little boy who was late for Sabbath school, and who said he had to gather the eggs. This being reported to the Alliance headquarters, led to the search for a six-day hen."

Revolution in the Price of

RIDING BREECHES 10/6 PER PAIR



SEND FOR PATTERNS And Easy Self-Measuring Form, H. R. D. Farmer's Advocate, London, Ont.

YOU CAN SAVE

READ **50%**

WHAT A CUSTOMER SAYS:

Dear Sir,

I received in hand, at all that you have saved; they certainly are better than a pair I paid \$1. for a few months ago.

Yours very sincerely—G. J.

This gentleman measured himself according to our easy measure instructions.

MADE TO YOUR MEASURES.

Continents from all parts of the World.

BEDFORD RIDING BREECHES CO.

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CANADIAN PACIFIC

Very Low Rate for
Summer Trip to
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\$74.10

Return from LONDON Good Going May 21 to Sept 30

Return first Oct. 31. Liberal stopovers. Wide choice of routes. Go by the direct Canadian line—see your own country—the West, the Rocky Mountains. Visit the Seattle Exposition and other special attractions.

Talk it over with nearest C. P. R. Agent, or write:

R. L. Thompson, D. P. A., Toronto.

LAND FOR SETTLEMENT!

Land is offered for settlement in some cases FREE, in others at 50 CENTS per acre, in various districts in NORTHERN ONTARIO. Write for information as to terms, homestead regulations, special railway rates, etc.

HON. JAMES S. DUFF,
Minister of Agriculture,
Donald Guthrie,
Director of Colonization, Toronto.

BINDER TWINE.

Central Prison Binder Twine will be supplied to farmers as follows:

600 Feet per lb. 2 1-2c. per lb.
550 " " 2 3-4c. "
500 " " 2 1-4c. "

These prices are net cash. The twine is put up in fifty-pound jute sacks, and is manufactured from SELECT FIBER. Quality and length guaranteed.

Please specify at once what quality and quantity is required. Purchaser pays freight, and cash must accompany shipping instructions.

Apply **J. T. GILMOUR, Warden,**
Central Prison, Toronto.

Boys for Farm Help The managers of Dr. Barnardo's Homes invite applications from farmers, or others, for the boys who are arriving periodically from England to be placed in this country. The young immigrants are mostly between 11 and 13 years of age; all will have passed through a period of training in Dr. Barnardo's English Institutions, and will have been carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars as to the terms and conditions upon which the boys are placed may be obtained upon application to Mr. Alfred B. Owen, Agent Dr. Barnardo's Homes, 50-52 Peter St., Toronto.

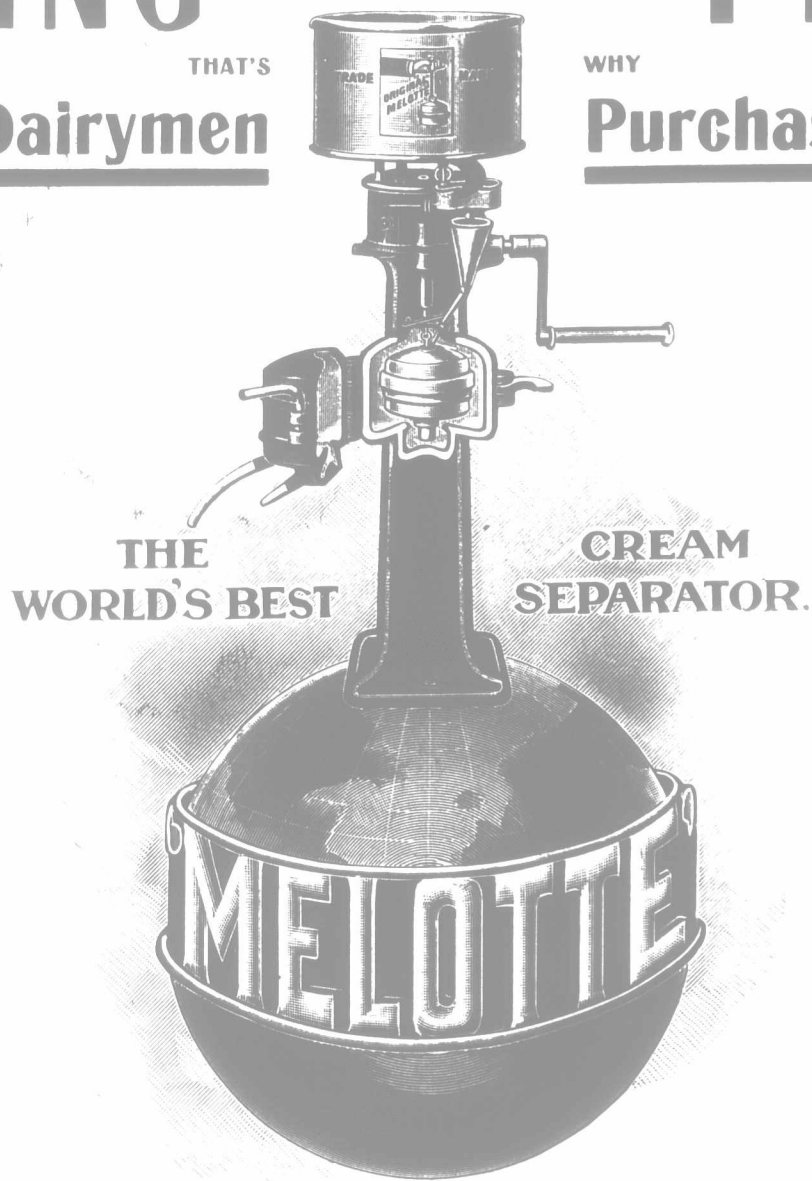
FITS CURED For proof that fits can be cured, write to **Mr. Wm. Stinson,** 134 Tyndall Ave., Toronto, Ontario. For pamphlet giving full particulars of simple home treatment, 20 years' success. Over 1,000 testimonials in one year. Sole proprietors, **Trench's Remedies, Limited, D. S. M.**

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Experienced Dairymen

WHY
Purchase "Melottes"

SEE THE
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**They
Last a
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AND PAY FOR THEMSELVES
THE FIRST YEAR.

Every machine guaranteed by

SEND FOR LATEST
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THE SPICE OF LIFE.

SEVERAL OF THEM.
"If your son asked for bread, would you give him a stone?"
"No, but I might if he asked for a piece of cherry pie."
Johnny—Hooray! Tommy—What yer so happy about? Johnny—I don't hafta go to school to-day. Tommy—Chee, y're lucky! W'y dontcher? Johnny—I gotta go to th' dentist's an have three teeth pulled.

"A high financier should be something of an economist, should he not?" I don't think so," answered Mr. Dustin Stax. "The object of an economist is to see what he can get along with; that of a high financier is to see what he can get away with."

A tourist while travelling in the north of Scotland, far away from anywhere, exclaimed to one of the natives: "Why, what do you do when any of you are ill? You can never get a doctor."
"Nae, sir," replied Sandy. "We've jist to dee a natural death."

In a certain small city there was an Episcopal church, which had two mission chapels, commonly known as the East-end Mission and the North-end Mission, from the parts of the city where they were respectively located. One day the rector gave out the notices, in his most distinguished manner, as follows:
"There will be a service at the North-end Mission at three o'clock, and at the East-end at five. Children will be baptized at both ends."

Teacher—Johnny, what is the meaning of the word "procrastinate"? Pupil—To put off. Teacher—Right. Use it in an ordinary sentence. Pupil—The brakeman procrastinated the tramp from the train.

Former Representative Amos J. Cummings, of New York, was once city editor of the Sun. One Saturday night it was announced that all the saloons were to be closed next day. Cummings called his star reporter, Murray.
"Tom," he said, "go out to-morrow and find out if the saloons are selling liquor."
It was Thursday when Tom again appeared at his desk.
"They were," he reported.

There are probably few better raconteurs alive than is the Duke of Argyll, and in his memoirs he has told some inimitable stories. One of the best concerns a showman's ape which paid a visit with its master to Inverary. During its stay there, it escaped from its cage, and died of grief through want of food, and died by the roadside. Two Scotch farmers came across it, and were much puzzled what to make of it.
"Dear me, what na beast's you?" asked one.
"It's no a beast, it's a man," said the other.
After carefully examining it, one of them said: "It's a man, but did ye ever see such a hairy man? It canna be a highlander—No, no, it canna be a highlander; de ye think it's a lowlander, Donald?"
"I think not, I don't think a lowlander is quite ever, ever so hairy as you."
"Dear me," said the first speaker, "I

think it canna be a highlander; I think it canna be a lowlander. "I'll tell you what we'll do, we'll just go to the castle and see if any of the English visitors are missing since yesterday."

SOMETHING AILED IT.
A colored man complained to the storekeeper that a ham which he had purchased there was not good.
"The ham is all right, Zeph," insisted the storekeeper.
"No, it ain't, Boss," insisted the negro. "Dat ham's shore bad!"
"How can that be," continued the storekeeper, "when it was cured only last week?"
The colored man scratched his head reflectively, and finally suggested:
"Well, sah, then it must have had a relapse."

Carlyle very appropriately, for his purpose, linked mankind to sheep. Sheep go in flocks with bell wethers here and there to guide them to where the juicy pastures lie. Few of the flock give any heed to time or place, simply follow the bell wether and eat and live. Occasionally, if provender is scant, they may bleat and bunt. They only know the grass is sweet when it is between their teeth. With the human species it is very much the same. The gift of origination is almost as rare among them as in sheep. They follow readily when led. They are imitators rather than initiators, and if they do anything, would rather criticise than construct.—Winnipeg Farmer's Advocate.

A man who was "wanted" in Russia had been photographed in six different positions, and the pictures duly circulated among the police department. A few days later the chief of police wrote to headquarters: "Sir, I have duly received the portraits of the six miscreants. I have arrested five of them, and the sixth will be secured shortly.—New York Sun.

To be of good cheer in case of disappointment, exercise greater charity toward the erring, and make more allowance for the opinions of people whose views differ from mine; to smile more and frown less.
To be honest; to be kind; to earn a little, and to spend a little less; to make upon the whole a family happier for his presence; to renounce, when that shall be necessary, and not to be embittered; to keep a few friends, and these without capitulation; above all, on the same grim condition, to keep friends with himself—here is a task for all that a man has of fortitude and delicacy.

SURE ENOUGH.
A middle-aged colored woman in a Georgia village, hearing a commotion in a neighbor's cabin, looked in at the door. On the floor lay a small boy writhing in great distress, while his mother bent solicitously over him.
"What-all's de matter wif de chile?" asked the visitor sympathetically.
"I spec's hit's too much watermillion," responded the mother.
"Ho! go 'long wif you," protested the visitor scornfully. "Dey cyan't never be too much watermillion. Hit mus' be dat dere ain't enough boy."

PEASE "ECONOMY" FURNACE

A GOOD INVESTMENT.

Manufactured by Pease Foundry Co., Ltd., Toronto, Winnipeg

Don't Throw it Away

USE **MENDETS**

They mend all leaks in all utensils—tin, brass, copper, graniteware, hot water bags, etc. No solder, cement or rivet. Anyone can use them; fit any surface, two million in use. Send for sample pkg., 10c. COMPLETE PACKAGE ASSORTED SIZES, 50c. POSTPAID. Agents wanted. Collette Mfg. Co., Dept. K, Collingwood, Ont.

Ontario Agricultural College

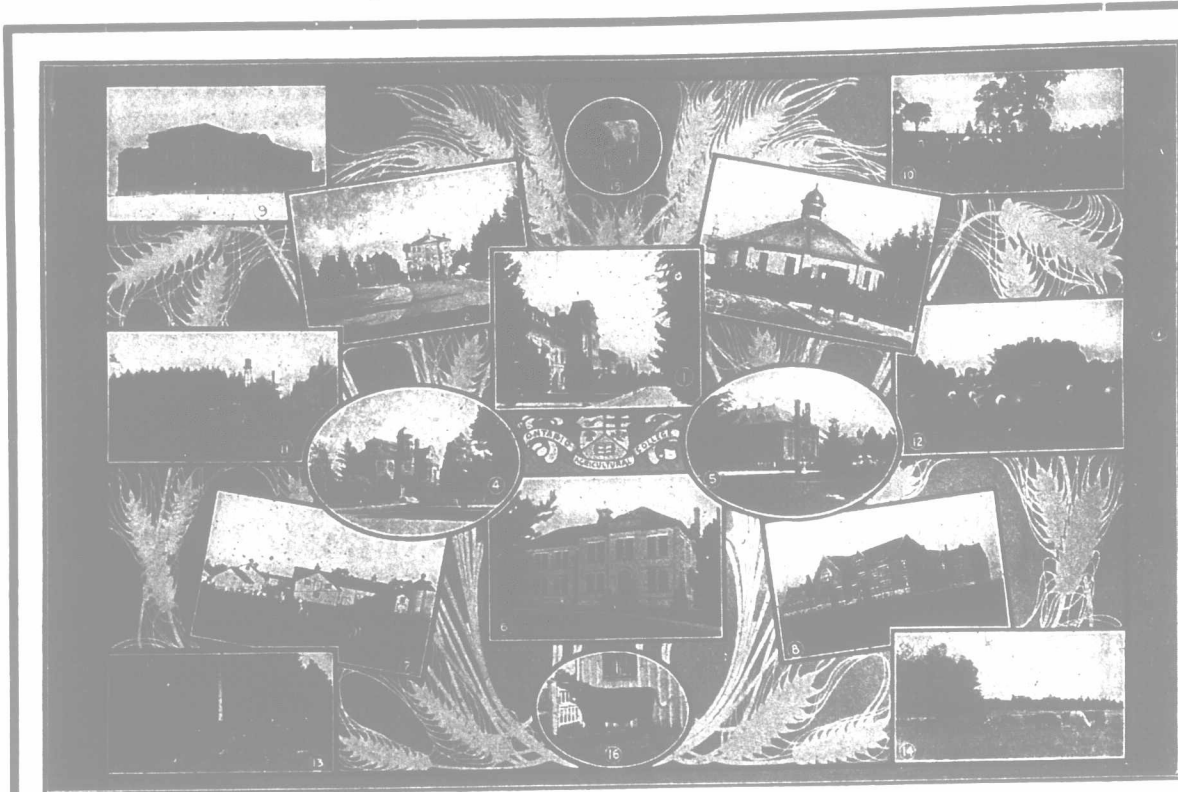
GUELPH, CANADA.

**Opens
Sept. 14
1909**

**BOARD,
TUITION
BOOKS,
ETC.,**

**FOR
AN
ONTARIO
BOY,**

**\$80
PER YEAR.**



**OUR COURSE
IS DESIGNED
FOR
FARMERS'
SONS.**

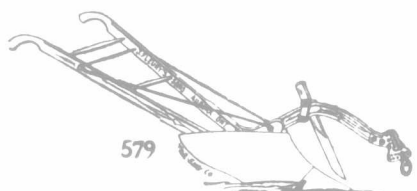
They come to us in the winter months, and are at home in the summer months.

**SEND FOR A
CALENDAR,**

which will give you information in detail.

**G. C.
Creelman,
President.**

The Famous Fleury Plows



Nos. 2L, "Dandy," 13 and 15 A (one horse) TAKE THE LEAD wherever introduced, and though most plow manufacturers HAVE TRIED TO COPY one or all of them, FLEURY PLOWS STILL LEAD.

Mr. Bernard McCabe, Strange, Ont., took out two Fleury Plows ON TRIAL on July 5, 1909. To-day he made settlement for them, and states that NO TWO BETTER PLOWS WERE EVER BUILT; they are SIMPLY PERFECT. They are EASY TO HOLD and VERY EASY ON THE HORSES.

and the work could NOT BE BETTER. He expects to want another plow soon, and it will be a FAMOUS FLEURY PLOW.

A new agent, under date of April 21st, 1909, writes us: "Sent your sample plow out ON TRIAL, and sold it. I was out and held it myself, and say, IT IS THE BEST PLOW I EVER HELD, and Mr. B. says the same. I will have NO TROUBLE SELLING THEM. Send two MORE PLOWS at once."

Imitations are INFERIOR. No less so IN PLOWS than in OTHER THINGS. Buy only the ORIGINAL and BEST.

J. FLEURY'S SONS, AURORA, ONTARIO, CANADA.

Medals and Diplomas: World's Fairs, Chicago and Paris.

Heavy Galvanized Steel Stock Watering Trough

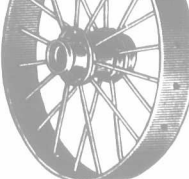


Capacity of standard size, about 10 imperial gallons to the foot. Other sizes made to order. Lengths 6, 7, 8, 10 and 12 feet without a seam; no rivets to rust out; the end is fastened by our patented device. No trough to compare with this on the market. Manufactured by

**The Erie Iron Works, Ltd.
ST. THOMAS, ONTARIO.**

If your dealer does not handle our goods, please send direct to us for any information you may require.

Replace Your Broken-down Wheels With Our Wide-tire Steel Wheels.



Have you a wagon that is all right except for the wheels, which are either worn-out or rotted to pieces? Then, why not get a set of our Low Wide-tire Steel Wheels? They are made to fit any axle. Lighter, stronger, more durable than wooden. Make your wagon good as new. Catalogue sent you free if you say so.

Dominion Wrought Iron Wheel Co., Ltd., Orillia, Ont.

Subscribe for The Farmer's Advocate

THE SPICE OF LIFE.

"Are you the master of this house?" asked a stranger, addressing the young married man. "No," said the young man, with a deep sigh. "My wife has just put the master in the cradle."

Mr. F. Litchfield, the well-known art dealer, exhibited some panels of old tapestry at the Manchester Jubilee Exhibition. Wanting one of these returned, he wired: "Please send panel eight by ten—Venus—Adonis—Litchfield." The departmental head of the exhibition was away, and his clerk returned the message to the post office as "not understandable." The post-office people, struck with a bright idea, then transmitted the telegram to the City of Litchfield, and received the following reply: "No such firm as Venus and Adonis known here. Try Manchester."

On one occasion when a guide in the Northern woods was accompanying an amateur huntsman from a city which shall be nameless, the guide was so unfortunate as to be shot in the leg by the novice.

Immediately the wounded man fell and lay flat; whereupon the huntsman ran to him in great distress, exclaiming:

"For Heaven's sake, man! Tell me you are not hurt!"

"No, I ain't hurt much," was the surly response of the guide.

"Then, why don't you rise? Can't you?"

"Oh, I can get up all right," said the guide. "Only I was afraid you'd let me have the other barrel."

It is related that as the famous Dr. Johnson was driving in a carriage through London one rainy day he overtook a poor woman carrying a baby, and without any protection from the weather. Making the driver stop, he invited the woman to enter the carriage with her child, which she did. After she was seated the doctor said:

"My good woman, I think it most likely that the motion of the coach will wake your child in a little while, and I wish you to understand that if you talk any baby-talk to it, you will have to get out and walk."

As the doctor anticipated, the child soon awoke, and the tormented mother exclaimed to it:

"Oh, the little dear! Is he going to open his eyes-py-sy?"

"Stop, the coach driver," shouted Johnson, and the woman had to get out and brush her journey on rain.



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Fit Any Machine
85c**

If you ever spent 75 cents for a disc record, it won't take you long to see the double value of a Columbia Double-Disc Record at 85 cents—a different selection on each side. Hear one! Get a catalog!

**Toronto Phonograph Co.
LIMITED
40 Melinda St., Toronto, Can.**



Teacher—"What is the meaning of education?" Harold?
Pupil—"It's the way people are put to death in some States."

The Farmer's Advocate

and Home Magazine

"Persevere and Succeed."

Established 1866.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

Vol. XLIV.

LONDON, ONTARIO, JULY 22, 1909

No. 878

EDITORIAL

What with lime-nitrogen, electricity, and now ether to promote plant growth, agriculture must, to the urban mind, seem to be taking on the nature of wizardry.

In a greatly-enlarged building, with regular and special prizes aggregating \$14,000, including \$3,275 for a horse department, the coming Winter Fair at Guelph should assemble an attractive and educative display.

Naming the farm and stamping or attaching the name to butter, eggs and other produce sold is the means suggested by a correspondent of "The Farmer's Advocate" for building up a commercial reputation for products of superior quality, and securing the premium superiority should command. He suggests other points also, but this one will bear thinking over.

Travellers in some sections report a poor outlook for the turnip crop, owing to the very dry condition of the soil. Mangels and sugar mangels make a better showing, having in many cases produced a nice even braird; which suggests one point in favor of mangel-growing, e.g., that in case of failure one has a second chance, as he can still sow turnips. Turnips are nicer to harvest, and in some districts, as in the Maritime Provinces, are an easier crop to raise, but it is not wise to become wedded to any one class of roots.

Winter protection of the tree roots is one, but by no means the only, argument in favor of an orchard cover crop. It is, however, of no small importance in itself. Some years ago, when the Leamington peach orchards suffered so disastrously, it was discovered that one or two, owned by shiftless growers who allowed the weeds to grow, escaped with a minimum of injury. The moral was not to neglect the orchards, but to add to the plan of clean cultivation in the fore part of the season, the sowing of a cover crop in July. There is still time to sow a winter leguminous cover crop to protect from winter root injury, hasten maturity of the new wood, and to enrich the soil by economizing soluble nitrates, at the same time drawing upon the free nitrogen of the atmosphere.

With no disrespect to dairying—a branch of agriculture in which we have every confidence as a means of prosperity for a large proportion of our farmers—we draw attention to the fact that Mr. Rice has laid himself open to retort from beef-raisers, by insisting upon the necessity for a dairy farmer retiring from his strenuous life at or shortly beyond middle age. Those who, from weary experience of the city, regard the farm as a place to retire on and not from, might well reply that a line of stock husbandry which made less exacting demands and did not drive its devotees away from it for a rest in old age would be preferable to a line that does this, even though the bank account did not swell so fast in the former case. We agree with Mr. Rice, that after a man passes the grand meridian he is entitled to relax, but there is something astray in a system of farming which does not hold one's interest and attention except during the stress and for the purpose of money-making. We lift our hat to the farmer who, though he finds time to travel and leisure to rest, yet prefers farm residence and the personal interest that springs from a scientific insight into the underlying principles of his occupation and their adaptation to the purposes of man.

Wheat-growing in Ontario.

The present high prices for wheat will, undoubtedly, have the effect of increasing the acreage devoted to this crop the present autumn. In speaking at this season of wheat-growing in Ontario, it is understood that fall or winter wheat is meant, as the growing of spring wheat, except in the eastern section, has been practically abandoned. For that matter, many good farmers have left out of their list of crops fall wheat also, believing that other things can be more successfully and profitably grown. Others have never ceased to devote a certain area to this grain right through the period of low prices, claiming that there are advantages in connection with its culture which can scarcely be reckoned in money. A few of these it may be well to mention.

Probably first in importance is the greater certainty of securing a good catch of clover. To miss a catch of clover is to throw many things out of order, and to lose the advantage which a rank and luxuriant clover crop leaves in its train, not only the valuable fodder, but improved mechanical condition of the soil, and actually increased fertility for subsequent crops. Clover is now deservedly accounted by many the basic crop of the rotation. On heavy soil and in dry seasons there are many failures in securing a good stand of clover when sown with spring grain, especially oats. For a season or two there may be good success, and then for a longer term partial or total failure may result. While in seeding down with fall wheat success is not absolutely assured, yet the chances of success are so much better that some have for this reason alone returned to the growing of winter wheat. These remarks do not, of course, apply to sections where there is little fear of failure of the clover catch with a spring-grain nurse crop, or where fall wheat cannot be grown successfully.

No crop furnishes such a large amount of bedding as does fall wheat, and bedding is an article that is getting rather scarce. Straw and chaff are being used more and more for fodder, and this is well, but some bedding is a necessity, and it is furnished in greatest abundance by wheat straw.

The stress of spring seeding is materially lessened when a portion of the grain acreage has been prepared and sown the previous fall. This means a good deal in such a season as has been passed through this year, when the time usually given to preparation of land for hoed crops was taken up with spring seeding, and corn and roots have been put in late and work has been crowded until haying began. It is also worthy of consideration that the harvest hurry is better distributed when a portion of it comes close after haying instead of being all crowded into a week in August. Where barley is grown to any extent it, of course, answers the same purpose as wheat of spreading the season of harvesting operations.

There is a class of weeds which multiply and ripen their seeds in spring grain, but which are very much checked by fall-sown crops. Wild mustard to some extent, and wild oats in particular, are of this character. We well remember an old farmer in an Institute meeting telling how to combat wild oats. Drop spring grain as much as possible, said he, and grow hay and fall wheat.

It would not be advisable to change from a short rotation to a longer one merely for the purpose of interjecting a wheat crop, unless, perhaps, for the purpose of making sure of clover, nor is it necessary. In a short course of three or four years it is very seldom that the whole acreage plowed from sod is planted to hoed crops, the balance being commonly sowed with peas or oats. William Rennie, when at the Ontario Agricultural College, used to advocate such a course. The

oat, or, especially pea stubble ground, in such a field, if properly prepared, would be very suitable for wheat, and the whole could be seeded down in the one season. Each farmer will have his own special course, and can know better than anyone else what is suitable for him. Fall wheat can be grown successfully after peas, beans, barley, and often with fair success after oats, and even corn, and that there are advantages in having some portion of the arable land, say 10%, devoted to its culture, no one will deny.

A word of caution should be added, however, against the sowing of a large acreage of poorly-fitted land merely because prices have been high. While fall wheat is no longer the money crop of outstanding importance that it once was, demanding two years' use of the land and a barnyard full of manure to produce it; still it is seldom economy to sow it on land that is not in fairly good condition and heart. It is quite possible, too, that many will be a little disappointed in next year's prices, for recent high figures have suffered a drop, consequent upon improved threshing returns and prospects for the 1909 world's crop. For instance, on July 1st the average condition of spring and winter wheat combined in the United States was rated at 86.5, as against 83.9 on July 1st, 1908, and 82.5, the average of the previous ten years. In Canada, winter-killing of fall wheat in Alberta brought down the average, leaving it rated on July 1st at 77.2 for all Canada, against 89 last year, spring wheat being, however, as 86.77 to 80 last year. Other wheat-growing countries of the world also seem likely to average fairly well, so that while low prices next year are not anticipated, the chances are for a material modification of over-hopeful price prognostications. The Canadian farmer will, therefore, be well advised to sow a reasonably large acreage of properly-fitted land, but not to spread himself too wide on wheat.

The annual autumn labor problem again faces the West, no less acute than previously. J. Bruce Walker, Dominion Immigration Agent, is reported as estimating that 20,000 men will be required to go into the harvest fields of the West. Where they are to be obtained is a problem. Eastern Canada can ill spare so many. Some day Western farmers will be obliged to go more extensively into mixed farming and solve the harvesting problem by engaging more men the year round, or at least for the summer months. But as long as men can be obtained on demand, the present path of least resistance will be pursued by the average Western farmer. He runs a chance, though, of finding himself stuck some time in a season of big crops and labor shortage.

H. C. Duff, B.S.A., who has been appointed to take charge of the new district office of the Ontario Department of Agriculture that has been located at Norwood, addressing the West Peterborough Farmers' Institute, announced the intention of putting on a two-year course in agriculture at the Norwood High School. Discussing the obvious deficiencies of our public-school curriculum, he pointedly observed that the pupils studied and learned about Napoleon's Waterloo, but were not taught how to bring about the codling worm's Waterloo. Calendars outlining the agricultural course in full could be obtained at Norwood.

United States imports for the fiscal year, ending with June, 1909, exceed those of last year by about \$100,000,000, while exports fall behind about \$200,000,000, so that with all their rigid protectionism the Americans cannot solve the problem of selling without buying.

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

PUBLISHED WEEKLY BY
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JOHN WELD, MANAGER

AGENTS FOR THE FARMER'S ADVOCATE AND HOME JOURNAL,
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Cream Gathering and Home Buttermaking.

A gingery contribution to the farm-separator and creamery-butter discussion has been received from a feminine correspondent, who takes exception to the aspersions upon farm women, as a class, which she reads into some of the former letters on the subject, arguing truly that, because a few women may not be so cleanly as they might, is no reason for reflecting upon the whole class. She further asserts independence of creamery facilities, contending that it pays better to make butter at home, anyway, if only for sake of the buttermilk, and concludes with a severe indictment of the cream-gatherer.

We are very glad to publish this letter, for, while some of her characterizations are rather too sweeping, she adds to the discussion an important point which other correspondents have overlooked. Cream-gatherers are not all as the one she has depicted, but too many of them are not so careful as they should be, and some of the methods practiced are anything but cleanly. The cream-hauler fills a responsible position, and only an intelligent, cleanly man should be so employed. The trouble is, it is difficult to secure enough of the right class. Creamerymen and instructors should, however, spare no pains to educate haulers, and impress on them the bacteriological importance of cleanliness. Milking and cream-gathering are two jobs which call for exceptional cleanliness, and yet two which, by reason of the nature of the work, are commonly performed in a disgustingly filthy manner. We hope for better things some day, but as yet conditions are open to vast improvement.

Meanwhile, something could be accomplished at certain factories by a change in the method of gathering cream. There are now four systems in vogue, (1) the ordinary milk can, (2) the wooden-jacketed can, (3) individual cans (a can for each patron), (4) the large cream tank, in which the whole day's collection is mixed, as received by the hauler. In Western Ontario, the tank is used principally in the northern districts,

where the routes are long, and where the discredited and out-of-date oil test is still in vogue. The oil test, by the way, should, for various reasons, be abolished. With it would go the dirty measuring rule which comes in for "Kirsty's" strictures. Where the Babcock test is used, the common method is to weigh the cream for test, and then the hauler doesn't have to put a ruler in the cream at all.

If, in addition, a system of grading cream could be introduced, and it be then paid for according to quality, as well as richness, a considerable improvement might be speedily effected in the quality of creamery butter. Grading, however, is considered of doubtful practicability under present conditions of creamery competition. As matters now stand, the quality of all the cream is often injured by the quota sent by careless patrons, and, as a rule, the cream-gatherer doesn't improve it any.

"Kirsty's" retort on behalf of the farm women may be answered by those to whom it is addressed. For our part, we have only to add that, while some farmers' wives are not so cleanly as could be wished, we give them credit for being, as a class, a long way in advance of their husbands, and the latter are doubtless far in advance of the men in most foreign lands. But the whole world is awakening to an appreciation of the importance of cleanliness in relation to bacteriology, and practices that were once condoned are now condemned. We all need to wake up.

As for the relative economy of making butter at home, and sending cream to the creamery, while we place a high value on buttermilk, we have a much higher regard for woman's leisure and woman's flesh and blood. Home buttermaking may be necessary where there are no decent factories or creameries within reach, or, in cheese-factory districts, where Saturday night's milk is made up for home use, but the extreme self-sacrificing spirit of the hard-working woman who will voluntarily incur the labor of buttermaking for the sake of a few pails of buttermilk, is to be pitied, rather than admired.

HORSES

Common Colics.

Editor "The Farmer's Advocate":

Speaking both as a farmer and as a veterinary surgeon, I find the most common ailment of horses is what is popularly known as "colic."

Originally, this term colic, was applied rightly and solely to pain in the colon, or large bowel, but now it is loosely given to any and every kind of abdominal pain. Whether the pain arises in the stomach, intestines, liver, kidneys, bladder, or any other organ, it is called colic. This is unfortunate for several reasons. A farmer sees his horse in pain—he immediately flies to some quack medicine, some cure-all for colic, and the result is, death of the horse. Veterinary surgeons know that the sixteen or seventeen kinds of colic—i. e., abdominal pains—arise from different causes, have their seat in different organs, and require different treatment, and we know, also, that the treatment for one may be fatal for another, since it either kills by increasing the trouble, or by wasting valuable time.

It is quite impossible for the average farmer to diagnose all these forms of disease, but the three most common forms he can readily distinguish.

SPASMODIC COLIC.

In the first case, we have what is known as spasmodic colic, or the common colic. In this case there is the usual pawing, rolling, and looking back to the flanks; but notice, particularly, there are intervals of ease, during which these actions cease, and the horse may even eat. Hence, we say the pain comes in spasms, or is spasmodic. Notice, also, that there is no abdominal swelling. Here, then, we have two distinctive symptoms to guide us, and these may be regarded as diagnostic, viz., the pain followed by intervals of ease, and the absence of swelling.

Now for treatment: This disease resembles gripes, or colic or belly-ache in man. What would you do for yourself if you personally had an attack of gripes? Remember, the horse is essentially built on the same plan as ourselves. He has the same flesh, blood and nerves, and drugs to a very great extent, have the same action upon the horse as they have upon ourselves. Well, then, what would you do if you yourself suffered from colic? A good glass of spirits is not a bad thing, and may even be repeated. Sup-

pose we try the same thing for the horse. Try the effect of half a cup of whiskey to a cup and a half of water, and give this as a dose.

N. B.—See that the horse has it. If the horse has the colic and the man takes the medicine, the cure is most uncertain. Don't leave this to the hired man. Watch it given. A little exercise may also be given, and will help matters. Repeat as desired—say, every half hour. A little ginger may be added, if desired.

There are few fatal cases from this form of colic, if the disease be not complicated by the addition of other troubles, and many cases pass away unaided. This is the form that gives the quack medicine, the patent cure-alls, their credit. A horse is sick from colic; a dose of Couper's (Cure for Colic is given; the horse recovers. A glowing letter of thanks is sent to the manufacturing chemist (who knows as much about horses' diseases as the horse knows of his, and who probably got the prescription second-hand from a veterinary). However, the letter is sent, and published broadcast. Now, note the result: Farmer Giles reads it, buys a bottle, tries it in a case of colic, and his horse dies. Why? Simply because it was the wrong medicine for his particular case. Let me repeat: "There is no universal cure for all forms of colic."

I have given a cure which is very little known outside the profession, yet it almost invariably succeeds. Whiskey (or any alcoholic beverage) is one of the most common drugs to be found in the farmhouse. It is cheap. It is good; and, best of all, it can do no harm.

FLATULENT COLIC.

Now let us notice Farmer Giles' case, in which the patent mixture failed. There were, to a great extent, the same symptoms, yet, by a little careful examination, various little differences could be noticed. There were no intervals of ease, because the pain was constant. It was, perhaps, not quite so violent, but it was continuous. The body, too, appeared to be fuller than usual, or, in other words, it was swollen. This swelling was to be seen more especially in the hollow just in front of the hip, particularly on the right side. Very probably the hollow had quite disappeared.

Here the farmer had a much more dangerous disease to treat. It was most probably caused by the food. Other reasons may be given, but follow them to the root, and you will arrive at the same conclusion. Some food inside, instead of passing onward, as usual, had through various causes become arrested. The heat and moisture inside the body, aided most invariably by bacteria, caused the formation of gas. Now, had the passage been clear, this might have passed away as readily as it had been formed. Then all would have been well. But, if as is usual in such cases, it became stopped, blocked up, say by a mass of partly-digested food, or even by some fold of the bowels, this gas will accumulate and inflate the bowels to such an extent that there may even be a rupture.

Now, what shall we do in such a case? The gas is there. It must come away, and we must remove the cause of this fermentation, also. In other words, we must open the passage. Personally, I never hesitate for a moment in such a case to push an instrument called a trocar and canula through the skin and into the bowel, and thus allow the gas to escape. I have saved many a desperate case by this, and have yet to see my first bad result. Having got rid of the gas, we must get the bowels to work freely, and we must try to stop the formation of more gas. Here a mistake is made by many so-called horse doctors. It is usual with some to give a dose of laudanum, with the intention of easing the pain, and, so far, so good, although it is curing the result, not the cause. Laudanum has not only the effect of deadening the pain—the peristaltic movements, as we say—so that by paralyzing the bowels, it prevents this offending material passing onwards, but this materially aids in the formation of the products of the fermentation; in other words, it helps the gas to accumulate. The result of using laudanum is generally that the farmer has to hunt up another horse, and pay for it, too.

Suppose, now, however, that he had given, say, rather less than a half teacup full of turpentine (to be exact I ounce), added to a pint of raw linseed oil, what would have been the result? Why, the turpentine is an antiseptic. It destroys the germs which cause the gas, and it is to some extent a pain-killer. The oil (mind, I said raw linseed oil) acts as a mild purgative, and thus helps to move onward the blocking material.

If he had lived near a chemist, he should have asked him to add a dram of Fluid Extract of Belladonna. This drug acts as readily as laudanum in deadening pain, but does not check the action of the bowels. But some method of getting rid of the gas already formed is also required.

It may be that the block is taking place in the rectum—the last piece of the bowel. I always

use a pump or syringe, and throw in about a gallon of warm water. This loosens and softens everything obstructing the way, and most likely brings it away. Not only this. The movements of the last part of the bowels being accomplished, we generally find that this movement is communicated to the whole in a wave-like manner, and so the whole trouble is removed. Certainly the gas comes away readily. But you have no pump or syringe? Well, I have succeeded with a piece of rubber hose and a ten-cent funnel, and once used a rubber spout from a seed drill, inserted one end, raised up the other, and poured the water from a jug into it.

Suppose you have none of these. Well, then, do as I have often done in an emergency: Strip off your coat, roll up your sleeve, wet your arm with the warm water (or grease it with lard), and gently force it inside, and thus remove by hand perhaps enough of the blocking material to enable the rest to pass. Meanwhile, remember that the intestines are inflated with gas, and if the horse throws himself violently to the ground, he may even rupture these swollen bowels. It is good to give him some exercise, since this aids the action of the bowels; but he must, when in the stable, be so secured that he cannot throw himself violently.

ENTERITIS.

Now we come to the third and most dreaded form of colic—the deadly inflammation of the bowels. We have the same primary symptoms as in the others, namely, pawing, rolling, looking back to the flanks, etc.; but, unlike the first, we have no periods of rest, and, unlike the second, we have no bloating.

To the trained eye there are many other differences, but a recapitulation of these to the average farmer would only be confusing. Still, there are some diagnostic symptoms which any farmer could distinguish. The belly or abdomen is very sensitive to the touch in enteritis, and if it be rubbed he will show signs of pain, and may even use his heels or teeth. In spasmodic colic, rubbing his belly gives ease. In rolling, then, he tries to turn on his back in order to take the pressure from his abdomen, because of this pain. Then, again, he frequently passes small quantities of manure; in fact, he sometimes almost appears to have a form of diarrhea. Finally, by everting the eyelid, it will be noticed to have a kind of raw-beef appearance.

It is most important to distinguish this disease from the two preceding, because the treatment is radically different. In the first case our main desire was to stimulate the animal, and to ease the pain.

In the second we relied chiefly upon getting the bowels to move, and get rid of the gas. In the present case we want absolute rest—rest for the body, and more especially rest for the bowels. If we can stop the action of the bowels for a time, nature may remove the inflammation. (I have held post-mortem examinations where the inflamed part did not extend beyond two or three inches. In other cases the greater part was inflamed.)

For the purpose of quietening the bowels, one of the best drugs to give is opium in some form—either powdered opium, or the tincture (laudanum). We must have no exercise, no purging, no syringing (enemas).

Tincture of aconite would be good as an addition, if we could only depend upon it. I have known a tablespoonful from one druggist to be given to a horse, and repeated, without dangerous results, while fifteen drops is a good dose of another kind. For this reason, I am afraid to recommend its use.

Now, a few words in conclusion. Horses are worth at present a lot of money, and it will take a number of years for the bills of the veterinary surgeon to amount to the price of one

A Canadian-bred Champion Hunter.

In connection with the accompanying illustration of the Canadian-bred hunter gelding, Sir Edward, a few notes as to breeding and performance will be of interest. Sir Edward was bred in West Kent, Ont., and purchased as a three-year-old by Hon. Adam Beck, who also owns his full brother. Sir Edward's sire is Tupelo, a large Thoroughbred, with action, by Imp. Escher. Sir Edward is a well-made horse, is very intelligent, and has a great deal of courage. He was first shown at Montreal, where he won the Sir Montagu Allan silver cup for best hunter, to be ridden by a member of a recognized hunt. He also won the middle-weight hunter class. He was, unfortunately, lame during the early part of the International Horse Show, held in England a month ago, but won second prize in the hunt team class, making him eligible to show for the championship, in which class all first- and second-class winners in the hunter classes are shown. This constituted a world's championship for hunters.



Canadian Hunter Gelding, Sir Edward.

Winner of first and Toronto Cup for qualified-hunter championship at the International Horse Show, Olympia, London, England, 1909. Bred in Kent Co., Ont. Owned by Hon. Adam Beck.

Hackney Registration.

The amended and recently incorporated rules of the Canadian Hackney Horse Society embody the following provisions as to conditions of registration and amount of fees:

1. The pedigrees of the following animals shall be admitted to registry. Animals imported from Great Britain recorded in the English Hackney Studbook.

1. A stallion shall be recorded only in the full registry class, and must be by a full registered sire and out of a full registered dam.
2. A mare shall be recorded in the full registry class when she is by a full registered sire and is out of:
 - (a) a full registered dam or
 - (b) a half registered dam.
3. A mare shall be recorded in the half registry class when she is by a full registered sire and is out of:

horse. For this reason, I earnestly advise the owner to waste no time. If the pain does not cease quickly, if there be any sign of bloating, and especially if the symptoms described under "Enteritis" be present, hurry away for the nearest veterinary surgeon.

An hour's delay may make all the difference between recovery and death. Do not rely on the patent "cure-all," and, especially, do not call in the help of the wonderfully wise man, the local quack, who without spending a minute of his time or money in studying the profession, gains his experience by practicing on your animals, at your expense, and then probably calls in the professional to treat his own.

Still, if you are too far from a veterinary surgeon, then follow exactly the advice I have given, and in most cases you will meet with success.

Sask. Dr. J. E. COTTRILL.



Heavy Draft Mares and Their Progeny, at Winnipeg Exhibition, 1908.

