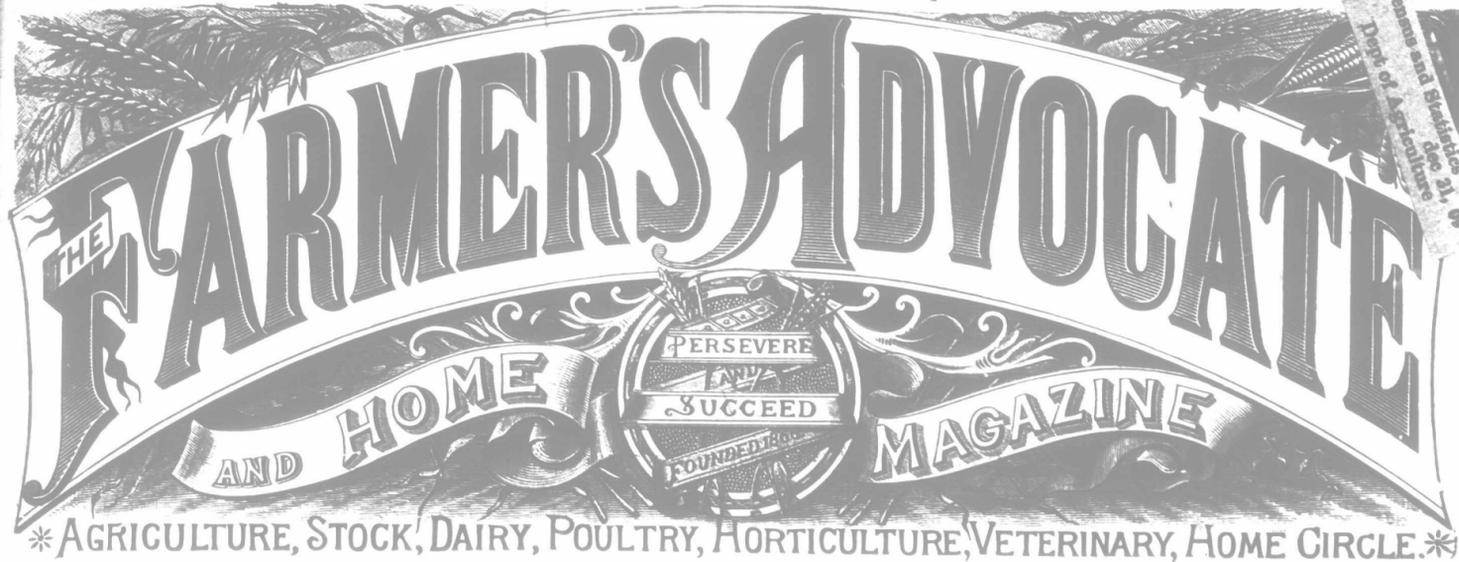


PUBLISHED EVERY WEEK. \$1.50 PER YEAR.



\*AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.\*

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VOL. XLV.

LONDON, ONTARIO, JULY 21, 1910.

No. 930

## More bread and Better bread —And the Reason for it

**A** STRONG FLOUR can only be made from strong wheat.

Manitoba hard wheat is acknowledged the strongest in the world—and that is the kind used for PURITY Flour.

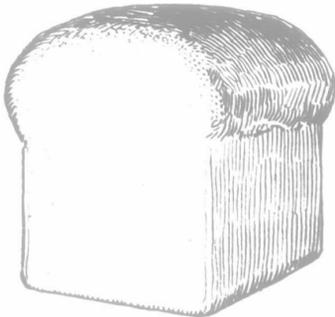
But that's not all. Every grain of this wheat contains both high-grade and low-grade properties. In separating the high-grade parts from the low-grade the Western Canada Flour Mills put the hard wheat through a process so exacting that not a single low-grade part has the remotest chance of getting in with the high-grade.

Of course this special process is more expensive to operate, but it means a lot to PURITY flour users—that's why we use it.

It means that PURITY Flour is made entirely of the highest-grade flour parts of the strongest wheat in the world.

It means a high-class, strong flour, and therefore yields "more bread and better bread."

Purity may cost a little more than some flours, but results prove it the cheapest and most economical after all.



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WESTERN CANADA FLOUR MILLS COMPANY, LIMITED  
MILLS AT WINNIPEG, GODERICH, BRANDON.

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Toronto.**  
ESTABLISHED 1851.



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CURES ECZEMA,

Also Piles, Burns, Scalds, Chapped Hands and Face.

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**THE ELECTRIC BEAN CHEMICAL CO.,  
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**DONALD SUTHERLAND,  
Director of Colonization,  
Parliament Buildings, Toronto, Ont.,  
or to THE HON. MR. DUFF,  
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Central Prison Binder Twine will be supplied to farmers as follows:

600 ft per lb. 8c per lb.  
550 ft per lb. 7 3/4 c per lb.  
500 ft per lb. 7 1/2 c per lb.

These prices are net cash. The twine is put up in fifty-pound casks and manufactured from SELECTED EMBLE quality and length of twine selected.

Please specify all orders when quality is required.

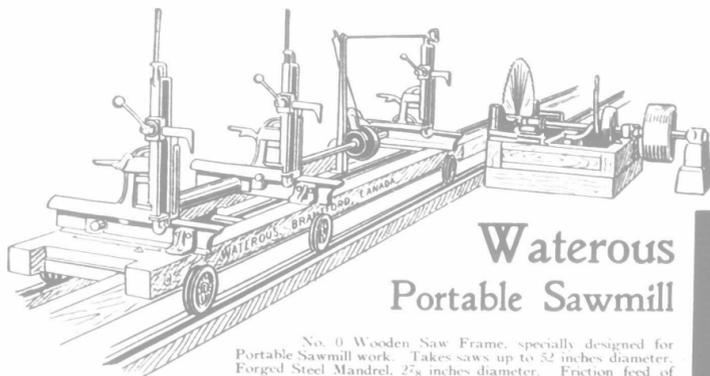
For further information write to the undersigned.

Central Prison Binder Twine Co., Toronto, Ont.

## INVENTIONS

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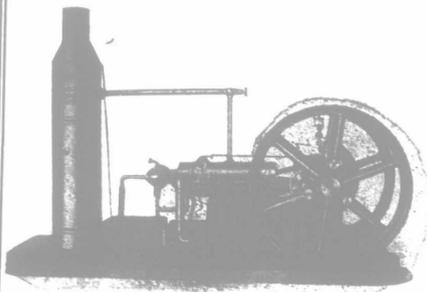
## Waterous Portable Sawmill

No. 0 Wooden Saw Frame, specially designed for Portable Sawmill work. Takes saws up to 52 inches diameter. Forged Steel Mandrel, 2 3/8 inches diameter. Friction feed of 4-inch paper and iron friction, set close to outer frame bearings. Substantial carriage can be returned or jugged from 5 to 10 times as fast as feeding speed. Carriage will accommodate good size logs. Standard carriage for rack feed is 16 feet 11 inches long; rope feed 17 feet 6 inches long. Frame extra wide, of heavy red pine stringers, edges bound with heavy iron. Log seats heavy web. Six-inch eye-beams. Knees and rack cast in one piece. Knees have 3-inch independent taper movement, and are fitted with our patent upper and lower steel hook Peel Dogs, operated by overhead single-acting ratchet networks, having large ratchet wheel. Split steel setting and holding Pawls, designed to eliminate lost motion and permit a set of 1-16 inch. Steel-set shaft 1 1/2-16 inches diameter and 16 feet long. Carries pinions which operate knees and is fitted with heavy cast iron hand-wheel for hand setting. Track 54 feet long. This is one of the finest Portable Sawmills made. It will pay you to send for our free catalogue, which describes it, as well as many others in detail. Drop us a card to-day.

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Windmills,  
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## Money in Ditching



Every farmer and thresher-man knows the value of a time-saving machine such as a harnessing machine. We want YOU to know the money making qualities of the BUCKEYE TRACTION DITCHER. It cuts 100 to 180 feet per day, and saves 25 per cent to 50 per cent of the cost of handwork. Are YOU interested? Write TODAY for catalogue. Remember the first man in your vicinity to use a BUCKEYE will make the biggest profit. Address:

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Two sorts of agents claim that disk filled or other complicated, hard to wash, out-of-date cream separators are modern and easy to clean. One sort knows better but hopes you don't, because he wants to sell you that kind of machine. Look that fellow right in the eye—tell him you do know better, and that he can't fool you. The other sort of agent is simply mistaken—he does not know the facts. Tell him to look at a



## Sharples Dairy Tubular Cream Separator

Tell him it has neither disks nor other contraptions, yet produces twice the skimming force, skims faster, skims twice as clean and washes several times easier than common separators. Wears a lifetime.

The World's Best. The manufacture of Tubulars is one of Canada's leading industries. Sales easily exceed most, if not all, others combined. Probably replace more common separators than any one maker of such machines sells.

Write for Catalogue No. 193.  
**30 Yrs**  
**THE SHARPLES SEPARATOR CO.**  
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The delightful fresh-water trip from "Niagara to the sea."

Steamers "Toronto" and "Kingston" leave Toronto at 3.00 p.m. daily for Charlotte (port of Rochester), 1,000 Islands, "Shooting the Rapids," Montreal, Quebec and Saguenay River.

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For tickets and berth reservations apply to local agents, or write:

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**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.

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For Pumping, Churns, Washers, Chimes, etc. Free Trial. Ask for catalog—all agents.  
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THE SPICE OF LIFE.

To his teacher's request that he give the class ideas on the subject of "Bravery," little Johnny delivered himself of the following:  
 "Some boys is brave because they always plays with little boys, and some boys is brave because their legs is too short to run away, but most boys is brave because somebody's lookin'."

A man of sixty, who had been a grumbler all his life, and made a practice of changing his doctors on the slightest provocation, called in a young physician of considerable reputation. He was telling what he thought was the trouble with him, when the doctor ventured to disagree with his diagnosis. "I beg your pardon," said the patient, in a haughty way, "it isn't for a young physician like you to disagree with an old and experienced invalid like me!"

A leading doctor in a big Western city has a dash of Indian blood in him and is very proud of it. While walking with a friend one day he said: "I have just found a book about a chief who was one of my ancestors. He was a great man. He was a warrior, a man of mighty prowess in battle. Why, I learn from that book that he, personally, killed scores of his foes. He killed nearly a hundred persons himself."

"Well," said the friend, "he hasn't got anything on you."  
 "Perhaps not," replied the doctor thoughtfully, "but we must give him credit just the same. You see, he never had my opportunities."

He was a kindly constable, and had for long been answering the inquisitive old lady's question to the best of his ability. But he was beginning to tire a little. "And what's your truncheon for, policeman?" inquired the inquisitive dame.

"Ketch a feller a cop over the nob if he gets v'lent!" responded Bobby.  
 "And what are those numbers for?"  
 "Hidentimeashun purposes, mum," said Bobby, laconically, turning away.  
 "And what, policeman," said the old dame, catching him by the arm, "is that strap under your chin for?"  
 "Well, mum," snorted Bobby, "that's ter rest me jaws on when I gets tired answering silly questions."

"I'm going over to comfort Mrs. Brown," said Mrs. Jackson to her daughter Mary. "Mr. Brown hanged himself in their attic last night."

"Oh, mother, don't go! you know you always say the wrong thing."

"Yes, I'm going, Mary. I'll just talk about the weather. That's a safe enough subject."

Mrs. Jackson went over on her visit of condolence. "We have had rainy weather lately, haven't we, Mrs. Brown?" she said.

"Yes," replied the widow. "I haven't been able to get the week's wash dried."

"Oh," said Mrs. Jackson, "I shouldn't think you would have any trouble. You have such a nice attic to hang things in."

NO UNDUE HASTE.

Discussing the political situation across the line, that pro-Republican but Anti-Protectionist weekly, the Saturday Evening Post, remarks, that in coming Congressional elections, "The only real fight is against that scheme of government, which, in the words of the clothing manufacturers, has taken one-third from the weight of woollen cloths, and at the same time established higher prices for the deteriorated article. That, and the whole category of favoritism, which it aptly illustrates, is what is to be voted on next November."

In another issue, the same journal comments in line vein of irony upon the official figures covering imports for the nine months ending April 30th, which indicate a reduction of duty by the last revision amounting to eighty-eight one-hundredths per cent on dutiable imports, or to almost two per cent as to all imports—free and dutiable combined. The Republican party, having since 1870, vouchsafed a reduction of 2.22 per cent on the duty on dutiable imports, the Post cheers its readers with the calculation that in about 400 years the tariff will be reduced to reasonable limits.

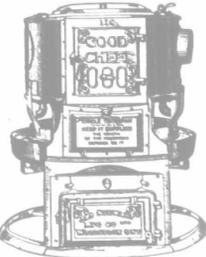


SCIENTISTS tell us man originally lived in the water. Be that as it may, health still demands a plentiful supply of moisture in the air we breathe as well as in the food we eat. The commonest cause of colds, sore throats, pneumonia and similar troubles in winter is the over-dry, over-heated atmosphere of so many furnace-heated houses.

Of course the average Furnace gives off heat—that's what it is for—but it's a dry, parching, snuffing heat that cracks your skin and affects your lungs and throat and makes you feel "chilly" in spite of an overheated house.

It is moisture that is wanting in the air—real natural humidity of the outside atmosphere—and the ordinary Furnace is not built to provide this moisture.

The Solution is the "Circle Water Pan" OF THE "Good Cheer" Furnace



A good big water pan—not a mere makeshift—placed where the water can be best evaporated, evenly distributed, breathing refreshment and "Good Cheer" air over the whole house.

The "Good Cheer" Furnace gives a natural, humid heat—an atmosphere which is perfectly comfortable at 69°, and as healthy as it is comfortable. Write for full information and the name of the nearest dealer to

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MICHIGAN WESTERN CEDAR POLES

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THE VALENTINE-CLARK CO. CHICAGO, ILLINOIS.

"Compensation," said Michael. "Phwat's that?"

"Why, I can't explain, but fur instance, if the sense of smell is poor, the sense of taschte is all the sharper, and if yez are blind, ye can hear all the better."

"Ah, yes," said Mike, thoughtfully. "I see it's loike this: Fur instance, if a man is born wid wan leg shorter than the other, the other is longer."

The professor was instructing his class on the necessity of using their faculties of observation.

"He laid on the table before him a pot filled with some vile-smelling chemical compound—a thick, brown stuff.

"When I was a student," he went on, "I did not fear to use my sense of taste."

"He dipped his finger deep into the pot, and then stuck the finger in his mouth.

"Taste it, gentlemen. Taste it," he said, smiling grimly.

"The evil pot passed around the class, and one after another we dipped our fingers in it, and then sucked them clean. The taste of the thick brown compound was horrible. We made wry faces and spluttered. The professor watched us with a grim smile.

"When the pot was finally returned to him, his thin lips parted, and he gave a dry chuckle.

"I must repeat, gentlemen," he said, "that you do not use your faculties of observation. If you had looked more closely at me, you would have observed that the finger I put in my mouth was not the one I dipped into the pot."

The Pioneers of Canada.

Daniel Carey

Ho' men of brawny shoulders, ho' men of horny hands,

What want ye in this wilderness where kingly pine tree stands?

What seek ye in this solitude where trade hath never been?

This is no fabled land of gold and sparkling gems between,

The tangled forest brush conceals the savage beast of prey;

Before you lies no smiling path—thick dangers bar the way;

The year is old—seek not to brave wild winter's icy frown;

Its wrath is grim, its breath is fierce, it hurls the strong oak down.

Then up spake one, a lordly man, of glittering eye and keen—

Of sinewy form, his clarion voice well matched his noble mien;

"We go not back, we fear no storm; we dared the ocean waves;

Twice fifteen hundred miles behind we've left our fathers' graves.

We seek no fabled cave of gems nor streams where gold sands run;

By God's command we journey on, our task we may not shun;

"Go forth," 'twas said, 'subdue the earth—this is man's work to do,

'Twas thus men mighty empires raised, 'twas thus the nations grew;

We are the men by fate ordained to hew this forest down,

And they who follow in our wake shall hold us in renown."

Long years the forest warriors plied the keen wedge-axe so well

That maples, pines and branching elms for leagues around them fell;

And where primeval gloom had dwelt for ages all supreme,

Down poured the golden sunlight's flood in broad, unbroken stream;

Man's curse accomplished, blessings came from out that curse distilled,

And men, rewarded in their toil, with plentyousness were filled.

Oh, men of brawny shoulders!—oh, hardy pioneers!

God grant ye peaceful, happy days through life's declining years.

What though no lofty obelisk may bid the future age,

Record your deeds in reverence on history's tennening page;

What matter though your names be lost, the mighty truth shall live—

That ye to exile, homeless men bright homesteads free did give.

Ye are the true foundation stones whereon our glories stand—

Long may your worth be held esteemed throughout this northern land!

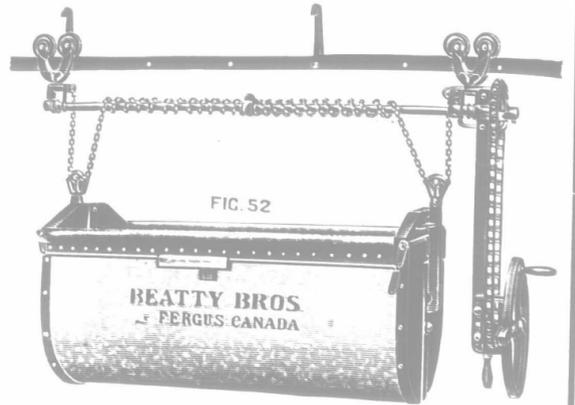
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WHY DOES THE  
**"BT" Litter Carrier**

SELL AHEAD OF ALL OTHERS? BECAUSE:

It is the simplest in construction—fewer parts to wear out or give trouble.  
 It is made of the best and strongest material—the windlass shaft is 1 1/4-inch cold rolled steel. The bucket is 18-gauge galvanized steel.  
 It winds up easier than any other, as it uses double purchase in lifting.  
 It has no gear wheels to wear out and cause friction.