(a) an inspected dam. Animals imported between October 1st, 1891, and January 1st, 1909, shall be entitled to registration under the rules existing between dates mentioned.

The word "Imported" can only be applied to horses imported from Great Britain or Ireland. Animals bred in America, by sires and out of dams recorded in the Canadian Hackney Studbook or in the American Hackney Studbook.

1. A stallion shall be recorded only in the full registry class, and must be by a full registered sire out of a full registered dam.
2. A mare shall be recorded in the full registry class when she is by a full registered sire and is out of:
 - (a) a full registered dam or
 - (b) a half registered dam.
3. A mare shall be recorded in the full registry class when she is by a sire half registered in the Canadian Hackney Studbook (English entered and imported prior to October 1st, 1891), and is out of:
 - (a) a full registered dam or
 - (b) a half registered dam.
4. A mare shall be recorded in the half registry class when she is by a full registered sire or a half registered sire (English entered and imported prior to October 1st, 1891), and is out of:
 - (a) an inspected dam or
 - (b) an uninspected dam, provided the mare to be half registered is herself inspected.
5. A mare shall be recorded as Inspected Foundation Stock when she has been inspected by an authorized representative of the Canadian Hackney Horse Society, or has won a first prize in the heavy harness class at a recognized exhibition.
6. Animals recorded in the American Hackney Studbook shall be entitled to corresponding registry.

Rules 2 to 13, inclusive, deal with matters of application, certificates, misrepresentation, definitions, and so on.

14. The fee for membership shall be \$3.00 for calendar year. The fee for registration of pedigrees shall be as follows:

To Members—	
Each animal	\$2 00
Transfer of ownership	1 00
Duplicate certificates	1 00
New certificates	1 00
Recording ancestors	1 00
To Non-members—	
Each animal	\$4 00
Transfer of ownership	2 00
Duplicate certificates	2 00
New certificates	1 00
Recording ancestors	1 00

Address all correspondence and make all fees payable to Accountant, National Live-stock Records, Ottawa, Canada.

Raising High-class Colts.

Editor "The Farmer's Advocate":

As to cost of raising a colt to the age of three years, there is such a difference in individuals, even of the same weight and breed, and there are so many classes and breeds requiring different quantities of food, that it is impossible to make a statement of cost that will apply to all; and many producers differ greatly in management as well as in quality and kinds of food used, that any statement must, of necessity, differ with the practice and experience of many. So I will endeavor to show reasonable cost of producing colts up to three years of age of the medium draft class, having colt foaled about the last of March or first of April. If the mare is worked carefully up to foaling time, which is better for her than idleness, the work should pay for food consumed and depreciation of value during four months previous to foaling, so that I will calculate from birth of foal.

COST FOR FIRST YEAR.

Value of mare, \$275; interest on value at 5% for seven months	\$ 8 02
Service fee, \$15, and interest on same for 11 months	15 87 1/2
Food for mare during April—bran, 60 lbs., at \$20 per ton	60
Oats, 10 lbs. per day, April and part of May, 12 bush., at 40c.	4 80
Hay, 12 lbs. per day, 360 lbs., at \$8.00 per ton	1 44
Pasture, mare and foal six months, at \$1 50	9 00

Winter food for foal six months: hay, mixed clover and timothy, 7 lbs. per day, 1,260 lbs., at \$8 per ton	5 04
Bran, 1 lb. per day, 180 lbs., at \$20 per ton	1 80
Oats, averaging 6 lbs. per day, 32 bush., at 40c.	12 80
Roots, 2 lbs. per day, 6 bush., at 8c.	48
Straw and chaff, 1 ton, at \$4.	4 00
Total	\$ 37 11

SECOND YEAR'S COST, FROM MAY 1ST.	
Interest on service fee	\$ 0 75
Pasture, six months, at \$1.00	6 00
Winter feed, six months—mixed hay, clover and timothy, 10 lbs. per day, 1,800 lbs., at \$8.00 per ton	7 20
Bran, 1 1/2 lbs. per day, 270 lbs., at \$20 per ton	2 70
Oats, 7 lbs. per day, 34 1/2 bush., at 40c.	13 80
Roots, 4 lbs. per day, 12 bush., at 8c.	96
Straw and chaff, 1 1/2 tons, at \$4.00	6 00
Total	\$ 63 85 1/2

THIRD YEAR'S COST.	
Interest on service fee	\$ 0 75
Pasture, 6 months, at \$1.50 per month	9 00
Winter, Mixed hay, clover and timothy, 12 lbs. per day, 2,160 lbs., at \$8.00 per ton	8 64
Bran, 2 lbs. per day, 360 lbs., at \$20 per ton	3 60
Roots, 4 lbs. per day, 12 bush., at 8c.	96
Straw and chaff, 2 tons, at \$4.00	8 00
Oats, 9 lbs. per day, 47 1/2 bush., at 40c.	19 10
Total	\$ 50 05

First year's cost	\$ 63 85 1/2
Second year's cost	37 11
Third year's cost	50 05
Annual depreciation of mare	22 91
Mortality and veterinary expense for mare	5 00
Mortality and veterinary expense for foal	15 00
Total for three years	\$194 22 1/2

In estimating for summer, I have assumed the pasture to be good mixed grasses, clover and timothy, which is all that will be necessary, but if pasture is poor it will be advisable to supplement it with other food, which will increase the cost of food in summer. The quantity of food advised for first winter is too much to commence with; about one pound of oats per day is enough before weaning, to be gradually increased until the middle of winter, when the full ration should be fed and the grain continued in May, making the quantity required for first year 32 bushels. The first year is important, and any stinting that retards growth then it is difficult if not impossible to recover from and acquire once possible size. For a colt to consume and assimilate that quantity of food it will require considerable exercise twice a day. I take it for granted that all the water desired by the colt will be given it at least three times a day, and that salt will be placed where it can be got at will. The breeding life of mares is about twelve years, and ten foals may be looked for, so that the annual depreciation of a brood mare would be \$22.91. The mortality in brood mares is difficult to estimate. In several thousand cases in my practice it was 8 1/2%, but as there were a large percentage that did not require veterinary attention, and a few that died without an opportunity to see them, I believe that 1% mortality would be a full average where proper attention is given during pregnancy and at time of delivery. Therefore, to cover death loss and veterinary attention to mares, \$5.00 is allowed, and by intelligent care this can be reduced. The mortality in foals is also difficult to average. In thousands of cases under my observation from all conditions and diseases, such as abortions, difficult parturition, joint ill, and all other diseases, the percentage of deaths was twenty-two. As many colts did not require veterinary attention, and many died without such attention, I believe that about 8% of all foals die either in utero or before they reach three years of age. The loss is difficult to estimate, but it is three times greater than with mares, requiring, say, \$15.00 to cover. Much of this loss could be avoided by better care of the mares and sires. I have not credited anything for work that may be done by the mare, as that requires favorable circumstances to be profitable. Brood mares and two-year-old colts can do considerable work, but it is doubtful if it is profitable to pay the wages current and have a man earn it with either a mare nursing a foal or with a two-year-old colt. The probabilities are that the foal or older colt will be injured or kept back considerably, but when light work is carefully performed neither will be injured. Colts of the light class require only about one half less food than heavy colts, as it costs about the same per pound to grow either class, providing they are equal in conformation at the same age. My experience is that it re-

quires as much food to produce beef as horse weight, and a high-class light-harness horse will bring three or four times as much money as will a good beef steer, so that the man who possesses the skill necessary, and applies it to the successful production of a high-class colt, whether heavy or light, need not fear being well remunerated for his time, while the man who does not take an interest in colts, but does in steers, had better raise steers. The price a horse-raiser should receive for good draft colts at three years of age, or a few months older, should average \$250.00. Cost of production, \$194.22; profit, \$55.78.

Many other foods may be employed than those named, but the cost will be almost the same, and for the bulk of the feed nothing is better for colts and horses than mixed clover and timothy hay and oats, all harvested in prime condition. Horse-breeders should endeavor to raise special-purpose animals of high class, and the misfits will supply all the general-purpose horses demanded, they being a class without a generally-accepted definition. Many not well-informed horse-owners and talkers claim what they have as general purpose, regardless of form and action. General-purpose horses are always cheap on the market, and should not be aimed at by breeders, as it takes as much food to produce a pound of inferior as of superior horse. As to the care of colts vs. steers, there is not much difference. To produce good ones of either class, intelligent attention is necessary, and, value considered, the colt does not require any more room than does the steer.

Walkerton, Ont. J. STANDISH, V.S.

LIVE STOCK.

Our Scottish Letter.

June is always a busy month. This year it has been unusually cold and drizzly. In London, and the South generally, the temperature has been lower than in Scotland, and, while there has been nothing to boast about here, the weather during the "leafy month" has been more favorable for crops than it has been in England. The hay harvest in the South is later than usual by about a week or ten days, and the crop is not going to bulk large—not from lack of moisture, so much as from lack of sunshine and heat. The condition of crops here is certainly better than usual, and, although May was not an ideal month for ripening a hay crop, the prospects of a fair hay harvest are not gloomy. The last week in June proved disastrous for the Royal Agricultural Show, at Gloucester. It was a fine exhibition in all departments, but, except on the day of the Royal visit (Wednesday), the weather was cold and wet. Thursday was not a bad day; the show could on that day be inspected with a fair measure of comfort, but it was a unique experience on the Tuesday, when the judging was carried through in a thunderstorm. Judges who are compelled to go about their duties carrying an umbrella, can hardly be regarded as holding a sinecure office. When there is the further handicap of a very sticky, greasy field to walk over, one is glad to be outside the ring, and free of responsibility. On the two shilling days, Friday and Saturday, rain fell very heavily, and the public had a sorry time of it. The show closed on the Saturday afternoon, in a deluge of rain.

THE ROYAL SHOW.

Gloucester is a very fine grazing county, and the city is a very ancient place. The site of the show, the Oxleaze, an island formed by the Severn and a Canal, was the scene of a notable transaction in British history, when the Saxons, under Edmund Ironside, and the Danes, represented by King Canute, signed upon the division of the Kingdom. That was a long while ago, and many things have happened in the interval, but Gloucester has always been an important center. It declared strong for the Parliament in the civil war of the seventeenth century, and resolutely refused admission to King Charles I. As an agricultural or stock-rearing center, the old county still holds its own, and the female championship for Shorthorns, and breed championship for Aberdeen Angus, at the recent show, remained in the county. Lord Sherbourne, a resident landlord near Northleach, owns Sherbourne Fairy, the first prize yearling heifer, which became female champion; and J. J. Cridlan, of Maidenmore Park, who owns the fine herd of Aberdeen Angus cattle, had the championship of that breed, with his home-bred bull Exorwise. Mr. Cridlan is an enthusiast for the black polled breed. He is one of the leading butchers in the West end of London, having several places of business there. What he does not know about beef is hardly worth learning. His experience as a West end butcher led him to take up the Aberdeen Angus breed, which he believes to be the finest of all beef breeds. The champion Shorthorn was the squarely-built roan, Capt. of Trade (1866), owned by Mr. Madden, from Leicester. He is a great bull, and it was reported that he had been sold for exportation to

the Argentine, at 1,700 gs. There was a good show of Shorthorns, which were easily the leading breed, although the Herefords, being near their native haunts, did splendidly, also. The Shorthorns from Northumberland were very successful, the Duke of Northumberland having the reserve champion bull, Alnwick Favorite, a great, massive specimen, which won the oldest class of bulls; and William Bell, Ratcheugh, Alnwick, had first for cows. The sale of Shorthorns was brisk. Good animals, in respect of form, and red in color, made high prices, Mr. Handley, from Westmoreland, getting 650 gs. for Master Challenger, a great bull, which won in the two-year-old class. A first-prize yearling bull made 500 gs. He also was red in color. Whatever theories men may hold, when you get down to business, color does count. A red Shorthorn, of good form and "touch," will sell for far more money just now than a roan. As for a white, no one will pay a fancy price for him, although some of the best bulls alive to-day are white.

So far as other breeds of cattle at the Royal were concerned, the show was as educative as it has ever been. Galloways and Ayrshires made a remarkably good appearance so far from home, and Devons and South Devons, so near home, were, of course, very much in evidence. The latter are a handsome breed of red cattle—one would say, in a general way, a blend between the Sussex and the improved Devon. That, however, is likely to be a fallacy, as the Sussex does not take high rank, and the improved Devon is an ideal specimen for beef purposes, having, like the Aberdeen-Angus breed, a minimum of waste, and being highly popular with the London butcher. The old Gloucestershire breed of cattle were represented by a few animals sent by the Duke of Beaufort and another local land-owner. They were there for exhibition purposes only. They appeared to be a blend between the Welsh and the Hereford, and might have had a future had they been taken in hand when Herefords and Devons were improved. As it is, the field is now occupied, and it would hardly be a profitable enterprise to attempt to found a new breed at this time of day.

Horses were admirably represented. Shires were a strong display, and Suffolks surprisingly so, at such a distance from their habitat in the extreme eastern counties. Clydesdales have seldom been a better exhibition at the Royal. The females were extra good, and the championship went to J. Ernest Kerr, of Harviestown, for Nerissa, the beautiful three-year-old mare which has hardly ever known defeat. William Dunlop, Dunure Mains, Ayr, had the male championship, with his yearling, Dunure Footprint, and he had also first for a two-year-old colt named Right Honor^{able}. Both were got by the great horse, Baron of Buchlyvie. A notable fact connected with the show of Clydesdales was their soundness. All that were shown passed the veterinary examination.

Sheep were shown in great numbers, the most successful breed in that respect being the Shropshire, which holds its own marvellously well in the battle of the breeds. Some of the best flocks of Oxford Downs are to be found in Gloucestershire, and they, too, were very strongly represented. The championship for both sexes went to J. T. Hobbs, Maisey Hampton, Fairford. He breeds splendid sheep, and knows about the Oxford Downs as well as any man.

DAIRY LEGISLATION.

Dairy matters are very much in evidence these times. Bills are now before Parliament which aim at securing a milk supply for the public, under conditions not unduly harassing to the producers. The bill for Scotland is much more advanced in its provisions than that for England. Restrictions against which English farmers cry out have been the common experience of Scottish dairy farmers for a generation. The bills, as drafted, are certainly not unjust to the owner of dairy cattle. It is obvious that their authors have done their best to be fair and reasonable, but there are indications that some city authorities regard the measures as too favorable to the producers, and they will likely do their best to make the restrictions more severe. The principle of the legislation is to make each local authority supreme within its own area; that is, not to allow an urban authority to enter a rural area and demand the right to control the conditions under which dairy cattle are kept and managed there. Urban authorities in some cases maintain that the Local Authority within whose jurisdiction the milk is sold have a right to a say in the matter. It seems reasonable that they should have that, but the case should be presented through the rural Local Authority, and not directly by the Urban Authority to the dairy owner. The attitude of the dairy farmer, generally, is this: Give me a fair field, do not plan restrictions on my trade which cannot be imposed on my foreign and colonial competitors, or, if you do place such restrictions upon me, then, in all fairness, insist on the condition that all dairy produce imported into Great Britain shall be produced under similar condi-

tions. That seems a fair and reasonable demand. If unhealthy surroundings are bad for British cows, they are surely also bad for Danish, Dutch and Canadian cows. If the public cannot utilize dairy produce so manufactured in Scotland, it should be ill for them to utilize it if manufactured in Denmark, Holland, or Canada. These ideas seem, in some measure, to have taken hold of the promoters of these bills, and they have produced measures with which, in the main, little fault can be found.

INFECTION OF CONTAGIOUS ABORTION.

Two great plagues of the dairy farmer are abortion and tuberculosis. There are evidences that something may shortly be attempted of an

effective nature in the battle against both. A Committee of Inquiry, which has been sitting for several years, has completed its labors, and its report will shortly be issued. It is understood that it has arrived at definite conclusions regarding the causes of contagious abortion, and a strong position is taken up as to the chief media of contagion. Contrary to the generally-accepted view amongst stock-owners, the bull is not seriously regarded as an agent in the propagation of the disease. Judging by the trend of opinion expressed at the British Dairy Farmers' Conference, in Cheshire, this opinion will die hard, and I think it ought to die hard. The report of the Commission may probably take the same view as the lecturer at Nanhirch, and maintain that the disease is spread through the animals partaking of food containing its germs. It is also maintained that the germs remain in the soil for an indefinite period, and that an infected field may become the center whence the disease may radiate, long after the cattle among which it prevailed have been removed from that particular area. This view was so strongly presented by the lecturer to the dairy farmers at Nanhirch, in Cheshire, that they became hopeless of ever getting the better of the disease.

RE COMPENSATION FOR TUBERCULOUS ANIMALS.

The battle against tuberculosis has entered on a new phase. The latest is that the Board of Agriculture is prepared to consider proposals for paying compensation to farmers for tuberculous animals slaughtered in the public interest. Such payment is to be made under certain restrictions, and the diseased animals are to be graded. There is to be a scale in accordance with which com-

MORRIS SIX-HORSE TEAM.

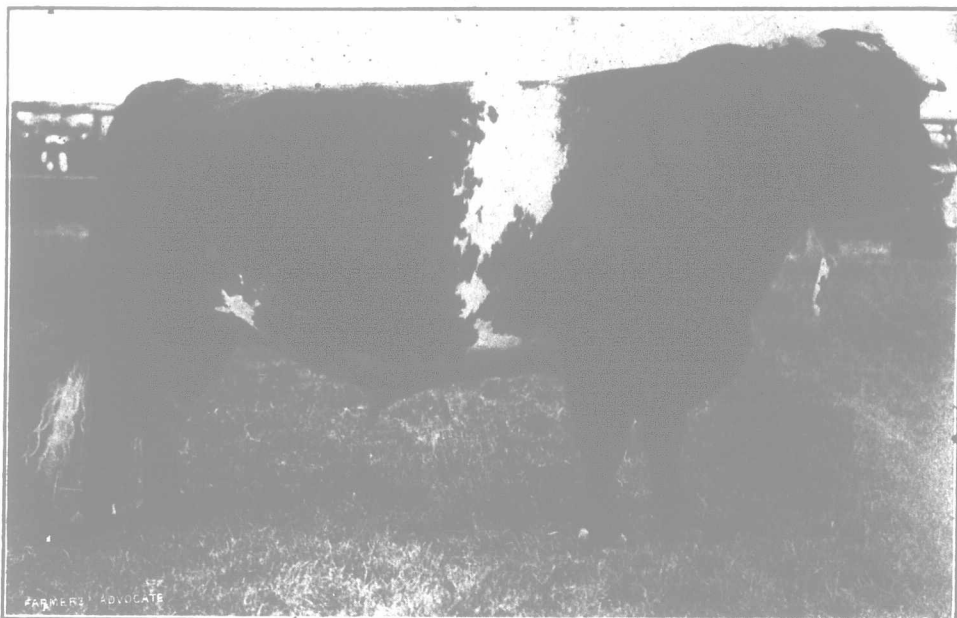
I ought, perhaps, to say a word before closing this letter about the exhibit of six Clydesdale draft horses which the Morris Beef Co. are making here this season. Unfortunately, they did not appear at the Royal, as the fee charged could not be agreed upon. They are a remarkable team. The leaders are American-bred, the body pair were bred near Toronto, and the two great horses in the wheel were bred in Great Britain. The merit of the six is only equalled by their splendid training. They were the most attractive feature of the great horse show at Olympia, London, and "brought down the house" every time. Better horses as a lot it would be difficult to find, and Clydesdale men everywhere owe the Morris Co. and their representative, A. B. McLaren, a debt of gratitude for putting the horses out in such bloom. They form a great advertisement for the breed. We have had quite a number of Canadians here this summer, and a shipment of 80 head is being made to-day (July 3rd).

"SCOTLAND YET."

Edmonton Exhibition a Success.

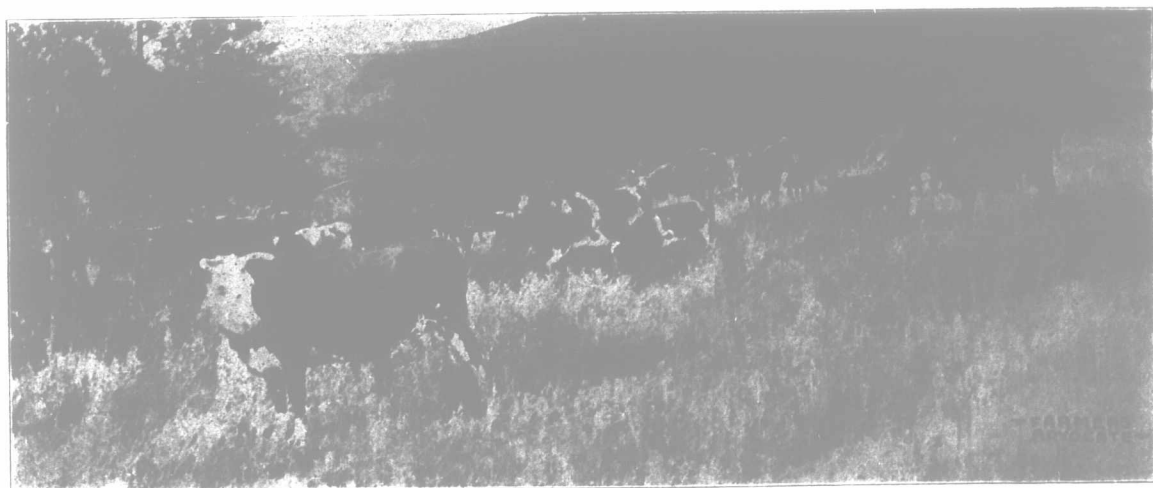
The summer exhibition at Edmonton, Alta., held June 29th to July 2nd, was stronger in the live-stock department than ever before, the showing of light horses, beef and dairy cattle, sheep and swine being well up to the standard; heavy horses alone being slimly represented. The judges were: For heavy horses, Alex. Innis, Clinton, Ont.; light horses, Patrick Farrell, Woodstock; beef breeds of cattle, W. A. Dryden, Brooklin; dairy breeds, Geo. H. Hutton, Lacombe.

In the cattle classes, Shorthorns were shown by Caswell Bros., Saskatoon; Chas. F. Lyall, Strome; A. F. McGill, Lacombe; Jas. Wilson, Innisfail; J. H. Melick, Wm. Thirsk and Jos. Rye & Sons, of Sturgeon. In the section for bulls, three years and over, Caswell won with Spicy's Wonder, a roan son of Imp. Spicy Marquis; Melick's Burgomaster being second and Thirsk's entry third. In two-year-old bulls, Lyall's imported Baron's Voucher was first; Caswell's Star 31th being second. In yearling bulls, Wilson won first with Bonnie Favorite; R. W. Caswell second with Jilt Stamford, and Lyall third. For senior bull calves, Melick was first with a son of Burgomaster; J. Caswell second and Thirsk third. In the senior cow class, R. W. Caswell was first with Fairy Princess; F. W. Lyall second with Juanita, and J. Caswell third. In two-year-old heifers, Lyall was first; Caswell second; Melick third. In



Evander.

Shorthorn bull. First and champion, Royal Counties Show, at Reading, Eng., June, 1909. Age, 3 years. Bred and owned by H. M. the King.



Scene on an Alberta Ranch.

yearling heifers, Wilson was first with Crimson Jean; J. Caswell second with Seven Star 8th; Melick third. Rye & Son were first for senior heifer calf. The aged bull, Spicy's Wonder, won the male championship. C. F. Lyall won the first award for herd; R. W. Casswell second. Melick won for bull and two of his progeny, with Burgomaster.

Herefords were well shown by J. Tough, Edmonton, who had out 18 entries of a superior class.

Two herds of Aberdeen-Angus were out, shown by Lew Hutchinson, of Duhamel, and C. Ellet, of Sandy Lake; the latter winning sweepstakes for best bull, any age, with a worthy entry purchased from James Bowman, of Guelph, the prize money being nearly equally divided between the two exhibitors.

DAIRY CATTLE STRONG.

Perhaps never before were the dairy breeds so strongly shown at Edmonton, the three leading breeds being well represented. In Jerseys, B. H. Bull & Son, Brampton, Ont., were out with a strong string of twenty head, winning practically all the first prizes. R. W. Watson, Edmonton, also exhibited a number, of good quality and records.

Holsteins were well shown by W. L. Roi, Ferguson, who had out six head, securing three firsts, two seconds and the gold medal, while W. H. Mullins, of Ponoka, and J. Toane, of Edmonton, had a number of entries of a good class.

In Ayrshires the competition was keen, most of the winners being from the herd of A. H. Trimble, of Red Deer, who had out 24 head, and won six firsts and the gold medal for herd. J. J. Richards, of the same place, and J. A. Davis, of Clover Bar, were also exhibitors; the former showing an imported bull of sterling quality.

The sheep and swine classes were well filled. T. A. Cox, of Brantford, Ont., showed twenty high-class Shropshires; E. T. Shaw, Belmont, Man., made a good showing of Leicesters; Jos. Rye & Son won in Suffolk sheep, and T. A. Cox in Hampshires. In Berkshire hogs, T. A. Cox, L. Hutchinson, Duhamel; G. Cresswell and J. Toane, of Edmonton, divided the prizes; Cox capturing the sweepstake prizes. The Yorkshire class brought out strong competition, the prizes being divided between M. Smeltzer, of Edmonton; P. Gate, T. Jackson and W. Wakeford, of Clover Bar; J. Davis, of Strathcona, and F. J. Shaw, of Belmont. Smeltzer secured the medal for sweepstakes boar, while Wakeford had the sweepstakes sow. J. Rye & Son were the largest exhibitors of Tamworths, winning a large number of the prizes, while J. Caswell, of Saskatoon, and H. M. Quebec, of Edmonton, had also some winners.

Manitoba Cattle-feeding.

The results of outdoor steer-feeding last winter at the Manitoba Experimental Farm, Brandon, were not quite so favorable as those of the previous year.

"The forty steers that were being fed experimentally were sold on May 10," writes Superintendent Murray. "The gains made were smaller than a year ago, but the price received was higher. A good return was therefore realized for the feeds fed. The most satisfactory gains were made by those running loose in the stable, while those tied inside made better gains than those wintered in the open. Those fed outside this year made smaller gains than a year ago, and yielded a lower price for feed than those stabled. These results reverse those obtained a year ago. The winter was much more severe than that of 1907-1908, and the cattle used were somewhat smaller, and these facts undoubtedly are largely accountable for the difference in results."

Warbles in Cattle.

A correspondent asks for information re prevention and destruction of warbles in cattle.

The warble fly attacks cattle in the summer months. In general appearance the fly resembles a small bumblebee, but with rather more hair on its body; it is brightly colored, with thick bands of yellow, black and red hair on the abdomen, and somewhat similar markings on the thorax. The presence of the fly is readily indicated by the restless manner of the cattle, usually accompanied by their galloping frantically over the field with head and neck outstretched and tail erect. The fly introduces its eggs under the skin by means of a sharp-pointed organ, and these eggs hatch into the warble or ox-bot. The theory was formerly held that the eggs were taken into the system by the cattle licking or biting them off, and that the grub found its way out through the skin of the back, but the latest and more reasonable theory is that above indicated. The simplest measure of prevention suggested is the smearing of the backs of the cattle during the summer with some offensive-smelling mixture which the fly will avoid, such as train or tanner's oil and sulphur, applied with a brush or rag. Treatment for destruction of the grub in the

backs of cattle in the spring may be by means of mercurial ointment rubbed into the warble, or by squeezing them out by hand and crushing them. But, since the comfort of the animal and the value of the hide are considerably lessened by the work of the warbles, prevention is surely preferable.

Prof. Koch's Views on Tuberculosis

Prof. Robert Koch, the eminent German bacteriologist, who discovered the phthisis bacillus in 1890, has been much maligned because of his sane and sensible views on the subject of bovine tuberculosis, and the chances of its giving rise to tuberculosis in man. At the International Tuberculosis Congress, in Washington, last autumn, he maintained his position, asserting that there was on record no authentic case of pulmonary tuberculosis in man in which the disease had been demonstrated as of bovine origin. Emphatic exception was taken to his views by most of those present, and the renewed discussion ensuing, elicited from Dr. Koch the following statement of his views to a correspondent of the London Times, in which paper they were published, December 28th, 1908. They are reported by the Times correspondent as follows:

The main points at issue are, first, whether there are two distinct types of tuberculosis, or, in other words, whether there is a difference between bovine and human tuberculosis. The Royal Commission has, he says, abandoned its contention that there was only one type, and at the Washington Congress nearly all those present were agreed as to the existence of two types. The second point at issue is the frequency with which human beings are infected by bovine tuberculosis. Professor Koch never maintained that human beings could not be infected by animals. All he contended was that bovine infection was a less frequent source of the disease than human infection, and less far-reaching in its evil effects.

Professor Koch would be very glad to see simultaneous efforts made for the repression and cure of bovine as well as human tuberculosis, and thinks it possible that a rich country like England may be capable of carrying on that double campaign. He does not consider it advisable, however, that the efforts of a country like Germany should be diverted from the task of repressing consumption by any attempts, on a large scale, to avert the far smaller danger from bovine tuberculosis.

THE FARM



Spotted Cowbane or Water Parsnip.
(*Cicuta maculata*.)

Cowbane or Water Hemlock.

An Oxford County subscriber brought into the office last week upper and lower sections of a very large plant of cowbane or water hemlock, otherwise known as water parsnip, poison parsnip, muskmash root and beaver poison. The stalk measured two inches across at the base, and grew some five feet high. As it is a very serious weed, because of its poisonous property, we republish from Farm Weeds of Canada, illustrated description in full:

Native. Perennial. Stems stout, erect, hot

low and jointed, widely branching, three to six feet high, quite smooth, pale green, dotted and streaked with purple. Leaves compound, twice or three times divided, clasping by an expanded base, the lower on long petioles, the upper sessile. The leaflets lanceolate, deeply toothed. Flower small, white, in compound umbels, one to four inches across; the rays of the many-flowered umbellets unequal, from one to two inches long. Fruit smooth, ovate, compressed laterally 1/12 of an inch long, separating into two boat-shaped ribbed seeds. When cut across, these seeds show four oil tubes between the ribs and two on the flat side. Root, a bundle of a few fleshy spindle-shaped tubers, like small parsnips, at the base of the stem.

Time of flowering: July to August; seeds ripe August to September.

Propagation: copiously by seeds and by offsets from the crown of the root at the base of the old stem.

Occurrence: in low land along waterways, probably right across the Dominion.

Injury: roots intensely poisonous to stock, particularly the cattle, which pull them out when grazing in the spring and eat them freely. When first turned out, the animals find few green plants to eat, and in browsing over the wet lands where these water parsnips grow, they find the new green shoots, and when eating these pull out the roots. This is easily done, owing to there being few root fibers. The roots not only look like small parsnip roots, but like them have a strong aromatic odor, which seems to make them very attractive to the stock. It is claimed that the flowering plants, when cut in hay, may be eaten by the animals without any ill effects, but that the ripe plants bearing seed are dangerous. The whole plant, however, contains some of the poisonous principle, although it is true that this is most abundant in the roots and the seeds; consequently, no hay containing the spotted cowbane, or other water parsnips (also called water hemlocks) should be fed.

This plant, and in the West probably two or three other allied species closely resembling it (the Oregon water hemlock, *Cicuta vagans*; the purple-stemmed water hemlock, *Cicuta Douglasii*, and the Wyoming water hemlock, *Cicuta occidentalis*), are the cause of nearly all the deaths of cattle reported in the spring; and, unfortunately, in cases where much of the plant has been eaten no remedies can be applied. The means generally adopted on the plains in mild cases, when these are discovered in time, is to administer two or three daily doses of lard or bacon grease; but it is seldom that anything can be done on account of the intense virulence and quick action of the poison. A piece of root of the Oregon water hemlock, about the size of a walnut, is stated by Prof. Hedrick to be enough to kill a cow in about fifteen minutes.

Remedy: From the nature of the localities where water parsnips grow, hand pulling is the best treatment for this dangerous weed. This is easily done, particularly if the roots are first loosened with a spud or other implement. The plants should be carefully piled up to dry, and then burnt or otherwise destroyed. The poisonous principle, called cicutoxin, is of a very resinous or oily nature, and will contaminate water, if, as is sometimes done, the pulled plants are thrown into sloughs where they may be trampled upon by stock. It is most advisable that stockmen should know the appearance of these plants, so as to destroy them whenever seen, or, at any rate, so as to keep their animals away from the localities where they grow too abundantly to be pulled out by hand.

The Last Corn Cultivation.

"In cultivating corn a good many people omit the last cultivation, about the first week in August, after the corn is in tassel," remarked A. W. De Long, of Oxford Co., Ont., who grows ten or eleven acres of this crop every year, and makes somewhat of a specialty of it. "We try to cultivate our corn four times crosswise (usually once through each space) and five times lengthwise, being careful to cultivate last time the way the corn harvester is to go. We regard this last cultivation after the corn is tasselled as very important."

In addition to frequent employment of the sculler, as indicated, Mr. De Long finds valuable use for the weeder, which is run over the field three or four times, first just before the corn comes up, then later taking out a tooth over each row. With the rows straight, as left by careful driving with the check-row planter, it is easy to use the weeder with tooth thus removed, it being necessary to watch only one row of corn. The practice on this farm is to plant corn on unmanured soil, and with the treatment given, 100 to 125 bushels per acre of good ears are commonly obtained. On July 1st a member of our editorial staff saw a fine field of even, thrifty corn, hilled in rows almost as straight as a string. Excepting, perhaps, alfalfa and clover, what other farm crop is so profitable to raise?

Eradication of Some Bad Weeds.

Editor "The Farmer's Advocate":

The meeting of the Brant Township Farmers' Club, held on June 26th, although not very well attended, on account of being Saturday evening, was nevertheless a decided success, owing to the presence of Mr. Raynor, of the Seed Branch, at Ottawa. Mr. Raynor is a practical and interesting talker, and in the short time which he had at his disposal handed out much useful information.

The subject of his address was "Weeds and Their Eradication," and there has been quite an activity in our meadows, spudding out or pulling weeds, as a result. Almost any farmer could find isolated plants of ox-eye daisy and bladder campion in his meadows, and the pulling or spudding of these would be the means of keeping his clover crop clean.

After briefly complimenting the community for having an active and progressive club, and urging members to force themselves to take an active part in the meetings, Mr. Raynor branched off into his subject, which can be summed up as follows:

There are a number of ways in which weed seeds are distributed over the country, although our locality seems to be totally free from many of them, compared with other localities. Weed seeds are generally obtained in small seeds, particularly in red-clover seeds. The wholesale seed houses buy seed from all parts, thoroughly mix them, and then send them out to the merchants. This procedure, of course, will put weed seeds into clover, and distribute the kinds found in the different clover-seed-producing districts. Formerly, there was no protection against dirty and weedy seeds, but the law has now come in to protect the farmer and the country.

There are other ways in which weeds get distributed, namely:

1. Carrying them about in separators from farm to farm.

2. Trading seed grain between farmers.

3. Importing oats or barley from the West for feed. The manure resulting will be full of weed seeds common in the Northwest. Imported grain for feed should all be run through the fanning mill.

Weeds may be classified into three divisions: (1) Annuals, (2) biennials, (3) perennials. Of the three, the perennials are the worst to handle, because the majority of them are deep-rooted. The annuals can easily be killed by early cultivation, after weed seeds have sprouted. If possible, a very early cultivation with the harrow will sprout a host of weeds, which can be killed when land is prepared for seeding. Wild oat is perhaps the only annual, besides the mustard and ragweed, that is difficult to get rid of. Mr. Raynor claims that wild oats will sprout in the fall under very favorable conditions. The wild oat being a hairy seed, it will not let water get at it easily; and as it is a thick-hulled seed, it requires considerable dampness to get it to sprout. Very early cultivation in spring, to get the wild oats to sprout before preparing land for seeding, is one method of lessening. Another is to seed the field down with clover and timothy, leave for five years, and follow with hoe crop; or manure the field well, seed to mixed grain, and cut green for hay.

Biennials are not so plentiful as the annuals, and consist of more isolated plants, like blue burr, hound's tongue, and burdock. These should not be cut off with the scythe, as this only multiplies the stalks; but they should be cut off below the crown, either the first year or the second year, before seed is matured.

Some of the perennials require a number of years to completely kill them. Bindweed and sow thistle are perhaps the worst and hardest to handle. These have to be smothered out by continually cutting off the new sprouts. Land infested with these weeds should be plowed once, and then cultivated with a broad-shared cultivator, at least once a week during growthy weather. Another method of handling bindweed, when not too extensive, is to cover the infested area with tar paper, to exclude light and air. Two crops of buckwheat, sown after fallowing to July 1st, followed by hoe crop, kills sow thistle. Ox-eye daisy, being a shallow-rooted perennial, is easily eradicated by shallow plowing and cultivation. Bladder campion can be killed by cutting below the crown, and putting a little salt on root and crown. Canada thistle is easily killed by plowing down deep when half-grown, covering the whole of the thistle, and seeding down with clover. Quack grass—Seed field with buckwheat; immediately after harvest plow up infested stubble lands, and cultivate well; then, late in fall, plow up again in ribs, and let roots freeze. Follow with hoe crops.

Mr. Raynor thought shallow plowing to be the best, if soils are in proper condition, as it sweeps the weed seeds near the surface, and if it is easier to keep four inches rich in humus than seven or eight inches.

Another method of keeping down weeds is the

raising of sheep. Sheep eat about 80 per cent. of all noxious weeds, and they eat them off so close that many of the plants will die.

Bruce Co., Ont.

A. E. WAHN.

Alfalfa, Silos, Tiling, Etc.

Editor "The Farmer's Advocate":

Farmers are now (July 10th) busy haying. The crop, I think, will be a good average crop; some pieces are quite light, and then there are fields that are heavy. There were a number of fine fields of alfalfa in our neighborhood. At last many farmers have learned to appreciate alfalfa as a crop for hay at its true value. We know of one field that will soon be ready to cut the second time this season. From Woodstock south through Oxford County the crops of all kinds are good. After an unusually late spring, and in most cases a backward seeding, it has been remarkable how rapid the growth has been. Fall wheat is very promising for a fine crop; barley is heading out nicely, and indications are favorable for a good crop. Corn is grown extensively for silos, as well as for a grain crop. There are more silos being built this year than any year heretofore.

Corn for silos and alfalfa hay will soon be considered the two most important crops the dairy farmer can produce, and, in conjunction with the other clovers and improved mangels, his facilities for profitable dairying are greatly improved to what they were a few years ago.

In East Oxford, the township adjoining Woodstock on the south side, there are a number of expensive drains being put in this summer. In some 18-inch glazed sewer pipe will be used for quite a distance from the mouth of the drains. In another instance in our neighborhood they are using 12-inch field tile. This drain is estimated to cost \$1,000, and will only extend about one mile.

Land values have been increasing, and inducements for people to remain in Oxford County and improve and build up new homes seems to be strengthening, in opposition to all the allurements of our great Provinces in the West. We are now working out a system of county roads construction. After two years' experience, which was not satisfactory to the ratepayers, we believe they have passed the experimental stage, and that the plan will soon be adopted by many other counties as the best system of building first-class roads.

Oxford Co., Ont.

W. S.

Preparation of Land for Wheat.

Careful preparation is necessary in order to have a reasonable chance of a good crop of wheat. A good crop is the only profitable crop. This season, more than any for many years past, there is not unlikely to be a considerable percentage of the wheat crop sown on land not properly fitted for it. The acreage will almost certainly be much larger, and the time available for preparing the land no longer, so that, unless weather conditions favor, there will either be insufficient preparation, or too late sowing, in many cases. A word of caution to our readers against making such a mistake will not be out of place. This year is not likely to be any exception to the rule that, to sow wheat on land unfit for it, is to lose; while a satisfactory yield may be expected from suitable soil properly prepared. Another word of caution would be not to count too much on the continuance of present high prices. Prospects for the world's crop are fair, and prices a year hence may be very different from what they are to-day. High prices stimulate world-wide production, which in turn moderates values.

Summer-fallowing puts the land into the best possible condition for wheat, but it is too expensive a method to be recommended for general practice. One crop in two years seems like waste. The only case in which it seems justifiable is when a field is so thoroughly infested with noxious weeds that no other treatment is likely to be of much avail.

Good crops of wheat may be grown on pasture land plowed in the summer, after the most of the pasture for the season has been secured. Some find clover sod, plowed after haying, an excellent preparation for wheat, but this practice has serious drawbacks. If, as is usually done, the wheat ground is seeded to grass and clover, it is but one year out of lea, and, while good for this particular field, it would be at the expense of other parts of the farm, which would have to be kept in crop and out of grass too long for the good of the land. Two, or, at most, three, years out of grass is long enough. Besides, clover sod is specially adapted to the growing of corn, potatoes and roots, and these are nowadays of more importance than wheat, and should have the preference. Whether wheat is grown or not, these should be.

Some excellent farmers find barley ground very suitable for fall-wheat growing. The ground can be plowed early; it usually works up well and yields good crops. The pea crop, which is the

very best to precede wheat, is almost out of count now, as so little of it is grown; but even after oats, or oats and peas mixed, good wheat crops may be secured, if soil and climate are favorable. The great value of peas for feeding, and the excellent condition in which a pea crop leaves the land, constitute a strong reason for increasing the acreage of peas, mixing them with oats, if necessary, to facilitate harvesting.

Whatever land may be chosen on which to sow wheat, thorough working is necessary. If on stubble ground, plowing should be done as early as possible, each day's work being rolled and harrowed the same evening, as such work is much more effective than if deferred until ground is dried out, and is in much better shape to benefit by any rain that may fall. Much depends on plowing early, as the longer the ground weathers after being worked before sowing is done, the better its condition seems to be. Surface working with disk harrow or spring-tooth cultivator, and harrow and roller occasionally, is very important. The ideal condition for a seed-bed for wheat is a somewhat firm bottom, made so by repeated workings after being plowed, and a fine, moist, mellow surface soil. Surface working after plowing, and plenty of it, is the correct treatment, whether the ground has been stubble land, summer-plowed, pasture, or clover sod. If a little manure can be spared and worked in, it will very much help the chance of having a fair crop.