It winds up closer to the track than any other.  
 It runs on the strongest litter carrier track made.  
 It is the easiest to erect, for "BT" Hangers, Switches, Swing Pole Fittings, etc., are all patented and cannot be duplicated.  
 It makes friends wherever sold, for it always works.  
 If you have a good barn, let us tell you more about the "BT" Litter Carrier. Write us today.



**BEATTY BROS., FERGUS, ONT.**  
 WE ALSO MAKE STEEL STALLS, STANCHIONS AND HAY CARRIER GOODS.

BT BT

**"The Winged Wardens."**

(Essay by May Byrn Crowe, Houston, Texas, awarded first prize in March Contest of Our Dumb Animals.)

"You call them thieves and pillagers; but know they are the winged wardens of your farms.  
 Who from the cornfields drive the insidious foe,  
 And from your harvests keep a hundred harms."

The grave warnings of naturalists, the passage of bird-laws, and the combined efforts of Audubon Societies in every locality seem futile to stop the slaughter of the innocents; for the work of bird extermination still goes on at the ruthless hands of men and boys who continue hunting to death, either for pleasure or profit, these beautiful and harmless denizens of wood and grove.

The destruction of bird life is awful to contemplate, and "has reached a degree of wantonness that threatens to totally exterminate many of the most useful species." And without the help of the birds, crop destruction by insects would menace the inhabitants of the earth with starvation.

In our own country, during the last year alone, the killing of birds caused a crop loss of a billion dollars.

The biological survey has found that thirty-eight species of birds, among which are orioles, nighthawks, and, foremost of all, the swallows, eat boll weevils in great quantities, thus aiding the Southern farmers in their warfare against this destructive pest. Nighthawks, chimney swifts, and killdeers, destroy mosquitoes, and experiments proved that it takes no less than five hundred mosquitoes to provide a meal for one of these birds. Sparrows destroy insects and worms that infest the foliage of trees; and everywhere man's tireless and industrious little bird helpers are foremost in the fight against every phase of insect life that preys upon garden and field.

As "winged wardens" of the nation's agricultural interests, they are indispensable, which fact alone should be their safeguard. And yet, with base ingratitude toward bird and its Maker, men go forth to kill and destroy.

**WOMEN NOT FREE FROM STAIN OF BLOOD.**

But in this unholy warfare against the birds, the gentle hand of woman, whose nature is tenderness and mercy and love, is not free from the stain of blood. The claim that the makers of styles in Paris compel the wearing of birds and plumage on millinery, holds not a shadow of exculpation; for who ever compelled a woman to wear what she would not? "When a woman won't, she won't, you may depend on it."

Alas for humanity! A gift is the first gift bestowed upon a boy, as soon as he is large enough to hold one in his hands, and long before he has reached years of discretion. And not only this, but his elders take delight in teaching him to mark and count the little flitting fea-



**The Ontario Agricultural College**  
 GUELPH, CANADA,

**Will Reopen September 20th, 1910.**

Our course in Agriculture is designed not only to make specially-trained agriculturists, but also educated men. A young man should have good public-school training, as well as good farm practice, before coming here. The course supplements this training, but does not repeat it. Send for a copy of our new calendar. It will be mailed free on application to:

**G. C. CREELMAN, PRESIDENT.**

**A Chain is no Stronger than its Weakest Link.**

**DE LAVAL CREAM SEPARATORS**

**are Strong and Practical in EVERY Feature and Part.**

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When the milk is old, cold, or viscous; when the temperature is low; when any of the many emergencies to be expected on a Dairy farm, arise, the DeLAVAL CREAM SEPARATOR will be there with satisfactory performance.

**The De Laval Separator Co.**  
 173-177 William Street  
 MONTREAL  
 WINNIPEG VANCOUVER

BEST RESULTS ARE OBTAINED FROM ADS. IN "ADVOCATE."

thered forms in tree or bush, and bring them down, crippled or dying, to gloat over their suffering and death as affording fine sport (?).

Dare they then pray "Thy kingdom come"? His kingdom is a kingdom of love, and no murderer shall be found therein.

One of the chief charms of nature is the birds. Their graceful flight, their flashing wings, their cheerful warbling, make merriment and joy for all who behold and hear. The oriole, the linnet, the cardinal, the mocking bird—all so varied and so charming—"where melodies alone are the interpreters of thought," make glad the heart of nature by their golden notes of joy; asking neither price nor reward, excepting the right to live in peace.

**IF ALL BIRDS WERE EXTERMINATED**

Imagine all the birds exterminated. Woods and groves, now jubilant with song, silent and deserted! The thrush, the robin, the meadow lark, and even the twittering sparrow, silenced forever! How dreadful the forest—plunged into silence and gloom! All these sweet-voiced "poets of the air," lent by the all-wise Creator for the pleasure and comfort of man, mute in death! Could any being, however cruel and hardened, contemplate such a possibility without a deep sadness and sense of irreparable loss?

"The boy is father to the man."

Boys, spare the birds! Whenever you kill a harmless singing bird for sport, you not only break the laws of your State, but you quench some beneficent quality in your own nature, and blunt the quickening impulse of human kindness that should be the better part of your being.

Help, protect, and encourage the birds, and study their ways, and find out how interesting they are. They will repay you tenfold.

Mothers, educate your sons in humanity, and teach them to love birds and animals. Do not bring them up to be unthinking, soulless creatures, bent on ruin and destruction, but teach them to think for themselves, and realize the value and importance of preserving these good servants and merry playfellows of man, that the "bravest are the tenderest," and that with all the strength of their manliness they must protect all innocent creatures from harm.

This will your work be more enduring and effective than if you gained the coveted right of suffrage, and simply made laws for the protection of these helpless creatures, for what is "graved on the heart" will speak in the life.

"How can I teach your children gentleness."

And mercy to the weak, and reverence for life, which, in its weakness or ex-

istence, is still a gleam of God's omnipotence.

When by your deeds, your actions, and your words, you contradict the very things I teach?"



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# The Farmer's Advocate

## and Home Magazine

"Persevere and Succeed."

Established 1866.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

Vol. XLV.

LONDON, ONTARIO, JULY 21, 1910

No. 930

### EDITORIAL.

Watch the egg-circle movement. It is the new thing in Canadian co-operation, and one of the most promising.

The trouble with the woollen industry is that it has too much protection already. That is, the manufacturers have too much protection. The result is our clothing bills are much higher than they would be with moderate duties on British imports.

"My own opinion is that sheep-raising in Ontario would still be exceedingly profitable if nothing but mutton were produced," writes E. C. Drury, who gives reasons and figures in support of his opinion. Quite right. The sheep, of all our live stock, is one of the most economical producers of human food. The wool is an extra, and the destruction of weeds another clear gain.

Our boys and girls must learn not only how to work, but to be proud of work; happy in achieving, and never so proud as in a good mastery over the impediments that Nature purposely places in their way. Eliminate the whine. Sing with the sun, and let every hand-stroke give joy to the clean vitality of a resolute citizen.—[The Independent.

Indicting Mr. Patten and others for their bull operations on the Cotton Exchange, observes the Saturday Evening Post, is very much like passing a law that a man may play poker all he pleases, but if he wins he shall be liable to thirty days in jail. Indicting a handful of bulls who happened to win, leaves the wrong and harm of gambling in cotton just what it was before.

Those who have given it a fair trial consider thinning one of the most important orchard operations. By relieving the tree of the tax of producing a surplus number of seeds, it guards to some extent against alternate bearing. By removing defective fruits, it improves the quantity and sample of the number-one grade, and, especially if the thinnings be destroyed, it reduces the percentage of insect injury.

The itinerary through Eastern Canada of the Royal Commission on Industrial Training and Technical Education was announced in "The Farmer's Advocate" of July 14th. That the Commission will hear the industrial-training side of the case fully set forth may be taken for granted. Those educationists and others who recognize the need of knitting rural education more closely with that best and sanest of all callings, agriculture, should not let modesty deter them from appearing before the Commission to emphasize this side of the subject.

Citing facts from experience, Mr. Drury riddles the argument that a duty on wool is necessary to make sheep-raising profitable in Canada, strongly supporting our statement that wool constitutes a relatively small proportion of the returns from our flocks, and demonstrating that a five-cent duty on wool, even though the wool-grower got the full benefit of it—which is unlikely—would swell the returns from his sheep only about three per cent. That small gain to him as a sheep-raiser would probably be much more than offset by the increased prices he would have to pay for woollen clothes, if the duty on cloth were raised to the extent Mr. Biggar seems to suggest.

### Almost White Slavery.

It is customary in this country to deplore the conditions obtaining in the Old World, where it is so difficult for a laboring man to attain a competency or aspire to any social rank above the one he was born into. Yet, if many of us had our way, we would have practically the same situation reproduced in Canada. The spirit of dominance and selfishness is strong within us. We may rejoice in a general way to see the other fellow well-off, but for ourselves the ideal is to have many workers receiving low wages, to the end that we may derive much profit from their labor, and enjoy privileges that are out of the question for our less-fortunate brethren. This spirit is sometimes manifested in shocking instances. We heard of a case in Oxford County the other day, where a well-to-do farmer had hired an Englishman and his wife, the latter assisting more or less with the heavy housework, such as washing, milking, etc., and the man working faithfully the usual full hours observed on a dairy farm, and these two people, boarding themselves, received a combined yearly salary of free house rent and \$150, or less than three dollars a week. They lived for weeks, it is said, on bread and apple sauce. It would be interesting to observe how an employer who took advantage of a poor man that way would square his account with the Recording Angel.

### Summer Course for Rural Preachers.

The last may not always be the best, but in this case it is at least one of the best. Amherst Agricultural College (Massachusetts) has a summer course for country preachers. This work was first begun last year, and twelve pastors attended. These have spread the report of the benefits of the course, so that many more are expected to be in attendance this year, and success seems evident for the plan.

What do the ministers study at the Agricultural College? The practical problems of the farm. They receive lectures upon live stock, crops and soils; they study co-operation on the farm, rural literature, rural education, agricultural economics, and the social organization of rural communities. And for their wives is given a course in domestic science, which is calculated to assist them in becoming more fully helpful leaders of country women.

Why should these things not be? The congregation of the country preacher and the village pastor is made up of farmers, their wives, sons and daughters. These are his people, his associates, his friends, his peculiar charge. Until he can meet them as friends, talk to them not only on the beauty of the character of Christ, but also on the beauty and character of their Clydesdales, until he can show a mastery of the everyday problems of the farm, and of the youth thereon, he cannot expect to command their respect and confidence when he essays into the higher realms. He seeks to be the adviser, the leader of these young farm people; first, he must gain their respect and friendship. Can he do it if he shows small desire for that close touch with Mother Earth which is their lot, and which is not usually associated with a standing collar, a Prince Albert coat, patent shoes, and dainty hands?

The wonder is that the country preachers have not asked for this work years ago; that the divinity schools have not incorporated such work in their theological courses, for the great majority of ministers turned out each year must go to the country and small-town pastorates, and must remain there, whatever their ambitions may be. The great toleration of the rural population,

and their reverence for the divine calling of the preacher, has given them a passive leadership which has taken more of the outward form than of the real spirit of masterful directing.

The country church and the country school should be the two centers about which the community rallies, and from which its life may be directed.

The summer agricultural school for the preacher will do much to accomplish this end. It is a splendid idea, and should be more widely introduced.

### A Fair and Convincing Argument.

The strongest argument is the one which takes cognizance of all the essential facts. So many writers and speakers seek to strengthen their case by ignoring the modifying factors, leaving these for their opponents to bring forth. This gives the opponent an opportunity to magnify them in his reply, and cast a well-deserved imputation of unfairness upon controversialist number one. We were pleased to observe that Mr. McMillan, in his closely-reasoned letter, pointing out the handicap that has been imposed upon Canadian agriculture by the system of protection in vogue, and the folly of Canadian farmers giving a handle to the protectionist propaganda by seeking a dubiously-advantageous protection on their products, did not go to extremes and attribute every ill of agriculture wholly to this cause. He frankly admits that Mr. Flavelle, "in his timely and able letter, is right in saying that the large body of Ontario farmers do not sufficiently grasp the possibilities of their favorable situation," and that "these are, in their lethargy, almost a deadly handicap to the notable exceptions to which he (Mr. Flavelle) refers. Nevertheless," concludes Mr. McMillan, "the situation is before us, and it is greatly deepened through the conditions of which I speak." That is quite true, and we believe that to many readers the complex tariff question will have been rendered much more clear through the fair, strong and lucid article published over his name in "The Farmer's Advocate" of July 14th. It will pay Canadian farmers to study not the superficial promises, but the fundamental principles underlying tariffs and trade.

### A Country Governed by Farmers.

The three things, according to Frederick Howe, which make Denmark unique are peasant ownership, nearly universal co-operation, and the political supremacy of the peasant class. Denmark has "a farmer Parliament, a farmer Ministry, and a farmer point of view in its legislative enactments." Over 89 per cent. of the Danish farmers are said to own their farms, the average size of which is thirty-nine acres. A farmer who has paid one-tenth or more of the purchase price of a farm can borrow from the State Treasury on mortgage, at four per cent., to pay the balance. The railways are State-owned, and conducted to pay wages and expenses. City wages are determined by the agricultural index.

Intensive cultivation and co-operative buying and selling have made the Dane the best farmer in the world. The farms, says Mr. Howe, are cultivated like market gardens, the chief products of which are butter, eggs, bacon, poultry and fine stock. There are now 1,087 co-operative dairies, comprised of a membership of between 90 and 95 per cent. of the farmers. These export to England nearly a million dollars of butter per week. The egg-export society is another example of co-operation. It was organized in 1895, and has developed an export business of over six million dollars per year. The eggs are stamped, and expertly graded. Emphasis is put on quality, rather

THE FARMER'S ADVOCATE

AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

PUBLISHED WEEKLY BY THE WILLIAM WELD COMPANY (LIMITED)

JOHN WELD, MANAGER

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than on quantity, and hence the products command the highest market prices. Mr. Howe's conclusion, as stated in The Outlook, is that Denmark, notwithstanding its exclusively agricultural conditions and aims, is demonstrating that the old individualism must give place to a more or less socialized organization.

Business Sense in Business.

Having read with much interest the letter from Mr. Flaville, in a recent issue, and your editorial comment on the same, I am prompted to write a few lines in reply, even in the face of the fact that you have fortified him against all adverse criticism.

Many of the statements and conclusions in his letter are, no doubt, correct, but I am sure the majority of your readers will agree with me that they would have come with better grace from almost any other man in Canada.

Does Mr. Flaville know that cooperative factories are being able in Ontario, and that efforts along that line by farmers have been frustrated the success of which would do more to alleviate any stringency, if there is such, than many "open letters," resolutions, commissions, or even "editorials"? Among much other good matter what is the real trend of the advice contained in the letter? Is it not to work harder, produce more, and sell it cheaper? Were Mr. Flaville to offer such advice to manufacturers of any other line, their respective "Trade Journals" would promptly resent such unwarranted interference. In the face of this, your action in endorsing the letter, and then applying the closure, to all concerns, seems to me the most arbitrary stand I have ever seen in your valuable journal, which has been in the writer's hands since its first issue.

In your comment on the press in Minister of Agriculture, I am sure the Farmer, as a class, proud of a strong man who has the courage to "Produce all things and hold fast that which is good," rather than a "strong man" who might have celebrated his manhood by the advice by a Spectatorial plan, is certainly not missing the one that is the real trend of the Minister's advice, nor that of his own "Trade Journals" and means, which, the consumer, who pays for his flour and meat, may be the more benefited by the luxury.

Should you not have COMPTON B. JELLS.

The following is a copy of the text of the letter, as published, as the basis for comment, that will save the liberty of making it the text of

an editorial. First of all, we assure our readers that what we have recently said about the Provincial Department of Agriculture and its head was published reluctantly, with no ill-will motives, but from a simple sense of public duty. Spectacular inauguration of new policies is not demanded or desired, but grasp of the situation, leadership, and broad progressive administration of the Department are not too much to ask. We have supported the present Ontario Government in many of its policies, and trust that criticism of the Agricultural Department may be supposed to be the opposite to our concentration.

As for Mr. Flaville, we have not undertaken to protect him from fair criticism, only from that which imputes ignoble motives, or is not evidently designed to contribute constructively to the discussion of the question of reformation. There has been far too much already, setting up a retaliatory spirit among pork-raisers, and causing them to lose hundreds of thousands of dollars through neglecting a profitable branch of husbandry, whose meantime our export bacon trade has been going to the dogs, or in other words, to our competitors. We may as well subvert our minds at once of the idea that our pork-packers or any other class of businessmen are running their business on philanthropic principles. None of them do, and until the millennium comes none of them likely will. They are in the business to make money, and they do it by buying cheap and selling at a profit. Does not almost every farmer seek to do the same? To be sure, some men are more grasping—which is to say, more shortsighted—than others. This does not pay. Of all our Canadian business men, Mr. Flaville is one of the most earnest-minded and courageous. His frank expression of sincere ideas is a refreshing contrast to the reticent attitude of so many business men.

Really, now, brother farmers, man to man are we making the best use of the business opportunities open to us? Will it not pay us individually to engage much more liberally in the production of crops like corn, alfalfa, clover, peas, fruit, vegetables, and such lines of stock as hogs, poultry, sheep, horses, and possibly even cattle? Could we not considerably enlarge our production of these things without danger of slumping prices below the margin of liberal profit? If Mr. Flaville believes this, has he not a good right to raise the question, and is he not performing a valuable public service by doing so? Had he help to trouble the cooperative pork-packing enterprises? We have no direct knowledge that he did, but even so, have not many business men done the same in the past and other times? For the matter of that, Canadian farmers are not in a position to throw a stone. THEY DID NOT STAND BY THE CO-OPERATIVE MOVEMENT THEMSELVES! The producer who knows his own movement can scarce blame anyone else for doing so. It is high time we dismissed from our consideration of business questions all notions of sentiment, and let each man weigh dispassionately, in a hard-headed business manner, the question of what lines of farming it will pay him to follow, conditions being what they are. For our part, we are convinced that Mr. Flaville is no party to any pork-packing conspiracy. The importation of live hogs has been prohibited, and the farmer's interest is safeguarded against dumping by a reasonable duty on pork. The bacon industry is a good one for the country, and very profitable, to the producer. Let us go ahead steadily, then, raise hogs and other stock, and be godless, save for the old-fashioned drop.

Fruit-packing Contests.

Believing that fruit must be properly packed before it can be marketed to advantage, the program of Horticultural Department in British Columbia are meeting the situation by offering prizes for fruit packing. The competitors will comprise those who have been trained in raising such crops, and who have the necessary standing society. The contest will be held in general, and will be given a fair trial, and will be in addition to the ordinary work of the post.

British Columbia seems bent on developing production of fruit, and the quality that depends on quality of fruit, and to maintain a reputation. Some of the best fruit have been adapted to sea-level

and fungus troubles, and now practical steps are being taken to have the fruit from mountain orchards presented to the purchaser in the best possible condition. This is the kind of work that counts.

A bulletin on this, issued by the State Board of Health in Florida, closes with this, taking a rustic:

- Flies are disease carriers. Live and breed in all kinds of filth. Infect food and drink by germ-laden feet. Even female flies can lay 150 eggs. Should be kept out of dwellings.

HORSES.

"The Beam and the Mote."

Editor "The Farmer's Advocate":

There is nothing significant in the fact that my letter, published in your issue of June 2nd, was undated. Mr. MacNeillage would almost lead one to believe that his letter of April 14th, published in you on the 7th inst., was ignored. Such is not the case. It reached Ottawa on April 25th, and the next day was sent to the Secretary in Toronto, for consideration by the Clydesdale Board at its next meeting. I was told unofficially by one of the members, that the Board declined to take further action. Mr. MacNeillage, writing to me under date of June 18th, drew my attention to the fact that I had not replied to his April letter. I communicated with the Secretary in Toronto, and a few days ago he wrote me: "So far as the Clydesdale Association was concerned, the feeling seemed to be that the matter ended when the resolution referred to by Mr. MacNeillage was passed. I was not instructed in any way regarding the matter." Mr. MacNeillage's letter contained practically no information that had not been before the Canadian Board on former occasions. It may be interesting to note that the letter, to which Mr. MacNeillage's of April 14th was a reply, was the final reply of the Canadian Board in the Sir Henry matter. It is as follows.

March 23rd 1907.

Archibald MacNeillage, Esq.

Your letter of the 22nd of January, in further reference to the cancellation of the certificate of the horse, Sir Henry, imported in 1906 by Messrs. Smith & Richardson of Columbus, Ont., came to hand on February 2nd. Mr. John Bright, President of the Clydesdale Horse Association of Canada, immediately called a meeting of the Board of Directors. The full Board met on Feb. 14th, and, after due deliberation, the following resolution was passed:

That this Board, after again considering their action of the 29th day of October, 1906, in refusing to cancel the Canadian registration of the stallion imported by Messrs. Smith & Richardson as Sir Henry, 13299, confirm their decision of that date, and hereby authorize the Accountant of the Canadian National Records to communicate with the Council of the Clydesdale Horse Society of Great Britain and Ireland to this effect:

As directed by the Board, I send you, the above resolution. The Board further directed me to say that it was only after most careful inquiry that it was decided by resolution, on the 29th day of October, 1906, not to comply with the request of your Council and cancel the Canadian registration of Sir Henry, and substitute the horse, Braidie Prince. Braidie Prince is described by you as "Light bay, ratch of face." Sir Henry is described as "bay, broken stripes on face, little white on off fore leg, near fore leg dark, hind legs white to hocks." The latter is the exact markings of the horse imported by Smith & Richardson in 1906. A photo of Smith & Richardson's horse is in the possession of Mr. Peter Crawford, and has been since before your cancellation took place.

The Board looks with consternation upon the action of your Council in the cancellation of a certificate in the manner that you did, after an animal had been in Canada almost three years, and had stood for service for three seasons, and is the sire of many foals. The certificate of Sir Henry was cancelled by you without explanation other than that it had been ascertained that he was still in Scotland. You have not, as far as we have been advised, stated that Braidie Prince bore similar markings to Sir Henry. Braidie Prince, as you are aware, is not eligible for registration in the Canadian Book, not having the necessary number of numbered sires and dams. Of course, prior to July 1st, 1907, he was eligible, as the present rules were not in force at that time.

The Board desired me to express upon your Council that they decided not to accede to your request, only after the utmost deliberation, and that they have no intention to recede from the position taken.

On October 12th, 1906, I wrote you that if

was not advisable for you to issue an export certificate for this animal which you claimed to be Sir Henry, as he would not be eligible for registration in the Canadian Book. Notwithstanding this, you issued an export certificate for Gallant Gray, sired by him, imported in December by Wm. McCallum & Bros., of Brampton. The Canadian Board, to put it mildly, were extremely surprised.

Apart from the foregoing, the Board of Directors of the Clydesdale Horse Association of Canada, and Canadian importers generally, deplore the apparent carelessness of many of your breeders in describing color and markings. Scarcely a shipment comes to Canada that can be wholly identified by the export certificates provided.

In this connection, it is under consideration whether it is not absolutely necessary for the protection of Canadian buyers to have all Canadian import certificates specify color and markings. The result of this would be that if the color and markings of an animal for which free entry is applied did not correspond with the description on the import certificate, duty would be collected, or the horse returned to the country from which it came.

I am sending a copy of this communication to your President, H. B. Marshall, Esq., Rathan, Broughton, Peebles-Shire.

JNO. W. BRANT.

It is hardly worth while to again refer to the matter of the Imperial Hunter Studbook, but in view of what Mr. MacNeillage says in the letter to you, I may just mention that he made no representations to us whatever. A letter written to me, dated April 15th, signed by the secretaries of the English Shire Horse Society, the English Hackney Horse Society, the Hunter's Improvement Society, and the Polo and Riding Pony Society, contained the following:

"The various books issued under titles prefixed by the word 'Imperial,' and their position and value, may be best estimated by the following resolution, adopted jointly by four of the breed societies in December last, viz.:

"The Shire Horse Society, the Hackney Horse Society, the Hunter's Improvement Society, and the Polo and Riding Pony Society are desirous that it be known that they have no connection in any way whatsoever with Imperial Cart Horse Studbook, Imperial Harness Horse Studbook, Imperial Hunter Studbook, Irish Hunter Register, Imperial Pony Studbook, or any other books issued by Harold R. Burgess, and also that all communications respecting the four societies emanate from 12 Hanover Square, London W., and from no other address whatever.

"The great majority of the agricultural societies and horse shows in the United Kingdom and Ireland are affiliated to the breed societies who offer at their shows gold, silver and bronze medals and cash prizes, and the following resolution, jointly adopted by the respective councils, emphasizes the views of their 10,090 members, viz.:

"That these societies will decline to give their medals at shows offering those of the Imperial Studbook, edited or published by Harold Burgess.

"The books issued as being 'edited by H. R. Burgess' are not officially recognized here or on the Continent, and in the absence of a properly constituted and controlling committee, can only be issued with one object, for personal gain."

"We venture, therefore, to ask that you will bring these facts to the official notice of the Canadian National Live-stock Records, so that they may be further investigated, and that in the interest of the British breeder and the Canadian importer, the official recognition, which must have been accorded under a misapprehension, may be withdrawn from all entries in these self-constituted books."

Regarding the tabulated export certificates, at the 1909 annual meeting of the Clydesdale Horse Association of Canada, the following resolution was passed:

"Application for registration of imported animals must be accompanied by a tabulated certificate, in addition to the regular export certificate, showing ancestors numbered as required."

I quote Mr. MacNeillage as follows on February 21th, 1909:

"At the annual meeting of the Clydesdale Horse Association of Canada, which took place in January, importation of Clydesdales not eligible for the Canadian Book was discussed, and it was the feeling of the meeting that, in order to protect Canadian importers and breeders, we should request that you issue a certified, tabulated pedigree, showing numbers, in addition to the certificate now issued. The tabulation required would be sire and dam, and grandams and grand-sires. With this end in view, a resolution was passed regarding the rules of entry as far as imported horses are concerned. As soon as this amendment is incorporated at the Department of Agriculture, Ottawa, we will be unable to accept pedigree for registration without the required tabulated pedigree. We would ask you to supply the tabulated certificate for horses leaving Great Britain, and after the 1st of April.

I can say that I was delegated by the Clydes-

dale Horse Association to take the matter up with you.

Trusting this will cause no great inconvenience.

JNO. W. BRANT.

Mr. MacNeillage replied as follows:

"I have yours of the 24th February regarding new regulation passed by the Clydesdale Horse Association of Canada, with respect to duplicate certificate in tabulated form for Clydesdales exported from this country to Canada. Your request in this matter will be complied with, although the labor entailed will be doubled, and the fees here will not be increased. I wish I could see any good purpose served by these restrictive and hampering regulations. However, we will do our best to meet the Canadian views."

(Sgd.) ARCH'D MacNEILLAGE.

Secretary.

P. S.—I have received a letter on the same subject, dated Feb. 18th, from Mr. Sangster."

"A. MacN."

The following was received from Mr. MacNeillage in further reference to tabulated certificates:

Glasgow, April 2, 1909.

Referring to my former letter regarding your demand for duplicate export certificate of every animal shipped to Canada, I now enclose a rough proof of draft duplicate form, and will be glad to have your opinion on it, as well as answers to questions in mine of 15th March.

The Council met on Wednesday, when the request of the Canadian authorities was considered and agreed to be granted, but I was instructed to remonstrate with your Clydesdale Association on the utter unreasonableness of their method of procedure. More than once they have made demands of this nature, without affording any opportunity

judging from past experiences, that any one who comes here will know what is to be done with them.

(Sgd.) ARCH'D MacNEILLAGE.

March 30, 1909.

Arch'd. MacNeillage, Esq.

Yours of the 15th inst. to hand, containing the two enclosed blank certificates. We have struck out some of the wording in the tabulated form.

Now, as to disposing of these two certificates, it would probably be better for you to forward them to us, as both must come here before Canadian registration will be made. The tabulated one we will retain, and place on file, issuing a customs-import certificate as per the enclosed form. Your usual certificate of registration will be sent to the importer, together with Canadian certificate.

If we have not made the matter clear, kindly write us further.

JNO. W. BRANT.

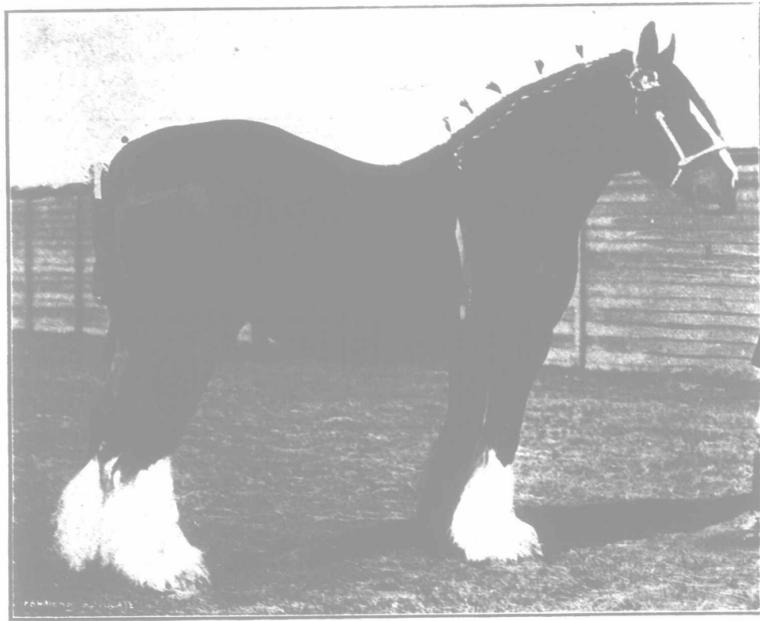
The resolution making the change in the rules shows that the tabulated certificate was a demand made by the Clydesdale Horse Association of Canada. The letters speak for themselves. Mr. MacNeillage submitted a draft duplicate for approval. It read on its face, when returned: "Certificate of record and pedigree to conform to Canadian regulations re importation of animals for breeding purposes, and to be placed on file in the office of the Canadian National Records." This wording alone is a guarantee to Canadian importers of eligibility of Scottish horses for the Canadian Book. The letters quoted go to show that there was no possible misunderstanding about the matter at the time, and I claim that my criticisms in your issue of June 2nd were justified.

I have discussed at length with John Bright, President of the Clydesdale Horse Association of

Canada, that part of Mr. MacNeillage's letter in your issue of 7th in t., dealing with the issuing of tabulated duplicate certificates. Mr. MacNeillage says: "In view of this, the Council here will now be asked to reconsider the issue of such duplicate certificates in tabulated form."

The situation is this: The rule requiring these tabulated certificates is part of the constitution of the Clydesdale Horse Association of Canada, incorporated under the Live-stock Pedigree Act at the Department of Agriculture, Ottawa. In the absence of such certificates, not a single Scottish horse can be recorded in our Studbook; in other words, not one will be eligible. Mr. Bright states that the regulation was passed wholly for the protection of Canadian importers, and that there will never be a suggestion to rescind it; and even if there were, such a proposal would not likely be entertained by the Department of Agriculture. JNO. W. BRANT.

Canadian National Records, Ottawa, Canada.



Bardon Forest Princess.

Shire filly, foaled in 1907. First in class and female champion, Royal Show, Liverpool, 1910.

for corresponding about them, or even considering them in detail, and henceforth the council desire that six months notice of all changes in regulations should be given and received. In view of the fact that my Council is not always sitting, and correspondence, in round figures, between us, occupies, of necessity, at least three weeks or probably more, this appears to my Council to be a reasonable and fair request.

We are willing to meet the Clydesdale Association in every possible way, but must have time to consider, and make necessary adjustments if changes are called for.

I am to-day informed by Isaac T. Armstrong, Rowmoor, Dearham, Cumberland, that the horse recently exported to James Hay, Lachute, Montreal, as Dunduff Charlie 11898, is already registered for Volume 31 as Lord Hamilton 11716. He will not be entered as Dunduff Charlie.

(Sgd.) ARCH'D MacNEILLAGE.

The following letter and my reply also bear on the regulation requiring tabulated pedigrees:

Glasgow, March 15th, 1909.

I enclose herewith the two forms of certificate, which, as I understand it, will, on and after 1st April, be required for horses exported from this country, to Canada.

Please be good enough to say whether this new form which I have adapted from an old form kept for U. S. A. purposes—what am I to do with these two forms? Am I to forward form No. 2, which is tabulated, direct to you, and hand the other, as formerly to the exporter, or am I to deal with them some other way? Kindly let me know by return, as it is not at all likely,

A Use for the Thoroughbred.

Editor "The Farmer's Advocate":

As a lover of the English Thoroughbred race-horse, may I appeal to Canadian importers to consider the merits of this breed when importing horses into this country, and bring them in in greater numbers.

After careful observation of the light class of Canadian mares, I have come to the conclusion that mating them to short-coupled, well-ribbed-up Thoroughbred English stallions, with not too much gaylight under them, would improve the light class of horses in this country out of all recognition, and I am sure, greatly appreciate their value.

Light horses, 15.2 to 16 hands, with strong loins, and hocks close to the ground, are in great demand as remounts for the Imperial Army, and our buyers but know where to find them in reasonable numbers, they would soon be around looking for lively chargers.

The progeny of the above-mentioned mating would, I venture to say, prove to be drivers of exceptional lung power and endurance, and, although perhaps they would not be so fast when driven as if they had a Standard-bred horse for a sire, would more than make up for their lack

of speed by the number of miles they could travel without distress.

As a saddle horse, the first cross from an English Thoroughbred and a light mare is second to none. Who would ride in a buggy if he had a good saddle horse in the stable? And the pleasure derived from a ride on one of them is sufficient to drive away dull care, and to make life worth living.

If this class of horse can be imported into the country in such numbers that they may be within the reach of all, may I also appeal to farmers and breeders to use them, use them!

Elgin Co., Ont. BERTRAM C. BALL.

### The Head of the Horse.

Much emphasis is properly laid upon the head of a horse, no matter of what breed he is. Besides entering largely into the whole sum of a horse's beauty, from a practical standpoint, the head has a great deal of significance regarding the breediness, the disposition, the stamina, and vitality of its bearer.

A neat, trim, proportionate head is desired, if beauty is to be attained. A large head is ungainly, and indicative of underbreeding or mongrel breeding. This is especially true in the lighter breeds. Yet, a large head is preferable to an unduly small one, it being pretty largely accepted that a horse with so small a head lacks in vigor. In heavy-draft horses, the head is preferred to be always quite large, yet in proportion to the scale of the entire animal.