In the South-western counties of Ontario a good deal of wheat is grown on bean and on corn ground, no plowing, we understand, being done, the surface only being thoroughly worked.

How different the prospect on soil prepared as described above, from what can be seen too often—land plowed shortly before being sown, hastily worked, lumpy and dry; seed germinates unevenly, plantlets make poor growth, and outlook for profitable crop is poor indeed.

Alfalfa as Feed and Soil Improver.

The value of alfalfa for the production of feed, as well as for the improvement of the land it grows on, has been pretty well illustrated on the dairy farm of H. & J. McKee, Oxford County, Ont. A call on July 1st by a member of our staff, afforded opportunity to see a stout piece of six or seven acres, seeded three years ago, at the rate of 22 pounds to the acre, with a nurse crop of one and a half bushels of oats per acre. Part of the field is a clay loam, and part a gravelly loam. On the sloping portion of the field, which, if we did not misunderstand, is the heavier soil, the alfalfa was very heavy, apparently good for two and a half tons per acre. Part of the field had been mown, and was some of it in the windrow, and some in the cock. The uncut portion was a dense mass, almost as high as a man's thighs, and pretty well out in bloom, which is rather too far advanced to make the best quality of hay, one-tenth in bloom being the ideal stage to aim at in cutting, when weather and other conditions permit.

Two years ago, Mr. McKee broke up a field that had been seven or eight years in alfalfa, but had been spotted by ice lying on the ground in winter. From this a heavy crop of ensilage corn had been taken, and this year it was being reseeded to alfalfa, with a nurse crop of oats. The new seeding had already made a fine growth, and, digging up a couple of roots, they were found abundantly supplied with the little pinhead and wheat-grain-sized excrescences in which dwell the nitrogen-gathering bacteria that capture this elusive and valuable gas (nitrogen) from the atmosphere, converting it to the uses of the plant. On such a field, artificial inoculation would show no benefit, as it has been already naturally inoculated by the previous growth of alfalfa. On farms where neither alfalfa nor sweet clover have ever grown, artificial inoculation for alfalfa often shows marked results, especially at first, by starting a prompt development of these bacteria, with correspondingly greater vigor of the crop.

The Off-horse in the Furrow.

Editor "The Farmer's Advocate":

In your excellent article on "Speed the Plowing," July 1st issue, you say when three horses are used on two-furrow plow, two walk on the land and one in the furrow, but when four are used, one walks on the plowed ground. Now, I would like to ask, is there any good reason why you should keep one horse walking on the plowed ground? We always use four horses on the gang plow when plowing sod or heavy fall plowing, but our off horse always walks in the furrow. Hoping you will discuss the two-furrow plow some more.

A. MCKENZIE.

Wellington Co., Ont.

[Editor's Note.—The two letters on this subject on page 1142, July 15th "Farmer's Advocate," partly answer the above enquiry. For the benefit of others, Mr. McKenzie might send in his plan of working the gang. What some have com-

plained of in four-horse devices in plowing with off horse in furrow, is the objectionable side draft. Those with good plans, in which this is overcome, should send them in, accompanied with diagram. By many who have used four-horse teams, that one should go on the land is not found a serious matter. A smart walking horse, given a little advantage, goes along without any trouble.]

Save That Water!

We are apt to blame dry weather for crop failure, when the reason might be found nearer home. Providence sends enough rain for the crops of a given season, but man, by chopping down the forests, and otherwise, has disturbed nature's order of things, so that the moisture comes in irregular floods, and escapes before we know what we are about. Even in the semi-arid West it is claimed that plenty of rain to grow good crops falls, but too much is lost by evaporation. The loss of water in this way is amazing, as much as a quart and a half from a square foot every twenty-four hours for ten consecutive days. With hot sun and parching winds above, and capillaries pumping up moisture from below, what's to be done to save the corn crop? Better preparation of the seed-bed would have helped to hold this subsurface water for the plant roots, but it's too late for that now. But, with the cultivator keeping the surface stirred, the thousand little channels of communication from below will be broken, and the water held there. Then, the mouths of the thirsty weeds must be stopped, because every one of them steals so much moisture and fertility from the growing crop. When rain does come, the surface soil will be in a friable condition, so that the water will readily percolate downward. But remember this, that, after a heavy pour of rain, the surface will be compacted, a crust will form, and loss of water by evaporation go on much more rapidly than before.

Actual cases are on record in the West, where one extra cultivation, costing perhaps 30 cents per acre, at the right time, after a soaking rain, added 15 bushels of corn per acre to the yield, compared with fields not so cultivated on the same and adjacent farms, alike in every other respect. Is there any easier, quicker or surer way of making money than that? Start the cultivator just as soon as the earth will fall away from the teeth, without stickiness. Capture every shower. Waste neither the water below, nor that which falls afresh. You may need it all to fill the corn crib and the silo.

Name the Farm, and Use the Name

Editor "The Farmer's Advocate":

It is a very, very often-repeated complaint that our grocers and merchants are not treating fair with the farmer. They pay for quantity only; but not so the mill-owner, for he pays for quality, as well. Often have I noticed butter brought into a store, which really was a mixture of buttermilk, soft butter, and I know not what else, and I doubt whether anyone else would; but, as long as you can call the stuff butter, you get the same price as does the one who brings in a first-class product. What inducements, under these conditions, are there for making good butter? So it is with eggs, dried apples, etc. My neighbor has for years tried to raise hens that will lay eggs of a good and uniform size; nor does he salt his summer eggs, and sell them in January for fresh-laid ones. Others bring in eggs, some a little larger than bantam's, and all sizes, and they may be anywhere from one to one hundred days old. The price is the same; there is absolutely no price encouragement for producing the best.

The grocer says he cannot test butter the way wheat is tested. No, he says, he'd lose customers. So that the grocer, the storekeeper and the merchant have done nothing to remedy matters. We must. And it is a very simple trick, and all in a nutshell. Give the farm—the home—a name; have your butter put up in prints bearing the name of the farm; put up your eggs in boxes containing one dozen, and have the name of the farm stamped plainly on the boxes. What good will that do, you may ask? It will do wonders. Do you not think that a lady in the village, town or city would willingly pay a few cents more for a pound of butter which she knows by the brand is fit for food, and also knows where it comes from, and that she can have of the same kind next time? But how is she going to know whose butter she had last time, and how would she be able to get it again, if it bore no mark of distinction? If you manufacture a good article, you can in this manner sell it, and there is sure to be a demand for your goods or produce, and the demand makes the price. This is not only so with butter, but in fact with most anything. When I used to buy eggs in the store, while the clerk went to some out of the way place to get them, I used to wonder, "Now, out of that dozen, I wonder how

many are rotten, and how many are salted, and how many pigeon eggs, and how many contained chickens?" But if they had been marked, and I found them to be all good, I would have insisted on having the same brand next time.

But why name the farm? Why not simply your name? For this reason: A name of a farm always suggests pleasant scenes, and usually describes the main line of business carried on on that particular farm. It also is much easier to pronounce and remember the name of the farm than it is to remember or pronounce persons' names.

This winter, not knowing which of two breeders to buy some live stock from, I consulted an old importer, and also showed him the letters received from both. "Why, this one," said he, "the other has not got his farm named." I have seen, since, that when farmers wish to buy animals, they prefer to write to those who have a name for the home.

It pays to name the farm, but no good farmer would do so merely because it pays. We do not farm to swell our bank account; at least, we shouldn't. Farming for profit only is poor farming. Naming the farm will do more. It will keep the boys on the farm. They do not wish to see their neighbors' fields free from weeds than their own. It pleases them to invite their city cousins for a day at "Greendale," or whatever the name may be.

Think of all the asking one has to do, when in an unacquainted district, when one wants to find a certain place. If each place had a name, and that name and the owner's name, post office, telephone number (if any) were neatly printed on a board, and securely fastened to the entrance, it would avoid many mistakes.

Do not think that breeders and men with large farms are the only ones that should name the farm. The humblest homes, as well as the finest, should be named. Have the name short, and it should describe the appearance of the place. If the farm is composed of three hills, "Three Hills" is the first name one would think of. It is an easy matter to give a name. Your teacher or minister would be glad to take a part in the naming, but by all means do not forget the wife and children, and let them all make suggestions. The Elms, Woodside, Cherry Hill, Lone Tree, Mt. Pleasant, Willow Dale—these are all short and common names, and one could give hundreds like them. If possible, use a new name—manufacture one, if you can. Breeders should be especially careful not to choose a name that will clash with another one in the same Province. Look over "The Farmer's Advocate" advertising columns, and avoid repetition. No man would think of calling his home "Lake View" when there is no lake in sight, nor would he call it "Valley Home" if the place is comparatively level. The place will suggest a name for itself. The most desolate district I have seen, where the forest fires had swept through some years before, was brightened up considerably by a neat sign-board, and I have just learned that, when the place was announced for sale, it sold for three hundred dollars more than lands just as good on either side of it, and, it is said, simply because the place was so well known as "Idlewild."

Let us all put up similar sign-boards; keep them up clean and tidy; keep the surroundings clean and tidy, and keep the whole farm, buildings and all, in the same condition.

Certainly, there can be no harm in trying it. It will cost very little, if anything, to do so, and it will accomplish wonders.

I might add that it is a good plan to order a stamp from any firm who makes them, and stamp your apple crates, berry crates, etc. It is cheaper than using tags, and stamps will not be lost or wiped off. "FARMER," Waterloo Co., Ont.

THE DAIRY

Hot Shot for the Cream-gatherer.

Editor "The Farmer's Advocate":

I do not know whether a woman's views on this creamery question is wanted or not, but I would like to ask these writers if they are SURE all the fault lies in the dirty separators and dirty farm women? Do you realize you are giving the farm women a desperately hard name? Should we all be blamed because of a few? Why not refuse their cream altogether, and give those that try their best to keep cream right the credit for what they are doing? We "children of a larger growth," as one writer with a swelled head dubs us, don't have to send cream to any creamery unless we like; neither do we have to toady to anyone for our bread and butter.

It pays better to churn at home, anyway. At the very least, we have the buttermilk at home, and few of us can afford to give away a whole summer's buttermilk from a herd of cows. What we need is some better way of marketing our but-

ter, and then it wouldn't have to lie in some country store an indefinite time, and acquire all sorts of flavors.

What about the way the cream is gathered? Not one of you mentioned that, and yet few, if any, women on the farms, that see the disgustingly filthy way cream is gathered would use creamery butter in any shape or form. Is there a butter-maker in the land that would like the Board of Health or particular customers at the creamery door at night when the waggons come in, after being out in the heat and dust all day? To be sure they will blame the dirty women and dirty separators! Look at the man who has been gathering cream and driving horses all day. His dirty, greasy clothes, covered with hairs and dust; look at his hands; take a peep into the measuring pail; examine the dirty ruler he has to measure the cream; look at the dirty clout he has been wiping his hands and ruler on all day; don't overlook the test-bottles, either, and then I ask you does all the fault lie at our door? What the cream in the cans is like is beyond my imagination, but such treatment can't improve it any.

In conclusion, we want to thank you for the compliment you have unwittingly paid us, viz., that you need the hearty co-operation of the women in everything you undertake to make it a success—even to making butter for a foreign trade. KIRSTY.

Dairy Heifers Versus Beef Steers.

Although I was brought up to feed steers, and every year my father filled the stables with steers, to feed, generally, for export, it is now over a score of years since I bid good-bye to Mr. Steer, and renewed the acquaintance but once since, and that was to carry out a little experiment as to the comparative value of steers and "she" stock as money-makers, which I will tell about later. When starting farming for myself I mapped out a programme, to work hard and save whilst young and strong, acquire a competence, and enjoy it in my later years, and I set myself the task of acquiring a competency before reaching 50 years. Then if the programme was carried out according to my plan, I would retire from active farming, as I do not believe it is required of any man that he should work all his days at such a strenuous business as farming. As a young man I soon recognized the fact if I was to carry out my programme and get in on schedule time, steers and I would have to part. Owing to changed conditions there was very little profit in them, and we did part, and I have never had reason to regret it. There are a great many steers raised throughout the country that never begin to pay their way. Especially is this the case of the poorer class of steers. There is not much profit in the very best. There is none at all in the poorer class. It is hard to understand why so many will persist in raising steers that do not pay a profit. Of course, these parties are doing a patriotic thing in furnishing cheap beef to consumers at a loss to themselves, but a farmer cannot afford to be that kind of a patriot, and if he does not look out for himself no one else is likely to do so.

Most interests are benefited by the farmer producing all he can, in order that they can get the more out of his labor. And a man can be just as good a patriot by producing what will give him a profit. Some four years ago, having an abundance of skim milk, as I was selling cream, I bought in some grade calves, and in order to see the comparative profit between heifers and steers, I took on some steer calves. These were sired by a Shorthorn bull, and were, therefore, more likely to do something better than the many steers that are raised from scrub sires. The steers and heifers were fed just the same until two years old; then the heifers were sold, and realized \$10 to \$15 more a head than I could get for the steers. The heifers were with calf, and soon to produce dairy produce, whilst the steers must be fed on to produce beef.

Now, by having these steers, they not only made me no money, but they took the place of heifers that did make me money. There is almost an unlimited demand for young dairy cows, and there are not enough of the right kind being raised to supply the demand. With the increased demand for milk for town and cities and for the condensers, it continually requires more cows, and those in the business of producing milk for these purposes have no by-product to raise calves upon, and would have to feed new milk, which is worth to them a good deal. Then there are many that supply milk to cheese factories that do not raise calves, and altogether there is a big continuous demand for dairy cows; and anyone who will use a good dairy sire (pure-bred) and raise the calves as they should be raised, will find a good and profitable market for all of them. Those that are making money out of steers are the feeders that buy them up at two years old. They do not raise their own steers, because they say they can buy them cheaper than they can raise them. In that case, those that do raise them do so at a loss. Others make money by raising steers of extra quality and generous feeding, to get them

in some acquire all gathered? yet few, if disgustingly creamery a butter- Board of creamery in, after To be and dirty has been His hairs and into the he has to out he has day; don't when I ask? What my imag- ve it any. ou for the us, viz., on of the make it a a foreign KIRSTY.

Steers.

steers, and with steers, how over a Mr. Steer, since, and ent as to the stock out later. ped out a first young enjoy it in ask of ac- 50 years. according farming, man that strenuous an I soon t my pro- pers and I ed condi- , and we to regret through- pay their the poorer bit in the poorer to many ot pay a doing a f to con- mer can- and if he is likely mer pro- get the n be just will give aving an cream, I ter to see and steers. ere sired ore, more any steers years old; \$10 to the steers. o produce e fed on not only place of re is al- rly cows, and being increased d for the cows, and for these es upon, is worth any that not raise ntinuous will use the calves food and ose that e feeders They do say they se them. do so at steers of get them

off early for "baby" beef. The profit herein comes from the extra price received, and the market for this class of beef is limited. The many steers of low quality that stock the big markets cannot possibly have given those that have raised them any profit, and it is not wisdom to produce such, besides, there is a great demand for "she" stock of dairy breeding that will yield a handsome profit.

It is very possible that some day there will be more money for the producers of beef than there has been in recent years, owing to the fact that the consumption for all foods has overtaken production, but there will not be any money in steers of low quality, as they come in competition with cow beef. By ceasing to produce steers of a low quality, the farmer loses nothing, but gains in the enhanced price that would be received for any cows he finds necessary to turn to beef, and those raising the better quality of steers will also be the gainers. The best way to boost prices is to restrict production. If farmers will but cut out those unprofitable lines in their business they will receive more remuneration for what they do produce. GEO. RICE.

Losses from Overripe Milk.

Cheesemakers have long known that overripe (sour) milk makes a smaller amount of cheese per thousand pounds of milk than can be made from an equal weight of normal milk. Thus, the patron who does not take care of his milk, by souring the vat in which his milk happens to be poured, reduces the make of cheese, causing a loss that is distributed among all the patrons of the factory. Besides reducing the make, this sour milk hinders the manufacture of a first-class quality of cheese.

While makers have known these things full well, some patrons have been skeptical concerning them. Figures may help to convince the dubious. About a month or so ago we had a sweltering hot Saturday, Sunday and Monday, and with the milk delivered on that Monday makers generally experienced more or less difficulty, owing to the sour milk producing fast-working curds. Many of them also observed a noticeable reduction in the make of cheese per thousand pounds. This, too, after they had returned several thousand pounds of the worst milk. At the Strathallan factory, for instance, one of the largest and best cheese factories in Canada, 5,000 pounds of milk were rejected on that day. From over eleven vats taken in, 55 cheese were made, whereas, from long experience, the maker, Mr. Bothwell, informs us that 57 cheese would have been made easily from an equal quantity of milk in normal condition.

Again, at the East Zorra and Blandford factory, Innerkip, Ont., the maker, E. M. Johnson, informs us that, on the Monday referred to, from 50,400 pounds of milk he made 18½ cheese. The next Monday, when the milk arrived in better condition, he made 51 larger-sized cheese from 51,600 pounds of milk, or nearly three cheese more from only 1,200 pounds more milk. Say the loss from overripeness was two cheese. These would be worth \$20—a loss of twenty dollars' worth of cheese owing to the milk being sour, not saying anything about a probable difference in quality and price.

Mr. Johnson gave us another instance. A week ago Monday, from one vat, which usually makes six cheese, he got only five, owing to overripeness of milk in that vat.

Now, how can this loss be prevented? By cleanliness and cooling. Many patrons in some districts are now putting in tanks in which to set the milk cans to cool the night's and Sunday morning's milk, after the plan recommended by Mr. Barr. J. McHoover, proprietor and maker of the Burgessville Cheese and Butter Factory, reports that many of his patrons are doing this, with the result of a fairly satisfactory milk supply in a factory where years ago a great deal of trouble was experienced by the maker. The cooling of milk is cheap, simple and easy; the result is a greater output from the factory, a better quality of cheese, less difficulty for the maker, and avoidance of the danger of having a batch of sour milk returned from the factory on a hot day.

With a view to securing conclusive data on the losses which occur in the manufacture of overripe milk, with definite information as to just at what stages and how they occur, the Department of Chemistry at the Ontario Agricultural College is enlisting the co-operation of various makers, who are asked to send in for analysis, from time to time, samples of milk and cheese from a vat of overripe milk, together with the weight of milk and weight of cheese made from it. Occasional samples of milk and cheese from normal vats are also requested, for purposes of comparison. By analyzing the milk, and analyzing the cheese made from it, exact figures will be obtained of the losses of each particular element that occurs in making overripe milk. Meanwhile, the definite and common knowledge that such loss does occur should be enough to persuade every dairyman to cool his milk.

Dairy Season in Ontario.

Reports from the dairy field in Ontario show a marked improvement in the situation since the recent rains, which were pretty general all over the Province. In many sections, notably in Central and Eastern Ontario, pastures had become very dry. The rains have revived the pastures, and the marked falling off in milk supply, which would have resulted had dry weather continued, has been checked. Had the rain held off a week longer, many pastures would have been in a condition that even a good heavy rain would not have helped them very much.

The situation this season and last emphasizes the need for dairymen making provision for their cows in summer by growing supplementary feed. To depend on pasture alone is a risky business, and the dairyman cannot hope to make a success of his business unless he supplements it in some way.

Prof. C. A. Zavitz's one-season pasture crop might help dairymen out considerably if it were grown. This crop is secured by sowing a mixture of oats, sugar-cane, and red clover. The oats come in first, for late June and July feeding, the sugar-cane for August and early September, and the clover for fall feeding, thus helping the pasture out during most of the cheese-factory season.

The writer was at the Ontario Agricultural College the other day, and noted a field of this pasture-crop, on which a dozen or more cattle were grazing. The oats were about ten inches high, and made a lot of good feed for the cattle. The sugar-cane was about three inches high, and gave promise of being in good condition for pasture when the oats are finished. There was a good catch of clover in the crop, which should give a satisfactory return for fall pasture.

If not this crop, then, some other one should be grown to supplement the pastures. If a census were taken, it would be found that the dairymen who are receiving the largest returns from their cows are those who grow some kind of supplementary feed. Peas and oats, oats and vetches, and alfalfa, cut and fed to the cows, come in well for the earlier months, and will help things out until the corn is ready.

The milking of cows, and caring for and handling milk in proper condition for cheesemaking, is no sinecure. If this work has to be done, the aim should be to get as much milk as possible from the cows when at it. There are good and poor cows. But the dairyman must not think that, by selecting and testing his cows, and keeping only good ones, that the need for supplying plenty of feed will become any less urgent. W. J. W.

Milking Machines.

One of the great objections to dairying is the difficulty of securing efficient help to do the milking. Any possibility of milking cows by machinery is, therefore, likely to appeal strongly to the dairy farmer, and all interested in the dairy industry. Inventors have been at work on this problem for a century past, and several machines have promised so well that it was hoped the time had come when it would no longer be necessary to milk cows by hand. Trials for a season or two have shown that the earlier milking machines were not practical, nor profitable.

Milking machines are of two types, viz., one operated by pressure on the teats and lower part of the udder, and the other operated by suction in imitation of the sucking of the calf, the latter type only being on the market at the present time.

So many enthusiastic reports have been published regarding the newer machines that the Agricultural Experimental Station of the University of Wisconsin deemed it wise to make a careful test of the working of this milking machine, known as the B. L. K. Trials were continued for a period of twenty months, to determine (1) the efficiency of machine-milking with cows of different breeds, ages, etc.; (2) economy, as compared with hand-milking; (3) influence on bacterial content of milk and its keeping quality; and (4) influence on udder, teats and general health.

The results are published in a bulletin recently issued, and go to show that, so far as the machine itself is concerned, the problem of mechanical milking may now be considered solved. On all the points under observation fairly good results were obtained, and it is believed that, properly cared for and handled, the milking machine will prove a valuable aid in the solution of the hired-help problem on many dairy farms, and will become an important factor in the further development of the dairy industry. Such is the summary published.

On the other hand, reading between the lines, it can be observed that, not much advantage can be expected from the use of the new milking machine. Its use would be unprofitable in herds of less than 30 cows. No superiority over hand milking is claimed, the best that can be said of it being that it gave practically as good results,

though scarcely, under expert management. Again, it is said that the success of machine milking depends largely upon the man operating the machine, which may be construed to mean that only in exceptional cases could success be reasonably expected. The solving, in part, of the labor problem, making it possible for a dairy farm to be managed without the necessity of hiring and overseeing so many men as where milking by hand has to be practiced, is the one advantage of any account that is claimed.

The Strathallan Cheese and Butter, Factory made 67 cheese one Monday in June. The highest make from a single day's milk was 40 cheese.

POULTRY.

Co-operation of Poultrymen.

Editor "The Farmer's Advocate":

Why not co-operate as poultry producers? Why should each individual farmer market his eggs at the village grocery, at a price varying from 15 to 25, or, at the most, 30 cents per doz. (during a few weeks of winter scarcity)? For the reason that he does not have enough eggs, individually, to make frequent and regular shipments to more-distant city markets, at much better prices. Then, why not co-operate one with another, and bring all eggs in each locality to a convenient central shipping point, and realize, instead of from 15 to 25 or 30 cents, from 20 to 50 cents per dozen. This would make considerable difference in the returns from our poultry at the end of the year. By doing this, shipments can be made twice a week of eggs only three or four days old.

There will be no waste from eggs remaining at the farm until they get stale, as the village grocer does not expect to get fresh eggs, and pays the same price for all, regardless of quality. Neither will there be waste from eggs remaining at the grocer's for several weeks longer, what cannot be disposed of locally being at last shipped into the city, where they arrive, one half bad, and the other half stale. No one is benefited under this condition; it is simply waste. The consumer is not receiving the fresh eggs for which he is willing to pay; the producer is producing the fresh eggs, but does not market them fresh. Why not change this condition? The remedy is simple; individually, we cannot; co-operatively, we can. We have the best eggs on the farms it is possible to produce; we have only to get them together in quantity when they are at their best, to secure and supply the very best markets.

Not only will we realize the immediate benefit to ourselves from the increased price, and confer advantage on the consumer by giving him value for his money, but it will react to our future benefit through increased consumption; as, when we improve the quality of any food product, the demand for that product is at once increased.

Why should we sell our chickens at 7 and 8 cents per pound, in an unfinished condition? We fatten our hogs and cattle, why not fatten our poultry? Unlike hogs and cattle, they are light in weight, and we cannot make small shipments to best and distant markets individually, but we can co-operatively. Let the chickens and all poultry be fattened on the farms, and brought in to the central shipping point, where they can be packed and graded. We must establish grades in all our poultry products, then there can be no question or difficulty for buyer or seller; the grade will be there to show for itself.

We will then be in a position, as an organization, to offer so many pounds or tons of poultry of a certain grade, which can be sold privately by the organization or by auction to the highest bidder.

Let us realize that we are brother farmers, and what is in the interests of one is for the best interest of us all; and that, by improving the quality of any of our products, we are not only benefiting ourselves, but benefiting our country. A. P. HILLHOUSE.

Brome Co., Que.

Repeated inquiries have been made through the office of the Canadian Trade Commissioner in Manchester by Manchester importing produce firms for Nova Scotia eggs, which does not imply that other Canadian eggs would not be gladly negotiated, but rather that the freight on the former would be less where no inland haul was involved. So far, adds Commissioner MacNamara, the inquiries have not been prolific of results, but the hope is entertained that business may result. Continental products supply the market, in addition to the usual quantity from Ireland. The demand is good, at prices slightly advanced. Irish, 8s. 3d. to 9s. 3d.; Danish, 8s. 3d. to 9s. 6d.; Austrians, 6s. 8d.; Russians, 6s. 4d. to 7s. 4d. per 120.

Moulting.

Observations extending over many years lead A. G. Gilbert to reach the following conclusions, of direct bearing to farmers, on account of the relationship between moulting and egg production:

1. That yearling hens usually moult earlier and easier than older ones.
2. That moulting is more gradual in some cases than others.
3. That the progeny from parent stock that have moulted during summer, in most cases have moulted at the same period.
4. That moulting hens are much benefited by a run in a field where clover and insect life may be found.
5. That, where moulting fowls are confined to limited quarters, meat in some form and green food should be supplied.

It is best, says Mr. Gilbert, to have the moulting period in the summer months. The summer moult usually lasts from eight to ten weeks. James Shackleton, a well-known authority, contends that, by feeding specially-prepared rations, this period may be shortened. The following treatment has been successful in our department for several years. During the early part of July—after the breeding season is over—the fowls were placed on half the usual quantity of rations for 15 or 20 days. The effect of this treatment was the stoppage of egg production and the loosening of the old feathers. At the end of 15 or 20 days, the full rations were resumed. A little linseed meal may be added to the mash, with benefit, on the resumption of full rations. Before the beginning of operations to bring on the moult, the cock birds were removed from the breeding pens, and placed in compartments by themselves. The hens were then allowed to run in small fields where they could find insect life, clover, grass, etc. In the breeding of fowls during moult, care should be observed that they do not become too fat. The fowls are more apt to become overfat, from too generous feeding during the moult than after they have got over it and recommenced laying.

Six-months Buff Leghorn Record.

Editor "The Farmer's Advocate":

I have been a reader of "The Farmer's Advocate" for a long time, and have never noticed a record of Buff Leghorn hens, so I thought I would write you my experience with that strain, as I think there are few hens that can beat them. I have 14 Buff Leghorns, and from the 10th of March to the last they laid 150 eggs; in April they laid 300 eggs; in May they laid 276 eggs; and in June 220 eggs. I am sorry I have not kept a record of the amount they laid from the first of the year, as they never stopped laying since a year ago last April. I was just keeping a record of what I sold from the first of January. In January I sold 9 dozen; in February, 7½ dozen; in March, 9 dozen; in April, 15 dozen; in May, 13½ dozen; in June, 12½ dozen; and the remainder of eggs were used at home or set, as I had about 45 chickens. I sold six young roosters when they were seven weeks old, which weighed 3½ pounds a pair, at 20c. a pound.

The principal feed we feed the fowl is barley, and I do not have a certain amount—I just feed what I think they need. Last winter we had not a good henhouse for them, so we dug a hole in the ground, built it up with old boards, and put a window in the south; we then covered it with manure, and banked it all up with sods, which kept it warm.

T. H.

GARDEN & ORCHARD

Ether to Hasten Strawberry Cropping.

Last summer the agricultural world was astonished to learn the results of electricity in promoting plant-growth, applied in field conditions, under the supervision of the eminent English scientist, Sir Oliver Lodge. Now comes a despatch announcing that an experiment has recently been made, at the Wisley Research Station of the Royal Horticultural Society, England, by F. J. Chittenden, director of the laboratories, who, it is stated, has proved that, by etherizing strawberries, the ripe fruit might be obtained ten days earlier. The method followed was to first place the plants in pots during July, and leave outdoors until the end of December, then place half of them in an air-tight box, in the bottom of which was a small glassful of ether, which diffused rapidly. The etherized plants were then placed alongside the unetherized in a greenhouse, and immediately began to make growth, ripening about ten days before those untreated.

The idea is not entirely a new one, as the method has been previously employed in Europe in the forcing of lilacs, and Prof. John Craig, of Cornell University, has tried it on other plants,

with results that attracted newspaper attention two or three years ago. It remains to be seen whether etherizing will prove commercially advantageous, except, perhaps, under very special conditions, as in the growing of early English strawberries under glass, but, scientifically, it is worthy of our interest.

Humus from Cover Crops.

One of the greatest advantages of a cover crop is the constant storage in the land of the organic or decaying animal and vegetable matter, usually known as "humus." In many soils the lack of humus permits the best elements of fertility, no matter in what form applied, to leach out and go to waste. Sometimes they merely percolate to the subsoil, but even there they are of little value to most crops, for surface-feeding crops do not reach down to the subsoil in search for rich humus, or fertility that has sunk there partly because the surface soil was too open and porous.

The cover crop plants the humus in the surface soil, and thereby holds the fertilizing elements of potash, phosphoric acid and nitrogen. They are retained in a position where the roots of the next plants can most readily reach and utilize them. Any cover crop will do this work. Some, of course, answer the purpose much better than others, but a crop that furnishes an abundance of green foliage will, in time, fill the soil with humus, which gives strength and vitality to plants. It may be said to provide necessary fertility to the earth, and to make it rich in possibilities. When any land is cropped steadily year after year without any new humus being added, it becomes lifeless, and no amount of artificial fertilization will wholly compensate for the loss.



Ordinary Rolling Coulter, Used on Cultivator to Cut Strawberry Runners.

In the orchard, one of the best cover crops is crimson clover, where it winters well, to be plowed under in spring, and hairy vetch, where crimson clover will not thrive. Vetch makes a big growth, and if left on the ground to decay, will not reseed itself. Seed is, at present, somewhat expensive, but not unreasonably so. Farmers can plant it lightly at first, and then raise their own seed.

To those whose land is so porous that a vast amount of fertility always percolates through the surface soil, the best advice that can be given is, plant a cover crop regularly, and the results will surprise you.

LAWRENCE IRWELL.

New York State.

[Note.—In most parts of Canada crimson clover does not winter very well, hence, hairy vetch, alfalfa or red clover is better for cover-crop purposes.—Editor.]

Ontario Fruit Report.

The Horticultural Branch of the Ontario Department of Agriculture issued, under date of July 12th, a comprehensive report relating to the Ontario fruit crop:

The strawberry crop was expected to be practically over by the end of last week. The crop this year was a good one, and prices in some cases fell pretty flat. At the end of the season fancy berries only realized from 7c. to 8½c. The returns of the shipments of strawberries by the St. Catharines Association to the Western markets are nearly all in. Those sent by express, and which arrived in good condition, netted the growers \$1.50 per crate. These results may be considered encouraging, and much better success may be looked forward to next season. As these

are the first and only experimental shipments made by the association, they have every reason to be congratulated on their initiative and success.

The cherry crop promised to be very good. The Sweets and Richmonds were getting off rapidly, and the Montmorency were in full picking last week, and when the northern sections commence to ship, cherries should be very plentiful. Sour cherries were fetching from 60c. to 75c. per 11-quart baskets; small Sweets, from 75c. to \$1, and fancy Sweets from \$1 to \$1.25. A quantity of sweet cherries have been shipped into the Toronto markets, which were not ripe enough, and the market has strongly discriminated in favor of the fit fruit; hence the low prices.

The raspberry crop promised to be from fair to good. However, the prolonged dry weather had commenced to show its effect. Some of the canning factories were contracting at prices ranging from 7c. to 9c. per quart.

The currant crop promised to be a good one, and was already on the market.

Benzoates as Fungicides.

Editor "The Farmer's Advocate":

During the last two or three seasons, Herbert H. Dow, General Manager of the Dow Chemical Co., of Midland, Mich., has been experimenting with Benzoates as fungicides, on his orchard. Having had considerable experience with Benzoates as food preservatives, Mr. Dow concluded that Benzoates should also kill any fungus or bacteria on unripe fruits; consequently, during the season of 1906, when a crop of plums began to rot when only about two-thirds grown, Sodium

Benzoate was sprayed, and, although the spread of the rot was entirely stopped, the Sodium Benzoate, being exceedingly soluble, was so easily washed off as to necessitate spraying after each rain. This led to experiment with the more insoluble Benzoates, and the calcium salt was found more satisfactory.

Experiments during the seasons of 1907-08 have shown Calcium Benzoate, used in conjunction with a very weak Bordeaux, to be very effective; also, this mixture was found to adhere much better than ordinary Bordeaux. The most effective mixture is made as follows: One

pound copper sulphate is dissolved in 10 gallons water, and to this is added one pound Calcium Benzoate dissolved in 10 gallons water. When well mixed, one pound of lime is added, and water sufficient to make one barrel (40-42 imperial gallons).

One very prominent authority (Thorpe) gives the relative efficiency of a number of different fungicides, and according to this table, one part of Sodium Benzoate to 2,000 parts of water, will prevent all fungous growths; while, to accomplish the same results with Copper Sulphate, one part to 133 of water is required. Calcium Benzoate would be approximately the same strength in fungicidal value.

For potato scab, soaking the potatoes in a solution of one ounce Calcium Benzoate to a gallon of water (for three or four hours), is highly recommended, and the Michigan Agricultural College reported a higher yield where Benzoate Bordeaux was used as a spray, than where ordinary Bordeaux was used.

Benzoates are not poisons, and where an insecticide is desired, as well as a fungicide, Calcium Benzoate has been used with Lead Arsenate, and adheres exceedingly well to the foliage, giving splendid results.

Toronto, Ont. W. H. VAN WINCKEL.

[Note.—Should any of our readers desire samples of Benzoate for experimental work, no doubt they could be obtained from the writer of the above article, whose address is 118 Van Horne St., Toronto, Ont.]

C. C. James, Deputy Minister of Agriculture, is expected home about the end of August, from his European trip, in the interest of colonization work.

Some Lime-sulphur Stronger Than Necessary.

Analyses of twenty-seven samples of home-boiled and four brands of commercial lime-sulphur mixture, by the Department of Chemistry of the Ontario Agricultural College, reveals a wide variation in the strength of this mixture, as applied to fruit trees by different growers. H. L. Fulmer, Demonstrator in Chemistry, spent four or five days in the Niagara District this spring, collecting samples of these mixtures from the growers as they were being used. The results of this investigation indicate that considerably weaker washes than many are using would do the work. Only one or two of the home-boiled mixtures proved to be weaker than the commercial washes diluted in the proportions directed (1 to 11). A fair average sample of the home-boiled mixtures proved equal to the commercial mixtures diluted 1 to 11.2. Duplicate samples of one brand of commercial mixture indicated that there is considerable variation in the strength of this brand, and there probably would be, also, in the case of others. Each sprayer, however, thinks the mixture he is using is exactly right, and there is no doubt that they are all cleaning up their orchards where the mixture is properly put on; but if a weaker mixture than commonly employed will do the work, so much the better, in the interests of economy.

One brand of commercial mixture is now sold with considerable sediment, as some growers who had been accustomed to the home-boiled had misgivings as to the efficacy of the clear solution, which does not color the trees as does the home-boiled, and the manufacturers of this particular brand now leave in the sediment for this reason. Its effect, however, is to slightly dilute the strength of the mixture.

To cause the spray to color the trees, so that, when spraying the second half of the tree, the operator can see what part had been covered before, some growers now add a little lime to the mixture made from the clear, concentrated solutions before spraying. A couple of pounds of lime to the barrel is plenty. This may also have some effect in causing the spray to adhere better, until it has had a chance to dry.

576 Quarts Strawberries in One Day.

Editor "The Farmer's Advocate":

Having noticed in your paper of your champion colored boy berry-picker, would say that he is not in it for one moment; the Indians can beat him to a standstill. One Indian picked in one day 576 quarts, and another 515 quarts, so the colored boy will have to come to Clarkson, where they can grow berries to beat the world. Why, we have a woman here, over 73 years of age, who can pick 350 quarts in a day. In fact, an Indian, for the week just closed, picked 2,000 quarts, and another of the same race picked over 300 quarts in the forenoon. Now, these are all positive facts, and can be vouched for at any time. It is a well-known fact by all commission men that Clarkson and vicinity can beat any part of Ontario for raising strawberries. Clarkson is in the southern part of the County of Peel, within sixteen miles of the City of Toronto, and all garden soil.

WM. CLEMENTS.

Peel Co., Ont.

THE FARM BULLETIN

The Swelling National Debt.

The total debt of the Dominion at the close of the fiscal year, ending March 31st, 1909, was \$323,930,259, the addition during the year including about \$21,000,000 on the Eastern division of the National Transcontinental Railway, being \$45,969,399. Other items included in the increase are some ten millions on miscellaneous public works, six and two-fifths millions for assumption of liabilities of Quebec Bridge Company, a million and three-quarters on railway subsidies, and nearly two and a half millions on bounties. The last two sums should never appear in Canadian budgets again, after standing promises are fulfilled, while the ten millions on public works should be susceptible of some considerable pruning.

The Farmers' Dairy Company, Ltd., which aims to cut out the middleman by distributing the milk and cream of its own members direct to the consumers of Toronto, have issued their prospectus. The company has been incorporated under the Ontario Companies Act, capitalized at \$60,000, divided into 1,200 shares of \$50 each. P. P. Farmer, Assistant to G. A. Putnam, Superintendent of Farmers' Institutes, has tendered his resignation of that position to manage the new company, whose head offices will be Toronto.

Conservation in Agriculture.

We have received an advance notice of the First Conservation Congress of the United States of America, to be held in the Auditorium of the Alaska-Yukon-Pacific Exposition, Seattle, Washington, August 26, 27, 28, 1909. Arrangements for the Congress are being made by the Executive Board of the Washington Conservation Association, an organization comprising many of the most prominent officials and citizens of the Evergreen State.

Invitations to attend the Congress have been sent to President William H. Taft, Hon. James Wilson, United States Secretary of Agriculture, and other notables.

Leaders in modern thought have been invited to read papers discussing the many phases of conservation in different communities.

The work of the Congress will consist in practical talks on Irrigation, Dry-farming, Soils, Waterways, Forestry, Public Morals, Transportation, and the general relations of capital and labor.

Several sessions are scheduled, and experts in every industry touching the utilization of natural resources will be given an opportunity to address the people.

A special bid is made for farmers to take part in this congress, as follows: Conservation in agriculture holds a prominent place in every convention of national importance. It sounds the keynote to present prosperity and future wealth of individuals, communities, and the nation. When the farmer prospers, the country is safe, and commercial avenues are open. If the plant foods of the soil are exhausted, the natural agricultural resources are wasted, and, extravagance permitted to continue without restraint, business will become stagnant, and internal financial troubles multiply.

The farmer feeds the world of wage-earners, and his products form the basis of industrial progress. It is necessary that many radical changes be made in the methods of handling the soil, and conserving its fertility, in order to insure future progress in every line of advancing industry. The present age demands an active campaign for promulgating the principles of national conservation.

The farmer is personally interested in every measure that tends to conserve, protect and perpetuate soil fertility and modernize the facilities for transportation. Without fertile soil, good roads, and up-to-date machinery, the farmer is powerless in the struggle for a competency and financial independence.

Commercialism is one of the greatest enemies with which the farmer has to contend. In the anxious march of wealth accumulation, many friends of agriculture are destroyed. The element of waste enters into channels of commerce, and assists in robbing the farmer of the forests and natural waterways, that depend upon conservation for their continuance. In taking away the reservoirs of nature, by cutting out the young trees and plants, the commercial members of the country cause the soil to wash from the hillsides and fill the creeks and streams. To prevent this, the farmer must insist upon a more systematic and conservative method of retaining the natural forests, and demand a more vigorous campaign for general reforestation wherever the work is possible.

Preparing to Judge Field Crops.

The men selected to judge in the Ontario Field-crop Competitions—about 40 in all—were at the Ontario Agricultural College on July 14th, and received instructions as to how the work should be conducted. The chief aim of the meeting was to secure, as far as possible, uniformity in judging. The class was taken in hand by Prof. Zavitz, and the score-card gone over point by point, in order that each judge might know the correct value to place upon each one. In the afternoon the class adjourned to the experimental plots, and did some practical work in scoring the standing grain.