It is especially desirable to have the forehead broad, and the eyes prominent, full, clear, placid and fearless. Width between the eyes denotes courage, and bespeaks the intelligence of the animal. Much is to be learned from the eyes. A small, sunken eye usually accompanies a vicious, sullen, unreliable disposition. The cheerful, free, generous horse shows it in his bright, full, lively, yet not excitable eyes.

The full front view of the horse's head should show the greatest thickness at the jaws, with the head tapering towards the muzzle. The profile should show full between the eyes, but not bulging, and straight from the eyes to the nose. A dish-face is not attractive, if at all pronounced, though a slight dish is often seen in the lighter breeds, and is not a serious objection. In light breeds, a Roman nose is not liked, though it is usual in the Shires, common in the Clydesdales, and frequent in other heavy breeds. It is usually believed to be associated with a rather wilful and enduring disposition. In light breeds it is associated with a lack of refinement, which is associated with the straight or slightly-dished face.

The lips should be strong and neatly carried; the nostrils large, dilating and fine. The ears lend much to make or mar the beauty of the horse. They must not be too far apart, and, while carried slightly forward, must chiefly be erect. It is very desirable to have them nicely pointed.

The attachment of the head to the neck is very important. Throatiness or thickness at the juncture of these members is not desirable. The jaws should be wide apart at the angle, and curve well upward at the rear. A coarse setting of the head results in an awkward carriage, resulting in a plain-appearing horse.

### Weans His Colts Now.

Forest Henry, one of the Farmers' Institute-workers in Minnesota, and a successful farmer, says that his experience teaches that the time to wean the colt, even if not more than three months old, is before going into the harvest field with the mare. He teaches his colts to drink skim milk and to eat oats with the mare before weaning. But, in feeding skim milk, caution is used on Mr. Henry's farm at first, and the amount of milk is limited to two or three quarts a day. After a few days, the amount is increased at each feeding time. Oats and wheat bran are fed the colts quite freely. Second-crop clover, free from mold, is excellent hay for the colts. Provide plenty of exercise, with access to shelter. Darkening the stall during fly time through the day, and turning the colts out at night, is a good plan to follow. When the flies are gone, and cold weather approaches, reverse the scheme by sheltering at night and giving exercise through the day.

Live stock on the farm will supply manure necessary to soil fertility and maintenance of humus in the soil. Live stock, in the experience of the Minnesota Experiment Station, requires clover, corn and other forage crops to keep up an ample supply of manure. The Experiment Station records show that the largest yields of the various farm crops are secured when grown in rotation, including clover and corn, with the application of barnyard manure. These crops, in conjunction with grain crops in a three to five-year rotation, provide a good way of keeping the farm free from weeds.

## LIVE STOCK.

Sheep for show should be frequently handled, taught to poise, and so accustomed to the shepherd as to understand and not fear him.

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Cabbage and turnips are two splendid crops to plan to have on hand for the show season. They are much relished, and very conveniently shipped.

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The feet of show sheep must be most carefully watched to prevent them from getting long, then breaking too short, causing the sheep to go lame.

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Arrange to feed the show sheep and lambs in troughs that do not cause a rubbing of the wool from the face or chests. Neither should dirt be allowed to get into the fleece on the neck or back.

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In Alberta, sheepland men are much elated with their prospects. They have had a large lamb crop, and have been fortunate in losing but few of them. The lambs have grown well, and are now practically beyond the most dangerous period of their short careers.

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The more one travels, the more impressed is he with the value of sheep on the farm. The writer has been driving for a week, giving aid in the combat with weeds. Two things made themselves evident in this warfare. These are, a short rotation, accompanied by thorough cultivation, and flocks of sheep. These two features invariably marked the thriftiest, most up-to-date careful farmers. The plows and harrows keep the weeds down in the cultivated fields, the sheep destroy them in the pastures and by the fences in stubble fields. And the men find both features profitable.



Weed-destroyers at Work.

### Dutiable Wool.

Editor "The Farmer's Advocate":

While endeavoring to give a few thoughts, as per your request, on the question of duty on imported wools, which is of late much discussed, permit me, at the outset, to state that the pressure of many present duties limits the extent to which it is possible for me to deal with so large and most important a consideration just now.

There is not a man, woman or child in our Dominion but who is dependent on wool, to a lesser or greater degree, for bodily comfort, because of climatic conditions. As a people, we are large users of woollen goods. And now our country is progressing at a marvellous rate. The rate of progress is bound to increase, and continue doing so for many years to come. With that, the consumption of woollen goods of the better qualities will surely keep pace, with increased numbers. That a brilliant opportunity is in reach of energetic, wide-awake manufacturers, is as clearly to be seen as the sun on a cloudless day. And they are encouraged by a very liberal protective tariff to so shape their course.

On the other hand, allow me to notice their sources of raw-material supply. We grow considerable quantities of wool in Canada—wool that is our (wool-growers') finished product, and one of the manufacturers' raw materials. When the National Policy became the law of the land, some

thirty years ago, when the makers of woollen goods were given a much lower protective tariff than they at present enjoy, we were promised a duty of three cents per pound on all imported wools "such as were grown in Canada." In looking back over the long thirty years, what do we find? Do we see each class of products mentioned given what was promised and placed on the statutes of our Dominion? By no means can such fair play be traced up. We do find the regulations regarding woollen goods changed from time to time, but that regarding imported wools remaining a farce from beginning to the end. Millions and millions of pounds of such wools as are grown in Canada have been brought in during the thirty years, and practically no duty collected. One year, recently, \$6 duty was collected, and the question arises, How so? Simply because the duty was evaded by the wool so imported having been through the simple first process of making it into tops and noils.

The results are, and have been, that the bulk of our Canadian-grown wool is forced to seek the American market, and for the privilege has to pay 12 cents per pound duty.

As growers of wool, we, at our Sheep-breeders' Association's annual meetings, determined to lay the case before the Government at Ottawa. The committee appointed had several interviews with some of the Ministers at the Capital, when the situation was discussed at considerable length, the deputations being given free-from-officialism receptions and patient hearings. At the last meeting, in May, a number of manufacturers of woollens were present, having been invited to attend by the Hon. Mr. Fielding.

To say, as was reported the following morning in a certain Toronto newspaper, in large print, "Manufacturers of woollen goods and sheep-raisers unite in asking for five cents on raw wool, and a corresponding increase on cloth," would be very far from being correct.

The sheep-raisers present did ask for five cents duty on wool and substitutes of wool, but we

most certainly did not join manufacturers in asking for an increase of duty on woollen goods. Nor were the manufacturers present by any means united in their requests. Indeed, one or two of their number appeared to be far more of a hindrance than a help to their cause, and very open disapproval of their statements was expressed at conference and after by some of the brother makers. On the other hand, the wool-growers were unanimous in their request for fair play; and why not? Millions of dollars, in the past years, that should have been the Government's or ours, have gone into the manufacturers' pockets, by the evasion of paying the prescribed duty on wool. At first the manufacturers were loud in their cry of ruin, should with shoddy and other substitutes subjected to a duty equal to wool, and all goods labelled, showing exactly what was their composition, making known to the purchaser just what he was buying, manufacturers of honest goods should and could successfully compete against any and all outside makers, scarcely a dissenting voice was heard. As it was, only one manufacturer at the conference would undertake to say that wool, and wool only, was used in his mill.

The present conclusions of the writer are that manufacturers, given Canadian wools, with imported wools, shoddies, etc., dutiable to the extent of five cents per pound, mills freely equipped with proper machinery to produce such goods as can be made successfully from our home-grown wools, and are in constant and increasing demand, with the pluck and determination to go in and win, they have now all the protective-duty advantage they require.

For them to say that the ruin stares them in the face, is, to say the least, most ridiculous, when we recall the fact of one of our leading woollen industries in Canada changing ownership, not long ago, with three hundred and fifty per cent paid for the original value of the stock; and the stock of the new concern now listed in the Toronto stock market, and selling at 85. Pennants of Paris, Ont., is the illustration referred

to of the present flourishing condition of woollen-goods manufacturing business in Canada.

Mr. Biggar's article, in your July 7th issue, contains many facts of interest. In one of his pamphlets, issued in the interests of the trade, he pointed out disastrous conditions existing in English boot-and-shoe factories some years ago, when the keen competition of American makers, with their much-improved machinery-made footwear, led to the closing up of many English works. But mark the results as told by Mr. Biggar. The Englishmen visited America, studied out the whys of their inability to compete, purchased proper machines, set their wits to work, and opened out their factories, to remain open and flourishing ever since.

There is a grand lesson in a nutshell to our woollen-goods makers. Be men, and rest satisfied with the ample protection you now have, and be unselfish enough to yield us gracefully our more-than-just due, when, for the long time past, you have been benefiting, and that largely at our expense.

"Bide a wee, and dinna fret," the little Scotch girl's definition of patience, practically pictures the present mood of Canadian wool-growers, but with that goes the strong, definite determination to have our finished article (wool) given its just share of protection, while protection continues to be the manufacturers' war-cry, and panacea for all their shortcomings.

Victoria Co., Ont. JOHN CAMPBELL.

**Honor Roll of Shorthorns.—V.**

By J. C. Snell.

In 1870, Joseph S. Thompson, of Whitby, imported a bevy of heifers from the herd of Amos Cruickshank, which entitles him to the credit of having been the first to bring Sittyton cattle into the prominence they afterwards attained in America, as included in that importation were the two red yearling Champion-of-England heifers, Sylvia and Christabel, which won first and second



The Late John Hope.

at the Provincial Fair that year at Toronto, and were greatly admired, but their stay with us was short, as they were purchased later in the same year by Simon Beattie for Col. King, of Minnesota. Sylvia developed into a 1,800-pound cow, and in 1875, at Jacobs' sale, at West Liberty, Iowa, was sold for \$2,500.

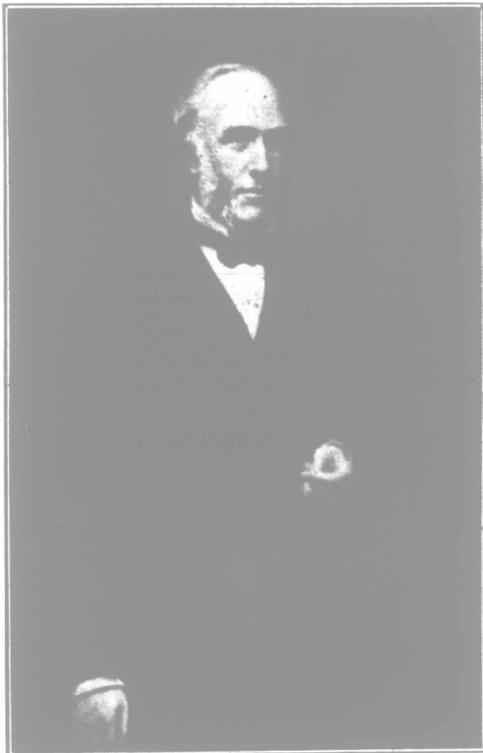
In 1871 Mr. Thompson made a larger importation, and from Sittyton he brought the grand light roan cow, Violet's Forth, then in her sixth year, sired by the great show and breeding bull, Forth. She was a phenomenal cow in character, and in quality of flesh and hair, but she, too, left us soon after winning first honors at the Provincial Fair the year of her importation, having been sold to Wm. Stewart, of Illinois, for \$1,000.

In 1871 was born the famous roan cow, Isabella =3201=, bred by George Isaac, Harwood, Ont., and sold when quite young to James Russell, Richmond Hill, who brought her out an exceedingly successful show cow, winning with her at the Centennial Exposition at Philadelphia in 1876, the grand championship gold medal for the best Shorthorn, male or female, of any age. And she was in the Russell herd which won first place in that, the first of the International Shows in America. Her sire was Wellington (imp.) =261=, bred by Sylvester Campbell, of Kinellar, Aberdeenshire, Scotland, and of the Bloom tribe. Isabella made a great record again in 1878, at the Provincial Exhibition in Toronto, winning, with unanimous consent, the first award in the aged-cow class, in competition with 17 imported cows. She was a cow of great substance and fine quality, and produced a number of show-yard progeny, some of which, or their produce, were in the Russell herd which made such a grand record for Canada at the World's Fair in Chicago, in 1893, winning, amongst others, the grand champion junior-herd prize, and the grand champion junior-bull award.

The sire of a bull, Scotsman 2nd =225=, bred by the Duke of Buccleugh, and shown by Birrell & Johnson in the seventies, was an extra good one, which was once first in his class and reserve for champion at Toronto, and proved a very successful sire.

In 1876, Hon. Geo. Brown imported, to head the Bow Park herd, the dark-roan Bates bull, 4th Duke of Clarence =79=, bred by Capt. Gunter, Wetherby, England. He was a leggy, lank yearling when he landed, and a disappointment to his owner, who had paid a very high price for him, but he developed into a grand show bull, massive, stylish, and full of quality, under the good management of John Hope and the feeding and care of James Smith, now manager for Senator Edwards at Rockland, Ont., and won the highest honors at the Provincial Fair in 1878 and 1879. He also proved an excellent sire, begetting, amongst others, the famous white steer, Clarence Kirklevington, the first Canadian winner of the grand championship at the American Fat-stock Show at Chicago, in 1881, having been fed and fitted, also, by James Smith. The Duke remained in service in the Bow Park herd until his death, which occurred in 1887. Living near Toronto, where I spent 56 years of my life on the farm on which I was born, it was my privilege to enjoy an intimate acquaintance with Hon. Geo. Brown during the years in which he was publishing the Canada Farmer, in the initial issue of which appeared a picture of our bull, Baron Solway; and later, when Mr. Brown was deeply interested in Shorthorns at Bow Park farm. Considering his manifold duties in other lines, it was surprising that he could devote so much time as he did to the study of pedigrees and the compiling of his catalogues. He was enthusiastic in this work, as he was in everything he undertook. He enjoyed a chat about cattle, pedigrees, and farming generally, and it was a real relief to him to spend his week-ends in summer at beautiful Bow Park. His tragic death from blood-poisoning, following a pistol shot fired by a disgruntled employee, was a painfully sad event, and a national loss.

In 1882 was born the noted roan Canadian-bred bull, Challenge =2933=, bred by J. & W. Watt, of Salem, sired by Barmpton Hero, dam a Matchless cow, bred by W. J. Biggins, of Clinton. Challenge was at least twice a champion at Provincial



The Late Hon. George Brown.

Fairs, while, as a breeder, he was equal to if he did not excel his illustrious sire. He was used in several Ontario herds, proving in all an uncommonly impressive sire, and ended his career in the Government herd in Prince Edward Island, where he left a splendid lot of daughters, begotten in his teens, which it was the writer's pleasure to see there, and which were remarkably good, considering the class of cows they were bred from. Challenge's greatest son was Stanley =7949=, a rich roan, born in 1886 (when the old bull was in use in the herd of Jos. Redmond, of Peterboro), and out of a Wimple cow. It will be interesting to follow in these chronicles the extraordinary line of champion bulls tracing from Barmpton Hero, through Challenge, Stanley and others, to more than the third and fourth generation, and constituting a record unequalled by any other in this history.

The only occasion on which the writer ever envied Barmpton Hero his honors was at the Provincial Fair at Kingston, in 1882, when I showed in the three-year-old class, winning first prize, the low-set, thick-fleshed and symmetrical roan bull, Waterloo Warder (imp.) =1315=, bred by Lord

Polwarth, St. Boswells, Scotland, and sired by Lady Pigot's renowned bull, Rapid Rhone. The tug for the championship was between these two bulls, and I was not alone in the opinion that Waterloo Warder should have won; but, as an old friend of mine, an exhibitor, used to say, "It all depends upon the judges," and one of the judges on this occasion was Professor Brown, then Principal of the Ontario Agricultural College. This was my first observation of a professor as a judge, and I suppose I should admit the probability that in this case I was not an entirely impartial critic.

In 1885 were imported by John Hope, for Bow Park Farm, of which he was then manager, the two magnificent roan cows, Lady Isabel =5156=, of Pooth breeding, bred by J. Outhwaite, of Yorkshire; and Havering Nonpareil 2nd =5733=, of Bates blood, bred by Wm. McIntosh, of Essex. These were extraordinary in their combination of size, quality and character, and at leading shows were very close competitors, sometimes one and sometimes the other being preferred by the judges, though Lady Isabel most frequently won, and it is doubtful whether a better cow than she has been shown in Canada. These, also, were fitted for the shows and brought out in grand condition by James Smith.

(To be continued.)

**The Real Trouble with the Sheep Industry.**

Editor "The Farmer's Advocate":

That group of Canadian "patriots" (who have in the past been so solicitous to increase the farmer's prosperity, by increasing the cost of all he must buy, and who have been so successful that increased cost of food, due to decreased farm population, has become one of our most acute national problems, never put forward a proposal that partook so greatly of the nature of a gold-brick as the proposed duty on wool. The pro-



James Smith.

posal comes ostensibly from the sheep-breeders and the woollen manufacturers, but I am informed by a prominent woollen man, in touch with the trade, that an import duty on wool would not be particularly acceptable to the woollen men, while it is hard to imagine that any man acquainted in the slightest degree with the sheep industry can seriously think that a duty of 5 cents per pound on wool, even if the farmer realized the whole in increased prices, could have any perceptible effect in encouraging the raising of sheep. It is good guessing that the whole proposal originated with that source of all fiscal evil in Canada, the Canadian Manufacturers' Association, who hope by this means to weaken the cause of lower tariff, which has become the settled policy of all farmers' organizations, by creating a protectionist party among the farmers themselves. Mr. Biggar, whose letter you publish, is certainly not a sheepman. So far as I know, he is not a woollen manufacturer. Is it equally sure that he is not in this matter the mouthpiece of the protectionist party in the Manufacturers' Association?