The judging will be done from the standpoint of the crop's suitability for seed-grain purposes. If the commercial value of the crop were to be taken into account, a different standard would have to be adopted. Weeds, for instance, would not discount the value of a crop so much if it were judged from a commercial standpoint, as from a seed standpoint. A competitor might have a field of oats in which there were a number of wild oats. These would not affect the value of the crop very much for purely commercial purposes. But, for seed purposes, the presence of wild oats would cut down the value of the crop decidedly. Some of the judges were for cutting out all crops with wild-oat or other injurious seeds, and not giving them a prize. But as the prizes are given for the best crops among the competitors in a society, this cannot be done. The seven crops scoring highest will be awarded prizes (five cash, and two highly commended) in

any case, but competitors should look out for pretty severe scoring, if injurious weeds are present. It seems to us that the only proper course to follow is to judge these crops from a seed-grower's standpoint. To take in the commercial side, as some suggest, would cause the crop competitions to lose a great deal in educational value. Any system of judging that would minimize the injurious effect of weeds in the crop would have a bad effect on crop production generally. In the past, prizewinners in these competitions have received good prices for the grain from the winning crops for seed purposes. So that, whether the judging is done from the commercial or seed-grower's standpoint, the winning grain is likely to be sold for seed in any case. It is better, therefore, to stick to the original idea in holding these competitions, and judge only from the seed-grower's standpoint. It might be advisable, in future, to include prizes for mixed crops, which are now largely grown in the country. These could be judged from a commercial standpoint, as the grain from them would not be used for seed purposes.

Competitors who have likely winning crops, should prepare to enter the sheaf-grain contest at Toronto and Ottawa Exhibitions. Only those who win prizes in the society competitions will be eligible. The Agricultural Department desire to have as large a display as possible at these exhibitions. The regulations provide for a sheaf containing not less than 1,000 plants. Some work will be required in selecting plants for the sheaf display. It might have been better had the sheaf been regulated by its diameter or circumference, rather than by the number of plants. The exhibits then could more easily be prepared.

J. Lockie Wilson, Superintendent of Agricultural Societies, was present, and gave instruction to the judges on necessary matters not connected with the practical work of judging.

"CHRONICLE."

U. S. Exports and Imports.

Official figures of the import and export trade of the United States, giving in detail the eleven months ending with May, 1909, indicate that the imports of the fiscal year ending with June, 1909, will exceed those of last year by about \$100,000,000, and that the exports will fall about \$200,000,000 below those of last year.

The increase in imports occurs chiefly in manufacturers' materials, but in no inconsiderable degree also in foodstuffs, while manufactures ready for consumption show a marked falling off. The decrease in exports occurs in all the great groups—foodstuffs, crude, showing a fall of about \$50,000,000; foodstuffs, manufactured, a fall of about \$30,000,000; crude material for manufacturing, a fall of about \$35,000,000; manufactures for use in manufacturing, a fall of about \$36,000,000; and manufactures ready for consumption, a fall of \$50,000,000.

Dry-farming Congress.

The fourth annual session of what is known as the International Dry-farming Congress will be held at Billings, Montana, October 26th, 27th and 28th, next. This organization deals with the methods of agriculture in the semi-arid West, where the rainfall is limited, or where irrigation water is inadequate to the production of good crops. In the list of vice-presidents appear the names of Prof. Geo. Harcourt, Edmonton, Alberta, and Prof. W. J. Rutherford, Regina, Saskatchewan. John T. Burns, 407 Temple Court, Denver, Colorado, is the Secretary of the Congress.

Some 1909 Fair Dates.

- Alaska-Yukon-Pacific Exposition, Seattle, Wash.—June 1 to October 15.
- Canadian National Exhibition, Toronto—August 28 to September 13.
- Western Fair, London, Ont.—September 10 to 18.
- Sherbrooke, Quebec.—August 28 to September 4.
- Canada Central, Ottawa.—September 10 to 18.
- Ontario Winter Fair and Horse Show, Guelph.—December 6 to 10.
- Eastern Ontario Live-stock and Poultry Show, Ottawa, January 17th to 21st, 1910.

The American Association of Farmers' Institute Workers will hold its fourteenth annual meeting at Portland, Oregon, on August 16th and 17th, 1909. Ontario will be represented at this gathering by G. A. Putnam, Superintendent of Farmers' Institutes, and Andrew Elliott, of Galt. Mr. Putnam will leave about August 1st, going through Canada via Vancouver, and taking in the Alaska-Yukon Exposition at Seattle on the way.

G. H. Clark, Seed Commissioner, Ottawa, has sailed for Europe to investigate the production and sale of seeds in the Old Land.

Western Ontario Crops.

In a forty-mile run through that portion of the Province of Ontario lying north and west of London, and embracing parts of the Counties of Middlesex and Huron, one of the best farming sections of the Province, the effects of the unusually wet spring, late seeding, and subsequent scarcity of showers, is observed in the general shortness of the spring-sown grain crops, and the prospect of less than average yields of these. Fall wheat and clover meadows were well up to the standard. Corn is making fair headway, as also are mangels. Pastures have been good, and stock is looking well. The crop of colts in this district, noted for the breeding of high-class heavy horses, is evidently a success, a promising foal or two being seen on nearly every farm, while well-kept yearlings and two-year-olds, growing into money, are not uncommon.

In the section immediately west of Exeter, on the Huron & Bruce branch of the G. T. R., is a considerable stretch of ranch-like country, well watered by streams, and affording good pasturage, devoted mainly to grazing beef cattle, which are chiefly grade Shorthorns of an excellent class. Further west, and nearer Lake Huron, the people are largely of German extraction, and here large fields of flax are seen, giving promise of abundant crops, while an air of comfort and prosperity is observable on all sides, large barns and substantial dwellings being the rule. Nearer the lake, a considerable portion of the population are French Canadians, originally from Quebec, living on less fertile lands, and showing less progressiveness in their methods of farming, but a kindly class of people, of contented disposition. Along the lake shore, from Grand Bend to Bayfield, an excellent farming district is found, with comfortable homesteads, large orchards and capacious silos, evidences of prosperity on most of the farms.

The lesson of the protracted wet spring of this year, as to the importance of improved drainage, has evidently been taken seriously by a considerable proportion of the farmers of this district, as in a number of instances tile was being put in, and the marks of recent work of that class were visible, while the need of more of it was freely acknowledged, and too little of that performed has been done in a systematic manner. A feature observable in this district, as indeed in most others one travels through, is the marked difference notable in the condition of the crops on farms in the same neighborhood, where the land is apparently of a similar class, one farm being clear of weeds, and the crops looking healthy and vigorous, while on the adjoining farm, in some cases, the contrary is the condition, and one can hardly avoid the conclusion that the difference is due more to the man and the management than to the quality of the soil or the character of the weather conditions, and the need of a continued exposition of the gospel of good cultivation and feeding of the land is emphasized by an outing such as that furnishing food for the thoughts here recorded.

P. E. Island Notes.

After a somewhat extended drouth, we had a grand day's rain July 8th, which has made the agricultural prospect look much brighter, and we feel that a good crop of grain is now assured. The early-sown grains have grown well right along, but the later-sown was much in need of rain. The clover in the seeded-down fields will now have sufficient moisture to develop into strong plants, and we are expecting a good catch. Haying will be later than last year, and will not begin until after the 20th of July.

The hay crop will not be nearly so heavy as last year. Though clover plants seemed quite thick in the meadows in early spring, they were weak, and mostly died out during our cold, backward month of May. There are a few excellent fields of red clover in evidence on rich lands in sheltered localities, but our hay crop will be largely timothy and alsike. The late rain will thicken up the bottom considerably, and during the next tea days, before haying begins, we expect to see considerable improvement. The potato crop is doing extra well, and, as yet, the bug is not much in evidence. The root crop is doing well now; the early sown turnips have come in bunches, but since the rains came, they are coming all along the drills, and growing fast. We have to thin out the patches that come up first, and attend to others later.

Fodder corn came up well, and promises an abundance of cheap fall feed for dairy cows. Our soiling crop of oats and peas will be ready for use in a week's time, and, being sowed at different dates, will last till the corn is ready in September. Pasturage has been pretty good, and will improve now after the soaking rain.

Our cheese factories have had the largest June output they ever had, and July will far exceed the average of recent years. The high price realized for June cheese is encouraging dairymen, and the milch cow will be well fed as a consequence.

The fruit crop here will not be up to what it promised in the blossoming period. A good many varieties of apples have failed to set fruit. The reason is not clear, as we had fairly good weather, but when the bloom was on we had very high winds and no rain. Duchess apples have set well, but other kinds in this locality will be very light.

Though the most of the farms on the Island are clean, and bad weeds the exception, rather than the rule, still we have altogether too many weeds here. In a cross-country drive of nearly thirty miles yesterday, as we neared the capital city we found the hay meadows as white as snow, completely covered with ox-eye daisy in full bloom, and in very many grain fields nearer the north side of the Island we noticed vigorous crops of wild mustard (charlock) in bloom, that were choking out the grain. Those two bad weeds are spreading quite fast here, and are very hard to eradicate when once established. Just a little carelessness a few years ago resulted in these conditions, and it is up to us who yet have clean farms to be ever on the watch to keep them clean. Profitable agriculture is impossible where weeds occupy so much space in our fields.

W. SIMPSON.

Oxford and Its Splendid Dairy Industry.

Oxford County, the birthplace of Canadian co-operative dairying, is still its pride. Many districts boast the title, "Garden of Canada." We do not know that Oxford claims it, and it is just as well, for the line of agriculture in which this thrifty county is engaged does not suggest horticulture, but a fairer, thriftier or more pleasing region to drive through it is yet our privilege to see. These facts appealed to our dairy editor last week, in the course of a sixty-five-mile two-days' drive, visiting some of the famous cheese-factories in this region, north from Woodstock to Hickson and Bright, and south to Burgessville.

Nature designed this country for a park, but man found it too good a park to lie idle. He has tilled it and made it to bring forth produce in abundance, while rather adding to than subtracting from its natural charm. Gently rolling, without being flat, affording here and there charming vistas of sweeping landscapes, set with rows or clumps of trees and single, spreading elms, favors the husbandman with perfect drainage, yet easy fields to work. A friable loam soil has been for many years enriched with the manure from dairy herds, while numerous wells and springs and streams issue forth the purest, naturally distilled and filtered product of the clouds. With a temperate climate, permitting the growth of a suitable variety of forage crops, including that luxuriant grass, corn, splendid factories, well manned and well equipped; tree-lined, gravel roads, passable at all seasons; and with an intelligent population, representing the best elements of Canadian citizenship—Scotch, English, Irish and German—how could dairying help but flourish? Flourish it does, as the splendid herds of cows, large barns and silos, and comfortable, not to say palatial, homes, universally testify. There is probably no district in the world where failure is impossible, and where only the praiseworthy is to be found, and if there be one place where failure is more difficult than another, where prosperity seems the ordinary lot, and where almost every fireside is blessed with plenty, we should say it were Oxford.

Now for a few facts. Within mercantile radius of Woodstock are three of the largest cheese factories in Canada—Inverkip, Strathallan, and Bright—whose combined output of butter and cheese last year was worth \$179,771.81. Strathallan alone made 232 tons of cheese, which, if lined up side by side in 85 pound cylinders, would require over a mile and a quarter of shelving to hold them; and this besides some 23 or 24 tons of butter. The neighboring factory of Bright made a little less cheese, but more butter, bringing its total output up higher than that of Strathallan.

Besides these three factories, are many others whose checks go to swell the turnover of merchants in Woodstock, which, by the way, is one of the brightest, cleanest, shadiest, best-built, thriftiest young cities in the Dominion. There are single patrons in Oxford who send to the factory over a half a ton of milk a day, while deliveries of eight and nine hundred pounds are quite common. Cheese in summer, and butter in winter, is the practice at several of the largest factories, bespeaking attention to winter dairying. The 1908 turn-out of cheese for the whole county amounted to over a million and a quarter of dollars.

And what of the cows which produce this milk? A large proportion of them still bear the stamp and color of the Shorthorn grade. Large, level, capacious cows, swinging business-like udders, with tails it is a pleasure to grasp, it is not sur-

prising their owners are reluctant to change breeds. One wonders, though, how this class of cow is to be maintained with the beef-bred Shorthorn sires, which are almost the only kind of this breed available to-day. Breeders of the Red, White and Roans should visit Oxford, and note the demand for heavy-milking, dual-purpose stock. Holsteins are steadily gaining ground, especially in South Oxford, and a pleasing picture they present, with their mixed colors contrasting in the pastures. Ayrshires are also to be seen, while here and there a brindle color denotes a dash of Channel Island blood.

It does one's heart good to see the silos adjoining the end of barn after barn. Enormous structures they are—thirty, thirty-five and forty feet deep, by twelve to sixteen feet across. Along in the forenoon of the second day we began keeping track of the proportion of barns which had silos. In a drive from Currie's Crossing, via Holbrook, along the Norwich gravel road, to Burgessville, and back to Woodstock, via Oxford Centre, out of 81 barns, situated within convenient distance along the highway, 44, or somewhat over half, were observed to have silos. Of these, at least 9 were round cement, 22 were seen to be wooden silos, and of the remaining 13, quite a number seemed to have an exterior application of galvanized iron. No doubt, a few barns had silos not visible from the road, but the proportion observed to be so equipped was much larger than is found in the majority of districts. And the rapid increase in number was one of the points on which almost every cheese-maker approvingly commented. Silage remaining over from winter feeding helps out the pastures in summer, while a certain area of green crops is also grown for the purpose.

And such crops! In the whole sixty-five-mile drive not one failure was noticed. Some fields, of course, are better than others, but uniform excellence appeared to be the rule. Haying was well advanced, although some fields of timothy still standing showed heavy crops. Corn was in many cases rather backward, but coming on nicely. Quite a few fields of peas were in evidence, and here and there alfalfa was to be seen.

The one fly in the ointment was the apple orchards, for, out of probably fifty passed on the same trip, only three or four were seen which bore evidence of proper care and attention. The majority were in sod, quite a number being pastured by one class of stock or another, while one young orchard was seen with wheat sown close up to the trees, and the crop, in head, was almost as high as the trees. Thus, for a few dollars of pasture, grain or hay, fifty, a hundred or two hundred dollars is sacrificed on quality and quantity of fruit. We understand that at Burgessville a co-operative shipping association has been formed, but, taking it generally, Oxford County needs to wake up on orcharding.

The county system of good roads seems to have been at last placed on a basis that commands the confidence of most of the ratepayers, after an initial era of ill-judged expenditure and severe criticism. A large mileage is being gravelled and tiled. The bottom layer of gravel is surfaced with fine material, and the whole well compacted with a ten-ton road roller. But the investment which most appealed to us as productive of permanent results was the tile strung along mile after mile. These are placed, in some places, under the ditches, and again beneath the shoulder of the crown. We venture to say that the money spent on tiling and good bridges will yield the people of Oxford best returns of all the money being spent upon their roads. Gravel, with the best of care, sinks out of sight. Drains work increasing improvement for generations.

Revolution is the only word to characterize the improvement in cheese-factory methods. At not one of the factories visited was any condition or practice observed which would make one disinclined to include cheese in his diet, which, we submit with all deference, but with practical knowledge of the subject, is more than can yet be said for the average milker. Perhaps, if the individual producer had received as much attention and help from our superb system of dairy instruction as the makers have had, he might be doing his part as well, or better, but we are speaking of conditions as they exist. Marked improvement is noticeable, however, not only in cleanliness, but in cooling of the night's milk, and, with the general adoption of this practice, together with erection of cooling-rooms at the factories, still better things for Canadian dairying are plainly in sight.

Immediately upon their arrival in England, the Commission appointed by the Canadian Government to investigate the swine industry in Great Britain and Ireland, and Denmark, called upon Lord Strathcona, at the Canadian offices in London. Subsequently, the Secretary of the office, W. L. Griffith, introduced them to Sir Thomas Elliott, who, on behalf of the Board of Agriculture and Fisheries, promised to afford them every facility and assistance to their work.

GOSSIP.

The auction sale of Shorthorns at the Royal Show, Gloucester, was very successful, 75 head making an average price of \$390, while 16 sold for prices ranging from \$500 to \$3,415, the latter figures being realized for Mr. J. Handley's Master Challenger, a red two-year-old bull that was third in his class at the show, and was bought for export to South America.

Artemus O'Neil & Son, of Burr, Ont., were the first to purchase Hampshire hogs to import into Canada. Their first purchase was made of E. C. Stone, of Illinois, January 20th, 1906. They were well pleased with their purchase and found ready sale for their young stock. They later made another purchase of Mr. Stone, and these were also very satisfactory. In May, 1908, James O'Neil, the junior member of the firm, made a visit to the States and selected several head of sows and the model herd boar, Bon Ton 1991. This boar has proven himself a wonderful breeder, and was sold by Mr. O'Neil in Canada for a neat price. While West in 1908, Mr. O'Neil visited the Hampshire herd of John Goodwine and purchased two very finely-bred gilts. At the same time he requested Mr. Stone, as Secretary of the American Hampshire Swine Association, to keep on the watch for some very excellently bred and most perfect sows and a new herd boar for him in 1909, and when Mr. O'Neil came, June 19th, he found waiting some of the best Hampshires he had ever looked upon, from which he made selections of the best, although it took a good deal of Canadian money to move them from the States, paying the longest price for a bunch of four brood sows and two herd boars that has ever been paid by any Hampshire breeder up to date. He purchased Perfection 2288 of Mr. John Goodwine, of Illinois, which was one of the best winners at Michigan, Ft. Wayne, South St. Joseph and Oklahoma in the big fairs of 1908. He purchased Stone's Perfection 3rd 5064, which is, no doubt, the winner of more first premiums under heavy competition than any Hampshire sow of record to-day. This sow was first in class at Michigan State Fair, 1907, and first in get of sire at the same fair, with five herds in competition; was first in class the same year at Indiana, first in class at Fort Wayne, Indiana; first in class and first for get of sire, junior champion and reserve grand champion at South St. Joseph, and was a prominent winner at Illinois State Fair same year. Shown as a yearling in 1908 she won first at Iowa in class and first in get of sire, and first in aged herd. She was shown at Ohio State Fair, farrowing a litter of ten pigs at this fair, and won second in class on date of farrowing, and first in herd and in get of sire; was shown the following week at Indiana State Fair, where the Hon. H. F. Work, who is, no doubt, the best-posted judge of Hampshires, placed her first, remarking that this is one of the most perfect Hampshire sows that he had ever seen. Stone's Perfection 3rd is a litter mate to the great sow Perfection 3620, that never lost a first place shown for, competing for grand championship four times, winning three times, and afterwards sold for \$320.00. These sows are sired by Mo. King 777, the winner of more first and champion ribbons than any other Hampshire boar. Their dam is Lady Miles 1378, which is also the dam of Lady Miles 3rd 2178, winner of championship Indiana State Fair, 1907, over the greatest lot of Hampshires ever at an Indiana State Fair. In addition to these sows, Mr. O'Neil got Illinois Princess 5066, by Ky. King 1273, he by Gold Gem 617, which is a litter mate to Solid Gold, winner of 1907 championship. Deacon's Best was then added to O'Neil's herd; she is by Mo. King, and out of Madam Duncan 857, said to be the largest Hampshire sow in Iowa, and one of the best breeders. Another sow selected is Gold Medal's Queen 5070, sired by Gold Medal 587, which was a first prize winner at St. Louis World's Fair, and her dam is Fanny, sired by Old Get-away 467, regarded as one of the best breeding Hampshire hogs. By carefully studying the blood lines of these animals, it will be seen that Messrs. O'Neil & Son have the best-bred herd of Hampshires that money could buy in the United States. (See page 1202.)

Admiral Lord Charles Beresford has accepted an invitation to visit Canada to open the Canadian National Exposition at Toronto.

Clydesdale men will learn with regret of the death, at the age of 51 years, of Walter S. Park, of Hatton, Bishopton, Scotland, from blood poisoning, following a simple cut in the hand. Mr. Park was well and favorably known to Canadian importers as an expert judge and one of the most successful breeders and handlers of Clydesdales in Great Britain, he having bred or owned such notable horses as Knight Errant, Kippendaire, Royal Chattan, Clan Forbes, Chattan Again and Laird o' Erskine.

In the one-day milk yield competition at the Royal Show at Gloucester last month, the highest yields in each breed were: In Shorthorns, Darlington Crawford 5th, 82 lbs. 14 ozs. milk, 28 days after calving; fat percentage, 3.725. In Lincoln Reds, Burton Fuchsia gave 63 lbs. 4 ozs. 72 days after calving, testing 3.20. In Ayrshires, Dalbible Daisy Bell, 29 days after calving, gave 61 lbs., testing 3.375. In Jerseys, Lady Phyllis, 86 days after calving gave 46 lbs. 4 ozs., testing 4.60. In Guernseys, Ithen Pearl, 108 days in milk, gave 47 lbs. 4 ozs., testing 4.95.

HUNTER'S IMPORTED AYRSHIRES.

The new importation of Ayrshire cattle, 13 in number, 5 bulls and 8 females, selected in Scotland by Wm. Hunter, for Robert Hunter & Sons, Maxville, Ont., and which landed at Quebec May 17th, were seen in quarantine at Levis, by a correspondent of "The Farmer's Advocate," who describes them as a very superior lot. Prominent among the bulls is the grand yearling, Bargenoch Victor Hugo, intended for retention in the herd as a sire. He is certainly an eye-opener, and considered as probably the best yearling of the breed that has come to Canada. He is a half-brother of the noted Durward Lely, from the same dam, "Ruby of Bargenoch," with a milk record of 9,000 pounds in 34 weeks, with three teats, and when younger, with four teats working, she made a record of 11,000 lbs. in 40 weeks. She is also the dam of Bargenoch Durward Lely, a bull said to be outstandingly the greatest sire in Scotland to-day, and for which \$1,550 was refused; so if Victor Hugo proves as good as his half-brother, he ought to do. His sire is Baron Winter, a bull that has bred extra well, and was closely related to Drumsue Moonstone, an imported bull, that is easily the greatest sire of heavy milkers in the United States.

Among the eight females, the oldest and choice is "Dalbible Tibbie 3rd, six years old, by Dalbible Commander, white in color, with dark-red markings. She is a stylish cow, built on true dairy lines, of perfect form and type, fine withers, strong back and loin, with great depth of barrel and spring of rib. Below she is all that Ayrshire fanciers and producers wish, having splendid development of udder, teats and mammary glands. Unfortunately, an accident happened to this cow when being unloaded from the tender which it will take her several months to recover from, and in all likelihood putting her out of the show-ring this season. A grand cow is Netherhall Merline 5th; in color, white and dark brown. Beautiful in form, a splendid handler, perfect in udder and teat development, is what may be said of this cow. A strong cow of grand quality is Perky of Knockdown, four years old, by Jeweller of Knockdown, and from the champion cow Judy. Her udder development is about perfect. To her belongs first prize in the dry-cow class, and reserve champion at Dalrymple Show a few weeks ago. The four-year-old Auchloghan Rosette, was champion at the Royal in 1908. She is of true type, a grand handler, with wonderful udder formation. Less'n sock White Lily, two years old, by Robin Hood, is a stylish heifer, combined with symmetry and splendid udder formation. Barcheskie Sulky, is a fine-quality heifer, with grand back and loin, also showing fine milk veins and udder.

This importation brings the herd of Messrs. Hunter close on to 80 head, and constitutes it one of the strongest in the Dominion.

ANOTHER 1,000-POUND JERSEY.

To the records of Jersey cows under authenticated test for the period of one year, a new and notable one has been added in that of Olga 4th's Pride 160791. This cow has recently finished a year's test, supervised by Cornell Agricultural Experiment Station, in which she produced 16,275 lbs. milk, which averaged 5.2 per cent. fat. The fat yield of 851.7 lbs., according to the method of computation employed in the St. Louis dairy test, would churn out 1,005 lbs. 14 ozs. butter 83 per cent. fat.

IMPORTED STOCK IN QUARANTINE.

In quarantine at Quebec at present are the following: Robert Hunter & Son, Maxville, Ont., 5 bulls, 6 cows and heifers (Ayrshires); Mrs. F. D. Eckart, West Burton, Vt., 2 Ayrshire cows; W. H. Hunter, The Maples, Ont., 2 Hereford bulls; R. R. Ness, Howick, Que., 2 rams, 2 ewes (Leicesters); 9 bulls, 33 cows, 6 calves (Ayrshires); J. M. Bruce, Lashburn, Sask., 2 bulls, 1 heifer (Shorthorns); R. J. Fleming, Toronto, Ont., 1 bull, 9 cows (Jerseys); B. H. Bull & Sons, Brampton, Ont., 1 bull, 1 cow (Jerseys); Renk Bros., Sun Prairie, Wis., 1 ram (Oxford), 36 rams, 34 ewes (Shropshires); 22 rams, 110 ewes (Hampshires); Chandler & Bros., Charlton, Iowa, 12 rams, 27 ewes (Oxfords), 59 rams, 227 ewes (Shropshires); Senator W. C. Edwards, Rockland, Ont., 1 bull (Shorthorn); G. J. Council, Vandalia, Ill., 9 bulls, 70 cows (Jerseys); Geo. McKerrow, Peewaka, Wis., 279 sheep (Oxfords, Hampshires, Shropshires, Dorsets, Southdowns).

TRIUMPHS OF THE DODDIES.

The American Aberdeen-Angus Breeders' Association have issued a very handsome and interesting pamphlet of over 100 pages, entitled, "Supremacy of Aberdeen-Angus Cattle." This brochure is neatly printed, liberally illustrated with photographs of prizewinning and typical representatives of the breed, and contains records of a long list of the triumphs of the Doddies in the competitions at leading fat-stock shows in Britain and America in the last decade, together with complimentary contributions by experienced feeders, salesmen and caterers, respecting the good qualities of this class of cattle from their standpoints. The prizewinning and championship records of this breed in competitions open to all comers in the last few years, indicate more forcibly than can any commendatory words, the claims of this class of beef-producers, to the favor of farmers interested in this industry as breeders or feeders, and should result in an enlarged distribution of the breed. A circular letter has also been prepared by the Secretary, Chas. Gray, 17 Exchange avenue, Chicago, Ill., which gives a statement of the growing interest taken in the breed, as exemplified by the largely increasing number of entries in the herdbook. The revised rules of the Association as to registration are also included in this circular, which, together with the pamphlet, will doubtless be mailed by the Secretary on application by interested persons.

RECORD PRICES FOR THOROUGHBREDS.

A record price for a mare was scored at the dispersion sale recently of the stud of the late Sir Daniel Cooper, in England, when the brood mare, Flair, changed hands at 15,000 guineas (\$78,750), the previous highest price having been paid for La Fleche, namely, 12,600 guineas (\$66,150). Flair, described as the best-looking mare in England, was sired by St. Frusquin, out of Glare, with a colt foal by Gallinule, was started at 6,000 guineas, and quickly reached 15,000 guineas, at which price she fell to the bid of F. Stern, a young man who has just reached his majority. There were 13 mares in the sale, which sold for an average of \$19,441. The largest price ever paid for a stallion was \$196,875, paid by M. Blanc for Flying Fox, at the sale of the stud of the deceased Duke of Westminster. Other big prices realized for Thoroughbred horses at various times were Diamond Jubilee, \$157,500; Cyllene, \$157,500; Ormonde (America), \$150,000; Jardy, \$150,000; Val d'Or, \$140,000; Sceptre, \$125,000; Rock Sand (America), \$125,000; Duke of Westminster, \$110,000.

Galtee More, \$105,000; Ard Patrick, \$105,000; St. Blaise (America), \$100,000; Gouvernant, \$100,000; Kendal, \$90,000; Bona Vista, \$80,000; Adam (America), \$80,000; Meddler (America), \$75,000; Watercress (America), \$70,100; Hamburg (America), \$70,000.—[Horse World.]

QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.
2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.
3rd.—In Veterinary questions the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.
4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

PLANT LICE.

I have read so many helpful things in your paper that I am encouraged to seek a little more information, and am sending by this mail a box containing a sample of insects which are doing damage to our pea fields, and are, as you may see from the sample, feasting on our plum trees. They ruined the pea crop in this section last year, and are doing the same this year, giving it the appearance of having been burned. Do you know what spray will kill them? We have experimented a little without much effect. The larger insects come a little later than the others. Are they a production of the others, or an enemy to them?

Haldimand Co., Ont. (MRS.) J. L. Ans.—The sample of insects sent are aphides, or plant lice. They usually work on the under side of leaves, and feed by inserting their beaks into the leaves and sucking the juices. No application of poison is of any use, as they do not eat, but suck the leaves. Spraying with kerosene emulsion, which kills them by contact, is the remedy generally recommended, though tobacco water has also been used. Plant lice seem to be especially bad in the neighborhood of London this season on fruit trees. Our demonstration orchard was affected to a considerable extent, but on examination it was found that nearly every insect had an internal parasite, which has since completely checked their multiplication. The ladybirds devour vast numbers of the aphides, and they are attacked by many other enemies, so that probably the plague will soon subside. The winged insects are the males of the species.

BOOK REVIEW.

HISTORY OF HEREFORD CATTLE.
A new and revised edition of the history of Hereford cattle, edited by James Sinclair, editor of the Live-stock Journal, has just been issued from the press of Vinton & Company, Ltd., London, England.
This handsome volume, of over 500 pages, half-bound in maroon calf leather, with lettering and ornamentation in gold, printed on specially-made cartridge paper, and altogether produced in the highest form of the printer and bookbinder's art, is the standard work on its subject. The list of contents indicates the remarkable scope of the publication, while the illustrations, numbering 80, are a special feature, comprising portraits of breeders, past and present, photographs of the homes of celebrated herds, and numerous illustrations of famous specimens of the breed. The history will be an invaluable practical guide, and well-nigh indispensable volume to breeders and others interested in the famous "Whitefaces" all over the world. Fourteen chapters are devoted to various phases and features of the breed and its history, including the origin of the breed, and its progress, extensions, and characteristics, the pioneers and their work, the later improvements, and prominent breeders, notable English herds, the record of the breed in the show-yards in Europe and America, etc. The illustrations are excellent, showing the evolution of the breed from its early history to that of the popular present-day type. The price of the book is 22 shillings.

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MARKETS.

Toronto.
LIVE STOCK.

At West Toronto, on Monday, July 19th, receipts numbered 89 cars, consisting of 1,812 cattle, 3 hogs, 37 sheep, 41 calves, exporters waiting for Tuesday. Trade in butchers' slow; prices lower than a week ago. Picked lots, \$5.50 to \$5.75; loads of good, \$5 to \$5.50; medium, \$4.60 to \$5; common, \$4.25 to \$4.50; cows, \$2.50 to \$4.25; milk cows, \$30 to \$50; calves, \$3 to \$6 per cwt. Sheep—Ewes, \$3.50 to \$4 per cwt.; rams, \$2.50 to \$3; lambs, \$6.50 to \$7.75 per cwt. Hogs—Packers quoting \$8.15, fed and watered, and \$7.90, f. o. b. cars country points; quality of export cattle good.

REVIEW OF LAST WEEK'S MARKET.
The total receipts of live stock at the City and Union Stock-yards were as follows:

	City.	Union.	Total.
Cars	167	176	343
Cattle	2,437	3,165	5,602
Hogs	2,823	763	3,586
Sheep	2,622	429	3,051
Calves	500	183	683
Horses	1	148	149

The quality of fat cattle was good, especially those delivered at the Union Stock-yards.

Trade was brisk at both yards, but more especially at the Union yards on Tuesday, when over 2,000 cattle were bought and weighed up before noon. Prices were from 15c. to 25c. per cwt. lower, both for butchers' and export cattle.

Exporters.—Export steers sold at \$5.75 to \$6.25, but only one choice load brought the latter price, the bulk selling from \$5.90 to \$6.10; export heifers, \$5.50 to \$5.90; export bulls, \$4.50 to \$5 per cwt.

Butchers'.—Choice picked lots of butchers' sold at \$5.50 to \$5.70; loads of good, \$5.25 to \$5.50; medium, \$4.80 to \$5.15; common, \$4.25 to \$4.60; cows, \$3.25 to \$4.50.

Stockers and Feeders.—Trade in feeders and stockers was very limited, at unchanged quotations.

Milkers and Springers.—Deliveries light, but plenty for demand. Prices lower, ranging from \$25 to \$50 each.

Veal Calves.—Receipts liberal, but prices were firm, at \$3 to \$6 per cwt., with a few at \$6.50 per cwt.

Sheep and Lambs.—Receipts were moderate; trade steady, with prices unchanged. Ewes, \$3.50 to \$4 per cwt.; rams, \$2.50 to \$3 per cwt.; lambs sold at \$6.50 to \$7.75 per cwt.

Hogs.—Receipts light. Prices firmer, at \$8.25 per cwt., fed and watered, and \$7.90 to \$8. f. o. b. cars at country points.

Horses.—Trade at the Union Horse Exchange was not as brisk as usual. The quality of the horses generally was good, with several in each class that would be hard to surpass in quality. Dealers re-

port farmers asking prices that are practically prohibiting, when expenses are added. The prices paid last week were as follows: Drafters, \$160 to \$220; general-purpose, \$140 to \$180; expressers, \$140 to \$190; drivers, \$100 to \$160, with some speedy animals at \$250 to \$300 each.

BREADSTUFFS.

Wheat.—No. 2 white, red or mixed, sold down, at \$1.20 to \$1.25. Manitoba—No. 1 northern, \$1.36½; No. 2 northern, \$1.34½; No. 3 northern, \$1.33½. Rye—No. 2, 75c., outside. Peas—No. 2, 92c. asked. Oats—No. 2 white, 55c. to 56c.; No. 3, 54½c. to 55½c., track, Toronto. Barley—No. 3 extra, 62c. to 63c.; No. 3, 61c. Corn—No. 2 yellow, 79c. to 80c., track, Toronto. Buckwheat—No. 2, 70c. to 75c. Flour—Ninety per cent. Ontario patents, \$5.50; Manitoba first patents, \$6.20 to \$6.40; second patents, \$5.70 to \$6; strong bakers', \$5.50.

COUNTRY PRODUCE.

Butter.—Market firmer for creamery and separator dairy. Creamery, 22c. to 24c.; creamery solids, 22c. to 23c.; separator dairy, 20c. to 22c.; store lots, 18c. to 19c.

Eggs.—Prices for eggs are still firm, at 21c.

Cheese.—Old cheese is becoming very scarce, and sells at 14c. to 14½c.; new cheese, 12½c. to 12½c.

Beans.—Supplies light. Prices high, and demand limited. Primes, \$2.25 to \$2.30; hand-picked, \$2.40 to \$2.45.

Potatoes.—Car lots of old, on track, Toronto, sold at 70c. per bag. Car lots new American are quoted at \$3.45 to \$3.25 per barrel. New Canadian potatoes are expected this coming week.

Poultry.—Receipts of spring ducks and chickens have been more liberal. Prices are easier. Spring chickens, alive, 16c. to 18c. per lb., and 20c. to 22c. dressed; ducks, alive, 12c. per lb., dressed, 14c. to 16c. per lb.; fowl, 12c. per lb. dressed; alive, 10c.

HAY AND MILLFEED.

Hay.—Baled, in car lots, market firmer, at \$13, on track, Toronto. Straw—Car lots, on track, Toronto, \$7 to \$7.50. Bran—Car lots, in bags, \$22, on track, Toronto. Shorts—Car lots, in bags, track, Toronto, \$23 to \$24.

FRUITS AND VEGETABLES.

Receipts of fruit have been large during last week, especially strawberries, the market for which is nearly over. Raspberries are coming forward in small quantities. Cherries are plentiful and cheap, as well as gooseberries. Prices ruled as follows: Red cherries, 75c. to \$1 per basket; black cherries, \$1 to \$1.25; gooseberries, 50c. to 60c. per basket; red currants, 90c. to \$1 per basket; tomatoes (Canadian), \$1.50 to \$1.75 per basket; strawberries, 6c. to 8c. per quart; cabbage, 50c. per dozen; cucumbers, 75c. to \$1.25 per basket.

HIDES AND WOOL.

E. T. Carter & Co., 85 East Front street, Toronto, report paying the following prices: No. 1 inspected steers, 60 lbs. up, 12½c.; No. 2 inspected steers, 60 lbs. up, 11½c.; No. 1 inspected cows, 12c.; No. 2 inspected cows, 11c.; No. 3 inspected cows and bulls, 10c.; country hides, cured, 10½c. to 11½c.; calf skins, 14c. to 16c.; horse hides, No. 1, \$2.75; horse hair, per lb., 31c.; tallow, per lb., 5½c. to 6½c.; sheep skins, each, \$1.30 to \$1.50; wool, unwashed, 11c. to 13c.; wool, washed, 19c. to 21c.; wool, rejects, 14c. Raw furs, prices on application.

CATTLE MARKET NOTE.

During the past three weeks ending July 10th, there have been more cattle shipped for export from the Union Stock-yards than from any live-stock yards on the American continent, not excepting Chicago. The following are the number of carloads shipped from Chicago and West Toronto, respectively

	Chi. Union	cars, yards.
Week ending June 26	65	76
Week ending July 3	105	103
Week ending July 10	86	114
Week ending July 17	—	131

British Cattle Markets.

London cables for cattle 13½c. to 14½c. per lb., for Canadian steers, dressed weight refrigerator beef, 10½c. to 10½c. per lb.

Montreal.

Shipments from the port of Montreal for the week ending July 10 were 3,224 cattle, against 2,313 the previous week.

In the local live-stock markets, there was little demand from exporters for cattle, owing to the weaker advices from the other side. However, the tone of the market was easier, owing mainly to the small supply of top grades, the bulk of the offerings consisting of grassers, and half-finished at that. Choice steers sold at 6c. to 6½c., fine at around 5½c., good at 5c. to 5½c., medium at 4c. to 4½c., and common at 3c. to 3½c. per lb., inferior being ½c. lower. Supplies of sheep and lambs were limited, but the market held steady, at around 3½c. per lb. for sheep, whereas spring lambs sold as high as 7½c. to 8c. per lb. Calves were in good demand, and prices for them ranged from \$2 to \$4 or \$5 each, for common, and from that to \$8 and \$9 each for choicest. The strong spot in the market was hogs. Cables on bacon were very strong, and prices of hogs advanced here fully ½c., and almost ¾c. in some cases. Receipts were on the light side, and demand was good. Selected hogs sold at 8½c. to 9c. per lb., off cars.

Horses.—Horse dealers reported a very dull trade. This, however, was only to be expected. It was still too early for the lumbering demand, and farmers were all busy attending to their haying, so there was no outside trade, and, of course, there was practically no city trade at this time of the year. Heavy draft, 1,500 to 1,700 lbs., \$225 to \$300 each; light draft, 1,400 to 1,500 lbs., \$180 to \$240 each; small animals, weighing from 1,000 to 1,100 lbs., \$100 to \$150 each; inferior and broken-down animals, \$75 to \$100 each; and choice saddle or carriage animals, \$300 to \$500 each.

Dressed Hogs and Provisions.—Select, fresh-killed, abattoir-dressed hogs sold at 12c. to 12½c. per lb. There was a marked advance in the price of barrelled pork, prices being \$27.50 to \$29 per barrel. Lard was also a fraction dearer, being 9½c. to 10½c. for compound, and 14½c. to 15½c. per lb. for pure. In bacon, Wiltshire sides were still 17c., but Windsor backs were up to 18c. Hams were 14c. to 15½c., and 16c. to 16½c. for boneless, rolled, and spiced rolls 13½c. to 14c.

Potatoes.—New stock was dribbling into the market, but prices were irregular, and hardly worth repeating. Old stock was firm in tone, but prices were not much, if at all higher. The few Green Mountains left, sold to grocers at as high as \$1.30 per 90 lbs. Best white Quebec or Ontario potatoes sold at \$1 to \$1.05, carloads, on track.

Eggs.—Stock was scarce, and, if anything, higher, although there has been a very considerable loss through rotten stock. Dealers were paying 17½c. to 18½c. per dozen, at country points, for straight-gathered, and selling the same here at about 19c. to 20c., while No. 1 candled stock sold at 20c., and selects at about 24c. per dozen. On Monday, 19th, prices were a half cent above these quotations.

Butter.—Prices declined, as compared with the week previous, dealers paying 21½c. to 21½c. in the country. This sold here at 22c., wholesale, and ½c. more in smaller lots. Fresh dairy butter sold at 20c. to grocers, and dealers were paying about 18½c. to 19c. per lb. for it in the country. On Monday, a half cent advance in the country was reflected here, holders of creamery asking 22½c. to 22½c.

Cheese.—Ontario cheese sold here at 11½c. to 11½c., Quebec at 11½c. to 11½c., and Townships at 11½c. to 11½c. per lb. Colored was at a premium over white. Exports were keeping up well. On Monday, prices were ½c. higher, at 11½c. to 11½c. for Quebec; 11½c. to 11½c. for Townships, and 11½c. to 12c. for Ontario.

Grain.—There was not much change in the market for oats. No. 2 Canadian Western, carloads, in store, sold at 59c., No. 1 extra feed being 58½c., and No. 1 feed 58½c., while No. 3 Canadian Western sold at 58c. No. 2 barley was quoted at 72½c. to 74c., Manitoba feed barley being 67½c. to 68c. and buckwheat 69½c. to 70c.

Feed.—There was practically no change in the situation, demand, however, not being very active. Manitoba bran, in bags, sold at \$22 per ton, and shorts at

IMPERIAL BANK OF CANADA

CHARTERED 1875.

Capital Authorized, \$10,000,000.00
Capital Paid Up, - 5,000,000.00
Reserve, - - - 5,000,000.00

SAVINGS DEPARTMENT.

\$1.00 opens an account. Interest paid at highest current rate from date of deposit.

Farmers' sale notes discounted. Branches throughout the Dominion of Canada.

\$24, pure grain mouille being \$33 to \$35, and mixed being \$28 to \$30.

Hay.—Market held firm, and prices were \$14.50 to \$15 per ton for No. 1, \$13 to \$13.50 for No. 2 extra, \$11.50 to \$12 for No. 2, \$10.50 to \$11 for clover mixed, and \$9.50 to \$10 for clover.