Now, let us not deal with theories, but with facts. The letter referred to is certainly rich in theories, and the result seems to be reached in logical form: increase the duties on wool, and sheep-raising will increase. As against these theories, let us place the actual facts as the sheep-raiser finds them, and see how much the proposed increased duties on wool would amount to. I raise sheep: my flock is a grade one, well graded to good Shropshire stock. It consists of twenty-five breeding ewes, with five ewe lambs kept each year to replace old ones culled out. The lambs arrive in April, the males are castrated, and all except those which are used for food, or kept for flock maintenance, are fattened the following winter, and sold in February or March. In short, my flock is one which could be kept on any farm in Ontario, in its proper place, as a side-line to other live-stock farming. There is no special equipment or care, other than would be given to any other form of live stock. Let us see how this flock pays, and how the additional five cents per pound for wool would affect it.

During the year just closed, I have sold from my flock \$234.80 worth of mutton, \$39 worth of wool, while five lambs, valued at \$6 each, have been used for food on the farm; total returns, \$303.80, of which \$264.80 has been for mutton, and \$39 for wool. Had the proposed duty been in force, I would have received 5 cents per pound more for the 135 pounds of washed wool produced, or, in total, \$9.75 more for my year's returns; that is, the total returns of my flock would have been increased by 3.2 per cent. I find sheep-raising pays well. Nothing on the farm pays better, and my profits are not cut so fine as to depend on the addition of \$9.75—the price of one fat lamb—to my receipts. The effect of the additional duty in raising the price of the clothes of my household would probably far more than offset the gain on the wool. I have not used the figures of my own flock from any desire to introduce personal experience, but simply as an example, for the truth of which I can vouch of such a flock as could and should be kept on the average Ontario farm. The figures given for last year are, I think, rather below the average yearly production, certainly not above it.

Now, will any man in his senses maintain that the addition of 3 per cent. to the gross returns of our flocks will have an appreciable effect in encouraging the raising of sheep? My own belief is that sheep-raising in Ontario would still be exceedingly profitable if nothing but mutton were produced. The sheep, while a great feeder, consumes cheap foods; the capital expenditure for housing is very small, and the effect of sheep on the farm in destroying weeds and weed seeds is very beneficial, while labor is a very small item, compared to other kinds of live stock. The wonder to me is that sheep-raising is not more widely followed under our conditions.

Now, what is the explanation of the decreasing sheep industry of Canada? Mr. Biggar explains it by a lot of figures of exports and imports, which may mean little or nothing, and, in interpreting which, cause and effect are very easily confused. The explanation is not far to seek, and it lies with the farmers themselves, and not in any lack of protective duty. We may as well be frank about it. While Ontario has many sheep-breeders of note, and many grade flocks, which pay well, the great bulk of the sheep in this country are wretchedly handled. I am fairly well acquainted with conditions in this Province, and know whereof I speak. I have no hesitation in saying that in Ontario there are not fifty per cent. of the farmers who keep sheep, who have proper housing for them, cheap as that housing is, not twenty-five per cent. who use pure-bred rams of any breed in their flocks, and not ten per cent. who castrate their male lambs, or who keep their flock reasonably free from parasites by the use of any sort of dip. If this estimate is correct—and I am sure that it does not err by representing conditions as worse than they are, let us see what it means to our sheep industry. It means that the sheep on half our farms have no shelter other than the barnyard affords, and are constantly exposed to injury by cattle and horses which use the same yard, so that yearly losses by accident run high. It means that three-fourths of our flock-owners do not follow any reasonable system of breeding; that the cheapest of mongrel males are used, and no proper selection of females is made. It means that the great bulk of our lambs have to be sold in that lowest class, listed as "bucks and culs," at a time of the year when the market is glutted with them. Is it any wonder that sheep-raising, when followed in this way, does not pay, or that those who follow it in this manner are getting out of the business? Would our bacon or beef or dairy industries have amounted to much if managed in the same way? Has not this sort of thing had much more to do with the decline of sheep-raising than the lack of an import duty on wool?

Our woollen manufacturers and, indeed, all our manufacturers—would like increased protection on their products, because it would enable them to charge more for their output. There is no doubt as to this. Our woollen manufacturers now have a protective duty of 30 per cent. in their favor, and this, added to the natural advantage of proximity to their market, should be ample to insure reasonable profits, and I am informed by one who knows intimately the conditions of woollen manufacture that this is the case wherever modern machinery and methods are used. There is little doubt that many of our woollen manufacturers are in the same class as our unsuccessful sheep raisers, and are looking to a protective tariff to make them a profit which should come from the application of more brains in their business. What is wanted is not more protection, but an educational campaign both on the farm and in the factory.

Then, again, this matter of protection to wool is an endless chain, it is hard to see where the onus comes. To give the farmer a gross return of 3 per cent. more than he now receives, or of about 10 cents per sheep, we would increase the cost of the woollen manufacturer's raw material by about 15 per cent. Consequently, he demands more protection, which again increases the cost of material to the tailor and maker of clothing. There, again, more protection is the remedy, and the whole accumulated burden falls on the shoulders

of the helpless consumer, with the effect of increasing the cost of living, which is already higher in Canada than in almost any other country in the world. The farmer will be injured in two ways: First, by having his own living expenses increased, and, second, by having his market injured by the greater economies which must be practiced in city homes to meet the increased clothing bill. Further, and worst of all, the farming community will have lost that jewel, consistency, and will no longer be able to meet the rapacious demands of the protectionist manufacturers with that statement of policy which has become a settled question to the 30,000 organized farmers of Canada, "The entire elimination of the protective principle from our tariff." Let us be clear on this question. The farmers of Canada are already suffering greatly from the effects of our protective tariff, in proof of which statement we have only to point out that the decrease in rural population, which is now rousing such concern, is co-incident with the application of a protective tariff in Canada. There is, and has been, a persistent demand from all independent farmers' organizations for the cessation of this policy, and now, just as success is in sight, comes this proposal for increased woollen duties, which would rivet our fetters more firmly than before. Let the farmers of Canada beware of strengthening in any way the hands of those who are already working them so much injury.

I have every sympathy with the efforts of the sheep-breeders to revive an industry which should be a great factor in Canadian agriculture. When, however, leaders in this matter come out in support of a measure of such doubtful value to sheep-raising as a protective duty on wool, especially where the support of this measure would mean the weakening of the whole position of the farmers on the tariff question, they appear before the public in a very doubtful light. They are either very badly-informed on the sheep question, very easily duped, or are influenced by other and more sinister influences. Let them stick to the policy of education, establish, if necessary, more demonstration flocks, and rouse the Department of Farmers' Institutes until the same attention is paid to sheep that has been paid to bacon and dairying. In these efforts they will have the hearty support of all who have at heart the agricultural well-being of Canada, and there is little doubt as to their meeting with early and complete success.

E. C. DRURY.

### An Illusory Proposition.

Editor "The Farmer's Advocate":

Mr. Biggar's long letter in July 7th issue is, I think, calculated to befog, rather than to clarify, the mind in regard to the duty on wool. Knowing Mr. Biggar's connection with the manufacturing end of the woollen industry, which has been agitating for years for an increase in the tariff on woollen goods, I would be disposed to read somewhat carefully between the lines when he ostensibly espouses the cause of the farmer, and advocates a protective duty on raw wool for the latter's special benefit. In regard to the general question of protection, I am firmly convinced that its practice has been a curse to the masses of the Canadian people; that, as a settled fiscal policy, it is fallacious in theory and vicious in practice, and that the Canadian farmer has been the special victim of its operations. Facts and argument in support of this contention I have given elsewhere, and space does not here permit a repetition thereof; but, looking at the matter as I do, I regard any agitation on the part of the farmer for special "protection," any joining in the general clamor for such assistance, to be a commitment to support unsound policies, effectually stultifying his efforts to get rid of the incubus of protection. Nothing will so satisfactorily induce criminal silence as the taking of a bribe; and if the Canadian farmer clutches at the bait now being thrown out to him, he loses his integrity and independence, and the public confidence and respect that rest upon that integrity and independence.

With special reference to Mr. Biggar's letter, allow me to draw your readers' attention to some of its salient points, without attempting to examine exhaustively or connectedly an article that covers so much ground.

The first two paragraphs of Mr. Biggar's letter, reciting briefly the obvious advantages of direct taxation and freedom of trade, are excellent, and even the most uncompromising free trader is disposed to agree with him, when he says that, "Since we have a tariff, all classes should have an equitable share in its advantages and burdens." Surely this is both logical and just. And yet the fact is that an equal protection to all classes would be no protection at all. For purposes of taxation, we may have a revenue tariff, but an effort to give all classes "an equitable share" in its advantages and burdens, inevitably involves an effort to eliminate the protective principle. The protectionist propaganda is in the highest degree absurd if it does not contemplate giving certain industries special advantages at the expense of other industries, and any losing sight of this fact blinds one to the fallacies in the protectionist doctrine. The fact, as stated above, may not

be immediately apparent. I shall, therefore, give a case to make my meaning clear. Take the manufacturers of woollens, for example. They have a certain tariff protection on their finished product, whereby they are enabled to charge so much more for their wares than they could do without such protection. But, if their raw material, their equipment, their labor, is similarly protected, they are no better off than they would be with all tariffs abolished. And surely the producers of their raw material are entitled to protection, and their employees, also, and the manufacturers of their plant and machinery. Let the reader take any case he likes, and he will see that an equal protection is not, and can not, in the nature of the case, be any efficient protection at all. But in practice there never is an equitable sharing of the advantages and burdens of protection; and when once the policy is established, it is those industries which are best organized, most aggressive, or maintain the most influential lobby, that swing the pendulum in their direction and obtain the bigger share of public aid. If it were not for this inevitably unfair discrimination there would be no protectionist propaganda, because it would lose its whole underlying motive. The only safe thing for the Canadian farmer to do is to persistently work for the abolition of the protective principle, and, incidentally, as soon as may be, for the substitution of direct for indirect customs taxation. So long as Canada is mainly an agricultural country, exporting large quantities of agricultural products, her farmers cannot benefit by any protective tariffs ostensibly designed in their favor, and they know it. And I think that a good many of the other industries (including the one with which Mr. Biggar is connected) know it, too, are conscious of the weakness of their claims and the injustice of their special advantages, and are anxious to obtain such moral support from agriculture as would be involved in their request for protection on raw wool. Let us not fall victims to any such plans. Let us, rather, maintain resolute independence, scorn Government pay, and be assured success will ultimately crown our efforts.

Mr. Biggar gives a great number of figures whose interpretation may be one thing or another. Exports of Canadian farm products to the United States have declined, partly due to the United States high tariff. Granted. What of it? It is our misfortune. Let us make reasonable efforts to have that tariff reduced, and there are not wanting indications that something can be done in that direction. United States shipments of farm products to Canada have increased from \$6,299,000, in 1886, to \$28,000,000 in 1908. But Mr. Biggar does not specify what products these are. It may be a convenient omission on his part, but the reader is left quite in the dark, and cannot form any opinion until he knows the items. Mr. Biggar states that for 50 years the United States farmers have had a larger share of protection than Canadian farmers have had. What of it? What good has it done them? Where will you find greater commercial injustice and more control of legislation by vast aggregations of wealth and tariff beneficiaries than in the United States?

Further, the sheep industry in Canada has declined. Granted; but will Mr. Biggar guarantee to re-establish it by a 5-cents-a-pound duty on wool? Are there no other causes that have brought about a decline in the sheep industry than the price of wool (e. g., the dog misance), and is it to be rehabilitated by tariffs such as Mr. Biggar proposes? Let the farmer answer. Even what wool we do raise is largely shipped to the United States because, as Mr. Biggar claims, no one would think of establishing a complete worsted plant in Canada. As to why the industry does not or can not flourish in this country, Mr. Biggar leaves us in the dark. But if they cannot exist under present conditions, the tariff on their finished product will have to be so high that the encouragement given the farmer in the greater home demand or better prices for his wool will be but a drop in the bucket, compared with the consequent enhancement in the price he must pay for his woollen cloth. It seems to me a case of "Eats I win, leads you lose."

Finally, Mr. Biggar recommends a tariff that will "restore Canadian wool to its due prominence in Canadian cloth." One would like to know how this is to be done. Certainly, it would be a sad situation that shoddy should give place to better cloth. But I fail to see how Mr. Biggar proposes to do this by a scientific tariff. Shoddy is bought because it is cheap, and Mr. Biggar's tariff will certainly not cheapen cloth. At best, we are assured that "It is a question if the consumer would pay more for his suit of clothes, even if higher prices were placed on woollen goods." It certainly is a question, which I am disposed to answer somewhat differently from Mr. Biggar.

The Canadian farmer should abstain from all participation in the protectionist clamor; its advantages to him and to the country at large are entirely illusory, and its advantages substantial and oppressive to the masses.

W. C. GOOD.

Let me repeat to the farmer, give them a chance at the grass. They will destroy much of it. Let them open a newly plowed field, and see how they can get the roots left exposed.

**Weaning the Lambs.**

When lambs are four months old, they will, as a rule, do better weaned than running with the ewes, if a fresh clover pasture is provided for them. This is generally available very soon after the hay crop has been gathered. Fresh, clean water should also be provided for the lambs, and salt, either kept in a covered box, where they may take it at will, or a little dropped in bunches on the grass, near the water or feed troughs, once or twice a week. Ordinarily, on good fresh grass, the lambs will do very well without additional feeding, but if they are intended for show or selling early for breeding, they will be better for a feed of oats or oats and bran once or twice a day, fed in troughs in the field. For show lambs, the addition of a little ground oil cake will help to improve their condition.

When the lambs are weaned, the shears should be used to shorten the wool on the ends of their docked tails, and to clip off any tags of dirt which may be present. Later, they will do well on a stubble field where a new seeding of clover has grown well, or, if a piece of rape has been sown, the lambs will do remarkably well on this after becoming used to it. They should not be put upon this at first when it is wet from rain or dew, but in the afternoons on fine days, and they will be better at first for the run of a grass pasture, as well, though, when used to the rape, they will thrive satisfactorily confined on this alone, and will fatten faster on rape late in the fall than on any other pasture, even when the rape has been repeatedly frozen, and, indeed, when partially covered with snow. When the lambs are being weaned, the ewes should be kept in a field as far distant from them as can be arranged, and should be kept on short or dry pasture for a few days in order to dry up the milk. If any udders are noticed very full, they should be relieved by hand milking two or three times, at intervals of a couple of days, to avoid injury. For security from attacks by dogs, it is well to have a small cow-bell or two on members of each branch of the flock.

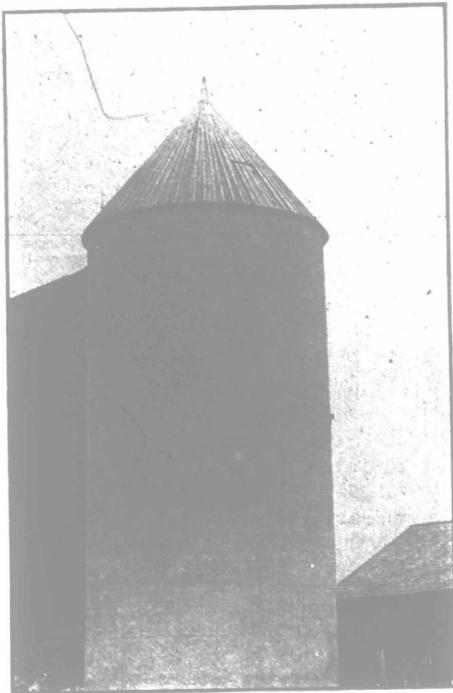
**THE FARM.**

**Two Middlesex Silo Roofs.**

Experience has shown that the silo is very much improved by being roofed. It strengthens and makes more secure structures made out of wooden staves, adds to the appearance of every kind of silo, and, by keeping out rain, snow and frost, preserves the silage in more palatable condition. Those who have tried silos without and with roofing, concur that the extra investment is profitable. "The Farmer's Advocate" camera recently caught two styles of silo roofs in use in Middlesex County (East), Ont., one on the farm of Chas. Shiels, and the other on that of A. W. Venning. Both silos are built of cement-concrete, that of Mr. Shiels being 32½ feet high, and 14 feet in diameter inside. On top of the wall, a wooden circle of inch lumber, on which the foot of the scantling rafters rest, is held in place by iron bolts that extend down into the top of the wall, and are attached to the uppermost reinforcing rod, which makes a very secure job, as the bolts are threaded, and nuts were put on, holding the circle down tight. As will be seen by the illustration, the roof boards are battened, and instead of a gothic window, through which to receive the cut corn at filling time, a hinged door, 2 x 4 ft., is placed in the roof. On the opposite side is a similar one, for getting out when the silo is full. A small metal cone covers the peak of the roof, which, as will be seen, is simple in construction.