Flour.—Prices held firm, and \$6.30 per barrel, in bags, was still quoted for Manitoba first patents, \$5.80 for seconds, and \$5.50 for strong bakers'. Ontario patents were selling at \$6.75, and straight rollers at \$6.60, in barrels.

Hides.—Demand very fair, and the market firm, but steady. Dealers were still paying 11c. per lb. for No. 3 hides, 12c. for No. 2 and 13c. for No. 1, and 14c. for No. 2 calfskins and 16c. for No. 1, and selling to tanners at ½c. advance. Lambskins were quoted at 25c. to 30c. each, and No. 1 horsehides \$2 each, and No. 2 \$1.50. Rough tallow sold at 14c. to 3c. per lb., and rendered at 5½c. to 6c. per lb.

Cheese Markets.

Peterboro, Ont., 11 3-16c. Woodstock, Ont., white, 11½c. Madoc, Ont., 11 5-16c. Winchester, Ont., 11½c. Russell, Ont., 11½c. Vankleek Hill, Ont., 11 7-16c. Belleville, Ont., 11 7-16c. and 11½c. Brockville, Ont., colored, 11½c.; white, 11½c. Kingston, Ont., 11 5-16c., 11 7-16c., and 11½c. Alexandria, Ont., 11 7-16c. Victoriaville, Que., 11c.; Ottawa, Ont., colored, 11 11-16c.; white, 11½c. Picton, Ont., 11½c. Perth, Ont., 11½c. Listowel, Ont., 11½c. Iroquois, Ont., 11 11-16c. Napanee, Ont., white, 11½c.; colored, 11½c. Huntingdon, Que., white, 11½c.; colored, 11½c.; butter, 21½c. Kemptville, Ont., colored, 11½c. London, Ont., 11½c. St. Hyacinthe, Que., butter, 22½c.; cheese, 11 5-16c. Chicago, Ill., dairies, 14½c. to 15c.; twins, 14c. to 14½c.; Young Americans, 14½c. to 15c.; longhorns, 14½c. to 15c.

Chicago.

Cattle—Beves, \$4.85 to \$7.50; Texas steers, \$4.50 to \$6; Western steers, \$4.80 to \$6.25; stockers and feeders, \$3.10 to \$5.15; cows and heifers, \$2.40 to \$6.35; calves, \$6 to \$8.75.

Hogs—Light, \$7.65 to \$8.15; mixed, \$7.70 to \$8.40; heavy, \$7.80 to \$8.40; rough, \$7.90 to \$7.95; good to choice heavy, \$7.95 to \$8.40; pigs, \$6.65 to \$7.50; bulk of sales, \$7.90 to \$8.20.

Sheep—Natives, \$2.75 to \$4.90; Western, \$3 to \$5; yearlings, \$4.60 to \$6; lambs, native, \$4.75 to \$8.50; Western, \$4.75 to \$8.40.

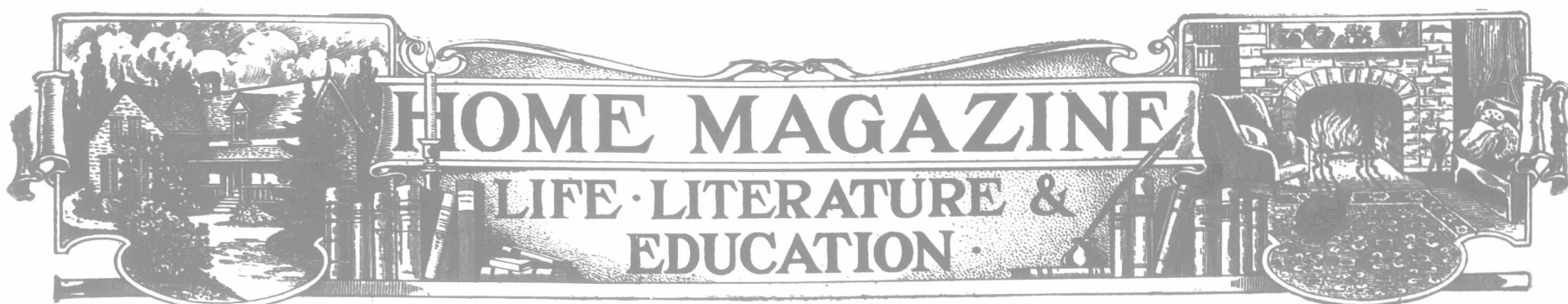
Buffalo.

Cattle—Prime steers, \$6.50 to \$7; veals, \$6 to \$9.50.

Hogs—Heavy and mixed, \$8.55 to \$8.65; Yorkers, \$8.35 to \$8.55; pigs, \$8.25 to \$8.30; roughs, \$7.25 to \$7.50; stags, \$6 to \$6.50; dairies, \$8.25 to \$8.50.

Sheep and Lambs.—Lambs, \$4.50 to \$8.75; a few, \$9; sheep, mixed, \$2 to \$5.50.

Ten thousand dollars is the price reported to have been paid by W. H. Moore, of New York, for the champion heavy harness horse, Loudwater Flourish, at the recent International Horse Show in London, England. Loudwater Flourish is a pure-bred Hackney gelding, bred by Sir Gilbert Greenall and sired by Golden Rule, by Goldfinder VI., by Danegelt, dam Lady Ethel, by Lord Derby II.



Exceptional features marked the recent commencement exercises of Harvard University, Cambridge, Mass., one being the formal leave-taking of President Eliot, and the succession of President Lowell, as head of this great institution. Another was the bestowal of the degree of Doctor of Philosophy on Hon. W. L. Mackenzie King, the new Canadian Minister of Labor, and the honorary degree of Master of Arts upon Dr. Wilfrid Grenfell, the hero of the Labrador. Each was given an ovation. In receiving his honor, the former made the happy suggestion that a fitting international memorial be prepared, to mark the approaching century of peace since 1812 between Canada and the United States. He counselled the nations to prepare for peace as zealously as men prepare for war.

The Jews are at last in hopes that a preliminary step towards their final occupation of the Holy Land is in sight. A short time ago an invitation was given to the Jews, by Ahmed Riza Bey, President of the Turkish Chamber of Deputies, under the new government, to create a Jewish state in Mesopotamia. A movement is now afoot, under the leadership of Mr. Jacob H. Schiff, a wealthy banker, and Mr. Israel Zangwill, to carry out the project, and a geographical survey commission has been sent out by the Ica Society, to which the late Baron de Hirsch left \$45,000,000 for colonization purposes, to investigate conditions. The preliminary reports show that the land is fertile, only needing irrigation and thorough tillage to make it very prolific.—[Winnipeg Farmer's Advocate.]

To catalogue the natural glories of July would overtask an auctioneer. Such opulence is beyond summary, and one can only make fragmentary remarks. Lord Bacon did but write, "In July come gilliflowers of all varieties, musk roses, the lime tree in blossom, early pears, apricots, berries, gennetings, codlins." But shall a man speak of July and not of hayfields? The veriest Cockney, the most desk-bound cashier, the man whose pride it is that he never takes a holiday, cannot even simulate indifference to the hay harvest. Indeed, the city dweller is strangely and irresistibly conscious of hay as a topic in July. Londoners meet on the top of buses in Cheapside and Oxford street, assure each other that the heat is "good for the hay," and part for ever. Whose hay? What hay? Echo answers, THE HAY. You toil up office stairs and mop your brow at a counter, exclaiming on the heat; and a clerk desists from a bag of strawberries to say, in an expostulating tone, "Yes, sir, but splendid weather for the hay!" What in thunder does he know about the hay? Whence comes this universally-assumed anxiety for the haymaking? It is from within. It is one of those points of sympathy between the townsman and the soil which have survived the divorcements of civilization. Deep down in us all the farmer, or, at least, the haymaker, survives; and something more subtle than almanacs reminds us that—

Our Saxon fathers did full rightly call
This month of July "Hay Monath,"
when all
The verdure of the full-clothed
fields we mow.

The townsman feels that he retains his right to a footing in the hayfield. He may put on that old, and better, Adam whenever he will, and, forgetting Babylon, may arise in his simplicity and go without notice into a hayfield, and be handed a rake. Happiness waits for him there. There is nothing like a hayfield for freshness, and a hayfield by the sea is the earth at its best. The sea and the hayfield are each new and strange, each is marvellously horizoned, and the sun and the moon and the fleecy clouds are seen alike on the swaths and on the waves, with the vision of earlier years. "The long, long thoughts" of boyhood recur, and the night comes down like a psalm.—[T. P.'s Weekly.]

Disturbing the Guests.—Inattention may arise either from self-centered thoughtlessness, or from lack of appreciation. Neither is palatable to

attention is their due. It is related of Roger, the celebrated French tenor, that on one occasion he was engaged for the sum of fifteen hundred francs to sing at the house of a rich financier. Roger sang his first song magnificently, but no one paid him the slightest attention, and the guests talked their loudest. Presently the host thought the time had come for another song, and sent for Roger. He could not be found, and that evening was seen no more. Next day a note came from him, accompanied by the sum of two thousand francs. The note ran thus: "I have the honor to return the fifteen hundred francs which I received for singing at your party, and I beg leave to add five hundred francs more for having so greatly disturbed the conversation of your guests."

People, Books and Doings.

The fourth centenary of John Calvin was celebrated at Geneva, Switzerland, on July 10th.

The achievement of Pauline Garb as a rapid assimilator of English must be the record for immigrants, and may possibly be the despair of

forty-one graduates and ten prize-winners, all of whom had been in the school less than one year. Many had received instruction in their native lands, though none could speak or read English when they entered the Hirsch school.—[Literary Digest.]

There has just been completed inside the Small-bird House at the London "Zoo," an arrangement of incandescent lamps, the object of the installation being to induce the tiny feathered inmates to take breakfast a couple of hours earlier than they otherwise would do. It is controlled by a switch outside the building, and each morning at six a keeper turns on the lights. This, of course, arouses the birds, who commence feeding forthwith, under the impression that day has dawned. The same dodge has been used from time immemorial for fattening quails for the London market. These birds feed only in the early morning, so, after being caught, they are kept in underground cellars, fitted with electric lights, which are periodically switched on and off. Every time the lights are raised, the quails start eating, going contentedly to roost when they are lowered. In this way a bird can be induced to eat as many as twenty-four breakfasts in one day.—[Pearson's Weekly.]

At a recent auction sale in London, Eng., Chas. Dickens' favorite chair was purchased by a Philadelphian for the sum of \$374.

A five-foot shelf of books very frequently does represent a wide and lofty culture—for the friends of the owner of the shelf. To be the owner of only five feet of books means only too often that the other 15 or 20 feet are in the parcelled possession of people who wanted a particular volume merely for a day or two, or for a tedious railway trip, or only to read to a sick friend. Lists have been drawn up of the hundred best books and the hundred worst books. But neither Sir John Lubbock nor Lord Acton nor Doctor Eliot has really met the point. The hundred best books are the books our friends lug away or send back with finger-marks on the margin. The hundred worst books are the books they leave us. We say this with all due consciousness of the fact that humanity shows itself at its very lowest in the man who locks his bookcase, and makes it a principle not to lend. Some golden mean must be found between being miserly and being ruined. Might not some enterprising publisher put on the market a library of a hundred selected books, intended exclusively for being given away?—[Winnipeg Farmer's Advocate.]



"The Haymakers."

—Bastien Lepage.

an artist who throws his soul into an effort to please. How often do we see a pianist asked to play, and diffidently accede to the request, when, no sooner would the music start, than a hubbub of conversation commenced, in tones all the louder, and more animated, because of the piano notes it was then necessary to drown. Probably the auditors had been previously dull, and lacking topics for discussion, but the music at once enlivened them and started a medley of viva voce conversation, varied by violent swaying of rockers. What more natural than for the musician to conclude, crestfallen, that his effort was unappreciated, and to cease playing at the first opportunity? When people are asked to play or sing, quiet and respectful

native-born children. Her story is told in the New York Evening Post, together with a brief mention of the school which initiates her into American ideas. Thus:

"Pauline Garb, fifteen years old, who arrived with a shipload of immigrants from Russia nine months ago, received a prize of \$5 in gold for excellence in English composition at the graduating exercises of the Baron de Hirsch School, East Broadway and Jefferson Street. Her subject was 'America.' Although she had studied eight months only, the child headed the list of prizewinners in a school containing nearly 700 pupils, including a class of adults. This was the seventeenth commencement of the Baron de Hirsch School for immigrant children. There were

A Trip to New Ontario.

Not long ago I told you that the unexpected pleasure of a trip to New Ontario—the very wilds of it—had come my way. To-day I am in the midst of New Ontario, but not quite to the uttermost wildernesses of it as yet. That will come to-morrow, I suppose, or the next day, although I am not at all sure. You see, I had expected to be by this time among the squaws and Indians, but "nary a one" have I seen yet, not even a padoose. Instead, I am sitting in a spacious hotel in Latchford, just nine miles from Cobalt, and at the eastern end of Bay Lake, which marks the foot

of navigation leading to Elk Lake and the upper reaches of the Montreal River. On the wall of my room there are a telephone and an electric bell; and, looking out of the window, down the sidewalk that leads to the station of the Northern Ontario and Temiskaming Railway, I can see a young lady meandering up in a skirt buttoned all the way up the front, and a "dishpan" hat. Behind her are some big fat men, who look as if they might have stepped off Fifth Avenue.

This seems to be an Eldorado of big fat men, by the way—well-dressed, well-fed fellows, who look as if they had found life worth living, and had taken up mining interests as a diversion. The Cobalt Special, on which we came from Toronto last night, was crowded with them, and one in especial was pointed out as a multi-millionaire from New York, the owner of the "Nova Scotia" mine up here somewhere. He was a strikingly handsome man, with a Jewish nose and an unspellable Jewish name—is, in fact, a Jew.

Now for the women: A few New Yorkers seemed to be on board, too. Some of them got off at Temagami, a very unattractive town, so far as we could see, on a very beautiful lake, which, they say, is coming into much favor as a summer resort farther down. But even the women who live here look quite as much up to the fashion as those at home. Even the dining-room girls at the Latchford hotel wear "rats" and "sausages" in their hair. What further evidence of progress is needed?

Of course, there are not many women of any kind, "rats" or no, here as yet. There are only about 200 citizens, all told, in Latchford, and the majority of them are men and children. Women from the outside world are, of course, a bit of a curiosity as yet, as we found out when we went into the office to register. The office is a big one, brilliantly lighted by gas, and along one side of it was ranged a row of men, each with a cuspidor in front of him. As we stepped before the clerk there was dead silence all along the row. The men looked at us over the cuspidors—and we turned our backs on them. Later in the day we overheard that "one of the girls who registered had hardly taken her pen in her hand until she had her name signed,"—so much for the scrutiny of us.

The said office, by the way, was the first indication that we were really reaching the far north, the land of the Indian and the Hudson's Bay Company. Latchford, in fact, lies right on the old trail of the company, in coming from the Ottawa to the fur country. Upon the walls all around were heads of moose, deer and lynx, and cases filled with stuffed birds, chiefly loons and other waterfowl. Moose are still to be found about here, sometimes quite plentifully, and we hope to see one before long, if the mosquitoes of the inner river region leave us any eyes to see.

And now, for a bit about the country itself, for it is a curious country, too, in spite of the New Yorkers and up-to-date Latchford hotel. We got out of bed at North Bay, a thriving manufacturing town, beautifully situated, and before long were speeding along through miles and miles of almost endless swamp and wooded hill country, broken here and there by beautiful little lakes, and diversified by the occasional tent or little log-house, which gave a few sparse touches of human interest. There was no sign of farming, as we think of it, except in one place, where two little homesteads, very new, and quite promising in appearance, had been cleared out, apparently in some pocket of the rocks which had, somehow, escaped the rain of boulders deposited everywhere, probably during the glacial era. Everywhere else were the interminable trees, chiefly spruce, jack-pine and cedar, with what appeared to be poplar and paper birch quite

freely interspersed. It was a great pity, too, to see how many immense stretches had been overrun by fire—a sheer waste in this country, since the space occupied by the mines entails but little loss of timber, while the surface, at least over the country which we traversed this morning, seems totally unfit for farming. Almost every square yard of it is either covered by boulders or outcrops of bed-rock—hard Laurentian rock of a gray or grayish-green color—the oldest formation in the world, as geologists will tell you. There is so much of it that you would wonder how the trees obtain a foothold, and yet they grow, "thick as hair on a dog's back," except in those spots where man has made his presence known. Of course, immense quantities of timber are being cut and floated down the rivers, but in this immediate district the effect is scarcely perceptible as yet, as regards the general appearance of the country. Further to the north-east, past the Gillies limit, which begins near here, and on towards the Clay Belt, running upward from New Liskeard, more extensive clearings have been made, and the land has been found quite good, and excellently suited to wheat-bearing. But it is chiefly the lure of silver which is bringing in the crowds that throng the "Cobalt Special" every day.

Six years ago there was practically no Cobalt, no Latchford, no Gowganda. One day a blacksmith named Larose, who chanced to be working on the Northern Ontario and Lake Temiskaming Railway, then being constructed, to boom the farming of the Clay Belt, threw his axe up at something on a rock. It splintered a fragment, and, on going to regain it, Larose noticed something peculiar about the splintered portion. The axe had, in fact, struck a vein of almost pure silver—and so the rush began. Larose staked his claim and sold it very soon for \$30,000. It has since given the richest yield of any mine in the district, the richest silver-bearing district, at that, which the world has ever known. I got some startling statistics, which may be new to "Farmer's Advocate" readers, this afternoon, but will leave them until I have visited Cobalt itself, just pausing to state that the estimate for the present year's output is placed at \$18,000,000.

Cobalt is, of course, the Mecca of a great many of the fat mine-owners and tourists who are crowding in during these hot summer days, but the prospector is, naturally, the omnipresent species. Everywhere he is to be found staking out his claim and hoping to find his Eldorado. Within a few miles of Latchford three mines have been already opened, the Last Chance, Sargeason, and Jumbo, but the prospectors are pushing over the woods in all directions, on to Gowganda, and beyond. Of the mining prospects I shall, however, have more to say later, when we catch up with our Geological Survey party, who are to meet us to-morrow at Elk Lake.

In the meantime, tales of the black flies and mosquitoes fill us with forebodings. Everyone is talking about them, and it is a positive fact that many of the prospectors are coming out of "the bush" to wait until the season for the pests is over. This afternoon we wandered down to a store—a store that reminded one much of Stewart Edward White's "Aromatic Shop," and while there, a man who looked like a tough, but spoke like an Oxonian, came in. The back of his neck was literally covered with bleeding bumps. Mrs. C. glanced at me, and I glanced at her. Just one word she spoke: "Mosquitoes!" and then we both looked off down the beautiful Bay Lake, rippling in the sun, and "painfully thought of the morrow."

More of this later. In the meantime, I must stop. Someone down stairs is pounding out Methodist hymns on the piano, and someone in the next room is lustily humming "Ave Maria." As may be imag-

ined, the two do not mix very well, and the effect is not conducive to coherent writing.

DAME DURDEN.

(To be continued.)

New "Open-air" Architecture.

By Geo. E. Walsh.

[The following article, from House Beautiful, shows the crusade for fresh air which is going on in some of the larger cities. Fresh air is quite as essential for country folk as for city folk, as tuberculosis and pneumonia are by no means unknown in the rural districts. Sleeping out of doors, at least in summer, should be easily accomplished in every rural home, and could not but bring good results.]

Almost imperceptibly, the modern crusade against pneumonia and consumption has developed a new style of architecture for our homes, which, in the course of a few years, may prove of widespread value. It is the "open-air" treatment of the most dreaded of our diseases that has achieved this result, and builders and architects, under the influence of the new force in our city life, are compelled to study the question from the purely utilitarian point of view. The old style of designing and building homes is, therefore, passing through a certain evolution of somewhat radical character.

Fresh air and sunshine are the two recognized agencies for the cure of pneumonia and consumption, and if these can be supplied in abundance the year round, sufferers from the dreaded diseases can live in almost any of our cold northern cities. But it is not only for the cure of pulmonary disorders that this treatment is recommended, but for its prevention. In order to stamp out the disease, and insure each individual against its ravages, our methods of living and sleeping must be changed. Our homes must be remodeled to suit the new conditions. The sanitary importance of sunshine and fresh air in our living and sleeping-rooms is a generally-accepted fact, but beyond enlarging some of the front windows, and adopting better systems of ventilation, architects, until recently, have not responded very promptly to the demands of the new movement.

The adoption of the roof treatment of pneumonia by a few of the leading hospitals in New York, half a dozen years ago, was looked upon at first in the light of an experiment, but in two seasons it was demonstrated that the fresh-air and sunshine reduced the mortality of the patients far more than one-half. The roofs were simply fitted up as auxiliary wards, with wind-shields and such other appropriate protections as the weather demanded. Every day through the winter the patients were exposed to the fresh air and sunshine. Then came the glass room, to protect the patients in rainy weather, and such other devices as made them comfortable in sleeping on the roof at night.

From this simple experiment, the "open-air" treatment spread, until private roof-sanitariums were constructed. In these open-air places the patients showed wonderful recuperative powers, and the physicians began to proclaim the new doctrine, that it was not necessary to go away to some distant climate to be cured. The next question to study was that of prevention. If the fresh-air treatment would cure, it should also prevent. The investigations which followed pretty conclusively demonstrated that pneumonia and consumption worked their great havoc chiefly among those starving for fresh air and sunshine. The diseases could be headed off if the people could be induced to live more out of doors, and fill their lungs with pure fresh oxygen.

The model city house, or, for that matter, the town or village house, has come into existence through a

careful study of the new conditions of sanitary life. There are three ways of accomplishing the result, and in these different directions our architecture is being changed.

The roof is the first point of attack in our cities, because of the closely-built-up conditions and the apparent waste of flat-roof space. The roof playground has been established on a considerable number of city houses, where children can play in the open air and sunshine, far above the noise and dirt of the street. One of the pioneers of the roof playground for city children, on the recommendation of his physician, spent \$150 in having the flat roof protected by wind-shields, high railings, and a portable roof. The roof was 24 by 24 feet, and contained an area of five hundred and seventy-six square feet, with an elevation of sixty feet from the street. A wooden floor was laid over the tin roof, and protection afforded on the north side by a permanent wooden shield, and on the other sides by canvas. All through the winter the children played on this roof, and daily tests of the temperature showed that, while it was slightly cooler up there on the average, the humidity was far less than in the streets below. The sun and air got in their good work, and the children who had formerly suffered with colds and croup for most of the winter, were entirely free from any such ailments.

This was three years ago, and since then more than a hundred such roof-playgrounds have been established for children. In nearly a score of instances such private roof-gardens have been used in the daytime for some sick members of the family during the convalescent period. But here, again, the effect of the new campaign has not yet been fully measured by those who have made a half-way start. The roof is coming in for something more than a playground or resting-place for convalescents. It is being used as the sleeping-room for hundreds of those whose weak lungs indicate a predisposition to pneumonia or consumption. Sleeping out of doors in winter is not a passing fad. It has become a part of the rational cure for many of the ills of mankind. The great consumptive camps where patients live and sleep outdoors stand as conspicuous testimonials to the value of this treatment. The physicians assure us that we have it within our means to build our houses so they may prove as serviceable as the high-priced sanitarium, and that it is the sunshine and fresh air we need more than a change of climate and scenery.

Last winter, upward of several hundred people in New York City slept out of doors from choice, and not from necessity. A few had their roofs converted into comfortable sleeping-rooms, inclosed on two or more sides, but always with one side or the roof open to the free admission of fresh air. So much has this become the fashion, that architects have been called in to draw plans for the ideal roof sleeping-room. An architect has proposed the following requirements for such an outdoor comfortable roof sleeping room:

The floor made of matched-pine boards, narrow strips meeting on all four sides in an ornamental railing or wall three feet high, so that drafts cannot sweep up from below. On the north side a permanent wooden protection, and on the east and west a glass sash that is made permanent in winter, but movable in summer. On the south side a sliding glass partition is provided, so that the amount of fresh air and wind can be regulated to suit. The roof is composed of glass or canvas that can be rolled up at will. Such a roof sleeping room need not expose anyone to winds or drafts.

The second point of modification in our homes, due to this new treatment of diseases, is found in the balcony and window arrangement. We should take a leaf from the architecture of the Belgians in this respect, who

build their city and country houses with convenient balcony spaces in front and rear. The balcony forms an ideal sleeping-place for those anxious to take the fresh-air cure. Architects have shown a willingness to develop this feature of their new houses, and scores of new homes have been constructed in the past year with this feature prominent. In some instances balcony additions have been made to old houses by affixing iron supports in the brick walls facing wide windows, and building an open balcony outside. At one architectural exhibit plans were shown of artistic balcony sleeping-rooms on two floors, designed in such a manner that they did not detract from the beauty of the structure. Some were built inside of the wall line, forming sort of alcoves which would completely shield the occupants from outside eyes. Others were formed in the shape of oblong bay windows, with sides and roof protected by canvas or awnings, so that the fresh air could be regulated to suit any needs.

MORE THAN A FAD.

The variety of the sleeping balconies range from the common back fire-escape, with a few wooden boards and canvas flaps hastily put up for protection from wind and rain, to the elaborately-designed and finished kind, with glass sides and movable sash on roof and front. Architects

have seriously attacked this problem to meet the demand of a new race of fresh-air people. That this is not considered a temporary fad, is evident from the influence it is having upon our architecture. Back of it is the physician, who prescribes for his weak-lunged patient the fresh-air treatment, which may mean anything from spending a few more hours in the open air, up to sleeping out of doors every pleasant night through the winter. Away with steam heat and poorly-ventilated sleeping-rooms!

Here are the exact words of a fashionable physician, who simply voices the opinions of many of his profession: "I'm happy to say fresh air, as a curative agent, is getting to be fashionable. The physicians who have been treating tuberculosis in the open air have taught a better lesson than they realize. Recently a case of double pneumonia in a child was put out of doors, on a roof, and got well. Go to Seabright Hospital, and you will find the children sleep all the year round with the windows open. The New York Foundling Hospital has between five and six thousand square feet of roof-garden, which is used in all possible weathers, to the great betterment of the general health of the inmates. The Presbyterian Hospital has a fine flat roof, a portion of which has been screened

off by canvas, making a sun-pen, in which the little people of the children's ward have had an airing of five or six hours daily in favorable weather. The truth of the matter is, if the present dwellers in New York and Brooklyn, and other large cities, expect the next generation to have any health, they must learn to live in cooler houses, with better ventilation, and must make it possible to get more outdoor air. Otherwise, our children are going to be subject to bronchial and catarrhal affections, and succumb ultimately to tuberculosis. The day of ventilation and cooler houses is coming. This compact living in our great modern cities requires rules peculiar to its own conditions. Those rules must be worked out by experience by the present generation."

OUT-DOOR ROOMS.

The third point in our new architecture, which the open-air campaign is affecting, pertains more to the country or village house, where piazzas are possible features of the homes. The new change is that the piazza must be constructed on the south or sunny side, and if the house faces north, then it must be built on the back side, above the kitchen or extension. This piazza is an extra living-room, a place for occupancy in winter, as well as summer. It is built in with adjustable protecting

sides, and even screened with glass sash in winter, but always with one side open. The piazza is developed into a living-room through minor improvements which will make it comfortable. Here is the playground of the children, the sitting-room of the family on sunny days, and even the sleeping-room for many. The development of the upper piazza for such purposes brings into the life of the occupants a new hygiene. It means sunshine and fresh air the year round, and the banishment of many of the colds, bronchial and pulmonary troubles which are so common. The invalid finds in such life in the open air the best tonic which she can take. Then why not apply the same medicine to the person in good health? The fear of taking cold prevents many from sitting out on their piazza, and, with all the equipments necessary for the open-air treatment, they keep close to their overheated rooms, and induce colds and bronchial disorders.

The final modification of our architecture due to this new order of sanitary living, may be seen in the construction of our typical summer homes and bungalows. The model consumptive bungalow has been worked out with care, and it offers an abundance of fresh-air living to those occupying it. Of one or two stories in height, it consists, for the part, of a continuous window around every side, with only such partitions necessary to hold the roof up. These windows admit fresh air all the time. They are equipped with awnings to lower or raise for the purpose of modifying the glare of the sun and the effect of the wind and rain. Window sashes are considered dangerous, for the reason that many will be disposed to close them too often; but in the modern country bungalow built on this plan, window sashes may be considered necessary for comfort and happiness. But the main purpose of these new types of summer residences is to admit such an abundance of fresh air that life in one is much like existence out of doors. There is no possible danger of breathing foul or vitiated air. When we consider that the consumptives live in these open bungalows through the winter, one might find it possible to exist there in summer, without great discomfort.

THE HEALTH OF THE RACE.

Whatever we may think of the changes created in our architecture by this movement, it must be admitted that we are gradually modifying our past ideas of living. We are admitting more and more fresh air in our homes, and enlarging windows and doors for this purpose. We are reducing the heat of living-rooms, improving the ventilation, and sleeping at least with our windows partly open at night. The crowded conditions of our cities are forcing this upon us, and, in the crusade against tuberculosis, we are learning that people other than those dwelling in tenement houses are in need of more fresh air. Not a great while ago the night air was considered harmful, and people religiously shut it out of their sleeping-rooms, but to-day, to hold such a view would be equivalent to acknowledging dense ignorance of the simplest of hygienic rules. Not all of us have time to spend hours out in the fresh air, away from the counter and desk, but none is so poor that he or she cannot afford to breathe in pure air while asleep at night.

The modification of a nation's architecture by any passing fad or permanent change in habits is always of instructive interest, and it may be assumed, as a rule, that such an improvement reflects the mental development of the people. In the present movement there is the added advantage that the change contributes more to our healthy living than to our comfort. It is born of a hygienic necessity, due to artificial conditions which city life has imposed on us, however much we may argue to the contrary. The health



Where the Pond Lilies Grow.

of the race is thus dependent, to a large extent, upon how we overcome the adverse conditions and environments erected by our own hands.

Hope's Quiet Hour.

Overcome Evil with Good

Love ye your enemies, and do good, and lend, hoping for nothing again; and your reward shall be great, and ye shall be the children of the Highest: for He is kind unto the unthankful and to the evil.—S. Luke, vi.: 35.

"Blessed is he whose transgression is forgiven, whose sin is covered," says the inspired poet; but think of the unblest and dangerous state of a man or woman who is indulging an unforgiving spirit. Our Lord's words on this point cannot be mistaken by the most superficial reader, and His warning is clear and solemn. If words have any meaning at all, then one who is nursing a grievance and refusing to forgive, need not appeal to God for forgiveness. Our Lord says: "Forgive, and ye shall be forgiven," and again: "If ye forgive men their trespasses, your Heavenly Father will also forgive you; but if ye forgive not men their trespasses, neither will your Father forgive your trespasses."—S. Matt. vi.: 14, 15.

We constantly pray to be forgiven "as we forgive," but sometimes we should hardly dare to say the Lord's Prayer if we thought what we were asking. Even the pardon for past sins, which God has already freely bestowed, may be recalled. The servant who owed ten thousand talents had been set entirely free of that enormous debt. His master let him start fair again without anything to clog his progress; but when he refused to forgive the fellow-servant who owed him a trifling sum, the cancelled debt was again written up in full against him, and he was delivered to the tormentors with faint hope of release. We are not left in the slightest doubt about the application of this parable, for the conclusion is: "So likewise shall my Heavenly Father do also unto you, if ye from your hearts forgive not every one his brother their trespasses." You see, outward forgiveness is not enough, a decent appearance of friendliness will not deceive God, forgiveness must be in thought, as well as in word and deed: "from your hearts."

"But," some may protest, "this is an impossible thing to require of any man, for love cannot be forced." Yet God never requires impossibilities, though He sometimes may seem to do so, as when Israel at the Red Sea received the order to go forward. That apparently impossible command was quite possible—as those who tried to obey it soon found out—and, when God not only says that we must forgive those who have injured or offended us "until seventy times seven," but must also "love" our enemies, those who set themselves determinedly to obey the hard command will find that it is not impossible. The trouble generally is that we don't very much want to forgive or love either, being quite content to settle down on a level, which even the heathen can reach without the slightest effort—the easy business of loving those who love us, and being kind to those who are kind to us. As one of my S. S. class once expressed it: "I act white to the fellows who are white to me." He really seemed to think that was very meritorious, instead of being the most easy and natural thing for anyone to do.

But, if the person with whom you are quarrelling should refuse to accept your advances, or if love should refuse to spring up in your own heart, the wisest plan is to follow the advice given by the Captain of the Lord's Host to Joshua: Jericho—like your enemy's heart—was straitly shut up inside a high wall, but after the ark of God (the sign of His presence) had been carried round it once every week-day and seven times on the seventh day, the defences dropped at the first shout of victory, and it could be entered at any point without the slightest difficulty. If you follow out the type in spirit, obeying our Captain's command: "Pray for them which despitefully use you," at least once a day and seven times on Sunday—you, too,

shall find that Love has sprung up in your own heart and has undermined the wall of ice between you and your enemy, so that it is ready to fall at the first kindly word.

"For those who wound with bitter words,
Who say untruthful things,
Whose slander, worse than two-edged swords,
Deep wounds of anguish bring;
Entreat, when at God's throne you bend,
His grace may these subdue:
Thus be to those indeed a friend,
Who never pray for you."

We all need forgiveness every day of our lives, therefore it is a terribly dangerous thing to be presumptuous, and it is both useless and presumptuous to ask forgiveness for ourselves when we are refusing it to anyone else. For our own sake, then, it is important to be honest in approaching the subject. "It takes two to make a quarrel" is a very true saying, and, if we think we have a grievance, probably the other party in the quarrel is equally sure that he has something against us. A genuine, truthful apology will generally be met by another equally frank. To make a pretense of asking forgiveness—thinking all the time that the blame is all on the other side—is to be a hypocrite. Hypocrisy is always felt and resented, and can do no possible good; so it is both foolish and wrong to ask pardon unless you really feel that at least part of the blame is on your side. Nursing a grievance is a grand way of making one's self miserable, and only when it is buried and forgotten can peace and happiness come back to the heart. The Puritans used to plant corn over the graves of their dead so that the Indians might not know how their numbers were decreasing; and soon, of course, they could not be sure of the spot themselves. So, it has been wisely suggested, we should always bury a grudge without erecting a lofty tombstone to remind us of its past existence, and should plant over it flowers and grain of kindly thoughts, words and acts in favor of the person who has wronged us. Our Lord was not satisfied only to forgive the men who seized Him in Gethsemane, He was actively kind, healing the wound which St. Peter's rash loyalty had caused. Then let us try hard not to make the grievance larger by talking about it here, there and everywhere. Our orders are: "If thy brother shall trespass against thee, go and tell him his fault between thee and him alone: if he shall hear thee, thou hast gained thy brother. But if he will not hear thee, then talk with one or two more, that in the mouth of one or two witnesses every word may be established." If this wise command were obeyed, simply and literally, how few serious quarrels there would be. But, as a matter of fact, the person who has given offence is usually the last, instead of the first, to hear of it. The one who has taken offence—probably at some careless remark which has been maliciously repeated by a scandal-monger—tells the grievance over and over to all the friends and acquaintances within reach, carefully avoiding all intercourse with the only person who could clear the matter up. The necessity of making the grievance important enough to be worth talking about, causes it to be exaggerated almost unconsciously, foolish condolence fans the flame of anger, sometimes the matter is exposed to public view in the columns of a local paper (that is a grand way of making a mountain out of a mole-hill and stirring up life-long bitterness), or it is, quite unnecessarily, carried by post to distant correspondents who may be trusted to spread the fire still further and make more mischief. If a letter to or about anyone be written in a white heat of anger, it is folly to post it. You will be pretty certain to be very sorry if you do. Put it quite out of sight for a week, and then read it again. Probably by that time you will be thankful to have it safely in your own hands so that it can be put in its proper place—the fire. When a grievance is pushed about from hand to hand, it grows, like the snow-balls children roll on the ground, gathering a lot of foreign material, and getting bigger all the time. But, unlike

the snow-ball, it gives no real pleasure to anybody, only bringing a lot of unnecessary misery to everybody concerned.

"Sometimes we fondly nurse our grief
With soothing, tender care;
And then to see how fast it grows
Makes e'en its owners stare.
We feed it with the richest food
A fertile mind can give,
When smarting under fancied griefs
From those with whom we live,
And with this food it thrives so well,
And grows to giant size,
And though rich blessings strew our path,
They're hidden from our eyes.
'Tis wiser far to take our griefs
And troubles day by day
To Him who waits and yearns to bear
Our every grief away."

Yes, the best cure for this as for all other troubles is to take it to the foot of the Throne—and be particular to leave it there. Remember it only before God, and it will soon change its very nature. Christ is the Branch who can change the "Marah" waters of anger or hate into the sweet fountain of love. If you carry on your heart your enemy's name when you enter into the Holy Place, you will soon find that the enemy is changed into a friend in your thoughts; understand that he is really a friend and then the next step will be to make him not an enemy any longer.

"My proud foe at my hand to take no
boon will choose—
My prayers are the one grace which he
cannot refuse."

DORA FARNCOMB.

Fresh Air and Exercise.

Health is simply a matter of getting the best of dangerous germs. The healthy man is not one who is never attacked by disease germs, but one who habitually and successfully resists such attack. And the doctors now tell us that the best way to resist attack is to live in fresh air, day and night, breathing it in deeply and constantly, together with enough exercise every day to get into a perspiration, thus keeping our pores open and throwing off through them whatever we are better rid of. These simple rules are revolutionizing the physical life of many who used to cling to heavy clothing that clogged the pores, and hermetically-sealed living-rooms, and wondered why they had so many "colds." They know now that they were not nourishing and exercising the body, and were therefore easy prey for unfriendly germs.—Sel.

Two Things I Know.

By O. W. Firkins.

Two things I know more tender
Than spring in Arctic clime,
Than bluebells in November,
Than berries in the rime;
Than laugh of babe in cloister,
Than founts in desert soil:
The joy of those who suffer,
The rest of those who toil.

Two things I know more sacred
Than blossoms sprung from graves,
Than stains of gold or purple
In depths of glooming navies,
Than shrines in marts of traffic,
Than hymns in battle broil:
The joy of those who suffer,
The rest of those who toil.

University of Minnesota, Minneapolis, Minn.

Once Mr. Gladstone had been cutting down a tree in the presence of a large concourse of people, including a number of "cheap trippers." When the tree had fallen, and the Prime Minister and some of his family who were with him were moving away there was a rush for the chips. One of the trippers secured a big piece, and exclaimed: "Hey, lads, when I die, this shall go in my coffin." Then cried his wife, a shrewd motherly old woman, with a merry twinkle in her eye: "Sam, my lad, if thou worship God as thou worships Gladstone, thou'd stand a better chance of going where thy chip wouldna burn."

The Ingle Nook.

[Rules for correspondents in this and other Departments: (1) Kindly write on one side of paper only. (2) Always send name and address with communications. If pen-name is also given, the real name will not be published. (3) When enclosing a letter to be forwarded to anyone, place it in stamped envelope ready to be sent on.]

When the days are hot and work presses, the most of us farm folk are, I suppose, given a little to feeling that the farm life is hard, one of the hardest. I know I used to think it so when I saw the men hurrying out to work in the full blaze of the sun, perhaps at one o'clock, and the women stirring themselves likewise, so that all the dish-washing, etc., might be done up before it was time to get tea again at four o'clock. No doubt the work is hard—every kind of work that is done well is hard, for that matter—but now I sometimes wonder why farm folk do not rest longer at noon—say two hours, or more—and tack the extra time on morning or evening, when the atmosphere is cooler and the body more in humor for working. Nothing but conventionality can prevent farmers from doing this, for they, if anyone, are their own masters. Of course, I know that there are farmers who get up at four o'clock in the morning and work until ten at night, but surely such foolish people are in the great minority.

At any rate, I do think that the people of the country know nothing of what drudgery may mean, the awful drudgery that is to be found in the large cities. In the country there is at least plenty of pure air, wholesome quiet, and the refreshing green of fields and trees; restful to the eyes and minds even of those who are so prosaic as to see no beauty in such things; in many workshops in the large cities there is too often a fetid atmosphere, and surroundings of grime and noise.

I was reading this afternoon an article dealing with industrial conditions in some of the busy hives of New York, an article telling of the nervous breakdown of girls in telephone offices; of the attacks of "mill fever" to which employees in certain cordage factories are subject; of the inroads of tuberculosis made among metal polishers who are obliged to work at whirling wheels of emery, corundum, etc.; of the weariness leading to broken-down constitutions among shop-girls who are obliged to stand in one spot day after day, year after year; of the nerve-strain attacking the manipulators of delicate machinery; and so on through a long list—and I thought how vastly preferable life in the country, even a life of hard work, in the country is.

I have not space at command to give you the whole of this article, but will close with an extract or two, which you may find interesting.

"The flax plant, its blue flowers left behind, its dark-brown seeds rejected, its woody core expelled, itself reduced to twisty, dusty fiber, reaches at last, in its journey toward human use, in certain New England mills, a trough of hot water, through which passing, it appears, wet and dripping, on a spinning frame, where it is elongated into a continuous fine strand.

"A woman stands before that spinning frame. Her feet are bare. Over an old waist and petticoat she wears a big bur-lap apron, which is tied up under her arms. A belt encircles her, in which there sticks a knife for cutting flax tangles. The water thrown off by the whirling "flyers" of the spinning frame sprays against her breast. The water that drips from the wet flax inside the spinning frame crawls along the floor about her bare feet, and would run away but that it is gathered into the depressions of the floor and collects about her in little pools. She cannot wear shoes. She cannot wear decent clothes. The thermometer in the room stands often at eighty. All day she is drenched. When night comes, she changes into her street clothes, none too dry, since they have been hanging all day on the walls of the humid spinning room, and goes clammy out into the night air. She does her

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changing in the presence of men who are working in the spinning room, for there are no dressing apartments."