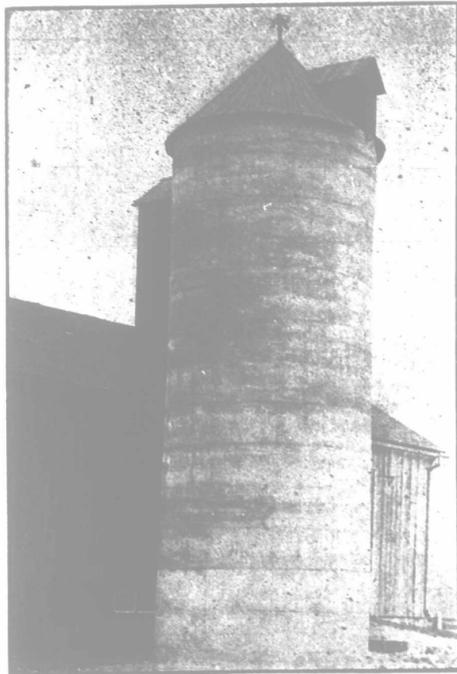
The roof on Mr. Venning's silo is not expensive, but is strong, and should be quite durable, if kept painted. The plate, which was fitted and bolted to the top of the silo before the concrete had set, was made of inch lumber, doubled. The silo being 12 feet in diameter inside, allowing for the wall and projection of roof, 10-foot lumber was sufficient to give it half-pitch. Four rafters were cut the right level to be toe-nailed to the plate, and centered on a post or whatever kind of ornament may be fancied on the top. In this case it is an old church-spire. Four false rafters were then fitted in between the main rafters. Eight short girts were fitted and spiked between the rafters, half the distance up the roof; these girts were slightly circled. It required 28 boards 10 feet long and 10 inches wide, ripped diagonally, making 56 pieces 10 inches wide at one end to build the roof and gothic for the window. Nine boards of the same dimensions were required to be sawed into battens 3 inches wide by ½ inch thick. These triangular boards were nailed to the plate at the bottom, the girt in the center and the post at the top, covering each crack with a batten, completing the work, with the exception of a space two feet wide, over which the gothic is built, the posts of which are three feet high, thus leaving room for a window 2 x 3 feet, to be hinged on the inside. No scaffolding is required to build this roof, except one plank 16 feet long, and two boards 7 feet long. The plank lies on top of the silo, and the end projecting where the gothic is

to be built, thus making a platform for a man to stand on, to build the gothic and finish the job, complete, without having to climb on the roof. The total cost, allowing nothing for the owner's time, which was only a day, and the plate on the silo, which was not very expensive, as it was sawed out of short boards that were not valuable for any other purpose, was as follows:



Chas. Shiels' Silo Roof.

37 boards 10 ft. long, 10 in. wide; 8 scantling 10 ft. long, 2 x 4, for rafters; 2 scantling, 12 ft. long, 2 x 6, for girts; a few feet of dressed lumber for finishing the gothic—making a total of 400 ft. of lumber, at \$28 per M.....	\$11.20
Dressing and sawing boards .....	.50
Paint .....	1.20
Spikes and nails .....	.50
Assistance of one man for less than a day.....	1.75
<b>Total .....</b>	<b>\$15.15</b>



A. W. Venning's Silo Roof.

A good feature of this silo is the rear passage, lighted with a couple of windows.

The Minnesota Farmers' Institute recommends spreading manure on sod fields that are to be plowed next year, and it would get the manure out of the barnyard as soon after it is made as possible, so that the soil may have the benefit of its entire value. Careful experiments have convinced the Institute workers that about half of the value of manure is lost by leaching if left in the yard over summer.

**Wagon Tires and Good Roads.**

We read and hear a good deal lately about the action of the Government in helping to make good roads. There can be no doubt about the fact that the plan is a good one. To make good roads, some plan which keeps in view the following, must be observed:

1. Take the water off.
2. Make a solid foundation.
3. Put metal on top in such a shape that it will stay (wetting and packing with a heavy roller is perhaps the most practical method of making it stay).

But alas! and alack! the great majority of people consider that the whole work is done then, and it is only when they see water-holes growing into mud-holes in their good road that the fact becomes clear that the road must be kept up. Nine out of ten of the roadmasters repair the damage by putting a load of gravel or stone in the hole, and thus create a situation which will speedily make two mud-holes, one at each end of the load. In this way the good road is soon in ruins. Then they plow the sides and scrape the earth into a big heap on top of the gravel, and, after having an almost impassable road for some time, they begin all over again. Being convinced that the plan is wrong, they go back to the old system of statute labor, and year after year patch and sandpaper the roads, producing the only possible result, continuous patching and expense, and never a good road. And it must be borne in mind that in many places there is not the material to be used in the statute-labor system.

And yet, when the good road was made in the first place, very little cost should need to be added for fifteen or twenty years, even on main roads; and then all that is needed is an additional coat of metal, wet, and rolled again. All that is necessary to keep the road in repair is to keep it from being cut up. How can this be done?

It is easier to answer this question: How is it easiest to cut anything? Ans.—With a sharp instrument. The duller the instrument used, the harder it is to cut anything. If the tires on our wagons were like the disks on a disk harrow, we could soon cut up a road. When people use tires 1½ to 2 inches wide, it takes a little longer, but they manage it all right. If the tires were 4 inches wide, the roads would not be cut at all, and would never have ruts. Anyone who stops to think can prove that, by noticing what he puts into practice on his farm, or what he sees done on his neighbor's farm. In drawing his hay and grain to the barn, he soon makes deep ruts if he uses narrow tires. But where the 4-inch tire is used, the beaten track becomes simply a broad, flat surface, free from any cutting-up. The same thing is seen in drawing out manure. How much less will the wide tire cut in the hard gravel road? But we all see that the narrow tires cut with ease—not on the team, though.

Four summers ago I saw a great deal of crushed stone put on the road. Early in the fall there was a great deal of rain, and there was a good deal of heavy teaming over that road, the loads being chiefly apples, hogs, grain, hay and wood. Among these teamsters was one who used 4-inch tires. His loads were wood—dry maple and beech—and two cords was the average load. He was hauling for a short distance, and made three or four trips a day. With the roads softened some by much rain, the narrow tires each left a slight rut, but along came the 4-inch tires, and once more the wheel-track was flat and level. The teamster referred to was in real good humor when he remarked, "As fast as those fellow leave a mark in the road, I flatten it out again." That stretch of road stayed good till the snow covered it.

A short distance along the same road was another long stretch of crushed stone. The same loads were thus drawn over it, but, unfortunately, the wide tires did not travel that far. The result was that very soon there was cut a slight rut, which held some water. It soon became a deep rut, and before the snow came the road was a mere wreck of its former self. Total case in a nutshell:

1. Same preparation for both roads.
2. Same loads on both roads.
3. Where wide tires rolled the road it was saved, but elsewhere the road was ruined.

If one wagon thus equipped could prove so beneficial to a road, it can easily be seen how little wear there would be on any road where all the wagons were set on four-inch wheels. Against this, it is argued that the wide tires catch all the loose stones, and make the travelling very rough. But it is only where the narrow tires are used that the gravel is cut into and the stones turned up. The wide ones do not dig stones up; they roll them down. On a new road the wide tires roll the loose stones into a solid pavement, and there they are not doing any mischief, such as jarring vehicles, spraining horses' joints, not to mention the interruption of human temper. The spirit which rides above the wide tires "keeps the even tenor of its way" as long as there are no stumbling-blocks thrown up by the narrow tires. Even in dry weather the narrow tires grind up the gravel, to be blown away as dust, and thus the

## THE DAIRY.

## The Pasteurization of Milk for Cheesemaking.

Editor "The Farmer's Advocate":

There has been a revival recently of the question of pasteurizing milk for cheesemaking, and some most extravagant claims are being made for this "wonderful discovery." One agricultural editor has written a most enthusiastic introduction to an article giving the results of some experiments made on the pasteurization of milk for the manufacture of cheddar cheese, the editor going so far as to claim that the new system is likely to revolutionize Canadian cheesemaking, etc.

Our attention having been called to the article, the suggestion has been made that we give the results of experiments conducted at the Dairy Department of the College, which have apparently been overlooked or forgotten. We do this willingly for the benefit of Canadian cheesemakers, in order that they may not be led astray by extravagant claims for a "new discovery." We may also say that it is not our intention to detract from the results of any fellow worker in dairy science, but simply to point out the truth, as we believe it. The truth alone can make us free. During my connection with the dairy work of the Province of Ontario, I have seen a great many of these so-called "discoveries" which would "revolutionize" dairying, fade into nothing in a short time.

We have to go back to the year 1897 for the first work done on the pasteurization of milk for cheesemaking at the Ontario Agricultural College. In the report of the College for that year, page 51, there is a brief summary of the experiments conducted, from which we quote: "Four methods of treating milk after pasteurizing were tried, with but limited success. The heating of the milk to 160 degrees changes the character of the milk in such a way that it does not work at all like an ordinary curd. The experiments so far made would lead us to doubt the value of pasteurization for cheddar cheesemaking."

At the thirty-third annual convention of the Cheese and Butter Association of Western Ontario, held at Stratford, Jan. 16th, 17th and 18th, 1900, we gave an account of our experiments with lime solutions in cheesemaking. As it is the lime-solution phase of the pasteurization of milk for cheesemaking which is claimed to be such a discovery, would you allow me to quote quite fully from pages 87 and 88 of the Fairmen's Association Report for that year:

"Lime consists of the metal calcium united with oxygen. Calcium is a light-yellow metal having an affinity for oxygen. Pure lime combines very readily with water, giving off a great heat, and falling to a white powder known as slacked lime.

"Carbonate of lime, chalk, sulphate of lime (land plaster), and chloride of lime, are other forms of calcium commonly known. According to Soldner, calcium exists in milk in the form of calcium phosphate, calcium citrate, and calcium oxide, in combination with casein, in the proportion of 100 parts casein to 1.55 of calcium oxide.

"Under the influence of high temperatures, the lime salts of milk are changed. . . . The pasteurization of milk for cheesemaking renders the curd mealy, lumpy, and crumbly in nature, and it does not become 'meaty,' as is the case with ordinary curds.

"During the past two years a number of experiments have been made at the Dairy Department of the College with the solutions of ordinary lime-water, calcium chloride solutions, and a mixture of the two. These solutions have been used with both normal milk, and milk which had been pasteurized, or heated to a temperature of 160 degrees F.

"The quantity of the lime solution added to the milk varied from 3 to 6 of one per cent., and of the chloride there was used about .1 per cent. In some cases the lime solutions were mixed with before adding to the milk, and in other cases the lime solution was added to the milk a short time before setting. The conclusions from all these experiments are summarized as follows:

"1. An ordinary lime-water solution, when mixed with the curd for ten or twelve hours before the rennet is added to the milk, destroys the action of rennet, but such an effect does not result if the rennet and lime-water are mixed shortly before renneting the milk.

"2. Calcium chloride solutions do not affect rennet action adversely.

"3. The yield of cheese was slightly greater

metal is wasted. Let us hear, then, the conclusion of the whole matter: If you want good summer roads, use four-inch tires on your wagons. However, there are two serious obstacles in the path of the broad tires. The first has ever stood in the way of all improvement—ignorance. The second is more excusable, as far as individuals go—expense. The overcoming of the second will do away with the first, except in the case of unreasonable people.

If my memory serves me right, a short time ago there was something said in Parliament about making it unlawful to use narrow tires on wagons. Some of our cities and towns have by-laws to that effect, but they are merely on the book—not enforced at all. Yet, I could point out, in a city not 1,000 miles from London, where a great deal of money was spent recently in order to pave the streets which the farmers used in bringing their produce to market. It would seem to me that if the city had used this money in paying a part of the cost for wide tires for farmers who used those streets, the city would be money in pocket at the time, and any paving done would be permanent, whereas, as long as the farmers and others continue drawing heavy loads over them with narrow-tired wagons, the time will soon come when the street is cut up once more. A good system for a city to adopt would be to pay a part of the price of wide tires to the farmers who show tickets from the weigh scales totalling a certain tonnage. Each farmer who drew in the required weight (showing that he used the streets a good deal, and would thus harm them with his narrow tires), would be entitled to his share of the 4-inch-tire fund. Thus, the city would really profit by spending money for proper tires for farmers' wagons.

The Ontario Government is spending annually considerable money for the improvement of roads, and anyone who looks for it can see that the roads dealt with are improved. But it is just as easy to see that the good roads made in this way are being cut to pieces with narrow tires as fast as the farmers can do it, and thus the public money is to a large extent wasted. Now, if this "good-roads money" were spent in part buying wide tires for the farmers' wagons, much more would be accomplished in the making of good roads. The Government should also appoint capable men to oversee the construction of permanent roads, as well as making a standard day's work for those employed. Good results cannot be obtained as long as teamsters doing the road work are allowed to draw a wheelbarrowful of gravel or crushed stone, and call it a load.

In order to introduce the broad tires generally, a good step would be for the ratepayers to pledge their township council to use its influence against narrow tires. The same pressure could be brought to bear on the county council, and also on our representatives in the Legislative Assembly. Agricultural papers would do a good work in agitating for the use of the four-inch tire. Those buying new wagons should see that no new tire is less than four inches in width. Once a start is made, their use will rapidly become general. Farmers should all start together.  
Perth Co., Ont. A. DOUGLAS CAMERON.

## Good General Crop Prospects in Canada.

The Census and Statistics Office reported last week on the condition of field crops, and the number and condition of farm animals of the Dominion at June 30. Fall wheat is 85.47 this year, compared with 77.28 in 1909, and 89 in 1908. Oats was 90 in 1908, and 93.81 in 1909, and this year it is 86.22. Peas is 86.94 this year; last year it was 84.10, and in the previous year 82. The condition of mixed grains is nearly the same, being 84.53 this year, 86.58 last year, and 84 in 1908. Hay and clover is better this year than in either of the previous years, being 91.42, compared with 76 in 1909, and 87 in 1908. The condition of alfalfa has been recorded this year for the first time, and its average is 88.94. Pasture has a condition of 89.02 this year, compared with 99 in 1908, and 87.71 last year. The conditions of all field crops are good in Ontario, the highest being 94.29 for fall wheat and the lowest 81.79 for spring wheat. Quebec crops range from 74.45 for mixed grains, to 102.58 for hay and clover. Peas is 84.42, and its condition is the next after mixed grains. In Prince Edward Island and Nova Scotia, all field crops are reported for a condition above 90, except alfalfa which is 82.33 in the Island. Hay and clover are 104.31 in the Island, and 105.79 in Nova Scotia. Wheat, oats, mixed grains and alfalfa are reported in a condition above 90 in New Brunswick, and all other crops between 88 and 89, except alfalfa which is 82. Hay and clover are reported at 105.5 in Atlantic Saskatchewan, and Alberta crops are generally throughout, owing to a light crop of alfalfa. The general condition of crops in Manitoba is much below the average. Correspondents generally everywhere report no rains, only a few light showers, and hot, dry winds, which absorbed the moisture and withered the crops.

The lowest average condition is reported from around Brandon and Morden, and the highest from Marquette, where it is placed at a standard. In Saskatchewan the crops do not appear to have suffered from climatic conditions to the same extent as in either Manitoba or Alberta, as there have been many local showers. The reports from Lloydminster, Battleford, Indian Head and Qu'Appelle are very favorable, the condition of wheat being placed at 100 and over. The prevailing condition of crops in that part of Alberta south of Townships No. 30 is below the average, in consequence of drouth and hot winds. In the Edmonton district, the grains, although suffering to some extent from the same causes, are in much better condition. The best reports come from the Strathcona district, and those from Athabaska Landing and Saddle Lake districts are also particularly favorable. The field crops of British Columbia are all good. The areas of late cereals—buckwheat, flax, corn for husking, beans, potatoes, turnips and other roots, sugar beets, and corn for fodder—have increased this year to 2,150,382 acres, which is 279,526 acres more than last year, and 247,869 acres more than in 1908. But this increase is altogether in flax, which, owing to the high price offered for seed, has come into favor with the farmers of the Northwest.

The only farm animals which show a noticeable increase since 1907 are horses, while sheep and swine have declined. The condition of all these animals over the Dominion exceeds 99.

## Dust Prevention and Road Preservation.

Experiments were made during the summer of 1909 at Washington, D. C., Youngstown, Ohio, and Ithaca, N. Y., with different preparations for the prevention of dust and the preservation of roads.

At Washington, waste sulphite liquor was used on a macadam driveway subjected to light traffic. Sulphite liquor is a dense, sticky liquid, produced in the manufacture of wood pulp. It was applied in mixtures with water in varying proportions. The results show that it has but little value as a permanent road treatment, but that in concentrated form it may be classed as a temporary or semi-permanent dust preventive and road-binder.



Dairy Cattle on Pasture, Prince Edward Island.

At Youngstown, blast-furnace slag was used alone, and in different combinations with lime, sulphite liquor and tar, to determine the best method of utilizing slag for road construction. While sufficient time has not elapsed since these experiments were made to show definite and permanent results, it is believed that they will be valuable in determining what combinations will produce the best road.

At Ithaca, tar, oil, artificial asphalt preparations, brick, cement and slag were used, with varying results.

All of these experiments are fully described, with results produced in each case, and a report on experiments formerly made, in Circular 93 of the Office of Public Roads, U. S. Department of Agriculture.

## Manure for Hay Land.

Wheat, corn and other crops are no more improved by rotation than hay. The Minnesota Experiment Station shows that a plot continuously cut for hay the past fifteen years has given an average yield of 4.73 tons per acre, while on a plot under a three-year's rotation of wheat, clover and corn, hay has yielded the past ten years an average of 2.9 tons per acre. In a five-year rotation of wheat, timothy and clover pasture, oats and corn, the hay has yielded an average of 3.9 tons per acre, since 1900. Eight tons of manure per acre were applied once in five years on the five-year rotation plots. There is money in manure.

in several instances where the lime solutions were used.

4. There was little difference in the quality of the cheese.

5. In the case of pasteurized milk, the lime solutions did not restore the texture and body of the cheese, though there appears to have been a slight improvement in the quality as the result of adding a chloride-of-lime solution to pasteurized milk for cheesemaking.

The next work we did on the question was in 1907. On page 120 of the annual report of the College for that year we read:

"It is doubtful if the pasteurization of milk for cheesemaking will ever become practicable in Canada, for handling large quantities of milk. The labor and expense of heating and cooling from 10,000 to 30,000 pounds milk daily would be very great—in fact, almost prohibitive."