What are those little clocks doing, scattered along the wall of the sewing room of this glove factory? "For the girls to sew by." To sew by? Well, you will make further discoveries later.

Meanwhile the sewing machines interest you. It's amusing to try to make one of them make just one stitch and no more. You press a delicate treadle with your foot. The machine takes twenty or thirty stitches, starting off like a released homing pigeon, before you can take your foot off. By and by you get it down to six stitches, or five. But the girl in the next chair to you will make her machine drop its needle into the glove, lift it out of the glove, and stop dead; like that!

Admirable nicety! No muscle! All nerves!

She is a "closer." Well, she also does "backing and thumbing." But it's part of the same job. Oh? Yes, the glove comes to her twice. First, she takes five or six leather pieces and sews them together into the rough semblance of a glove. That's "backing and thumbing." Then, after much wandering about the room, the glove comes back to her, and she runs her needle up and down the finger-sides. That's "closing."

But why isn't "backing and thumbing" one job, and "closing" another? Why shouldn't one girl "back and thumb" all the time and another girl "close" all the time? Wouldn't that be faster? Your friend half turns and looks at you slantingly. "Yes; that's what the firm wants; and we'd make more money, too; but not for us!"

Curious! Certainly not businesslike! But after a few moments of watching and listening you begin to understand.

The piece rate on "closing," for a certain style of glove, is fifteen cents per dozen pairs. You have made up your mind that you will close a dozen pairs an hour. You want to earn fifteen cents an hour. Not an unreasonable, not an overvaulting, ambition! Down starts your needle from the top of the first finger, racing, flashing, just a dazzle of steel; till it suddenly slows, responsive to your foot, and begins to step, stitch by stitch, solemnly, like a long-legged crane, around the turn at the hollow between the first finger and the second finger; and then up it departs on its way to the top of that next finger-side, whirling, twinkling, just a sputter of steel!

You have to watch it to make it go like that. It's mechanical but not automatic. Mark the distinction.

You began at seven thirty. Now you've finished your first pair. And you take a quick glance at the clock opposite you. That's what those clocks are for! They aren't provided by the firm. They belong to the girls.

The clock opposite you says "Seven thirty-six." Your schedule was a dozen pairs an hour. That means one pair every five minutes. "Seven thirty-six!" You're a minute behind.

Down starts your needle again from the top of the first finger, racing, flashing, just a—

Another glove done. Clock says "Seven forty." On time! Breathe easier!

Down starts your needle again—

Third glove done. Clock says—

Ah, that clock! Symbol of the Age of Nerves! Sister of the quick, delicate-treadled, subtle machine! First-cousin-once-removed of the piece-work system! Your neighbor's machine hesitates, flounders. "Gee! I was thinking!" you hear her laugh. And down starts her needle again, dazzling, sputtering—

And she thinks no more except about the needle, glove, clock.

Needle, glove, clock! That's what you must keep your mind on. Your mind follows them till it's no longer an organ of thought, but simply the directive center of a nervous system bent on the management of a certain continuous physical act. It's just like any kind of speed.

Think of doing the above—needle, glove, clock! Needle, glove, clock!—the mind held down to this from seven in the morning to six at night, with an off-hour at noon, year after year! A little preferable, is it not, to get the meals, clean the house, feed the poultry, etc.

etc.—the routine that every farm woman knows?

It would not be fair, though, to close without adding that many of the factories, etc., are endeavoring to provide better conditions for the employees, although it is doubtful if much will be done to relieve the monotony. Suction fans are being installed to draw away the dust; better lighting is being supplied; a greater degree of cleanliness and convenience. Civilization is gaining ground in this as in other things. May it not lag on the farms, but may such improvements in the methods of living be introduced as will make life what it should be—sane, healthful, productive of all good things, with a time for work, a time for rest, a time for mental cultivation, and a time for recreation.

DAME DURDEN.

Child Training.

A school teacher, having been very much discouraged with her scholars, was one day watching a gardener working in his garden, and as he worked tenderly, coaxing one plant with kindness so as to bring it to perfection, cutting another back with intelligence and discretion so as to develop it into a beautiful symmetrical plant, giving some of them dew and sunshine, others the shade, caring for each individual plant according to its necessities, she likened the plants to her pupils and herself to the gardener, and she resolved to try the same method with them. By this treatment she found the incorrigible and indolent and apparently stupid responded as if touched by a magic wand.

The same method should apply to both. Study the child as a distinct personality; understand it thoroughly, as the gardener knows his flowers. If parents studied the human flowers entrusted to their care as earnestly as Luther Burbank studies the flowers of the soil, the great problem of child training would be solved. Leave no human flower to suffer from want of love, sympathy and appreciation. Child training does not mean just attending to its material wants. It is considering the difference of temperament among children, and the best method of developing them mentally, morally, spiritually, and physically; getting into closer companionship and sympathy with them; realizing that the child has a soul, and learning how to help your children grow.

One child may be better by being punished; another by appealing to its higher nature; another by kindness and love. How many mothers chastise a child when they are angry? and the wise child readily perceives it was because the mother was angry and that she has committed as grievous a sin, simply relieving her temper. Another mother is continually finding fault and complaining about this and that, till the children are glad to get away from home. They may fall in with good company, but the chances are it will be bad, so the downward course begins.

The mother stands at the helm of the domestic machinery; she can, by loving care and watchfulness, keep things running smoothly, so that there is peace, concord and harmony, or it may be all discord. Can any one thrive in an atmosphere amid complaints, thwartings and interferences? Some hardy souls may thrive on such stony ground, but with many it is the path to destruction. This course has manufactured more ill-tempered people than the much-maligned inactive liver.

Then there are the mothers who are criticising and reprimanding every act, doing the thinking for the children. But if there is good stuff in them they will break the bonds some day and go their own gait, or else you have developed a weakling, the thinking and reasoning powers dwarfed, with no initiative. Teach your children to be self-reliant, to grow like the sturdy oaks, strong in every particular. Combine gentleness with firmness in discipline; have wisdom to guide and mould the intellectual as well as the moral life of the child. Live so that your children will reverence and honor you. Motherhood is honored today. In the most primitive nations it was honored, and the old painters delighted to put on canvas the Madonna and child—the highest ideal of motherhood. Be not the mother whose Sunday religion is not her week-day religion. How can a parent train her children in truthfulness when she does not always adhere strictly

to the truth herself—exaggerating, misrepresenting things, sewing evil seeds in the wondering child's mind? Teach by example as well as precept. The most powerful thing in the life of a child is a good example. Live up to what you profess; let each day's actions and deeds be each Sunday's professions.

A father's strongest influence is wielded through the example he sets. If he is courteous, kind and considerate towards the mother, respectful children will be the rule. The father, by his manners to his wife, can put into his children's minds and hearts either good or evil, which will go with them all their days. The great responsibility of parents is to make their love for each other, for their home and children, continually felt. Love is the mainspring of every human tie, and there is more power in a loving human soul than in the most elaborate arguments.

Another great factor to domestic happiness is good health. The healthy wife and mother generates a happy tone to the entire household, so cultivate everything conducive to good health. Live more in the great out-of-doors, where the heavens declare the glory of God and the firmament showeth his handiwork. "The groves were God's first temples." It is when surrounded by nature that the reverent soul often comes nearest to divinity. One sees God in every leaf and tree and flower, and begins to realize somewhat our great destiny.

AN INTERESTED ONE.

Middlesex Co., Ont.

Hardwood Floor.

I have a hardwood floor in my kitchen, and have always given it one coat of boiled linseed oil every year, but I think there ought to be a better preparation, as the oil makes it dark and has no gloss, and in a little while has a very dusty appearance. White shellac thinned with wood alcohol makes a splendid varnish for linoleum. Would it be all right to put a coat of shellac on the hardwood floor after the linseed oil dries in? Would the oil prevent the shellac from drying quickly, or would it make it too slippery?

I don't like trying experiments on things of this kind, as I might do the floor more harm than good, as a friend of mine did in thinning white shellac with turpentine. She applied it to her linoleum, and it all broke out like a blue mould over it, which was there as an eyesore until it wore off.

I would be pleased if you could give me a little advice on the matter.

POLKA DOTT.

All my friends in this city use "Floor Finish," and seem to be perfectly satisfied. Two coats are applied, then the whole is well rubbed with "Floor Wax," made for the purpose. Apply according to directions on tins. D. D.

The "Over-dressed Daughter."

Dear Dame Durden,—As I have always enjoyed reading "The Farmer's Advocate," and especially the Ingle Nook, I thought I would write a few lines. I have often thought I would like to hear what clever old Sandy Fraser thinks about the over-dressed daughter. We can all look around in our own community and see the young lady who seems to have been showered with beautiful dresses. She has in her wardrobe for summer wear a light gray silk, printed organdies, Persian lawn and white duck suit, and several lingerie waists, and hats to match each costume. Now, the dressmaker's bill would amount to quite a sum, and the price of millinery is sometimes startling. The fathers of such girls almost invariably live in somebody else's house, and borrow somebody's money. I suppose nobody knows the sleepless nights such fathers pass—wondering how they will make both ends meet. But the foolish mother says, "Our daughter must take her place in society, if it takes every dollar we have." Now, I think Sandy Fraser never lost a night's sleep wondering how he would pay a debt. Scotchmen, as a rule, are considered a thrifty race, and like to buy with the money in their pocket, and also lay by a little each day for the proverbial rainy day. Now, these butterfly girls and their parents seem to enjoy life, and be very happy, especially if the girl is the best-dressed in the little village. But I think

the happiness is not genuine. It is very much like a man being jolly when he is drunk. Then when the father makes a mistake and tries to collect payment for goods twice, people say, "Oh, he has to do something to support that wife and daughter."

The Ladies' Home Journal for June says "A woman who feels sure of herself doesn't have to 'dress.'" How true it is that the women who "dress," as we use the word, are the women who find it necessary to do so—generally to cover up some social or mental deficiency.

Sometimes a young man, who does not take time to consider the expense of supporting one of these butterfly girls, marries one, and then we hear people pass such remarks as "That young man is as well off as he will ever be," or "She will soon spend all he has." There is a great deal of solid comfort when a young couple can sit down under their own vine and fig tree, and it is money well spent when invested in a home.

I remember several years ago, when we started housekeeping, a tramp asked for his dinner, and he told my husband that he had a brother in comfortable circumstances, and added, "I might have been well off, but I did not think about it in time."

Can some of the Chatterers tell me how to cook a beef's tongue, and if they are pickled when purchased at the butcher shop? SUNNY JIM'S WIFE.

Oxford Co., Ont.

To cook a fresh-beef tongue, wash it carefully, cover with boiling water, and cook gently for one hour, or until tender. Take out, take the skin off while hot, trim into shape, and place in a round bowl or mould, into which the tongue will fit snugly. Place a weight on top and slice when cold. Some prefer the tongue hot without moulding.

You can usually get pickled tongues at the butcher's if you ask for them. Perhaps some of the Chatterers can give good recipes for cooking pickled tongues.

Salads for Hot Days.

Cheese Salad.— $\frac{1}{2}$ lb. old cheese, grated; 1 hard-boiled egg; 1 tablespoon vinegar; 1 tablespoon salad oil or melted butter; 1 level teaspoon salt; 1 teaspoon sugar; 1-teaspoon made mustard. Rub the yolk of the egg to a powder and add the oil. Mix and add other ingredients—all but the vinegar. Mix well, then mix the vinegar last. Serve on lettuce leaves.

Ham Salad.—Chop enough boiled ham fine, sprinkle with mild vinegar, season, place on lettuce, and pour salad dressing over.

Baked-bean Salad.—Mix baked beans with dressing and a little chopped onion. Serve on lettuce. String beans boiled may also be used.

Beet Salad.—Boil young beets, chop fine, mix with dressing and serve. Garnish with hard-boiled egg and greenery.

Cucumber Salad.—Cut an inch off each end and pare carefully. Slice thin, sprinkle with salt, and let stand for ten minutes; then add Cayenne pepper to season, and equal parts of oil and vinegar—or vinegar alone may be used.

Mixed Salad.—Mix together shredded lettuce, chopped radishes, chopped cucumber and hard-boiled egg. Mix with dressing.

Potato Salad.—Slice potatoes while hot, and add oil or melted butter and vinegar. Add a minced onion and parsley, salt and pepper to taste. Mix with dressing, and garnish with lettuce, a few slices of lemon and cut beets, or simply serve on lettuce.

The House Fly.

One summer, under the necessity of taking dinner "down town," I patronized the restaurants, supposed to be of the better class. Clean linen and a fairly good menu seemed the signs-manual that everything was all right until August arrived, then the tale was told. Notwithstanding screens and drawn blinds, flies appeared, a veritable brood of harpies hovering over each table, while each opening of the door to the kitchen was the signal for an inrush of more. Needless to say, I betook myself to pastures new. The appearance of flies in such numbers at "fly-time," betokened a carelessness somewhere, which did not speak well for the cleanliness of those unknown regions where our food was being manufactured.

A perfectly clean house in the country, may, it is true, become infested with flies; nevertheless the certainty that flies are bred of filth is by no means impaired. Let a house be house-cleaned every day from April to November, and it may still be polluted with flies if a poorly-kept stable or barnyard is anywhere in the neighborhood. One open manure pile may, indeed, give rise to millions upon millions of flies in a summer; flies that go contentedly from the manure-pile—bearing particles of its excreta on their legs—to your table or your pantry, where they crawl about on the food that goes to your table, and which you must eat—whisper it—excreta and all!

To be explicit, the house fly prefers horse manure to any other substance as a hatching medium for its eggs. Failing that, it seeks out any other damp filth, decaying organic matter, etc., that it can find. The eggs are deposited early in spring by the few large females which sometimes come in buzzing at the windows, and which should be killed on sight. Within a short time these eggs hatch out into tiny white larvæ, which, in turn, develop into flies; and so the multiplication goes on.

Needless to say, flies should not be tolerated. Besides polluting our food and soiling our walls and furniture, they carry disease, the germs of which cling to their hairy feet, and are subsequently left on food.

To eradicate them, it is absolutely necessary to carry out the following directions: (1) Keep all stables quite clean, and do not permit manure piles to stand open. A good plan is to throw the manure into a small room or shed, well screened against flies, and keep it there behind closed doors until such time as it can be removed to the fields. By doing this, not only will the house be freed to a great extent from the pest, but the cattle will be greatly protected against the "cattle-flies" which follow them to and fro from the fields, to their great annoyance, and, in the case of milk cows, to the diminution of the milk supply. (2) Do not let heaps of decaying matter stand anywhere about yard or garden, and keep the cellar and root-cellar clean and dry. Never forget that the larvæ require moist filth to develop in. (3) Keep all food closely covered when not in actual use. Such foods as require to stand open to the air may be protected by covers made of fine wire netting. (4) Keep flies away from people who are ill. Whenever one enters a sick-room kill it; if you permit it to escape it may carry the disease to someone else. (5) Keep all doors and windows well screened. (6) Keep up the usual methods of destroying adult flies.

The Song of a Stay-at-Home.

You may tell me of mountains grand and high,
Of crags where torrents leap,
Of mighty forests whose dense shades
The wild things' secrets keep.
But give me the copse at the meadow's edge,
Where the blue-eyed violet hides,
Where the trees are whispering songs of love
And the peace of home abides.

You may talk of Niagara's thundering boom,
The city's rushing roar,
Of waves which mirror the blue of heaven,
Or foaming heat the shore.
But give me the brook in the meadow green,
Where the robin trills on high,
And the robin's pollocking melody
Comes merrily floating by.

You may tell me of pictures, and poems, and songs,
Of the power of the writer's pen,
Of gold which measures the world's success
In the strenuous lives of men.
I have here a picture no brush can paint,
A poem on every hand,
Triumphant songs o'er field and hough
Which the heart can understand.

MRS. J. H. TAYLOR

"The Farmer's Advocate" Fashions.



DESIGN BY MAY MANTON.
6317 Over Blouse.
6354 Nine Gored Skirt.
Embroidery Pattern 384.



DESIGN BY MAY MANTON.
6364 Child's Tucked Dress—
2 to 6 years.

The above patterns will be sent to any subscriber at the very low price of ten cents per pattern. Be careful to give Correct Number and Size of Patterns Wanted. When the Pattern is Bust Measure, you need only mark 32, 34, 36, or whatever it may be. When Waist Measure, 22, 24, 26, or whatever it may be. When Misses' or Child's pattern write only the figure representing the age. Allow from one to two weeks in which to fill order, and where two numbers appear, as for waist and skirt, enclose ten cents for each number. If only one number appears, ten cents will be sufficient.

Address: "Fashion Department," "The Farmer's Advocate," London, Ont.

She: You didn't speak a word of the tea, dear.
He: I had forgotten it, my darling.

Current Events.

The first prize in the women's competition at the Conservatory of Music, Paris, has been won by an eleven-year-old girl from the United States.

It is reported that a Japanese syndicate has been formed to compete with other nationalities in railroad enterprise in China. The syndicate expects to supply much of the material for new Chinese railroads.

At a recent sale of diamonds in London, Eng., the famous blue "Hope" diamond, formerly one of the French crown jewels, and valued at \$300,000, was sold to a Paris dealer for \$80,000.

A despatch from Utica, N.Y., mentions a heavy storm of wind and rain which recently passed over that city, accompanied by a fall of small frogs, which covered some of the sidewalks and delayed traffic on some of the railroads.

In September and October next the centenary of steam navigation on the Hudson River will be celebrated. Four armored cruisers will be sent over by Great Britain, under command of Admiral Hamilton, to take part in the celebration.

John D. Rockefeller has given another ten million dollars, in addition to the amount already donated by him, for the endowment of colleges and universities. His total gifts for educational purposes amount to \$112,500,000.

The Imperial Cancer Research Commission, after seven years of experiment and investigation, has rejected as inadequate every remedy so far advanced for the cure of this disease. They are, however, now working on a new theory which promises better results.

The death, at Washington, on July 11th, is announced of Prof. Simon Newcomb, the celebrated astronomer, a native of Nova Scotia. He had received many honors, was member of many scientific societies, and was the author of many scientific works, some of which are now used as astronomical text-books.

The Cannon Roared.

While campaigning in his home State, Speaker Cannon was once inveigled into visiting the public schools of a town where he was billed to speak.

In one of the lower grades, an ambitious teacher called upon a youthful Demo-themes to entertain the distinguished visitor with an exhibition of amateur oratory. The selection attempted was Byron's "Battle of Waterloo," and just as the boy reached the end of the first paragraph, Speaker Cannon suddenly gave vent to a violent sneeze.

"But, hush! hark!" declaimed the youngster—"a deep sound strikes like a rising knell! Did ye hear it?"

The visitors smiled, and a moment later the second sneeze—which the Speaker was vainly trying to hold back—came with increased violence.

"But, hark!" bawled the boy, "that heavy sound breaks in once more, and heavier, clearer, deadlier than before! 'Arr! 'arr! it is the cannon's opening roar!"

This was too much, and the laugh that broke from the party swelled to a roar when "Uncle Joe" chuckled: "Put up your weapons, children, I won't shoot at you any more."

The Call.

Oh, Duty is bare and the sark of Care is ragged and thin and old;
I will cast her aside and take for my bride a Muse in a cloth of gold.
I have heard the call of the wind-swept pine and there bides no rest for me;
My soul is drenched with clear starshine and drunk with the wine of the sea.
What care I now for the broken vow and the word by the deed gainsaid?
Ere the night was torn with the sun, newborn, my life to my fate was wed,
I am going South to a bayou mouth where quiet forever reigns;
Where the migrant flight of the geese by night and the sober-stalking cranes
And the stars that creep o'er the crystal deep in the course of the Southern night!
Not yet complain of the lesser Cain who comes with his gun to smite.
There the long low moan of the ocean-tone as it rides on the wind afar
Doth make one think that he stands by the brink of a sea on another star.
Not here where men, again and again, in a treadmill day by day
Go round and round in a narrow bound and labor their joy away.
Ere my heart grow sad and the joy I've had fade out and die like a dream,
And my soul peak thin mid the hurry and din and the noise of hammers and steam—
(For the hought and the sold be the getting of gold) I will leave the city behind,
And my soul shall be as wide and free as a heaven-searching wind.

Persuade me not, for a passion hot and a wild wind-drifted cry
Sweep over me like the tides of the sea—
I must go, or my soul will die. . . .
I have heard the call of the wind-swept pine and there bides no rest for me;
My soul is drenched with clear starshine and drunk with the wine of the sea.
And Duty is bare and the sark of Care is ragged and thin and old.
I will cast her aside and take for my bride a Muse in a cloth of gold.
—Harry H. Kemp, in the February Everybody's.

To a Mouse.

Wee, sleekit, cowrin', tim'rous beastie,
Oh, what a panic's in thy breastie!
Thou need not start awa sae hasty
Wi' hickering brattle!
I wad be laith to rin an' chase thee
Wi' murdering pattle!

I'm truly sorry man's dominion
Has broken nature's social union,
An' justifies that ill opinion,
Which makes thee startle
At me, thy poor, earth-born companion,
An' fellow mortal!

I doubt na, whyles, but thou may thieve,
What then? poor beastie, thou maun live!
A daimen icker in a thrave
'S a sma' request;
I'll get a blessin' wi' the lave,
An' never miss't!

Thy wee-bit housie, too, in ruin!
Its silly wa's the win's are strewin'!
An' naething, now, to big a new ane
O' faggage green!
An' bleak December's win's ensuin',
Baith snell an' keen!

Thou saw the fields laid bare and waste,
An' weary winter comin' fast,
An' cozie here, beneath the blast,
Thou thought to dwell,
Till crush'd the cruel coultter past
Out thro' thy eil!

That wee-bit heap o' leaves an' stibble!
Has cost thee mony a weary nibble!
Now thou'rt turn'd out, for a' thy trouble,
But house or hald,
To thole the winter's sleety dribble,
An' cranreuch cauld!

But Mousie, thou art no thy lane,
In proving foresight may be vain;
The best-laid schemes o' mice an' men,
Gang all agley,
An' lea's us nought but grief an' pain,
For promis'd joy!

Still thou art blost, compared wi' me!
The present only touches thee;
But oh! I backward cast my e'e,
On prospects drear!
An' forward, tho' I canna see,
I see sad, sappy tears.

—Robert Burns

Growing Old.

A little more tired at close of day;
A little less anxious to have our way;
A little less ready to scold and blame;

A little less care for bonds and gold;
A little more zest in the days of old;
A broader view and a saner mind.

A little more love for the friends of youth,
A little less zeal to establish truth;
A little more charity in our views;

A little more leisure to sit and dream;
A little more real the things unseen;
A little nearer to those ahead.

A little more laughter, a few more tears,
And we shall have told our increasing years;
The book is closed and the prayers are said.

And we are a part of the countless dead.
Thrice happy, then, if some soul can say:
'I live because he has passed my way.'

-Rollin J. Wells.

The Baby—His Day.

Bring out the baby, Mabel; wash his face
and comb his hair;
You must love the little rascal, you must
show him tender care.

For the ones who set the fashions have
just issued the decree
That the baby's not the nuisance he has
been supposed to be.

Bring out the baby, Mabel; hug him fondly
to your breast;
Have your picture taken with him; let
him often be caressed;

Bring out the baby, Mabel; turn from
other fads a while;
He's become the latest fashion; you, of
course, must be in style;

Bring out the baby, Mabel; hold him
fondly on your lap;
Whisper words of love to gladden the
astonished little chap;

-S. E. Kiser, in Chicago Record-Herald.

The Golden Dog (Le Chien D'Or.)

A Canadian Historical Romance.
Copyright, 1897, by L. C. Page & Co. (Inc.)

CHAPTER XXVI.—Continued.

Half an hour's driving brought the
company to the Manor House, a
stately mansion, gabled and pointed
like an ancient chateau on the Seine.

It was a large, irregular structure
of hammered stone, with deeply-
recessed windows, mullioned and orna-
mented with grotesque carvings. A
turret, loopholed and battlemented,
projected from each of the four cor-
ners of the house, enabling its inmates
to enfilade every side with a raking
fire of musketry, affording an ade-
quate defence against Indian foes. A
stone tablet over the main entrance
of the Manor House was carved with
the armorial bearings of the ancient
family of Tilly, with the date of its
erection, and a pious invocation plac-
ing the house under the special pro-
tection of St. Michael de Thury, the
patron saint of the house of Tilly.

The Manor House of Tilly had been
built by Charles Le Gardeur de Tilly,
a gentleman of Normandy, one of
whose ancestors, the Sieur de Tilly,
figures on the roll of Battle Abbey
as a follower of Duke William at
Hastings. His descendant, Charles
Le Gardeur, came over to Canada
with a large body of his vassals in
1636, having obtained from the King
a grant of the lands of Tilly, on the
bank of the St. Lawrence, "to hold
in fief and seigniority"—so ran the
royal patent—"with the right and
jurisdiction of superior, moyenne and
basse justice, and of hunting, fish-
ing, and trading with the Indians
throughout the whole of this royal
concession; subject to the condition
of foi et hommage, which he shall
be held to perform at the Castle of
St. Louis in Quebec, of which he
shall hold under the customary duties
and dues, agreeably to the coutume
de Paris followed in this country."

Such was the style of the royal
grants of seigniorial rights conceded
in New France, by virtue of one of
which this gallant Norman gentle-
man founded his settlement and
built this Manor House on the shores
of the St. Lawrence.

A broad, smooth carriage road led
up to the mansion across a park dot-
ted with clumps of evergreens and
deciduous trees. Here and there an
ancient patriarch of the forest stood
alone—some old oak or elm, whose
goodly proportions and amplitude of
shade had found favor in the eyes
of the seigniors of Tilly, and saved
it from the axe of the woodman.

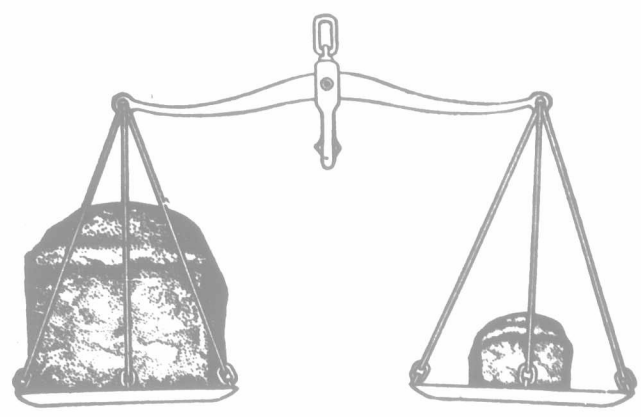
A pretty brook, not too wide to
be crossed over by a rustic bridge,
meandered through the domain, peep-
ing occasionally out of the openings
in the woods as it stole away like a
bashful girl from the eyes of her ad-
mirer.

This brook was the outflow of a
romantic little lake that lay hidden
among the wooded hills that bounded
the horizon, an irregular sheet of
water a league in circumference, dot-
ted with islands and abounding with
fish and waterfowl that haunted its
quiet pools. That primitive bit of
nature had never been disturbed by
axe or fire, and was a favorite spot
for recreation to the inmates of the
Manor House, to whom it was ac-
cessible either by boat up the little
stream, or by a pleasant drive
through the old woods.

As the carriages drew up in front
of the Manor House, every door, win-
dow and gable of which looked like
an old friend in the eyes of Pierre
Philibert, a body of female servants
—the men had all been away at the
city—stood ranged in their best
gowns and gayest ribbons to wel-
come home their mistress and Made-
moiselle Amelie, who was the idol of
them all.

Great was their delight to see Mon-
sieur Le Gardeur, as they usually
styled their young master, with an-
other gentleman in military costume,
whom it did not take two minutes
for some of the sharp-eyed lasses to
recognize as Pierre Philibert, who
had once saved the life of Le Gar-
deur on a memorable occasion, and
who now, they said one to another,
was come to the Manor House to—
to—they whispered what it was to
each other, and smiled in a knowing
manner.

Women's wits fly swiftly to conclu-
sions, and right ones, too, on most
occasions. The lively maids of Tilly
told one another in whispers that
they were sure Pierre Philibert had
come back to the Manor House as a
suitor for the hand of Mademoiselle
Amelie, as was most natural he
should do, so handsome and manly-
looking as he was, and mademoiselle



The light bread or the leaden loaf
is a matter of choice—not luck. Choice
of method—choice of yeast—but, above
all, the choice of the flour.

Royal Household Flour

is made from the finest, selected Manitoba
wheat, which contains more gluten (that quality
which makes bread light) than any other wheat.
It is milled under the most sanitary
conditions,—there is no other flour in Canada
upon which so much is spent to insure its
perfect quality.

Ask your grocer for Ogilvie's
Royal Household—the flour that
makes light bread and perfect pastry.



Ogilvie Flour Mills Co., Limited, Montreal. 15

THE VISION OF HIS FACE

"The Vision of His Face," by The
Wm. Weld Co., London, Canada.
The least spiritually-minded man or
woman has a deeply-rooted convic-
tion that this visible world is only
the outward expression of infinitely
greater realities, which are mighty,
though—like all great forces—they
are beyond the reach of our bodily
senses. Each age craves for new
expression of the same old truths—
words vigorous and enthusiastic,
free from cant or sentimentalism,
but burning with the conviction of
personal knowledge. This book

comes with a special message to
men and women who live in a con-
tinual rush, and also to those who
find the daily round of life trivial or
disappointing. It shows how the
consciousness of an Unseen Master's
presence can transfigure the most
commonplace existence. We in-
stinctively shrink from false senti-
mentalism in religion, dubbing it
"cant" and "humbug"; but that
is no reason why we should shut our
eyes to the spiritual realities which
alone can give purpose and co'or to
any life.—From the Manitoba Free
Press, Winnipeg, Man.

THIS BOOK WILL BE SENT, POSTPAID, BY
The William Weld Co., Ltd., London, Ont.
PRICE, \$1.00

CANADIAN NATIONAL
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always liked to hear any of them mention his name. The maids ran out the whole chain of logical sequence before either Pierre or Amelie had ventured to draw a conclusion of any kind from the premises of this visit.

Behind the mansion, overlooking poultry-yards and stables which were well hidden from view, rose a high colombiere, or pigeon-house, of stone, the possession of which was one of the rights which feudal law reserved to the lord of the manor. This colombiere was capable of containing a large army of pigeons, but the regard which the Lady de Tilly had for the corn fields of her censitaires caused her to thin out its population to such a degree that there remained only a few favorite birds of rare breed and plumage to strut and coo upon the roofs, and rival the peacocks on the terrace with their bright colors.

In front of the mansion, contrasting oddly with the living trees around it, stood a high pole, the long, straight stem of a pine tree, carefully stripped of its bark, bearing on its top the withered remains of a bunch of evergreens, with the fragments of a flag and ends of ribbon which fluttered gaily from it. The pole was marked with black spots from the discharge of guns fired at it by the joyous habitans, who had kept the ancient custom of May-day by planting this May-pole in front of the Manor House of their lady.

The planting of such a pole was in New France a special mark of respect due to the feudal superior, and custom, as well as politeness, required that it should not be taken down until the recurrence of another anniversary of Flora, which in New France sometimes found the earth white with snow and hardened with frost, instead of covered with flowers, as in the Old World, whence the custom was derived.

The Lady de Tilly duly appreciated this compliment of her faithful censitaires, and would sooner have stripped her park of half its live trees than have removed that dead pole, with its withered crown, from the place of honor in front of her mansion.

The revels of May in New France, the king and queen of St. Philip, the rejoicings of a frank, loyal peasantry—illiterate in book, but not unlearned in the art of life—have wholly disappeared before the levelling spirit of the nineteenth century.

The celebration of the day of St. Philip has been superseded by the festival of St. John the Baptist, at a season of the year when green leaves and blooming flowers give the possibility of arches and garlands in honor of the Canadian summer.

Felix Beaudoin, with a wave of his hand, scattered the bevy of maid-servants, who stood chattering as they gazed upon the new arrivals. The experience of Felix told him that everything had, of course, gone wrong during his absence from the Manor House, and that nothing could be fit for his mistress's reception until he had set all to rights again himself.

The worthy majordomo was in a state of perspiration lest he should not get into the house before his mistress and don his livery to meet her at the door with his white wand and everything en regle, just as if nothing had interrupted their usual course of housekeeping.

The Lady de Tilly knew the weakness of her faithful old servitor, and although she smiled to herself, she would not hurt his feelings by entering the house before he was ready at his post to receive her. She continued walking about the lawn, conversing with Amelie, Pierre, and Le Gardeur, until she saw old Felix with his wand and livery standing at the door, when, taking Pierre's arm, she led the way into the house.

The folding doors were open, and Felix, with his wand, walked before his lady and her companions into the mansion. They entered without delay, for the day had been warm, and the ladies were weary after sit-

ting several hours in a canoe, a mode of travelling which admits of very little change of position in the voyagers.

The interior of the Manor House of Tilly presented the appearance of an old French chateau. A large hall, with antique furniture, occupied the center of the house, used occasionally as a court of justice when the Seigneur de Tilly exercised his judicial office for the trial of offenders—which was very rarely, thanks to the good morals of the people—or held a cour pleniere of his vassals, on affairs of the seigniory, for apportioning the corvees for road-making and bridge-building, and, not the least important, by any means, for the annual feast to his censitaires on the day of St. Michael de Thury.

From this hall, passages led into apartments and suites of rooms arranged for use, comfort and hospitality. The rooms were of all sizes, panelled, tapestried, and furnished in a style of splendor suited to the wealth and dignity of the Seigneurs of Tilly. A stair of oak, broad enough for a section of grenadiers to march up it abreast, led to the upper chambers, bedrooms and boudoirs, which looked out of old mullioned windows upon the lawn and gardens that surrounded the house, affording picturesque glimpses of water, hills, and forests far enough off for contemplation, and yet near enough to be accessible by a short ride from the mansion.

Pierre Philibert was startled at the strange familiarity of everything he saw; the passages and all their intricacies, where he, Le Gardeur and Amelie had hid and found one another with cries of delight—he knew where they all led to; the rooms, with their antique and stately furniture, the paintings on the wall, before which he had stood and gazed, wondering if the world was as fair as those landscapes of sunny France and Italy, and why the men and women of the house of Tilly, whose portraits hung upon the walls, looked at him so kindly with those dark eyes of theirs, which seemed to follow him everywhere, and he imagined they even smiled when their lips were illumined by a ray of sunshine. Pierre looked at them again with a strange interest—they were like the faces of living friends who welcomed him back to Tilly after years of absence.

Pierre entered a well-remembered apartment which he knew to be the favorite sitting-room of the Lady de Tilly. He walked hastily across it to look at a picture upon the wall, which he recognized again with a flush of pleasure.

It was the portrait of Amelie, painted by himself during his last visit to Tilly. The young artist, full of enthusiasm, had put his whole soul into the work, until he was himself startled at the vivid likeness which almost unconsciously flowed from his pencil. He had caught the divine upward expression of her eyes, as she turned her head to listen to him, and left upon the canvas the very smile he had seen upon her lips. Those dark eyes of hers had haunted his memory forever after. To his imagination that picture had become almost a living thing. It was as a voice of his own that returned to his ear as the voice of Amelie. In the painting of that portrait Pierre had the first revelation of a consciousness of his deep love, which became in the end the master passion of his life.

He stood for some minutes contemplating this portrait, so different from her in age now, yet so like in look and expression. He turned suddenly and saw Amelie; she had silently stepped up behind him, and her features in a glow of pleasure took on the very look of the picture.

Pierre started. He looked again, and saw every feature of the girl of twelve looking through the transparent countenance of the perfect woman of twenty. It was a moment of blissful revelation, for he felt an assurance at that moment that Amelie was the same to him now as in their days of youth, and that

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She Knows Enough.

She does not know who Caesar was,
Nor when Columbus sailed the seas;
She may, for all she says or does,
Think Hotticelli is a cheese!
Now, gentle reader, don't commence
To say you think it is a pity
To live in ignorance so dense—
You see, she's pretty.

She will not wrinkle up her brow
To call to mind a verse of Keats;
Ask her if Shakespeare's writing now,
She'll say she likes the parquet seats;
Of current topics she may speak
And show misinformation simple—
But in the rose-pink of her cheek
There is a dimple.

She'll tell you socialism's cute
Because a friend who's rather plain
Is lecturing from here to Butte
And has so many in her train;
She cannot tell you what is meant
By the philosophy of Ibsen,
But hers is beauty that is blent—
A Fisher-Gibson.

Of differential calculus
She may discourse in language clear
Until at last it comes to us
She means some automobile gear;
The fact that Raphael is dead
Leads not to talk on pictures olden—
Her lips are cherry-ripened-red,
Her hair is golden.

So, what is history to her?
What are reformers and their ilk?
She has the latest word on fur
And wears the newest shades in silk.
She'll not that she must live alone,
For her unlearnedness quench your pity:
She knows all that needs to be known—
You see, she's pretty!

William D. Nesbit, in Life.

Her success in life depends upon her

ship. "How like it is to you yet, Amelie!" said he: "it is more true than I knew how to make it!"

"That sounds like a paradox, Pierre Philibert!" replied she, with a smile. "But it means, I suppose, that you painted a universal portrait of me which will be like through all my seven ages. Such a picture might be true of the soul, Pierre, had you painted that, but I have outgrown the picture of my person."

"I could imagine nothing fairer than that portrait! In soul and body it is all true, Amelie."

"Flatterer that you are!" said she, laughing. "I could almost wish that portrait would walk out of its frame to thank you for the care you bestowed upon its foolish little original."

"My care was more than rewarded! I find in that picture my beautiful of the beauty of life, which, belonging to the soul, is true to all ages."

"The girl of twelve would have thanked you more enthusiastically for that remark, Pierre, than I dare do," replied she.

"The thanks are due from me, not from you, Amelie! I became your debtor for a life-long obligation when without genius I could do impossibilities. You taught me that paradox when you let me paint that picture."

Amelie glanced quickly up at him. A slight color came and went on her cheek. "Would that I could do impossibilities," said she, "to thank you sufficiently for your kindness to Le Gardeur and all of us in coming to Tilly at this time."

"It would be a novelty, almost a relief, to put Pierre Philibert under some obligation to us, for we all owe him, would it not, Le Gardeur?" continued she, clasping the arm of her brother, who just now came into the room. "We will discharge a portion of our debt to Pierre for this welcome visit by a day on the lake—we will make up a water-party. What say you, brother? The gentlemen shall light fires, the ladies shall make tea, and we will have guitars and songs, and maybe a dance, brother! and then a glorious return home by moonlight! What say you to my programme, Le Gardeur de Repentigny? What say you, Pierre Philibert?"

"It is a good programme, sister, but leave me out of it. I shall only mar the pleasure of the rest; I will not go to the lake. I have been trying ever since my return home to recognize Tilly; everything looks to me in an eclipse, and nothing bright as it once was, not even you, Amelie. Your smile has a curious touch of sadness in it which does not escape my eyes; accursed as they have been of late, seeing things they ought not to see, yet I can see that, and I know it, too; I have given you cause to be sad, sister."

"Hush, brother! it is a sin against your dear eyes to speak of them thus! Tilly is as bright and joyous as ever. As for my smiles, if you detect in them one trace of that sadness you talk about, I shall grow as melancholy as yourself, and for as little cause. Come! you shall confess before three days, brother, if you will only help me to be gay, that your sister has the lightest heart in New France."

CHAPTER XXVII.

Cheerful Yesterdays and Confident To-morrows.

The ladies retired to their several rooms, and after a general rearranging of toilets, descended to the great parlor, where they were joined by Messire La Lande, the cure of the parish, a benevolent, rosy old priest, and several ladies from the neighborhood, with two or three old gentlemen of a military air and manner, retired officers of the army who enjoyed their pensions and kept up their respectability at a cheaper rate in the country than they could do in the city.

Felix Beaudoin had for the last two hours kept the cooks in hot water

He was now superintending the laying of the table, resolved that, notwithstanding his long absence from home, the dinner should be a marvellous success.

Amelie was very beautiful to-day. Her face was aglow with pure air and exercise, and she felt happy in the apparent contentment of her brother, whom she met with Pierre on the broad terrace of the Manor House.

She was dressed with exquisite neatness, yet plainly. An antique cross of gold formed her only adornment, except her own charms. That cross she had put on in honor of Pierre Philibert. He recognized it with delight as a birthday gift to Amelie which he had himself given her during their days of juvenile companionship, on one of his holiday visits to Tilly.

She was conscious of his recognition of it—it brought a flush to her cheek. "It is in honor of your visit, Pierre," said she, frankly, "that I wear your gift. Old friendship lasts well with me, does it not? But you will find more old friends than me at Tilly who have not forgotten you."

"I am already richer than Cræsus; if friendship count as riches, Amelie. The hare had many friends, but none at last; I am more fortunate in possessing one friend worth a million."

"Nay, you have the million, too, if good wishes count in your favor, Pierre, you are richer"—the bell in the turret of the chateau began to ring for dinner, drowning her voice somewhat.

"Thanks to the old bell for cutting short the compliment, Pierre," continued she, laughing; "you don't know what you have lost! but in compensation you shall be my cavalier, and escort me to the dining-room."

She took the arm of Pierre, and in a merry mood, which brought back sweet memories of the past, their voices echoed, again along the old corridors of the Manor House, as they proceeded to the great dining-room, where the rest of the company were assembling.

The dinner was rather a stately affair, owing to the determination of Felix Beaudoin to do especial honor to the return home of the family. How the company ate, talked and drank at the hospitable table, need not be recorded here. The good Cure's face, under the joint influence of good humor and good cheer, was full as a harvest moon. He rose at last, folded his hands, and slowly repeated "agimus gratias." After dinner the company withdrew to the brilliantly-lighted drawing-room, where conversation, music, and a few games of cards for such as liked them, filled up a couple of hours longer.