After referring to the work done previously with lime solutions, we give the results of experiments in which from 1 1/2 to 3 per cent. lactic-acid culture (starter) was added to pasteurized milk some time before the addition of rennet. The results were as follows:

1. The whey from the pasteurized lots contained more fat than did those from normal lots—.35 per cent. fat, as against .25.

2. The pasteurized lots produced an average of nearly 11 1/2 pounds more cheese per thousand pounds milk than did similar lots unpasteurized.

3. The cheese made from the pasteurized lots shrank 1.5 per cent. in one month ripening (curing), as compared with 3.7 per cent. shrinkage in the lots not pasteurized.

4. The cheese made from the pasteurized milk scored nearly two points less in quality, as compared with the normal lots.

5. The cheese made from pasteurized milk were softer, and better suited to local than for the export trade.

6. The striking point in the experiments is the very marked increased yield of cheese from the pasteurized milk.

We may conclude by saying that there is nothing new about the application of pasteurization to cheesemaking, as experiments were made in Germany as early as 1896 on the question. While the application of a soluble lime salt or a heavy lactic-acid culture (starter) appears to restore the normal condition of heated milk, so far as rennet action is concerned, it cannot be said to be entirely satisfactory for the making of export cheddar cheese, though it may be useful in small factories catering for the local trade.

The question of labor and expense for heating and cooling large quantities of milk must also be considered. Assuming that pasteurization of milk for cheesemaking is all that its most ardent advocates claim, we doubt whether the present condition of the cheese market would warrant any further expense in the manufacture of cheese. To offset this expense, however, is the extra yield of cheese, which, if it were 14 to 15 pounds cheese per 1,000 pounds milk, would go a long way towards paying the cost of pasteurizing; indeed, it would probably more than pay the extra expense. At present, however, we do not consider pasteurization of milk for cheesemaking practicable nor advisable, except in small lots.

H. H. D.

**The New World's Butter Record for Thirty Days.**

Chenango County, New York, now has the distinguished honor of producing the best cow for a thirty-day period the world has ever known. The name of this queen of all cows is De Kol Queen La Polka 2nd, and her fortunate owner is Clayton Sisson, of Sherburne, New York. He has been breeding Holsteins for about five years, and this animal he purchased from a neighbor some time ago, paying the sum of \$175 for her. The record made by this marvellous cow is as follows:

- Butter record, seven days, was 35.34 lbs.
- Butter record, 30 days, was 145.10 lbs.
- Milk record, one day, was 121.00 lbs.
- Milk record, eight days, was 811.8 lbs.
- Milk record, 30 days, was 3,376.9 lbs.

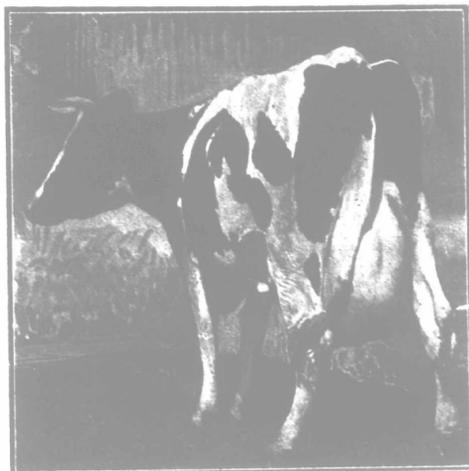
Just reflect for a moment what this means—more than a ton and a half of milk from one cow in 30 days. There is only one cow in the wide world that has ever beaten any of the above records, and that animal was Grace Fayne 2nd's Homestead, owned by H. A. Moyer, of Syracuse. She made 35.55 pounds of butter in seven days.

The cow that has tested nearest the Sherburne animal is Colantha 11th's Johanna, and is owned by Mr. Gillett, of Wisconsin. Her record is as follows:

- Butter record, seven days, was 35.22 lbs.
- Butter record, 30 days, was 138.54 lbs.
- Butter record, one year, was 1,218 lbs.
- Milk record, 30 days, was 2,677.5 lbs.

The cow that previously held the highest one-day record was De Kol Creamelle, and she produced in one day just 119 pounds of milk, but her butter record for seven days was only 28 lbs. She was owned by D. W. Field, of Montello, Mass. When it stops to reflect that the average dairy cow in the State of New York, according to statistics, gives only 3,000 pounds of milk annually,

it seems almost impossible to conceive that this Chenango County cow has produced more than that quantity in 30 days. Stating it in another way, this Sherburne cow has given 124 pounds of milk in one day, or 62 quarts. She gave 3,300 pounds in 30 days, or 1,650 quarts. She is milked four times daily, at 5 and 11 o'clock.



De Kol Queen La Polka 2nd.

This cow gave 3,376.9 pounds of milk in thirty days.

**Too Hot to Work.**

Some of the old members of cow-testing associations appreciate the system very much, and are realizing a profit by it. In the Shearer, Ont., association, for instance, one man states that he has delivered to the factory almost as much milk from ten cows as he did two years ago from fourteen cows. He has sold one of the ten for \$45 for beef. At her best, she gave 31 pounds of milk per day. She is replaced by a cow costing \$50, now giving 41 pounds of milk per day.

This statement shows the immense saving of labor that can be effected by keeping cows selected on their records. It is too hot weather to work round and bother with four unnecessary cows, if the smaller herd, as indicated above, brings as good a return. If it pays to milk a cow, it pays to milk a good one. The herd needs pruning of the dead, unprofitable wood. Dairy records of individual cows show conclusively which to lop off. Blank forms are supplied free of charge on application to the Dairy Commissioner, Ottawa.

C. F. W.

**POULTRY.**

**Proposed Classification and Standards for Grading Eggs and Poultry.**

The committee appointed at the Poultry-producers' Association of Canada, to revise its classification and standards, met at Macdonald College early in July, and the draft of its report has been sent out with a view to securing co-operation and assistance in arranging a system of classification for dressed poultry and eggs.

Those interested in the industry have known for some time that the standardization of poultry products was extremely necessary, and this Association has been asked to get the feeling of producers and dealers on this matter. Those who have given the subject any thought know that the conditions are such that a change is urgently needed.



Fig. 1.

Fig. 2.

Somewhat similar grading to that proposed below has been used for one year. Slight changes, however, have been made to make it a little more workable and to bring it into a little more harmony with classifications and grading used in other countries, especially the United States. Prompt correspondence is solicited by the secretary, Prof. F. C. Elford, Macdonald College, Quebec.

**DRESSED POULTRY.**

Poultry is first classified into chickens, fowl, cock birds, capons, slijs, ducks, geese, turkeys, guineas and pigeons, and, when packed, there is a

further classification as to size and weight. A standard of grading is set for each class, and all birds packed must conform to that standard.

The term chicken applies to (1) pullets that have not laid, and are under seven months of age; (2) cockerels that have not developed a hard spur, firmly attached to the leg. They are further divided as to weight into broilers and roasters. A broiler usually weighs from 1 to 3 pounds. A roaster usually weighs from 3 pounds and upwards.

The term fowl applies to hens of any age. Cock birds are defined as all male birds having hard spurs firmly attached to the leg, including mature birds, without reference to age.

Capons are birds successfully caponized when from 6 to 12 weeks old, showing very little comb and no spurs.

Slijs are birds not successfully caponized, and so showing comb, spurs, and generally coarser than capons.

Ducklings are ducks marketed before their first molt, usually from 7 to 12 weeks old, and weighing from three to five pounds each. All ducks not included under the term duckling are distinguished as ducks.

Goslings are geese marketed before their first molt, usually from 7 to 12 weeks old, and weighing from 7 to 12 pounds. Geese proper are subdivided into (a) those under 10 pounds, (b) those over 10 pounds.

Turkeys are divided into young and old hen turkeys, and young and old toms. Young hens, all weights; young toms, under 12 pounds; old hens, all weights; old toms, all weights.

Guineas are divided into young and old. Pigeons, up to the time of leaving the nest, usually about 4 weeks old, are squabs; afterwards, they class as pigeons.

**GRADING.**

This grading applies only to roasters, fowl and capons.

All the above classes of poultry are graded before being packed, and a standard is set which applies to these classes.

There are four grades, viz.: Selects, No. 1, No. 2, and Common.

All the birds must be packed uniformly as to size and weights in each package, a uniform weight to mean that birds do not vary more than one pound in weight.

Birds that have been sick or show any indication of disease, birds that have food in the crop, that have decidedly crooked breast-bones; that have blood or other dirt upon their bodies, heads or feet, shall not be included in these grades.

All birds must be dry-picked—roasters and fowl clean, except around the neck. Capons should be dressed capon style. By this is meant the style that has become standard, and which requires that the feathers be allowed to remain on considerable portion of the bird. Leave the feathers on the upper half of the neck; pick the breast clean; pick around the vent, and up to the large tail feathers; pick the entire under side of the wing, all three joints; pick the upper part of the first joint next to the body; leave the feathers on the upper part of the last two joints, including the long wing feathers or flights. Leave the saddle feathers on the back to within 2 1/2 or 3 inches of the tail.

Cooling should be done gradually, but thoroughly, before packing, not dipped in water.

All classes should be put on the market undrawn, having head and feet on.

Packages must be distinctly marked, showing the class, the grade, the number, the average weight and the gross, tare and net weight they contain. See suggested illustration:

GRADED DRESSED POULTRY			
Put up by the			
POULTRY PRODUCERS' ASSOCIATION OF CANADA.			
Class.....	Grade.....	No.....	Av. Wt.....
Gross Wt.....		Tare.....	Net.....

Selects to consist of specially-fattened birds; extra well fleshed, and of superior finish and appearance, unbroken skin, without blemish, straight breast-bone, and neatly packed in packages that hold one dozen birds. Each package shall include birds of a uniform size and color of flesh and legs.

No. 1 to consist of well-fleshed birds of neat appearance, but lacking the uniform finish of selects; packed in neat boxes holding one dozen birds of uniform size and weights.

No. 2 to consist of fairly-fleshed birds, packed in neat boxes holding one dozen.

Common to consist of any birds not conforming to the requirements of the above three grades, but must not be packed in similar boxes.

**EGGS.**

Grading.—It must be remembered that all eggs must be shipped new-laid. A new-laid egg is an egg that is not over five days old when shipped; an egg that has been gathered promptly and kept in a moderately-dry, cool place (under 60 degrees), free from foul odors and other contaminating in-

fluences. On holding a new-laid egg to the light, it will be seen that the air-space in the large end is very small, and the yolk almost invisible, as in Fig. 1. As the age continues, the air-space enlarges, and the yolk becomes visible, as in Fig. 2. Rough-shelled and abnormal eggs should never be shipped.

Though some markets may call for several grades of eggs, as a general rule there is no necessity for many grades. What the best trade demands is freshness, grading, uniformity in packing, and regularity in supply.

For ordinary purposes, two grades of eggs will be found sufficient to satisfy the demands made on the producer, viz., new-laid selects and No. 1. Another grade of common stock may for a time be marketed, but they must not be sold under the brand of the Association.

**New-laid Selects.**—To consist of strictly new-laid eggs, not over 5 days old, weighing not less than 24 ounces to the dozen; clean; of uniform size and color; packed in substantial, neat cases, having clean fillers.

**No. 1.**—To consist of new-laid eggs, not over five days old, weighing not less than 21 ounces to the dozen; clean, packed in substantial and neat cases, with clean fillers.

**Note.**—Common eggs, not covered by the foregoing grading, must not be marketed under the brand of the Association.

### Growing and Fattening Chickens.

We have on hand about 250 chickens, and would like to make an experiment with them. We have built a nice clean pen which will accommodate about 40 or 50 chicks at a time. We would like to have from you advice as to the proper feeding, in order to bring these chickens to a marketable age as quickly and economically as possible. Of course, the ones we start with are the oldest of the lot, and are quite a size now. You can probably size them up when I state that they are just trying to do a little crowing. About how heavy do they want to be in order to be in the best shape for market. Would it pay us to dress them or sell live weight? They are a pretty fair lot, and are mostly Plymouth Rocks.

C. G. I.

**Ans.**—The best thing to do with 250 chicks of various ages is to give them a good run, with plenty of feed for the next two months, at least. The season has passed for broilers, and the roaster season does not usually open up until September, unless there should be a local demand, such as from summer visitors, etc. If you can give the chicks the run of a cornfield, root crop, or even an orchard, and put some hoppers with mixed grains where the chicks can get them at will, you will find that there is very little trouble in raising these chicks, and they will grow like weeds. Give them what water, or, better, milk they require. Then, when the oldest chicks weigh from 3½ to 4 pounds, put them in crates and feed them for several weeks on a mash composed of oatmeal, barley meal, corn meal, or a mixture of the three, or, in fact, any mixture which you may have available. Mix these with sour milk or buttermilk. Give them two feeds a day, and you will find, at the end of several weeks, your chicks are fleshed up, and are in prime condition for eating. If you have no experience in killing and plucking, it may be as well to sell alive. Firms will pay a better price for crated chickens than for the other kind, and it pays the farmer better to fatten his chicks, because the last pound costs the least. Any kind of a crate will answer to fatten these chickens, though it will be found more convenient to build a number of feeding crates. These are usually built six feet long, by twenty inches high and sixteen inches deep. They hold twelve birds. Several of these crates are a good investment, and will give better results than feeding in pens or yards. In the meantime, if the cockerels are troublesome, it would be as well to take the pullets away. This, however, cannot always be done.

F. C. ELFORD.

### Hens Eating Eggs—Treatment for Lice.

1. Can you tell me if there is no other way to cure hens of eating their eggs but killing them?

2. What is a sure cure for hen lice and mites? Is there any way of killing hen lice by putting it in the water or food.

E. M. C.

**Ans.**—1. If egg-eating is a confirmed habit, it is difficult to cause the fowls to desist. Some poultrymen have prepared nests with sloping bottoms, down which the eggs gently roll beyond reach of the hen. Some have filled egg-shells with mustard, and pasted them shut. Others have recommended clipping an eighth of an inch off the end of the bill. Perhaps the easiest and best way is to provide dark nests. The writer cured a flock of the habit last winter by this simple expedient. The hens seemed to prefer the seclusion of dark nests, anyway, and no trouble was thereafter experienced with egg-eating. With a flock badly addicted to the habit, and not receiving a fair supply of lime and meat food, it might not be so easily checked.

2. The following method, suggested by an expert of the United States Department of Agriculture, has proved excellent in ridding houses of mites and lice, when the weather conditions are such as to permit of the birds being kept outside the house for five or six hours. Close all the doors and windows, and see that there are no cracks or any other openings to admit air. Get an iron vessel, and set it on gravel or sand near the center of the house; place in the vessel a handful of shavings or straw saturated with kerosene, and on these sprinkle sulphur at the rate of about one pound to every ninety or one hundred square feet of floor space. Instead of using the shavings and kerosene, the sulphur can be saturated with wood alcohol. When everything else is in readiness, light the material and hastily leave the house. In case any anxiety is felt about fire, a glance through a window will show if everything is all right. There is very little danger of fire when proper precautions have been taken to have plenty of soil beneath the vessel. Allow the house to remain closed for three or four hours, at the end of which time one can safely conclude that there are no living beings inside. Now throw all the doors and windows wide open, so as to drive out the sulphur fumes thoroughly, and then the fowls may be allowed to enter. Let them in one by one, and as each one enters, catch it and dust it well with insect powder, which will destroy the lice on the birds. Tobacco dust is also good to use, instead of insect powder. The birds and house have now been freed from vermin for the present, but the eggs of the insects have not been destroyed, and in another week another swarm will be hatched out. Therefore, it will be necessary to repeat the operation once or twice before the pests are exterminated. After this care should be used to see that no strange fowl is admitted to the house or yard without having been thoroughly rid of the lice, for one lousy hen will contaminate all the rest.

## GARDEN & ORCHARD.

### Apple Thinning in British Columbia

It is not so much the production of a given weight of fruit that exhausts the trees as it is the strain of producing a large number of seeds. By thinning, we reduce the number of these seeds, without reducing the weight of fruit produced, since those left will grow larger, and be of better quality.

The best commercial size of apples, and consequently the best selling size of fruit, will go from about 96 to 128 apples to the measured bushel—the regulation box, properly packed. If, however, trees are allowed to ripen all they set in a season like the present, the apples will be stunted by overproduction, and will be off-color, and many

of them imperfect. Hence the importance of thinning.

The proper rule to follow in thinning apples is to do it in such a way that no two apples will touch each other when fully grown. This will leave on the tree all it should bear, and will expose each apple fully to the sunlight, and obviate many insect injuries which so frequently take place at the point of contact of two apples. In thinning, too, all imperfect and diseased specimens are removed, and these thinnings should not be thrown on the ground, but collected and destroyed by scalding or deep burying, to insure the destruction of whatever pests may be on them. If all orchardists followed this rule, the market would never be glutted, and a good (but not excessive) crop of fruit would be secured annually, weather permitting, instead of biennially.

I am practicing what I preach, and am sacrificing much of my this-year's crop. I am working in the expectation that the trees will, owing to this treatment, give me a heavy crop next year, when the many orchards that have overproduced this season will be taking a rest, with the usual result of a short crop. W. J. L. HAMILTON, B. C.

### Thinning Apples.

The following is the experience of W. H. French, Oshawa, on this somewhat new phase of orchard practice.

Three years' experience leads me to believe that thinning is fully as important and profitable as either good fertilizing, working or spraying of the orchard. Judicious pruning will help, but can never take the place of thinning.

Why do we thin? In the first place, to secure larger, more uniform and better-colored apples. In the second place, thinning encourages annual bearing. The tree does not have its vitality lowered by overcropping, from which it takes years to recover. In fact, I am satisfied that I lost ten prime Baldwin trees during the very cold winter we had a few years ago, by letting them overbear the previous season. The fertility of the orchard is not wasted in growing culls. Scientists tell us that the bulk of the tree's energy is expended in the development of the seeds and core, the pulp being nearly all moisture and a little humus. We may also add the time saved by not having to pick, sort and draw a quantity of inferior fruit in the rush of the season.