The Lady de Tilly, seated beside Pierre Philibert on the sofa, conversed with him in a pleasant strain, while the Cure, with a couple of old dowagers in turbans, and an old veteran officer of the colonial marine, long stranded on a lee shore, formed a quartette at cards.

These were steady enthusiasts of whist and piquet, such as are only to be found in small country circles where society is scarce and amusements few. They had met as partners or antagonists, and played, laughed and wrangled over sixpenny stakes and odd tricks and honors every week for a quarter of a century, and would willingly have gone on playing till the day of judgment, without a change of partners, if they could have trumped death and won the odd trick of him.

Pierre recollected having seen these same old friends seated at the same

card-table during his earliest visits to the Manor House. He recalled the fact to the Lady de Tilly, who laughed, and said her old friends had lived so long in the company of the kings and queens that formed the paste-board Court of the Kingdom of Cœgne that they could relish no meaner amusement than one which royalty, although mad, had the credit of introducing.

Amelie devoted herself to the task of cheering her somewhat moody brother. She sat beside him, resting her hand with sisterly affection upon his shoulder, while in a low, sweet voice she talked to him, adroitly touching those topics only which she knew awoke pleasurable associations in his mind. Her words were sweet as manna, and full of womanly tenderness and sympathy, skilfully wrapped in a strain of gaiety, like a bridal veil which covers the tears of the heart.

Pierre Philibert's eyes involuntarily turned towards her, and his ears caught much of what she said. He was astonished at the grace and perfection of her language; it seemed to him like a strain of music filled with every melody of earth and heaven, surpassing poets in beauty of diction, philosophers in truth—and in purity of affection, all the saints and sweetest women of whom he had ever read.

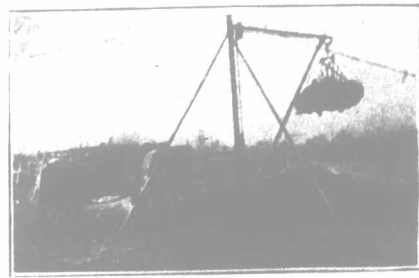
Her beauty, her vivacity, her modest reticences, and her delicate tact in addressing the captious spirit of Le Gardeur, filled Pierre with admiration. He could at that moment have knelt at her feet and worshipped in her the realization of every image which his imagination had ever formed of a perfect woman.

Now and then she played on the harp for Le Gardeur the airs which she knew he liked the best. His sombre mood yielded to her fond exertions, and she had the reward of drawing at last a smile from his eyes, as well as from his lips. The last she knew might be simulated, the former she felt was real, for the smile of the eye is the flash of the joy kindled in the glad heart.

Le Gardeur was not dull nor ungrateful; he read clearly enough the loving purpose of his sister. His brow cleared up under her sunshine. He smiled, he laughed; and Amelie had the exquisite joy of believing she had gained a victory over the dark spirit that had taken possession of his soul, although the hollow laugh struck the ear of Pierre Philibert with a more uncertain sound than that which fluttered the fond hopes of Amelie.

Amelie looked towards Pierre, and saw his eyes fixed upon her with that look which fills every woman with an emotion almost painful in its excess of pleasure when first she meets it—that unmistakable glance from the eyes of a man who, she is proud to perceive, has singled her out from all other women for his love and homage.

Her face became of a deep glow, in spite of her efforts to look calm and cold; she feared Pierre might have misinterpreted her vivacity of speech and manner. Sudden distrust of herself came over her in his presence—the flow of her conversa-



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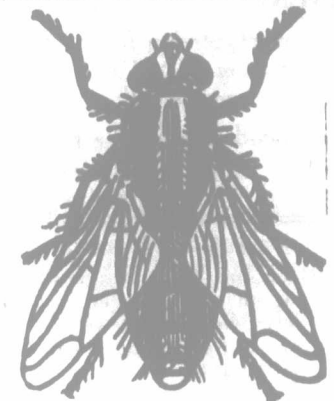
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"I reckon you have to watch your pocketbook an' overcoat an' watch, an' so on, pretty close, don't you?" a Western visitor to New York asked a friend, a native of that metropolis, as they were starting out to view the city; and, despite the citizen's assurance that no more than ordinary vigilance was required, the Westerner proceeded "to keep his eye skinned," much to his friend's amusement.

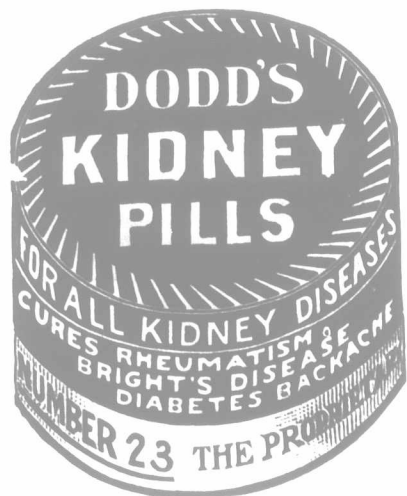
Presently they entered a cafe for luncheon. The New Yorker was discoursing gayly upon the greatness of his native city, when he observed that the other had an expression on his face much like that of a cat at a mouse-hole.

"What are you watching so closely," he inquired.

"Just keeping an eye on my overcoat," the other replied.

The New Yorker laughed. "Oh, the coat's all right. I'm not worrying about mine, you see, and they're hanging together."

"No, they ain't," the Westerner drawled. "Mine's still there, but yours is gone—feller walked out with it 'bout ten minutes or so ago."



tion was embarrassed, and almost ceased.

To extricate herself from her momentary confusion, which she was very conscious had not escaped the observation of Pierre—and the thought of that confused her still more—she rose and went to the harpsichord, to recover her composure by singing a sweet song of her own composition, written in the soft dialect of Provence, the Languedoc, full of the sweet sadness of a tender, impassioned love.

Her voice, tremulous in its power, flowed in a thousand harmonies on the enraptured ears of her listeners. Even the veteran card-players left a game of whist unfinished, to cluster round the anglic singer.

Pierre Philibert sat like one in a trance. He loved music, and understood it passing well. He had heard all the rare voices which Paris prided itself in possession of, but he thought he had never known what music was till now. His heart throbbed in sympathy with every inflection of the voice of Amelie, which went through him like a sweet spell of enchantment. It was the voice of a disembodied spirit singing in the language of earth, which changed at last into a benediction and good-night for the parting guests, who, at an earlier hour than usual, out of consideration for the fatigue of their hosts, took their leave of the Manor House and its hospitable inmates.

The family, as families will do upon the departure of their guests, drew up in a narrower circle round the fire, that blessed circle of freedom and confidence which belongs only to happy households. The novelty of the situation kept up the interest of the day, and they sat and conversed until a late hour.

The Lady de Tilly reclined comfortably in her fauteuil, looking with good-natured complacency upon the little group beside her. Amelie, sitting on a stool, reclined her head against the bosom of her aunt, whose arm embraced her closely and lovingly, as she listened with absorbing interest to an animated conversation between her aunt and Pierre Philibert.

The Lady de Tilly drew Pierre out to talk of his travels, his studies, and his military career, of which he spoke frankly and modestly. His high principles won her admiration; the chivalry and loyalty of his character, mingled with the humanity of the true soldier, touched a chord in her own heart, stirring within her the sympathies of a nature akin to his.

The presence of Pierre Philibert, so unforeseen, at the old Manor House, seemed to Amelie the work of Providence for a good and great end—the reformation of her brother. If she dared to think of herself in connection with him, it was with fear and trembling, as a saint on earth receives a beatific vision that may only be realized in Heaven.

Amelie, with peculiar tact, sought to entangle Le Gardeur's thoughts in an elaborate cobweb of occupations rivalling that of Arachne, which she hid woven to catch every leisure hour of his, so as to leave him no time to brood over the pleasures of the Palace of the Intendant or the charms of Angelique des Meloises.

There were golden threads, too, in the network in which she hoped to entangle him—long rides to the neighboring seignories, where bright eyes and laughing lips were ready to expel every shadow of care from the most dejected of men, much more from a handsome gallant like Le Gardeur de Rebertigny, whose presence at any of these old manors put their fair inmates at once in holiday trim and in holiday humor; there were shorter walks through the park and domain of Tilly, where she intended to botanize and sketch, and even fish and hunt with Le Gardeur and Pierre, although sooth to say, Amelie's share in hunting would only be to ride her sure-footed pony and look at her com arriers; there were visits to friends far and near, and visits in return to the Manor House,

and a grand excursion of all to the lake of Tilly in boats—they would colonize its little island for a day, set up tents, make a governor and intendant, perhaps a king and queen, and forgot the world till their return home.

This elaborate scheme secured the approbation of the Lady de Tilly, who had, in truth, contributed part of it. Le Gardeur said he was a poor fly whom they were resolved to catch and pin to the wall of a chateau en Espagne, but he would enter the web without a buzz of opposition on condition that Pierre would join him. So it was all settled.

Amelie did not venture again that night to encounter the eyes of Pierre Philibert—she needed more courage than she felt just now to do that; but in secret she blessed him, and treasured those fond looks of his in her heart, never to be forgotten any more. When she retired to her own chamber and was alone, she threw herself in passionate abandonment before the altar in her little oratory, which she had crowned with flowers to mark her gladness. She poured out her pure soul in invocations of blessings upon Pierre Philibert, and upon her brother and all the house. The golden bead of her rosary lingered long in her loving fingers that night, as she repeated over and over her accustomed prayers for his safety and welfare.

The sun rose gloriously next morning over the green woods and still greener meadows of Tilly. The atmosphere was soft and pure; it had been washed clean of all its impurities by a few showers in the night. Every object seemed nearer and clearer to the eye, while the delicious odor of fresh flowers filled the whole air with fragrance.

The trees, rocks, waters and green slopes stood out with marvellous precision of outline, as if cut with a keen knife. No fringe of haze surrounded them, as in a drought, or as in the evening when the air is filled with the shimmering of the day dust which follows the sun's chariot in his course round the world.

Every object, great and small, seemed magnified to welcome Pierre Philibert, who was up betimes this morning, and out in the pure air, viewing the old familiar scenes.

With what delight he recognized each favorite spot! There was the cluster of trees which crowned a promontory overlooking the St. Lawrence, where he and Le Gardeur had stormed the eagle's nest. In that sweep of forest the deer used to browse and the fawns crouch in the long ferns. Upon yonder breezy hill they used to sit and count the sails, turning alternately bright and dark, as the vessels tacked up the broad river. There was a stretch of green lawn, still green as it was in his memory—how everlasting are God's colors! There he had taught Amelie to ride, and, holding fast, ran by her side, keeping pace with her flying Indian pony. How beautiful and fresh the picture of her remained in his memory!—the soft white dress she wore, her black hair streaming over her shoulders, her dark eyes flashing delight, her merry laugh rivalling the trill of the blackbird which flew over their heads chattering for very joy. Before him lay the pretty brook, with its rustic bridge reflecting itself in the clear water as in a mirror. That path along the bank led down to the willows, where the big, mossy stones lay in the stream, and the silvery salmon and speckled trout lay fanning the water gently with their fins, as they contemplated their shadows on the smooth sand's bottom.

Pierre Philibert sat down on a stone by the side of the brook and watched the shoals of minnows move about in little battalions, wheeling like soldiers to the right or left at a wave of the hand. But his thoughts were running in a circle of questions and enigmas, for which he found neither end nor answer.

For the hundredth time Pierre perceived himself the torturing end,

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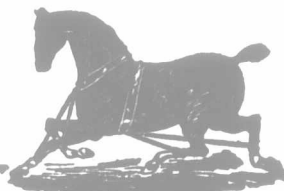
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ma, harder, he thought, to solve than any problem of mathematics—for it was the riddle of his life: "What thoughts are truly in the heart of Amelie de Repentigny respecting me? Does she recollect me only as her brother's companion, who may possibly have some claim upon her friendship, but none upon her love?" His imagination pictured every look she had given him since his return. Not all! Oh, Pierre Philibert! the looks you would have given worlds to catch, you were unconscious of! Every word she had spoken, the soft inflection of every syllable of her silvery voice lingered in his ear. He had caught meanings where perhaps no meaning was, and missed the key to others which he knew were there—never, perhaps, to be revealed to him. But although he questioned in the name of love, and found many divine echoes in her words, imperceptible to every ear but his own, he could not wholly solve the riddle of his life. Still he hoped.

"If love creates love, as some say it does," thought he, "Amelie de Repentigny cannot be indifferent to a passion which governs every impulse of my being! But is there any especial merit in loving her whom all the world cannot help admiring equally with myself? I am presumptuous to think so!—and more presumptuous still to expect, after so many years of separation and forgetfulness, that her heart, so loving and so sympathetic, has not already bestowed its affection upon some one more fortunate than me."

While Pierre tormented himself with these sharp thorns of doubt—and of hopes painful as doubts—little did he think what a brave, loving spirit was hid under the silken vesture of Amelie de Repentigny, and how hard was her struggle to conceal from his eyes those tender regards, which, with over-delicacy, she accounted censurable because they were wholly spontaneous.

He little thought how entirely his image had filled her heart during those years when she dreamed of him in the quiet cloister, living in a world of bright imaginings of her own; how she prayed for his safety and welfare as she would have prayed for the soul of one dead—never thinking, or even hoping, to see him again.

Pierre had become to her as one of the disembodied saints or angels whose pictures looked down from the wall of the convent chapel—the bright angel of Annunciation or the youthful Baptist proclaiming the way of the Lord. Now that Pierre Philibert was alive in the flesh—a man, beautiful, brave, honorable, and worthy of any woman's love—Amelie was frightened. She had not looked for that, and yet it had come upon her. And, although trembling, she was glad and proud to find she had been remembered by the brave youth, who recognized in the perfect woman the girl he had so ardently loved as a boy.

Did he love her still? Woman's heart is quicker to apprehend all possibilities than man's. She had caught a look once or twice in the eyes of Pierre Philibert which thrilled the inmost fibres of her being; she had detected his ardent admiration. Was she offended? Far from it! And although her cheek had flushed deeply red, and her pulses throbbed hard at the sudden consciousness that Pierre Philibert admired, nay, more—she could not conceal it from herself—she knew that night that he loved her! She would not have foregone that moment of revelation for all that the world had to offer.

She would gladly at that moment of discovery have fled to her own apartment and cried for joy, but she dared not; she trembled lest his eyes, if she looked up, should discover the secret of her own. She had an overpowering consciousness that she stood upon the brink of her fate; that ere long that look of his would be followed by words—blessed, hoped-for words, from the

lips of Pierre Philibert! words which would be the pledge and assurance to her of that love which was hereafter to be the joy—it might be the despair, but in any case the all in all of her life forever.

Amelie had not yet realized the truth that love is the strength, not the weakness of woman; and that the boldness of the man is rank cowardice in comparison with the bravery she is capable of, and the sacrifices she will make for the sake of the man who has won her heart.

God locks up in a golden casket of modesty the yearnings of a woman's heart; but when the hand in which he has placed the key that opens it calls forth her glorified affections, they come out like the strong angels, and hold back the winds that blow from the four corners of the earth, that they may not hurt the man whose forehead is sealed with the kiss of her acknowledged love.

CHAPTER XXVIII.

A Day at the Manor House.

Amelie, after a night of wakefulness and wrestling with a tumult of new thoughts and emotions—no longer dreams, but realities of life—dressed herself in a light morning costume, which, simple as it was, bore the touch of her graceful hand and perfect taste. With a broad-brimmed straw hat set upon her dark tresses, which were knotted with careless care in a blue ribbon, she descended the steps of the Manor House. There was a deep bloom upon her cheeks, and her eyes looked like fountains of light and gladness, running over to bless all beholders.

She inquired of Felix Beaudoin of her brother. The old majordomo, with a significant look, informed her that Monsieur Le Gardeur had just ordered his horse to ride to the village. He had first called for a decanter of Cognac, and when it was brought to him he suddenly thrust it back and would not taste it. "He would not drink even Jove's nectar in the Manor House," he said; "but would go down to the village, where Satan mixed the drink for thirsty souls like his! Poor Le Gardeur!" continued Felix, "you must not let him go to the village this morning, mademoiselle!"

Amelie was startled at this information. She hastened at once to seek her brother, whom she found walking impatiently in the garden, slashing the heads off the poppies and dahlias within reach of his riding-whip. He was equipped for a ride, and waited the coming of the groom with his horse.

Amelie ran up, and clasping his arms with both hands as she looked up in his face with a smile, exclaimed, "Do not go to the village yet, Le Gardeur! Wait for us!"

"Not go to the village yet, Amelie?" replied he: "why not? I shall return for breakfast, although I have no appetite. I thought a ride to the village would give me one."

"Wait until after breakfast, brother, when we will all go with you to meet our friends who come this morning to Tilly—our cousin Heloise de Lotbiniere is coming to see you and Pierre Philibert; you must be there to welcome her—gallants are too scarce to allow her to spare the handsomest of all, my own brother!"

Amelie divined truly from Le Gardeur's restless eyes and haggard look that a fierce conflict was going on in his breast between duty and desire—whether he should remain at home, or go to the village to plunge again into the sea of dissipation out of which he had just been drawn to land half-drowned and utterly desperate.

Amelie resolved not to leave his side, but to cleave to him, and inch by inch to fight the demons which possessed him, until she got the victory.

Le Gardeur looked fondly in the face of Amelie. He read her thoughts, and was very conscious why she wished him not to go to the village. His feelings gave way

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two of them 3 years old, the other a 4-year-old; big flashy fellows, full of quality and character, and right royally bred. I will sell them cheap and on terms to suit, as I want the room for a new importation.

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I have Village Maids, Village Blossoms, English Ladies, Lancasters and Wimples for sale. Four with calves at foot, and one yearling heifer fit for any show-ring. One mile east of St. Mary's.

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Having disposed of my recent offering of bulls, also several females, I have still young of both sexes for sale. Dual Purpose a specialty. L. A. WAKELY, BOLTON, ONT. Bolton station on C. P. R. within 1/2 mile of farm. Please Mention Farmer's Advocate.

before her love and tenderness. He suddenly embraced her and kissed her cheeks, while the tears stood welling in his eyes. "I am not worthy of you, Amelie," said he; "so much sisterly care is lost on me!"

"Oh, say not that, brother," replied she, kissing him fondly in return. "I would give my life to save you, O my brother!"

Amelie was greatly moved, and for a time unable to speak further; she laid her head on his shoulder, and sobbed audibly. Her love gained the victory where remonstrance and opposition would have lost it.

"You have won the day, Amelie!" said he; "I will not go to the village, except with you. You are the best and truest girl in all Christendom! Why is there no other like you? If there were, this curse had not come upon me, nor this trial upon you, Amelie! You are my good angel, and I will try, oh, so faithfully, to be guided by you! If you fail, you will at least have done all and more than your duty towards your erring brother."

"Le Brun!" cried he to the groom who had brought his horse, and to whom he threw the whip which had made such havoc among the flowers. "Lead Black Caesar to the stable again! and hark you! when I bid you bring him out in the early morning another time, lead him to me unbridled and unsaddled, with only a halter on his head, that I may ride as a clown, not as a gentleman!"

Le Brun stared at this speech, and finally regarded it as a capital joke, or else, as he whispered to his fellow-grooms in the stable, he believed his young master had gone mad.

"Pierre Philibert," continued Amelie, "is down at the salmon pool. Let us join him, Le Gardeur, and bid him good-morning once more at Tilly."

Amelie, overjoyed at her victory, tripped gaily by the side of her brother, and presently two friendly hands, the hands of Pierre Philibert, were extended to greet her and Le Gardeur.

The hand of Amelie was retained for a moment in that of Pierre Philibert, sending the blood to her cheeks. There is a magnetic touch in loving fingers which is never mistaken, though their contact be but for a second of time: it anticipates the strong grasp of love which will ere long embrace body and soul in adamant chains of a union not to be broken even by death.

If Pierre Philibert retained the hand of Amelie for one second longer than mere friendship required of him, no one perceived it but God and themselves. Pierre felt it like a revelation—the hand of Amelie, yielding timidly, but not unwillingly, to his manly grasp. He looked in her face. Her eyes were averted, and she withdrew her hand quietly but gently, as not upbraiding him.

That moment of time flashed a new influence upon both their lives; it was the silent recognition that each was henceforth conscious of a special regard of the other.

There are moments which contain the whole quintessence of our lives—our loves, our hopes, our failures, in one concentrated drop of happiness or misery. We look behind us and see that our whole past has led up to that infinitesimal fraction of time which is the consummation of the past in the present, the end of the old and the beginning of the new. We look forward from the vantage ground of the present, and the world of a new revelation lies before us.

Pierre Philibert was conscious from that moment that Amelie de Renen-tigny was not indifferent to him—may, he had a ground of hope that in time she would listen to his pleadings, and at last bestow on him the gift of her priceless love.

His hopes were sure hopes, although he did not dare to give himself the sweet assurance of it, nor did Amelie herself as yet suspect how far her heart was irrevocably welded to Pierre Philibert.

(To be continued.)

QUESTIONS AND ANSWERS. Miscellaneous.

WHITING FOR WHITEWASH RECIPE.

In answer to inquiries in "The Farmer's Advocate" about a permanent white-wash, you gave "Spanish whiting" as one of the ingredients. Have tried to get it at several drug and hardware stores in Toronto, but they appear never to have heard of it. Can you tell me if it goes by any other name, or where I would be likely to procure it? (MRS.) T.

Ans.—The recipe referred to is an American one, which has been highly recommended across the line, and has been used by a member of our staff with fair success. Diligent inquiries in this country revealed that none of the druggists consulted knew what Spanish whiting was, but one of them suggested that it might be merely a particular brand of whiting, similar to that sold under other names here. In our experience, an ordinary brand of whiting, obtained locally, was employed.

FITTING BULL FOR EXHIBITION

I wish to prepare a Shorthorn bull, born March, 1908, for the fall exhibition, to be held in October. I wish to learn how to get a sleek, good-looking coat on him, how to groom and feed him for the show-ring, and also how to smooth his horns.

PROSPECTIVE EXHIBITOR.

Ans.—Keep him in a roomy, well-ventilated, clean, and well-bedded box stall or shed, with screened windows, or cheesecloth curtains, to partially darken the stall and exclude flies. A pasture plot, or a yard to run in, is desirable for exercise. If he must be kept tied in a stall, he should be led out for a good walk in the evening. Feed well-cured clover hay, a mixture of ground oats and corn, bran and a little coarse-ground or nutted oil cake, as much as he will clean up in half an hour, twice or three times daily. Keep salt within reach, and give water three times a day. He will not require much grooming until a month before the fair, when he should be kept covered with a light sheet, washed once a week with warm soft water and castile soap, brushed twice a day with a stiff brush, and rubbed down with a woolen cloth. A sharp curycomb should not be used. If the hair is not soft and the skin pliable, a blanket should be used for covering if weather is not warm enough to cause much sweating. Continued hand-rubbing after brushing, tends to soften hair and give a gloss. The hoofs should be kept in good shape by means of a fine saw, or chisel, and a rasp. To smooth the horns, use first a fine rasp, then sand-paper, and, finally, fine emery paper, and oil slightly before showing.

GOSSIP.

VALUABLE IMPORTATION OF CLYDESDALES.

The following highly-bred fillies arrived by Allen Line Hesperian, on her last voyage, for Ormsby Grange Stock Farm, Ormsby, P. Q. They are from Dr. McEachran's native country, and are of the best blood in Scotland. Two of them are stabled to the Seaham Harbour's celebrated horse, Silver Cup. They are three-year-olds, namely: (1) Kintyre Daisy, sire Broomberry, dam by Superb, grandam by Sir Everard, sire of Baron's Pride; (2) Bess of Knockstaple, sire Gartly Cashier, by Prince Thomas, dam by Gregor McGregor; by McGregor, by Barnley (222); (3) Kintyre Peggie, sire Knight of Angus, by Knight of Cowal, by Gallant Prince, by Prince of Wales (673); dam by Right at Last. These arrived in excellent condition, and are doing well. Dr. McEachran has also had a valuable addition to his stud, his champion mare, bought last October, from Nelson, of Haring Valley, Linlithgow, having dropped a very fine, well-marked filly foal, sired by the noted breeding horse, Sir Hugo.

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QUESTIONS AND ANSWERS.
Veterinary.

LAME COLT.

I commenced to handle a colt, and after driving him about six miles he went lame on near hind leg. I turned him on pasture and he got all right, and I then commenced to work him again. He goes quite lame for a short piece after starting, but soon gets better until after standing again, when he will start off lame.

Ans.—The symptoms indicate spavin lameness. It may be there is no enlargement, as we occasionally meet with what is called "occult spavin," in which no enlargement is visible. Get your veterinarian to fire and blister the joint. In rare cases, repeated blistering will effect a cure, but it is generally wise to fire at first.

BOILS ON SHOULDERS.

Mare is troubled with collar boils. Small lumps appear, break and discharge matter. I have used many ointments without results. I think the trouble must be in the blood, as the collar fits well and the draft is correct.

Ans.—The blood is not at fault, else why should the trouble be confined to the shoulders? The abscesses are caused by the pressure of the collar. It is probable if you examine the seat of an abscess after it has healed, you will observe that there is a thickening of the part, due to a growth of fibrous tissue, and the pressure of the collar on this causes the formation of a fresh abscess. If this condition exists, each of these little growths must be dissected out, and the seat of operation dressed three times daily with a five-per-cent. solution of carbolic acid in water until healed. If there be no thickening, all that can be done is to lance the abscesses as they appear and treat as above. In the meantime, of course, care must be taken to keep collar and shoulder clean.

CHRONIC LAMINITIS.

Mare came home heated by a long drive on a cold evening last winter. She cast her blanket during the night, and the next morning she was very stiff on her fore limbs. Her hoofs are contracted, and she is still quite stiff, but gets some better after she has been driven a short distance, but after a drive she becomes stiff again. Is the trouble in the breast?

Ans.—The trouble is in the feet. She was foundered, and not properly treated, and the condition has become chronic, as is indicated by the contraction of the hoofs. It is not probable a cure can be effected, but repeatedly blistering the coronets will mitigate the symptoms. Get a blister made of 2 drams each of biniodide of mercury and cantharides, mixed with 2 ozs. vaseline. Remove her shoes, clip the hair off for two inches high all around the hoofs. Tie so that she cannot bite the parts. Rub well with the blister once daily for two days; on the third day, apply sweet oil. Turn in damp pasture now and oil every day. As soon as the scales come off, tie up and blister again, and after this, blister once every four weeks until the weather becomes cold. In fact, it would be wise to keep up the blistering during the winter.

Miscellaneous.

SOW THISTLE.

Enclosed find a weed from my cornfield which I find growing very profusely in the corn ground. Kindly give me a full description, through the columns of your valuable paper, of which I have been a constant reader for years.

Ans.—The specimen sent had no blossom and but little root, so that it was difficult to identify. It looks like perennial sow thistle, a most pernicious weed. This is a deep-rooted perennial, with large and vigorous rootstocks. Stems 1 to 4 feet high, hollow, simple, with few leaves, and branching at the top. Whole

plant filled with a bitter, milky juice. Leaves 6 to 12 inches long, pointed, deeply cut, clasping the stems at their base, and edged with soft spines. Flowers bright yellow, 1½ inches across, in corymbs, closing in strong sunlight; flower cup and flower stalk covered with long, glandular hairs. You will be able to know from above description whether the weed you are troubled with is the same. It is to be hoped that it is not, for it is most difficult to eradicate. The adoption of three-year or other short rotation of crops, and persistent attack, is the only hope of clearing a farm infested with the weed.

YOUNG TURKEYS DYING.

Turkeys about three weeks old began dying off, till about half the flock were gone; grew weak in legs, toppled over, and died quickly. Had been feeding breadcrumbs, hard-boiled eggs, etc., cooked corn cake and raw chop of corn and oats, wet. The hen bird (Slate turkey) was not very healthy, but the male, a White Holland, was strong and vigorous. The hen was confined in coop, and young ones in small yard. The sun was very hot a few days before they began dying most rapidly. What was the trouble, and how should they have been treated? I send bodies of two of the little birds for examination.

Ans.—The bodies of the young turkeys arrived in due course, but were so much decomposed that examination was impossible. Maggots had possession. Examination was, however, unnecessary. Healthy stock do not die without making a fight for it. In this, I have no hesitation in saying that the turkey chickens were on the weak side, and I think the heat did the rest. The listlessness, weakness of legs, etc., are signs of the direct effect of exposure to the rays of the sun, or to heat. Newly-hatched turkey chicks must have protection from the rays of the sun in hot weather, or from great heat and from damp, or damp quarters. The food seemed O.K., better, perhaps, if the cornmeal had been cooked. I think your correspondent will save the rest of the brood.

CUTTING NOXIOUS WEEDS ON THE HIGHWAY—DRAINING THE HIGHWAY.

1. Are the authorities compelled to have the weeds cut on the roadside, which, I understand, has never been done; certainly not last year, anyway, beyond a certain limit? If such is the law, where might I obtain a copy, or how should I notify them?
2. Can I compel the corporation to extend a ditch between the road and my fence? It looks to me as though part of the ditch has been allowed to fill, which backs the water into my field and makes it very late before that part can be worked; in fact, the water takes a crooked course and makes work in the whole field late before planting. I drew their attention to it, which they promised to fix. I have been told by an outsider, if I wanted it fixed I could do it myself. Can I compel them to continue the ditch, or will I have to fix it, and pay taxes as well? I might say, the course the water takes is not a natural waterway, but a low place in the field.

Ans.—1. The statutory provision applicable to the circumstances is to be found in Chap. 62, of 8 Edw. VII. (1908), Statutes of Ontario, which requires the overseers of highways to see that all noxious weeds growing in the highways on road allowances within their respective divisions, are cut down or destroyed at the proper times, to prevent the ripening of their seed, such work to be performed as part of the ordinary statute labor, or to be paid for at a reasonable rate by the treasurer, as the council of the municipality may direct.
2. If no agreement can be made regarding the opening of the ditch with the municipal council, you should call in the engineer to make an award, under the Ditches and Watercourses Act. The council is bound to take to a sufficient and proper outlet water accumulating on the highways within the municipality, and is not justified in allowing it to discharge upon and run over the property of a ratepayer.

Read This Letter! It tells of Past Misery—and the New Life of Miss Aikins



I suffered till I thought all was lost. Nothing could aid me. Mrs. Summers' treatment made me a healthy and strong girl. I owe my life to her! Miss J. A. (name and address upon application).

THINK of the thousands of women this moment suffering the same agonies Miss Aikins suffered! I want every ailing woman to write me in confidence, and I will give the advice and 10 days' free treatment of the medicine you must have to regain your girlhood health. I study your case individually. I do not treat every woman's ailments alike. I am a woman, I know woman's weakness and illness from actual experience, and I effect cures which no Doctor could ever hope. I don't want a cent! I give you 10 days' free treatment, the letter of advice, and my book—"Woman's Own Medical Adviser," to prove that my treatment quickly and permanently cures all ills caused by weakness peculiar to woman. My free book illustrates how and explains why we women become ill, and how you can cure yourself at home, without loss of work, time, trouble, danger, publicity or doctor bills. You need not feel obligated in writing me. If the trial helps you, a complete cure will cost you only about 2 cents a day, for perhaps a month. Don't hesitate to write me. I want to hear from every sister now, before it is too late. Won't you write me to-day, for your own or your friend's sake? Remember everything is free!



Send for "Woman's Own Medical Adviser." Mrs. H. Summers Box H. 82 Windsor, Ontario.

Scotch Shorthorns GLENGOW Shorthorns

Have yet for sale, two extra good bulls, imported, just ready for service; also one good roan Canadian-bred bull, grandson to Barton Chancellor, imp.; also a grand lot of heifers. Write or call on H. J. Davis, Woodstock, Ont. C. P. R. & G. T. R.

Have two excellent bulls left yet, both about ten months old, and good enough for any herd; also a number of choice heifers, all ages. For particulars write to: Wm. Smith, Columbus, Ont.

SHORTHORNS Belmar Parc.

Calves for sale by our grand quartette of breeding and show bulls. Nonpareil Archer, Imp., Proud Gift, Imp., Marigold Sailor, Nonpareil Eclipse. Females, imported and from imported stock, in calf to these bulls. An unsurpassed lot of yearling heifers. John Douglas, Manager. PETER WHITE, Pembroke, Ont.

VALLEY HOME SHORTHORNS AND BERKSHIRES

For sale: 6 grand young bulls from ten to eighteen months old; young cows with calves at foot, and ten one and two-year-old heifers. All our own breeding. Some are very choice show animals. Also young cows, and a fine pair 12 months old. S. J. PEARSON, SON & CO., MEADOWVALE P. O. AND STATION C.P.R.

Shorthorn Cattle AND LINCOLN SHEEP.

Females of all ages for sale of the thick-fleshed, low-down kind that have been raised naturally, neither stuffed nor starved. Twenty-five Lincoln ewes, bred to our best imported stud ram, also a few choice yearling rams. Prices very reasonable for quick sale. J. T. GIBSON, DENFIELD, ONT.

SHORTHORN BULLS PRICED

Red, two years old, from a good imported cow, price \$100. Roan, thirteen months old, extra good, short-legged calf from one of my best cows, \$100. Red and White, thirteen months, out of Lady Madge, by Langford Eclipse, price \$75. JOHN MILLER, BROUGHAM, ONTARIO. CLAREMONT STATION, C. P. R.

7 Imported Scotch Shorthorn Bulls 7

Six imported bull calves from 9 to 14 months old, 3 reds and 3 roans. They are of such noted families as Clara, Jilt, Roan Lady, Butterfly, Claret and Broadbooks. One imp. bull 2 years old, red; a most valuable sire. One bull 11 months old, roan, from imp. sire and dam; promising for a show bull. Two bulls 12 months old, from imp. sire and dam; suitable for pure-bred or grade herd. Also females all ages. Write for catalogue. Prices reasonable. Farm ¼ mile from Burlington Junction station, G.T.R. FRED. BARNETT, MANAGER. J. F. MITCHELL, BURLINGTON, ONT.

Geo. Amos & Son, MOFFAT, ONTARIO.

For sale: Several good young heifers, some of them show heifers, and all of the very best Scotch breeding. Correspondence solicited and inspection invited. Moffat Station, 11 Miles East of City of Guelph, on C. P. R.

WHY NOT BUY A HIGH-CLASS SCOTCH SHORTHORN COW, Or a Heifer, Or a Bull, Or a Few Shropshire Ewes, Or a Few Cotswold Ewes, NOW, While You Can Buy Them Low?

I can offer you something in any of them that will make a start second to none. Write for what you want. ROBERT MILLER, STOUFFVILLE, ONT.

DONT PHYSIC YOURSELF

It is a Tonic you want! Physicing lowers the system and makes it more susceptible to disease. The winter months have been a great strain upon your vitality and unless you put the blood in good condition all manner of evils will overtake you. PSYCHINE is the Greatest of Tonics and should be taken by every one at this season of the year. PSYCHINE assists the gastric juices and ferments in their digestion of the food, cleanses the mucous membrane of the Stomach, and has an invigorating and beneficial effect on the muscles and nerves. For Catarrh of the Stomach, Ulceration or Weak Stomach, Dyspepsia, the use of PSYCHINE is strongly advisable. PSYCHINE acting on the Stomach restores it to a healthy condition, then acts through the stomach upon all the vital organs, creates an appetite, bringing renewed vitality and strength to the entire system and enables it to throw off disease of every kind. It is the greatest health-giver known to medical science.

Send to Dr. T. A. SLOCUM, Limited, Toronto, for a Free Sample to-day. All druggists and stores sell PSYCHINE at 50c and \$1 per bottle.



WILLOWDALE SHORTHORNS

I have for sale some very fine young stock bulls and heifers ready to breed. Descendants of Joy of Morning, Broad Scotch and other noted sires. Also Chester White Swine and Imported Clydesdale Horses.

J. H. M. PARKER, LENNOXVILLE, QUE.

Scotch Shorthorns Canada's greatest living sire, **Mildred's Royal**, heads my herd. For sale are young bulls and heifers, show stuff and Toronto winners, out of Stamford, Lady Ythan, Claret, Emmaline, Matchless and Belona dams. A visit will be appreciated. **GEO. GIER, Grand Valley P. O., Ont. Waidemer Sta., C. P. R.**

JOHN GARDHOUSE & SONS Always have for sale a number of first-class **Short-horns, Shires and Lincolns**, of both sexes. Drop us a line, or better, come and see for yourself. **HIGHFIELD P. O., ONTARIO.** Weston Sta., G. T. R. & C. P. R. Long-distance phone in house.

Brampton Jerseys

Canada's premier herd. Dairy quality. Bulls all ages for sale, from best dairy and show cows in Canada, and by best sires. Our herd is 175 strong.

B. H. BULL & SON, BRAMPTON, ONT.

Stoneycroft Ayrshires



Choose young bulls and heifers of the very best breeding, combining show and dairy quality.

Large Improved Yorkshire Pigs from imported sires and dams, now ready to ship.

Stoneycroft Stock Farm, Ste. Anne de Bellevue, Que.

Ayrshires from a Prizewinning Herd—Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to **WM. STEWART & SON, Menie P. O., Ont.**

Lady tourist to cottager's wife: "Are these three nice little boys all your own, Mrs. Macfarlane?" "Yes, mem; but him in the middle's a lassie."

AYRSHIRES AND YORKSHIRES!

Kindly send in your orders at once for imported stock. We can cable orders and have them shipped in May. Calves from imp. dams or from home-bred Record of Merit dams. Females any age. A few young pigs.

ALEX. HUME & CO., MENIE, ONTARIO. HOARD'S STATION, G. T. R. Phone in residence.

Ayrshires

Two young bulls, 12 months and 15 months old, of true dairy type. Very fashionable. **N. DYMENT, CLAPPISON'S CORNERS, ONTARIO.**

SPRINGBROOK Ayrshires are large producers of milk, testing high in butter-fat. Young stock for sale. Orders booked for calves of 1909, male and female. Prices right. Write or call on **W. F. STEPHEN, Box 163, Huntingdon, Que.**

Just Landed with 50 Head CHOICE AYRSHIRES



Including 12 bulls fit for service, a few August calving cows and two-year-old heifers; cows with records up to 70 lbs. per day. I have a choice lot of two-year-olds, yearlings and heifer calves. Anything in the lot for sale. Correspondence solicited. Phone, etc.

R. R. NESS, HOWICK, QUE.

FAIRVIEW HERD HOLSTEINS

The greatest A. R. O. herd of in northern New York. Headed by Pontiac Korndyke, the greatest sire of the breed, having five daughters whose seven-day records average 29 1/4 pounds each, and over 4.3% fat. Assisted by Rag Apple Korndyke, a son of Pontiac Korndyke, out of Pontiac Rag Apple, 31.62 pounds butter in 7 days, and 126.56 pounds in 30 days, at 4 years old. Cows and heifers in calf to the above two bulls for sale, also young bulls sired by them out of large-record cows. Write, or come and inspect our herd. **E. H. DOLLAR, Heuvelton, St. Law. Co., N. Y., near Prescott, Ont.**

No more Holsteins for sale at present. Eggs from choice White Rocks and Buff Orpingtons, one dollar per setting. **DAVID RIFE & SONS, Hespeler Ontario, Waterloo County C. P. R. and G. T. R.**

BUSINESS HOLSTEINS!

Over 60 head to select from. Milk yield from 60 to 85 lbs. a day, and from 35 to 47 lbs. a day for 2-yr-olds. There are 10 2-yr.-old heifers, 8 1-yr.-olds, and a number of heifer calves. Bulls from 1-yr.-old down. Priced right. Truthfully described. **W. Higginson, Inkerman, Ont.**

Imperial Holsteins!

For sale: Bull calves sired by Tidy Abbokirk Mercedes Posch, whose seven nearest dams have records within a fraction of 27 pounds, out of show cows with high official records. A most desirable lot of coming herd-heads. **W. H. SIMMONS, New Durham P. O., Ont., Oxford County.**

Please Mention Farmer's Advocate.

Lloyd-Jones Twins at the Royal.

Editor "The Farmer's Advocate": As we attended the Royal Agricultural Show at Gloucester last month, we think your readers may be interested if we tell them a little about our trip.

We left London at 1.40 on June 21st, and travelled through some of the most beautiful country along the Thames, passing Windsor Castle, where the Royal Standard, flying from the tower, denoted the King and Queen were in residence; Reading, famous for Huntly & Palmer's biscuits, and the vast gardens of Sutton & Co., seed-growers of every kind. We caught sight of many an old farmhouse and cottages such as are never seen in Canada, and went through the Cotswold country, where the sheep of that breed belong to. You should see the lovely old meadow fields, with stock of all kinds, enjoying the fine, rich pasture.

Canadians may boast of their wonderful land, but the Old Country beats her out and out. We will own the weather has been anything but good, but "a dripping June puts all in tune."

We reached Gloucester at 4 o'clock, and found it a fine old city. A "city," by the way, is not counted so, on account of a certain population, but from the fact that it contains a cathedral.

We stayed at a house built in 1620. Wednesday morning saw us at the show, armed with the excellent official programme. It contained all particulars needed as to what took place every day, time of judging, parades, auction sales, competitions, meetings, etc., general arrangements, list of refreshment rooms, a good plan of show-ground and grandstand, railway time tables for all lines, and map of Gloucester. In addition to this, there is a very large and detailed catalogue, with all particulars as to exhibits of stock, etc., etc.

The shows in Canada are as much a fair as show; here, a show is a show, and the "Midway" is conspicuous by its absence. On the other hand, implements of all kinds, in motion and otherwise; seeds, roots, and everything connected with farming, are much in evidence, and you see a far larger proportion of farmers who are really interested in the show, as such. We should have mentioned sooner, we are the little twin Shepherds, junior partners of J. Lloyd-Jones, breeder and importer of Burford, Ont., therefore you will understand we made at once for the Shropshire exhibit. We met Mr. Minton, who had a very fine lot of sheep; Messrs. Buttar, Nock, Mansell, and others. Of those over the water, Messrs. Wardwell, Chandler, and Lute, and from our own neighborhood, G. Allen, of Paris.

We stood for a while by the sale-ring, and saw a fine Shropshire ram sold for \$600, to go over the "herring pond." Many other sales took place, but this was the highest we saw.

We think our old friend, Mr. Almas, the noted auctioneer, might copy the English plan with advantage, and sit comfortably perched up on a high seat, with a clerk for himself and his cash, sheltered from sun and rain, instead of walking about around the ring as he does.

We could not possibly tell you all we saw, and you will, no doubt, have a full account from your own correspondent.

Now, last, but by no means least, we would tell you we had a splendid view of the King three times. Once, taking a great interest in the milking of a cow by the very newest machine, invented just lately. To see him, evidently taking the keenest interest in all he saw, you would think, instead of being a King, he was a working farmer, and, truly, he often works just as hard, only in a different way.

This is, we hope, the first of our visits to the Royal, for we expect to come again and show our daddy around. It is our third visit to England (we are only 5 1/2 years old), and as we are the youngest exhibitors and importers in Canada, and, we believe, in North America, and are regular visitors at the Toronto Show, and have been also to the Chicago International, we think we are two of the luckiest little boys going.

We hope those interested will pay us a visit at Burford as soon as our imported sheep arrive. They are a fine lot, and our homestead staff, also.

JOHNIE AND TOMMIE LLOYD-JONES, per Mrs. Lloyd-Jones.

QUESTIONS AND ANSWERS. Miscellaneous.

DISSOLVING A UNION SCHOOL SECTION.

I live in a union school section, we want to form a school of our own. We have petitioned both councils two different years, and each year our council has appointed an arbitrator; the town would do nothing, thereby holding us. The town council have now raised \$20,000 to build a new school; neither the town council nor the trustees have ever asked the consent of the ratepayers of the township. We have one trustee on the school board, but they have held several meetings and not notified our trustee of the meeting, and yet he was chairman of the board.

1. Is there no way we, or our council, could have made the town take some action?

2. Could the town council, or the school board, pass by-laws to raise \$20,000 without consulting us in any way, and make us help pay it?

3. Is what was done by the school board at these meetings, when one of their number was not notified of meetings and was not present, legal; if not, how should we, as ratepayers, act in the matter, to get our rights? H. F. Ontario.

Ans.—1, 2 and 3. A local solicitor should be instructed to take proceedings, with a view to having the by-law to raise the \$20,000 quashed, and the council and school board restrained from doing anything in pursuance of such by-law. Petitions ought also to be presented to the councils of the township and town, respectively, to have the union school section dissolved, pursuant to the provisions contained in the Public School Act, 9 Edw. VII., Ch. 89, Sec. 21-28.

MISCELLANEOUS.

1. What is the present population of Canada? What is the present population of the cities of Hamilton, Brantford, Galt and Guelph? How far are the last three named from Hamilton, and do they connect by trolley line?

2. How far north can corn be grown successfully in Ontario?

3. Where can I get a map with all the counties named of Ontario? Could "The Farmer's Advocate" procure one for me if I remit the amount, or where can I procure a recently-published atlas of Canada. AN ENGLISH SUBSCRIBER. Kansas, U. S.

Ans.—1. The Census Bureau estimated Canada's population April 1st, 1907, at 6,504,900, an increase of 1,133,503 in six years. According to the census of 1901, the cities mentioned had the following: Hamilton, 52,634; Brantford, 16,619; Galt, 7,866; Guelph, 11,496. Most of them have grown considerably since then. Brantford is about 25 miles from Hamilton, and connected with that city by trolley. Galt is 31 miles from Hamilton by rail, and Guelph is 46 miles. There is trolley connection between Hamilton and Galt via Brantford.

2. There is scarcely any limit to the corn zone. Corn for ensilage and for table purposes is grown as far north as Ottawa, and even further, though it would not probably be advisable to attempt to grow it so far north extensively for market-garden purposes. The region along Lakes Erie and Ontario is much better adapted to it.

3. "The Farmer's Advocate" does not handle maps, but could execute such an order for a commission of 25 per cent., to cover trouble and expense. Write the Department of Agriculture, Toronto, Ont., and also the Department of the Interior, Ottawa, for maps, pamphlets, and information.

The best traces of a man are shown in the better manhood of those who have grown up around him.—David Starr Jordan.

This is something for fathers and mothers to ponder, for it applies as much to the mother as to the father, and to the daughters as well as the sons.

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GOSSIP.

The semi-annual meeting of the British Columbia Dairymen's Association was held at Chilliwack on June 30th, 1909. The afternoon meeting was called to order at 2.30, by A. C. Wells, President of the Association. The Association had procured two reacting dairy cows, one cow donated to the Association, the other one bought. After Dr. Knight had given a most interesting and instructive talk on disease as indicated by conformation in cattle, and on the effect of tuberculosis in a herd, the animals were slaughtered, and a post-mortem examination held. Both animals proved badly affected with tuberculosis. The evening meeting was given up to addresses by A. C. Wells, C. S. McKee, Mr. Bailey, of Langley, and R. W. Hodson. After the addresses, a valuable discussion ensued with regard to handling of the Vancouver milk supply, and the Fraser Valley Milk and Cream Shippers' Union. It was moved and seconded, "That we, the dairymen of Chilliwack district, approve of the work which the Vancouver Milk Commission is doing, and that we wish the rules, etc., when the Commission have them ready."

SHEEP AT THE ROYAL SHOW.

At the Royal Show at Gloucester last month, 23 breeds were represented, and the exhibit was unusually strong. The prize-list in most breeds calls for a two-shear ram, a shearing ram, 3 ram lambs, 3 shearing ewes, bred in same flock, and 3 ewe lambs. In several breeds the two-shear ram is not called for, only shearings and lambs being scheduled. Specials are not included in following list: Oxford Downs were shown by Jas. T. Hobbs, R. Hobbs, Albert Brassey, W. J. P. Reading & Sons, Jas. Horlick, G. Adams & Son, H. W. Stigloe and Hon. M. H. Hicks-Beach. In shearing rams, the first three prizes went to J. T. Hobbs, Brassy being reserve. Ram lambs (single)—1, R. W. Hobbs; 2, J. T. Hobbs; 3, R. W. Hobbs. Three ram lambs—1, Reading & Sons; 2, J. T. Hobbs; 3, R. W. Hobbs. Shearing ewes—1 and 2, J. T. Hobbs; 3, Brassey. Ewe lambs—1, Reading & Sons; 2, Hicks-Beach; 3, J. T. Hobbs; 4, E. Nock. Shropshires.—Exhibitors: Lord Richard Cavendish, M. Williams, A. S. Berry, Sir R. Cooper, the Duke of Sutherland, T. A. Buttar, F. Bibby, T. S. Minton, F. G. Clarke, Mrs. W. F. Inge, Alf. Tanner. Two-shear ram—1, Cavendish; 2, Williams; 3, Berry. Shearing ram—1, Bibby; 2, Minton; 3, Cavendish. Ram lambs—1, Minton; 2, Cooper; 3, Tanner. Shearing ewes—1 and 3, Cooper; 2, Bibby. Ewe lambs—1, Cooper; 2, Nock; 3, Mrs. Inge. Southdowns.—Two-shear ram—1 and 2, Adeane; 3, Duke of Richmond. Shearing ram—1, McCalmont; 2, Jennings; 3, Adeane. Ram lambs—1, Jennings; 2, Hall; 3, The King. Shearing ewes—1, The King; 2, Wernher; 3, Cardagan. Ewe lambs—1 and 2, The King; 3, McCalmont. Hampshire Downs.—Two-shear ram—1 and 2, J. Flower; 3, Stephens. Shearing ram—1 and 2, Flower; 3, Hon. Mrs. Pleydell-Bouverie. Ram lambs—1, Judd; 2, Blackwell; 3, Flower. Shearing ewes—1, Flower; 2, Judd; 3, Nicoll. Ewe lambs—1, Stephen; 2, Mrs. Bouverie; 3, Flower. Suffolks.—Two-shear ram—1 and 2, H. F. Smith; 3, Barclay. Shearing ram—1 and 2, Smith; 3, Sherwood. Ram lamb (single)—1, Green; 2 and 3, Smith. Pen of three—1, Smith; 2, Green; 3, Sherwood. Shearing ewes—1, Barclay; 2, Cassell. Ewe lambs—1, Green; 2, Smith; 3, Sherwood. Dorsets.—Shearing ram—1 and 3, Hambro; 2, W. R. Flower; 3, Merson. Ram lambs—1, Attrill; 2 and 3, Flower. Shearing ewes—1, Hambro; 2 and 3, Flower. Ewe lambs—1, Flower; 2, Attrill; 3, Merson. Lincolns.—Two-shear ram—1, Casswell; 2 and 3, F. Miller. Shearing ram (single)—1, 2 and 3, H. Dudding. Pen of five—1, Dudding; 2, Dean. Ram lambs—1 and 2, Dean & Sons; 3, Dudding. Shearing ewes—1, Howard; 2, Dudding; 3, Dean. Ewe lambs—1, Dudding; 2, Dean; 3, Dixon. Border Leicesters.—Two-shear ram—1, Balfour; 2, Lord Wooler. Shearing ram

THE FARMER'S ADVOCATE.

—1, Balfour; 2, Wooler; 3, Kerr. Shearing ewe—1 and 2, Wooler; 3, Kerr. Cotswolds.—Two-shear ram—1 and 3, Garne; 2, Houlton. Shearing ram—1 and 2, Garne; 3, Houlton. Ram lambs—1 and 2, Garne; 3, Houlton. Shearing ewes—1, Garne; 2, Houlton; 3, Swanwick. Ewe lambs—1 and 2, Maddy & Newman.

PRIZES FOR HORSES AT ONTARIO WINTER FAIR.

The Executive Committee of the Ontario Provincial Winter Fair met at Guelph on Wednesday, July 7th, and decided upon the classification and prizes for the Horse Department that will be added to the next Fair. Provision has been made for exhibits of Clydesdales, Shires, Hackneys, Standard-breds, Thoroughbreds, Ponies and Heavy-draft horses. In the Clydesdale class there will be the following sections: (1) Stallions foaled previous to Jan. 1st, 1905. (2) Stallions foaled in 1905. (3) Stallions foaled in 1906. (4) Stallions foaled in 1907. (5) Mares foaled previous to Jan. 1st, 1906. (6) Mares foaled in 1906. (7) Mares foaled on or subsequent to Jan. 1st, 1907. Total prize money, \$820. The sections for Shires will be as follows: (1) Stallions foaled previous to Jan. 1st, 1906. (2) Stallions foaled in 1906. (3) Stallions foaled in 1907. (4) Mares foaled previous to Jan. 1st, 1906. (5) Mares foaled on or subsequent to Jan. 1st, 1906. Total prize money, \$305. In addition to the open classes for Clydesdales and Shires, there will be a class for Canadian-bred Clydesdales and Shires, with sections for: (1) Stallions foaled previous to Jan. 1st, 1906. (2) Stallions foaled in 1906. (3) Stallions foaled on or subsequent to Jan. 1st, 1907. (4) Mares foaled previous to Jan. 1st, 1906. (5) Mares foaled on or subsequent to Jan. 1st, 1906. Total prize money, \$440. The Hackney class will have sections for: (1) Stallions foaled previous to Jan. 1st, 1906, 15 hands 2 inches and over. (2) Stallions foaled previous to Jan. 1st, 1906, under 15 hands 2 inches. (3) Stallions foaled in 1906. (4) Mares foaled previous to Jan. 1st, 1906. (5) Mares foaled on or subsequent to Jan. 1st, 1906, (age to be considered in awarding prizes). Total prize money, \$480. The sections for Standard-breds are: (1) Stallions foaled previous to Jan. 1st, 1906. (2) Stallions foaled on or subsequent to Jan. 1st, 1906. (3) Mares foaled on or subsequent to Jan. 1st, 1906, (age to be considered in awarding prizes). Total prize money, \$275. The sections for Thoroughbreds are: (1) Stallions foaled previous to Jan. 1st, 1906. (2) Stallions foaled on or subsequent to Jan. 1st, 1906. (3) Mares foaled on or subsequent to Jan. 1st, 1906, (age to be considered in awarding prizes). Total prize money, \$275. In the Pony class there will be two sections for Hackney ponies, one section for stallions any age, and the other for mares any age; also two sections for ponies, any breed other than Hackney, any age, one section for stallions and one section for mares. The total prize money amounts to \$130. The Heavy-draft Class will have a section for geldings or mares, shown in single harness; a section for geldings or mares, single animals shown on a line, bred and exhibited by persons actually engaged in farming, and a section for teams, geldings or mares, shown in harness. Total prize money for the Heavy-draft Class, \$305. Eleven championship prizes will be offered, from which prizes amounting to \$245 will be given. The total amount of prize money to be offered in the Horse Department is \$3,275. Once a thrifty Scotch physician was called to a case where a woman had dislocated her jaw. He very soon put her right. The patient asked how much she was to pay. The doctor named his fee. The patient thought it too much. He, however, would not take less, and as the woman refused to give him the fee, he began to yawn. Yawning, as everyone knows, is infectious. The young woman, in turn, yawned. Her jaw again went out of joint, and the doctor triumphantly said, "Now, until you find me over my fee, your jaw can remain as it is." Needless to say the money was promptly paid.

Holsteins

FOR SALE: COWS AND HEIFERS

All ages. Also bull and heifer calves, including daughter and granddaughters of Pietertje Hengerveld Count De Kol, whose TWO famous daughters made over 32 lbs. butter each in 7 days, and sire of the "world's champion milking cow," De Kol Creamelle, which gave 119 lbs. in one day, over 10,000 lbs. in 100 days. Also for sale daughters of De Kol's 2nd Mutual Paul, sire of Maid Mutual De Kol, which gave over 31 lbs. butter in 7 days, also granddaughters of Hengerveld De Kol. Other leading breeds represented. Putnam station, near Ingersoll.

H. E. GEORGE,

CRAMPTON, ONTARIO.

HOMEWOOD HOLSTEINS

For Sale: Only thrifty bull calves from 4% R. O. M. cows; some will make great herd headers and show animals. Write for prices and description. Station on the place.

M. L. & M. H. HALEY, Springfield, Ont.

MAPLE HILL HOLSTEIN - FRIESIANS

Special offering: Am now offering for first time my stock bull, Sir Mercedes Teake (7489), champion bull at Toronto and London, 1908. Can no longer use him to advantage, as I have twelve of his daughters in my herd.

G. W. CLEMONS, ST. GEORGE, ONT.

MAPLE GLEN Holsteins

For sale: Only 1 bull, 11 months old, left; dam is sister to a 26-lb. tested cow. Any female in herd for sale, 7 with records 20 1/4 to 26 1/4 lb. official tests. An 8-yr.-old G. D. of Paul Beets De Kol, in calf to Oakland Sir Maids—her record 21.83 as a 5-yr.-old. Price \$400, or will dispose of herd en bloc, a great foundation privilege. G. A. Gilroy, Glen Buell, Ont. Long-distance phone connects with Brockville.

The Maples Holstein Herd!

Headed by Lord Wayne Mechthilde Calamity. Nothing for sale at present but choice bull calves from Record of Merit dams; also a few good cows at reasonable prices.

WALBURN RIVERS, Folsden's Corners, Ont.

Lakeview Holsteins Herd headed by the ONLY BULL in the world whose sire has 5 daughters averaging over 30 lbs. of butter in 7 days, and whose dam (26.30 lbs. in 7 days) has a daughter with a record of over 35 1/2 lbs. of butter in 7 days (world's record). Bull calves and cows bred to him for sale. LAKEVIEW FARM, BRONTE, ONT. W. D. Brecken, Mgr.

WOODBINE STOCK FARM

Offers a few fine young Holstein bulls and bull calves, sired by Sir Mechthilde Poeh. Sire's dam holds world's largest two-day public test record, dam Ianthe Jewel Mechthilde, 27.65 lbs. butter in 7 days; average test, 4.46 per cent. fat; out of dams with superior breeding and quality. Shipping stations—Paris, G. T. R.; Ayr, C. P. R. A. KENNEDY, Ayr, Ont.

Centre and Hillview Holsteins

For sale: 5 choice bulls fit for service now, from dams of extra good backing. Their sires are Brookbank, Butter Baron and Bonheur Statesman. Their dams and sires' dams and grandams average over 24 lbs. butter testing over 4 per cent. in 7 days.


P. D. EDE, Oxford Centre P. O., Woodstock Sta. Ont. Long-distance phone, Burgessville.

HERE AGAIN! With high-class HOLSTEINS for sale, of all ages, except bulls for service. CHEESE is HIGH. Why not invest AT ONCE? We sell at BARGAIN prices. Write or call, we're always home. Railway connections good. E. & F. MALLORY, Frankford, Ont.

Holsteins at Ridgesdale Farm—Eight bull calves on hand for sale, up to eight months old, which I offer at low prices to quick buyers. Write for description and prices, or come and see them. R. W. WALKER, Utica P. O., Ont. Shipping stations: Myrtle, C. P. R., and Port Perry, G. T. R. Ontario Co.

Glenwood Stock Farm—Holsteins and Yorkshires. Holsteins all sold out. Have a few young Yorkshire sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock. Thos. B. Carlaw & Son, Warkworth P. O., Ont. Campbellford Station.

AN HONEST, SINCERE TRIAL WILL CONVINCE YOU.



I claim I can cure the weak; that I can pump new life into worn-out bodies, that I can cure your pains and aches, limber up your joints and make you feel as frisky and vigorous as you ever were in your life. That's claiming a great deal, but I've got a good remedy, and there are thousands who say and write that I've made good every claim; that they are now big, husky and fresh specimens of vigorous manhood, and that they haven't an ache or pain in their bodies since using my

Dr. McLaughlin's Electric Belt

It has restored health and strength to thousands of weak people. If you use it as I direct it is a positive cure, and cannot fail. It gives the vitalizing power of electricity, without burning or blistering, to every weakened part, developing full vigor and removing all the effects of dissipation forever. Your skepticism can be overcome if you but give me a chance to prove my claims, for anyone who will secure me can

PAY ME WHEN CURED.

I want all weak persons, who are not what they should be, to use one of my Belts, and when they are cured to tell their friends of its wonderful effects. My Belt is also an absolute remedy for nervous debility, backache, rheumatism, stomach, liver, kidney and bladder troubles. It is arranged for women as well as men, and cures female weaknesses. Few men are really as strong and vigorous as they ought to be. Hard work or worry or the hustle of modern life is overtaxing the resources of many. Past indiscretions or excesses and other private diseases have undermined the constitution of still others—few men are the men they ought to be. This is why the wealth of the world is concentrated in the hands of the few. Except in cases of inherited wealth, the wealthy men, the successful men, are healthy men—men with strong body, strong nerves, strong will, strong mind. They are the men who have carefully observed the laws of nature and guarded their strength and health. If I don't cure you, my Belt comes back to me and we quit friends. You are out the time you spend on it—wearing it while you sleep—nothing more. Mr. Miles Amelotte, Apple Hill, Ont., says:—"Since I last wrote to you I feel like a new man. I now eat meat, which I have not for three years, and I can work all the time, and do hard work, too. I thank you a thousand times for having advertised your Belt in the papers, and I shall recommend it to all the people who have the same sickness as I had." FREE BOOK.—Cut out this coupon now and mail it. I'll send this book without delay, absolutely free. Call if you can. Consultation free.

DR. M. S. McLAUGHLIN, 112 Yonge St., Toronto, Can.

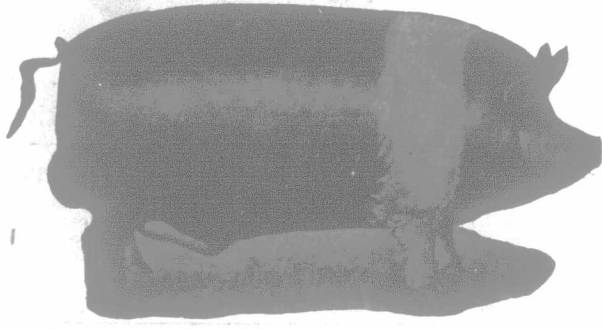
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Office Hours—9 a.m. to 6 p.m. Wednesday and Saturday until 8.30 p.m. Write plainly.

Hampshire Swine



Of the most popular show and breeding type. The breed that won over all three years in succession, including Canada and United States. We offer for sale now fifty pigs, both sexes, from 6 weeks to 3 months old, and will make good ones for fall breeding, also a few choice sows safe in pig. Call on or address:

A. O'NEIL & SON,
Birr, Ont.

MAPLE GROVE YORKSHIRES.

We now offer between 75 and 100 March pigs, sired by our Toronto champion boar, M. G. Champion—20102—, and M. G. Chester—24690—, a boar of great individuality. Pairs not related. Also choice sows for fall farrow. In short, pigs of all ages. Satisfaction guaranteed. Prices very reasonable. **H. S. McDIARMID, Fingal, Ont. Shedden Station.**

Morrison Tamworths, Shorthorns and Clydesdales. Tamworths from Toronto winners. Either sex. Any age. Sows bred and ready to breed. Pairs not akin. **CHAS. CURRIE, Morrison, Ont. Schaw Sta., C. P. R.**

PINE GROVE BERKSHIRES.

Sows bred and ready to breed. Nice things, three and four months old.

W. W. BROWNIDGE,
Milton, C. P. R. Ashgrove, Ont. Georgetown, G. T. R.

SIX (6) CHOICE BOARS

Ready for service, at \$25 apiece for quick sale. A few pigs ready to wean. Several good young sows to spare, all sired by imported Knowle King David.

A. C. Hallman, Breslau, Ont

Monkland Yorkshires

We are offering 30 sows from 1½ years to 3 years old that have had litters. All large and excellent sows—proved themselves good mothers. Bred again to farrow in July and August. Also 50 young sows to farrow in August. **Jas. Wilson & Sons, Fergus, Ont.**

Willowdale Berkshires!

Won the leading honors at Toronto last fall. For sale are both sexes and all ages, from imp. stock on both sides. Show things a specialty. Everything guaranteed as represented. **J. WILSON, MILTON, ONT., P. O. AND STATION. C. P. R. AND G. T. R.**

SUNNYMOUNT BERKSHIRES

Highest standard of type and quality. For sale: Sows of all ages, and 4 yearling boars. A grand, good lot. Also younger ones. Pairs not akin. **JOHN McLEOD,**
C.P.R. & G.T.R. Milton P.O., Ont.

OHIO IMPROVED CHESTER WHITES.

Largest strains. Oldest-established registered herd in Canada. Young sows in farrow. Choice pigs 6 weeks to 6 months old. Pairs furnished not akin. Express charges prepaid. Pedigree and safe delivery guaranteed. **E. D. GEORGE Putnam, Ont.**

DUROC - JERSEY SWINE

Imported and home-bred. Sows ready to breed Boars fit for service, and younger ones either sex. Also Embden geese. **MAC CAMPBELL & SONS, HARWICH, ONT.**

Pine Grove Yorkshires

At the late Guelph Winter Show we won decidedly the best of it in the bacon classes. Our Yorkshires are noted for superior excellence. Both sexes and all ages for sale. **J. Featherstone & Son, Streetsville, Ont.**

NEWCASTLE TAMWORTHS, SHORTHORNS AND CLYDESDALES.

Present offering: 3 Shorthorn cows with heifer calf at foot, 3, 4 and 5 months old respectively, and bred again; a choice lot of Tamworth boars and sows from 6 weeks to 5 months old, also a few really good sows bred during April and May. **A. A. COLWILL, NEWCASTLE, ONT.**

Hilton Stock Farm Holsteins and Tamworths.

Present offering: 6 yearling heifers and several younger ones. All very choice. Of Tamworths, pigs of all ages and both sexes, pairs not akin. **R. O. MORROW & SON, Milton, Ont. Brighton Tel. and Stn.**

CATTLE and SHEEP LABELS

F. G. James, Bowmanville, Ont.

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs.

Present offering: Lambs of either sex. For prices, etc., write to **John Cousins & Sons, Harriston, Ont.**

SOUTHDOWN AND COLLIES.

Long-distance Telephone.

Orders now solicited for especially-fitted sheep. Your choice of early lambs from imported and prizewinning Canadian-bred ewes, and by the sire of the Grand Champion wether at Chicago, 1907. Twenty shearings, the choice of last year's lamb crop, also for sale. **ROBT. McEWEN, Byron, Ont. Ry. Stn., London, Ont.**

WOOL

HIGH PRICES. WRITE US.

E. T. CARTER & CO.,
84 FRONT ST. E., TORONTO, CANADA

Fairview Shropshires

We now offer excellent ewes, choice rams, and the best lots of lambs ever offered. All sired by our famous Chicago and St. Louis Grand champion rams, His Best and B. Sirdar.

J. & D. J. Campbell, Fairview Farm, Woodville, Ont.

Farnham Oxford Downs

The Champion Flock for Years. Our present offering is 110 yearling rams; 20 of these fit for the show-ring, and are grand flock-headers. Also 50 yearling ewes, and a number of good ram and ewe lambs. They are all registered and by imported sires or g. sires imported, and a number from imported dams. Our prices are reasonable. **HENRY ARKELL & SON, ARKELL, ONTARIO.** Arkell, C. P. R.; Guelph, G. T. R., and Telegraph.

IMPORTED HORNED DORSETS

I have for sale a few of both sexes, the get of last year's champion all round the circuit, Imp. Romulus 2nd. Canada's banner flock of Dorsets.

JAS. ROBERTSON & SONS, Milton P.O. and Sta., C.P.R. and G.T.R.

CLAYFIELD STOCK FARM! Buy now of the Champion Flock of America, 1906. Flocks of head, ranch rams, ewes of different ages. All of first-class quality, and prices reasonable. Write, or call on **J. C. ROSS** Box 61, Jarvis, Ont.

Farmers and Cattlemen, Read This!

When you cannot sell your export cattle at satisfactory prices at home, and wish to ship them to the Old Country markets, write or wire for steamer space, market and shipping information to **Donald Munro, Live-stock Forwarding Agent and Commission Salesman, 43 St. Sacrament St., Montreal.** Load your cattle carefully, and bill them to me. I provide the necessary feed, insurance, etc., pay freight and all other expenses from shipping point, and give liberal cash advances on all consignments. Cattle are loaded on steamer under my personal supervision, and placed in charge of capable attendants for the ocean voyage. I represent the most reliable salesmen at all the different British markets. **BUSINESS ESTABLISHED 1890. REFERENCES: THE MOUNTAIN BANK, MONTREAL.**

HAVE YOU EVER REALIZED THE RESULTS OF "ADVOCATE" ADS?

TRADE TOPIC.

ABORTION IN CATTLE.

Abortion usually assumes a contagious form, and is caused by the introduction into the body of a specific germ or bacterium, which, after a time, causes the pregnant female to expel her fetus.

Unless the germ is present, contagious abortion never occurs. The third and seventh month after service, are those in which abortion most often occurs.

The disease may spread to every cow in the herd, unless proper precautions are taken to prevent this, and it may remain in a herd for years, and cause enormous losses.

SYMPTOMS—Swelling of the udder; congestion and swelling of the vaginal membrane, which becomes red, and from which there is usually a discharge of matter.

Abortion occurs a short time after this, the fetus generally being born dead.

TREATMENT—There is really none which will stop the act, when an animal is about to abort, but the general health usually suffers, and the afterbirth may be retained until it becomes rotten, and causes various ill effects which must be treated as they arise.

The discharge which follows is the chief means of spreading the disease to other cows.

The animal must be at once separated from others, and as completely isolated as is possible. The fetus and discharge should be carefully removed and burnt, or buried deep, after being covered with lime, in a place to which cattle have no access for some time.

Then the stall or shed should be very thoroughly disinfected with Cooper's Fluid at a dilution of 1 to 50, which will neither taint the milk nor destroy the value of the manure.

Wash the genital organs of the cow with Cooper's Fluid at a strength of 1 to 100, and inject some of the same fluid at a strength of 1 in 200 in the vagina and uterus, once a day, until discharge ceases.

PREVENTION is, in this disease, much better than cure, and upon it depends stamping out the disease.

Remove all pregnant animals to another stable or shed, or, better still, turn them to grass away from infected animals, and if the herd be large, divide them into small lots.

Wash the external genital organs of the whole herd with a solution of Cooper's Fluid, 1 in 200, once a week at least, and inject with this every cow that has aborted, when she has next gone three months in-calf, once a week, for a month.

Inject the bull, after service of every cow, with a solution of Cooper's Fluid, 1 in 200.

Give cows in the affected herd, once a week, a dessertspoonful of Cooper's Fluid, mixed in their food, or as a drench, in a pint of water.

Continue this until the herd is free from the disease.

The various mediums by which the germs of the disease are carried are:

- (1) By cows or bulls from an infected herd.
- (2) By coming in contact, direct or indirect, with affected animals.
- (3) By attendants of affected cows.
- (4) By bulls, after serving cows not fully recovered from the disease.
- (5) By litter from infected stables being left where healthy animals can come in contact with it.

Therefore, guard as far as possible against any of these means of infection. Impress upon the attendants the vital necessity of complete isolation, disinfection and cleanliness.

Use a disinfectant which contains a large percentage of carbolic acid. Cooper's Fluid contains 60 per cent. of refined and distilled carbolic acid, and by its use many large herds, where abortion was rampant, have been completely freed.

The whole principle of the disease applies to sheep and other animals, as well as cattle.

PIGS AT THE ROYAL.

A combination of causes resulted in one of the finest displays of the porcine race at the Gloucester meeting of the Royal Agricultural Society ever seen at one of its shows. Following is a list of the principal awards in the breeds best known on this side of the sea:

Large Whites—Boar farrowed in 1906, 1906 or 1907—1 and 3, Earl of Ellesmere; 2, A. W. White. Boar farrowed in 1908—1 and 3, Ellesmere; 2, A. W. White. Boar farrowed in 1909—1 and 2, Earl of Ellesmere; 3, W. H. & E. Wherry. Breeding sow, farrowed in 1905—7—1 and 2, Ellesmere; 3, A. W. White. Sow farrowed in 1908—1, A. W. White; 2 and 3, Ellesmere. Three sows of 1909—1 and 2, Ellesmere; 3, Wherry.

Berkshires—Aged boar—1, J. B. Chetwynd; 2, R. W. Hudson; 3, H. Peacock. Boar farrowed in 1908—1, R. W. Hudson; 2, Chetwynd; 3, W. V. Judd; 4, J. Jefferson. Boar farrowed in 1909—1, Chetwynd; 2, H. S. Leon; 3, Sir R. Wilmot. Sow farrowed in 1905—7—1, Earl Manvers; 2, R. W. Hudson; 3, Wilmot. Sow farrowed in 1908—1, C. F. Raphael; 2, Judd; 3, Hudson. Pen of three sows farrowed in 1909—1, Hudson; 2, Chetwynd; 3, J. A. Fricker.

Tamworths—Boar of 1905—7—1, W. J. Pitt; 2, O. C. H. Riley; 3, Geo. Woodfield. Boar farrowed in 1908—1, Riley; 2, Marant; 3, Lord Hastings. Boar farrowed in 1909—1, Stephens; 2, Morant; 3, Riley. Breeding sow—1, R. Ibbotson; 2, Stephens; 3, Sir P. Walker. Sow farrowed in 1908—1 and 3, Ibbotson; 2, Riley. Three sows farrowed in 1909—1, Riley; 2, Woodfield; 3, Stephens.

Championships—Best Large White boar or sow, Earl Ellesmere's yearling boar, Worsley Roger 35th, best Berkshire boar or sow, G. J. B. Chetwynd's aged boar, Don Camphor.

Best Tamworth boar or sow, R. Ibbotson's aged sow, Constance.

CONSERVATION OF NATURAL RESOURCES.

James J. Hill, of St. Paul, made the principal address at the opening of the Alaska-Yukon-Pacific Exposition at Seattle, on June 1st. Mr. Hill, who is a native of Ontario, is the builder and operator of the Great Northern Railway, from St. Paul to Seattle, and is constructing several extensions of his line northward into our Western Provinces. On the subject of the conservation of natural resources, he said, in part:

"It is on record that the best soil in this State produced, when the first settlers came, from forty to sixty bushels of wheat per acre. How many farmers get that now? The temptation is almost irresistible in a country like this, where the new soil needs but the touch of water to burst into wonderful fertility, to grasp a present profit without thought of the future. But this apparently exhaustless soil acts like all others when abused. Treat it as those of our older States have been treated, take away all and give nothing back, and it is only a question of time how soon your lands, too, will decline in productivity, and recover less rapidly than those which had less to lose. The procession of American farmers that has moved recently into the country just north of our Western States, should point the moral. They were wasters, or the children of wasters, who had exhausted nature's bounty and were moving on. Take care of your soil before it is too late, and it will take care of you and sustain and increase your prosperity forever. Neglect and waste it, and no earthly power can save you from the consequences."

After referring to other resources of the forest, mine and sea, he remarked:

"These are questions pertinent for any community, for any people aiming to live more wisely or on a higher plane than that of the savage who gorges himself today and lies down careless to-morrow. They are especially proper for you who are guardians of the last remnants of our wasted store of continental wealth, who have an evil example to avoid, whose mistakes are not yet beyond recall. The exhibition of your intelligence and noble spirit that we admire and celebrate to-day will have been made to little purpose if it find and leave you indifferent to the greatest issue presented to mankind in our time, and one that will only pay them increasingly hereafter."

GOSSIP.

PRAIRIE POPULATION.

The Census Bureau, Ottawa, estimates that the population of the Prairie Provinces, which was only 800,000 in 1906, has increased to 1,100,000 within the past three years. Of the increase, at least 150,000 is said to have come from the United States, as only 148,700 of overseas immigrants have gone West, 233,000 of them having settled in the Eastern Provinces.

AMENDED RULES OF ENTRY OF CANADIAN ABERDEEN-ANGUS ASSOCIATION.

Aberdeen-Angus breeders should note the following changes in the rules of entry of the Canadian Aberdeen-Angus Association. From the printed notices just to hand from the Accountant National Live-stock Records, Ottawa, we quote the following rules as they now stand.

Rule 5.—No animal shall be admitted for entry until both its sire and dam are recorded in the Canadian Aberdeen-Angus Record, except as otherwise provided. Males red in color, or with a noticeable amount of pure white above the underline or on leg or legs, or with scurs, shall not be recorded.

Rule 6.—Animals recorded in the American Aberdeen-Angus Breeders' Association Herdbook may be recorded in the Canadian Aberdeen-Angus Record, when accompanied by duly-certified certificate of transfer.

Rule 7.—The name of each animal recorded in the Canadian Aberdeen-Angus Association's Record shall be followed by its Canadian number. If it has previously been registered in the American Aberdeen-Angus Herdbook, the Canadian number shall be followed by the American number; if in the Polled Herdbook, its Canadian number shall be followed by its Scotch number.

Rule 8.—In recording an animal registered in the American Aberdeen-Angus Herdbook, all ancestors shall be recorded back to the original importation from Great Britain, and assigned Canadian numbers, followed by their American numbers. In recording an animal imported from Great Britain, the ancestors need not be recorded individually, but the pedigree as it appears in the Polled Herdbook shall be published.

Rule 9.—No animal over two years of age will be accepted for registration in the Canadian Aberdeen-Angus Herdbook unless previously recorded in the Polled Herdbook, or in the American Aberdeen-Angus Association's Herdbook.

Rule 13.—Names must not contain more than twenty-five letters, and must be written legibly. The prefix first, second, etc., will count as part of the twenty-five letters allowed in the name. Names of sire and dam must be given exactly as they are in the Herdbook.

Rule 15.—Names of established families shall not be applied to animals not of that family.

Rules of Entry of Animals Bred in or Imported from Great Britain.

Rule 21.—For every such animal, a record must be had in the Polled Herdbook published in Scotland by the Polled Cattle Society.

Rule 22.—Application for entry of an imported animal must be made by the owner, and accompanied by a bill of sale of the animal, and by transfer from the recorded owner in the Polled Herdbook, and transfers from intermediate owners to the applicant for entry, and must give date of importation, name of importer, name of vessel and port of entry, together with the export certificate in form and manner prescribed by the Polled Cattle Society of Scotland, to the importer.

Rule 23.—To secure the registry of a calf imported in dam, a certificate will be required from the owner of its sire, providing a signature of the breeder has not previously accompanied a transfer indicating service of dam.

Rule 24.—For every imported animal, application for entry must be made within one year from date of landing.

Fees for Imported (British and American) and Canadian-bred Animals.

Rule 25.—Entries of males and females under one year, owned by members.....	\$ 1.00
Entries of males and females under one year, owned by non-members.....	2.00
Entries of animals over one year (and under two) owned by members.....	3.00
Entries of animals over one year (and under two) owned by non-members.....	5.00
Entries of each ancestor required to complete pedigrees (see Rule 8)...	.50
Transfers presented for record within 90 days from date of sale.....	.25
Transfers presented for record after 90 days from date of sale.....	1.00
Tabulated pedigrees (5 generations) to members.....	1.00
Tabulated pedigrees (5 generations) to non-members.....	2.00
Duplicate certificates.....	1.00
Old form certificates exchanged for national certificates.....	.25

EFFECT OF CLIMATE ON WHEAT.

In a paper on the influence of environment on the composition of wheat, which was read before the Canadian section of the Society of Chemical Industry at Montreal, and printed in the Society's Journal, April 15, 1909, Frank T. Shutt, Chemist, Experimental Farm, advances reasons to show that the composition of the wheat grain is determined more by the influence of season and climate, than it is by the nature or composition of the soil. As is well known, the greater proportion of the wheat grown in the Northwest derives special value from its hard and glutinous character. The prairie soils are particularly rich in nitrogen, yet this, Mr. Shutt claims, has but little effect on the percentage of nitrogen in the grain, and a highly nitrogenous soil does not necessarily mean a highly nitrogenous wheat. The quality of the grain, he says, is influenced by climatic conditions through the vegetative processes by the shortening or lengthening of the time which elapses from the formation of the kernel until it is ripe. In support of this theory, Mr. Shutt shows that wheat grown in Manitoba on newly-cleared scrub land, was more or less soft and starchy in character, but that as time went on, and the land had been under cultivation for a number of seasons, the wheat improved in quality. Soil analyses showed that the newly-broken land contained considerably more moisture, and it was the elimination of this moisture by cultivation and consequent shortening of the ripening period that effected the improvement.

Experiments with wheat sown upon irrigated and non-irrigated plots at the Lethbridge Experimental Farm indicate a large percentage of protein in the grain grown on the dry plot, and the conclusion is that the quality of wheat is largely determined by the character of the season. Mr. Shutt states that if there is a sufficiency of moisture in the month of June to bring the wheat crop to maturity, a better grain may be expected if the following weeks are characterized by hot, dry weather, than if the weather during this period is cool and wet. It is found, moreover, that the character of the gluten in the wheat remains unaffected, but that its amount is largely a product of the season. The observations upon which Mr. Shutt has founded these conclusions have an important bearing upon wheat-growing in the West. There are large areas in the North where the short, yet dry summer, should produce excellent wheat, whilst there is also every probability that continuous cultivation will greatly improve the quality of wheat on newly-broken soils which, owing to excess of moisture, do not at present give the best results as regards the quality of the grain.

Fraulein Braune had studied her English grammar carefully. "Ach, yes, I shall remember," she said. "This window above the door is the transom, and you call this a register? Yes, I shall learn that name." Not long after the dignified little German lady astonished visitors by asserting: "Oh, no, I have not found this country cold. I have been very comfortable. I sit all day with my feet over the transom."



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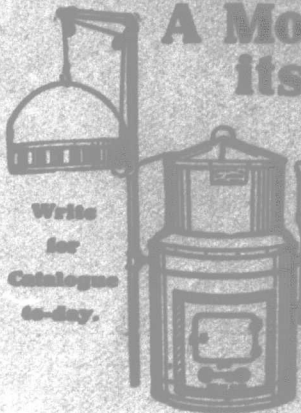
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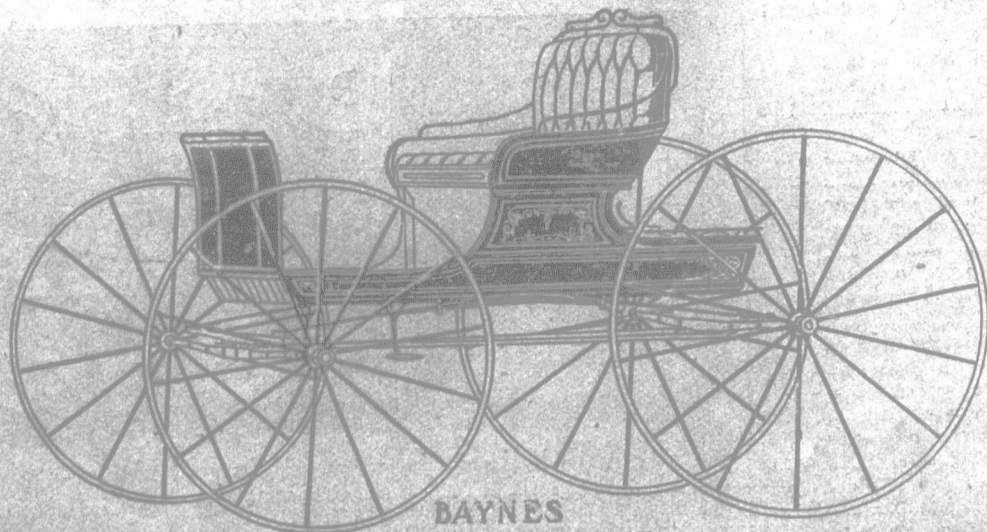
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