In 1907 I thinned a lot of 40 Spies, six of which were exceptionally heavily laden. Two of these I left unthinned; from two I removed two-thirds of the crop. Remaining trees were well filled, and I took off one-third of the crop. From observation, I conclude that to take off one-third is not sufficient on my light land. On heavy land it is probably sufficient; when trees are heavily loaded, one-half is better. To remove two-thirds of the crop, there is a danger of having fruit overgrown and coarse.

On the two unthinned trees, at picking time, not more than 20 per cent. would pass as No. 1; not over half of the remainder were even good No. 2 quality. Where two-thirds were removed, 95 per cent. would grade No. 1. On account of the desperate weather conditions which prevailed at picking time, these were not sorted separately; but even after they had been badly frozen, the lot sorted about 70 per cent. No. 1.

In 1908 I had a good object lesson in a block of twenty Baldwins. These were so high that I neglected thinning them. Two of these trees were very full. At picking time, the apples on these trees were fully one-third culls, and not over 20 per cent. would pass as No. 1. Other trees close beside gave over 70 per cent. No. 1, and only cost four hours' work on those two heavily-laden trees would have yielded me \$3.00 apiece more money. These grades of fruit are those allowed me by the Oshawa Fruit-growers' Association.

It costs about ten cents to remove a barrel of apples from a tree in summer. Figuring on the basis of the apples gathered in the fall, it should not cost more than five cents per barrel to thoroughly thin a heavily-laden orchard. To illustrate my point, a tree has, say, three barrels of apples on it. We remove one barrel in the summer. That will add five cents to the cost of producing the two remaining barrels.

If the tree were so heavily laden, we took off a little more than one-third, or if we went over it twice, so as to do the best work, the remaining fruit will increase in size to the extent that five cents will fully cover the cost.

By removing one-half the fruit in the summer, we reduce the work in the fall one-third. When we consider the increased cost of help at picking time, that alone will pay the cost of thinning. With one-third of the work done, we are not compelled to start in the fall before the fruit is thoroughly ripe, and at the same time we find the thinned fruit has matured, and is ready to be picked sooner than it otherwise would have been. I believe any system which will enable us to let the fruit remain on the trees until it has fully matured is of great importance.

This last year, also thinning worked to a great advantage on four young Northern Spy trees. I gathered 12 barrels of No. 1 fruit, 3



A Count of Heads.



in proper stage to pick, and way to load cars next season ten or twelve cars will be forwarded To-day, July 14th, another car, containing red currants, red cherries, gooseberries, and some vegetables, has been forwarded, to be followed one week later with another of same kinds of fruit with probably some early tomatoes. Several of the growers are putting all of their currants and gooseberries, and a large portion of their cherries in these cars. Fruit is picked one and two days ahead, and placed in the cold storage to be chilled and held. If Ontario fruit is properly gathered, packed in proper packages, and chilled, and loaded to provide for ventilation in the cars, the Western market will absorb all we can produce more than our people at home require. When Ontario fruit arrives in good shape, it is preferred to the Western fruit, and in a few years would largely take the place now held by the California fruit.

ROBERT THOMPSON,  
Pres. St. Catharines Cold Storage Co.  
Lincoln Co., Ont.

**An Orchard Tragedy.**

The late summer, and the unusually warm weather of the March of the current year, combined to work disastrously for the young bird-life in many of our gardens and orchards. The warmth of the early spring days induced many pairs of our feathered friends to set up house-keeping at a very early period, with the result that little gaping broods found their way into the world just at the time when the colder period set in. The tragedy began at this period, as the following incident indicates. Every year a high-holder and his mate built their nest in the observer's garden, and this year was no exception, save in the feature of earliness. Their little brood was hatched out, and the devotion of the parents was a delight to the observer, till he noticed that the development of insect life was sadly retarded. Do his utmost, and the head of the feathered household could scarcely keep the gaping mouths supplied. The birdlets did not thrive, and it only needed a heavy, cold rain of twenty-four hours to send the fledglings to the happy hunting-ground.

And so we are reminded of what scientists call the balance of nature.

"All are needed by each one,  
Nothing is single or good alone."

This tragedy was, no doubt, duplicated in ten thousand orchards and gardens, and warns the fruit-grower and the gardener to be on the alert for the vermin that will go undestroyed because of the untimely death of thousands of garden and orchard guardians.

O. C.  
York Co., Ont.

**Use of Sods in Lawn-making.**

Editor "The Farmer's Advocate":

The quickest way to make a lawn is by sodding. For small areas, for terracing, and for borders of walks and drives, it is the best method. On large areas, seeding usually is practiced, as it is the least expensive, but the expense can be reduced to a minimum by the use of a sod-cutter, operated by horse-power. It is the cost of sodding that prevents its more general use, and most of the cost is incurred in getting and cutting the sod-laborious work when done by hand.

The illustration shows a homemade sod-cutter that is cheap in cost and effective in operation. A block of pine, 4 1/2 feet long, 10 inches wide, and 8 inches deep, forms the body of the implement. Probably oak would be better, being heavier. The block is bevelled in front, as shown. The iron attachments can be made by any blacksmith. The roller is about four inches in diameter, and is placed ten inches back of the anterior point. The sod knife, eight inches back of the roller, has a twelve-inch blade, and was made from a three-inch wagon tire. It is adjustable, being readily raised or lowered to cut sod of any desired thickness. The blade should be tempered. The side knife, midway between roller and sod knife, acts like the colter of a plow, and cuts an inch or so deeper than the sod knife. The handles are iron. Near the front end a bar is placed through the block, to the ends of which chain is fastened, and the whiffletree is attached accordingly. One or two horses may be used.

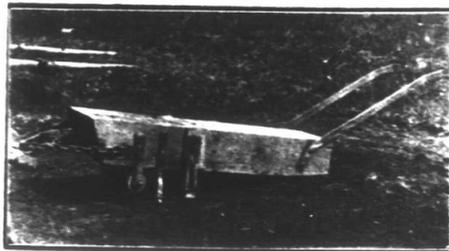
This contrivance will cut sod as fast as land can be plowed, providing that enough men are employed to keep the sod rolled. At least an acre a day can be cut. To do best, and quickest work, two men are required, one to operate the handles, and one to guide. The latter, as a rule, stands on the roller, and guides the roller.

For best results in sodding, the sods, after the cutting, should be rolled. Sods from a chisel-edged sod-cutter, if they are not rolled, are liable to break up, and the surface of the lawn matted and uneven. Sods should be rolled, so that they will lie flat, and the blades, as a rule, should be rolled, so that they will lie flat, and the blades, as a rule, should be rolled, so that they will lie flat.

Place the sods upon which the sods are to be laid. Place the sods close together. Place

firmly with a block of wood until the top of the sod is level with surrounding surface of soil, when edging seeded areas, pound lower, as newly-sown soil will settle. Sod properly laid, and watered frequently, if convenient, will soon make a satisfactory turf.

A. B. CUTTING.



A Sod Cutter.

Of the two hundred and sixteen convictions for violation of the Inspection and Sale Act, secured during the season 1909-10, upon informations laid by the Fruit Division, the majority originated in the fraudulent packing of apples. The names of the parties convicted will appear in the current report of the Dairy and Cold-storage Commissioner. It is noticeable that the larger number of prosecutions were made in connection with fruit from districts where spraying and good orchard culture are not commonly practiced.

**THE FARM BULLETIN**

**Why Young People Leave the Farm**

Editor "The Farmer's Advocate":

Having lived for over a score of years in a city, and having come, some years ago, to the country to reside, I feel better in a position to write on "Why the Boys and Girls Leave the Farm" than one who has lived in either city or country only.

Mrs. Hopkins, in her letter of February 24th, seems to see clearly what young life reaches out for, and to sympathize with them, and yet she makes some sweeping statements. When she says, "The country boy would be awkward when away from the shadow of his wagon, and the country girl afraid to face the shop girl and dudish salesman," she is wrong. Has not the average country boy or girl twice as much common sense as the average shop girl or dudish salesman? And why need they be ashamed, when they are vastly better off?

In my mind, the matter of dress has little to do with drawing the younger generation cityward. True, people living in the country do not always dress with good taste, nor yet have many fine clothes. The reason for this, I believe, is that they have all too few occasions to wear them, and consequently their clothes often become old-fashioned before they are half worn out; and, also, as a general thing, country people dress more for comfort than for style. At the same time, I think the progressive farmer and his family will be found provided with what good clothes are necessary.

Now, this brings us to the point which I believe is one of the greatest reasons why the boys and girls leave the farm: It is the lack of sociability. Now, I do not mean friendliness, for farmers are most friendly, but we fail to get together for a social time, and this refers more particularly to farmers' wives and daughters. We seem to be all too busy; we are tied at home for various reasons, and so to many life becomes lonely and monotonous. There are many mothers of little families who for weeks, and even months, in the winter, do not pass the gate, and perhaps do not see a woman's face in all the time. There is much of cheer and helpfulness in social intercourse, and a social hour or two spent together, and it is all too scarce in the lives of farmers' wives and daughters.

Then, there is the greatest difficulty in getting to concerts, socials, and good entertainments of various kinds—and all these things give spice to life. To have to bother with horses, and the rush of getting off before, and then the drive for miles, both going and returning home, spoils it all, and so these pleasures are scarce with most of us. It is all so easy just to walk, when in town, or jump on the trolley, and one is soon at their destination. It is not natural for a young boy or girl to pore all day, and then be packed off early to bed in order to be up early for chores again. We must not think of them as old men and women when they are but boys and girls. They just have their good times. As Rev. A. C. G. puts it in his letter of March 11th, too often there is "nothing doing," and by the way, some of the ideals pictured in Rev. A. C. G.'s letters, just referred to, were carried out on our farms; the boys and girls would find

such a lovely place that they would not care to trot off to the cities. The old-fashioned two or three-seated conveyance is all right, and needs to be renewed.

Now, farm life is much as we ourselves make it. It can become a drudge, indeed, where a woman works all the time, from early morn till late at night, even to the back-aching, health-breaking point. Then it is all wrong, and every farmer should see to it that his wife is not doing so, for every woman owes it to her family to keep well and young. If the daughter grows up to find mother jaded and worn, and broken down in health, will she desire to follow in her steps? And if the burden proves too heavy, and that wife must go at half her time, what will it matter if the farmer owns a hundred-acre farm and a good bank account? There is much work that can be kept out of the house, and many conveniences that can be put into it. Many of these conveniences could be put in for just the cost of one of the farmer's labor-saving implements. The farmer's wife needs every convenience it is possible to give her, in order to save her time and her strength.

Now, Mrs. Hopkins comes down rather hard on farmers: I don't know what kind they may have in Russell County, but I want to say right here and now that the farmers I have come in contact with in Oxford County are gentlemen, every one. They may not be as finely-dressed as the office man or store clerk (their business doesn't call for it), and they may not be as polished in manners as some city men, but they are, nevertheless, courteous, kind, and gentlemen, every one.

Now, in reference to the farmer's family: Mrs. Hopkins is decidedly wrong in what she says about baby girls not being welcomed by the farmer. Being the mother of a daughter and a son, I can say that one is just as precious as the other to both father and mother, and I have in mind other cases nearby, where the daughter could scarcely be thought more of by any parent. Both boys and girls are needed in the farmer's family. It is only reasonable that a farmer should desire to have sons to help him on the farm, but that does not say he would not care for his daughter. Happy is the farmer who has his own sons to help him, in these days when efficient hired help on the farm is almost unobtainable. The city merchant who has sons naturally takes them into the business when they become old enough; so should the farmer give his boy or boys an interest in the business. But I am sure any reasonable farmer will do justice to his daughters, as well as his sons.

Now, Mrs. Hopkins makes some erroneous statements again in her letter of April 21st. The third paragraph is altogether wrong. She says, "Show me the farmer who, as long as he is able to walk, will let his boy have any lead in the management of the farm. Show me the farmer who, having graduated his son from an agricultural college, will let him prove his knowledge in practical fashion when he returns home, etc." Now, I can name half a dozen young men in our neighborhood who have the controlling interest, or a farm of their own, whose fathers are men in health to-day, and three who have been to the Ontario Agricultural College, and are now practicing the knowledge obtained there.

In conclusion, let me say that the farm is much as we ourselves make it. It can become a beautiful place with a little work and thought expended on it, and the boys and girls will see its loveliness, and want to stay on it; or it can become a bare and lonely spot, on which no boy or girl would care to remain.

Beauty our homes and farms; inaugurate more sociability, and make the farms so attractive that there will be no lovelier place, and then see the effect on our boys and girls.

Oxford Co., Ont. ROSEBUD.

**Farm Management in Missouri Agricultural College.**

The agricultural colleges are a development. In their earliest days, while they did the best they could for the teaching of agriculture was in its experimental stage, and the valuable and valueless could not be distinguished. As they have grown, the vision has become clearer, and the usefulness widened, until now almost every phase of farm operations and life is having the searchlight of specialized study cast upon it. A new step in advancement has been taken by Missouri. The college of that State has created a separate department, the first of its kind, devoted exclusively to the subject of farm management. This department will be under the factors of production, as they are called, the successful administration of the farm. Dr. H. H. Lane, who has been studying the subject since for four years, in connection with the United States Department of Agriculture, will have charge of the new phase of the college work.

This is a most important line of study that has not been given enough study in many agricultural colleges, and should be given it, for there is no line of work in which management is more tardy than in farm management.

**Co-operative Egg-marketing Discussed at Chatham.**

"Tired of being rotten-egged," said John A. Gunn, of Gunn & Langlois, Montreal, and Gunns, Limited, Toronto, "the companies that I represent have concluded it is time to put forth some expense and effort to get producers to co-operate and try to improve present methods of marketing eggs." The occasion was a meeting at Chatham, Kent Co., Ont., on Saturday, July 16th, arranged by John I. Brown, the co-operative organizer employed by the above companies, with the assistance and instrumentality of the District Representatives of the Ontario Department of Agriculture stationed in neighboring counties. The meeting was representative of several counties, and should bear subsequent fruit in the organization at local points of co-operative egg circles after the plan of the five already established in Peterborough, and the two in Ontario County. The meeting was a good one, well attended, and with much interest manifested. A. McKenney, B. S. A., Agricultural Representative at Essex, discharged the duties of chairman, while the speakers were: Prof. F. C. Elford, of Macdonald College; Prof. W. R. Graham, O. A. C., Guelph; H. C. Duff, B. S. A., Norwood, Peterborough County; Mr. Gunn, and Mr. Brown. Many good points were brought out which we must reserve for publication next week. A few important figures and announcements we append.

**8,000 DOZEN ROTTEN EGGS A WEEK.**

"Doubtless, most of you know," said Mr. Gunn, "that the eggs produced in what is known as the Chatham section during July, August, and first half of September, are the poorest quality of any in Canada, with, perhaps, the exception of Prince Edward Island. My firm buys eggs in every producing center from that Province to the extreme west of Ontario."

Just here "The Farmer's Advocate" interpolates the question whether distance from market may not partially account for this. There is, too, the grocer's share of responsibility for deterioration. The fact, however, as cited by Mr. Gunn, we cannot dispute.

"We estimate," the speaker continued, "that the number of eggs produced in the territory from London to Windsor represents about 3,000 cases per week, of 30 dozen each. Our experience goes to show that the total loss in rotten eggs would average at least four dozen per case, or a total loss of 8,000 dozen on the week's production."

"Figure this on the basis of the price paid for eggs in this section to-day, namely, 14 cents per dozen, and it would mean an actual loss of \$1,120 per week. In ten weeks, say from July 1st to September 15th, it would mean over \$11,000."

"In addition to this, there is the loss which is sustained through dirty, broken and held eggs, which figures up to nearly 9 per cent. of all the eggs purchased in this section. The total loss would easily figure 3 cents per dozen on the total quantity, which would amount to \$162 per week, or a total loss of \$12,620."

"In addition to this, again, there is the loss represented by the cost of buying, plus labor and freight, which would total about 1/2 cent per dozen, and which adds another \$3,000 to the amount, making a total of over \$15,000 loss, covering 10 weeks' collections."

**COULD PAY 4 TO 6 CENTS MORE FOR FRESH EGGS**

"There is another way of looking at this matter. If the eggs were marketed whilst they were strictly fresh, say within four or five days of the time they were laid, very much higher prices could be paid. For example, instead of paying, as we do to-day, about 14 cents for eggs, we would be willing to pay 18 to 20 cents per dozen, and would be very glad to take all that can be produced at this price."

"We figure that there is a loss of at least 6 cents per dozen on all the eggs produced at this time of year, and handled as they are at present. Now, allowing that the quantity produced in this section is at least 60,000 dozen per week, or 600,000 dozen for ten weeks, say 5 cents per dozen extra on this quantity would be easily \$30,000 more for the farmers of this section in the ten weeks' trading in eggs."

"When you take into consideration that the loss I have referred to applies to only a small portion of the Province, it should not take much stretch of imagination to figure out what an enormous loss accrues each year to the Canadian farmers. There is a lack of care in marketing eggs, and while we all appreciate the fact that farmers have a lot to contend with, still there is no reason why they cannot produce and market eggs in a way to give the best returns."

"In these cases of eggs purchased by our Chatham representative, Frank Dell, in Tecumseh, last week, the loss ran from 15 to 20 dozen per case, absolutely black rots."

**NO WISELY HANDLING MIDSUMMER EGGS.**

"It seems almost incredible that such conditions should exist. Think, for a moment, of the

loss that is entailed through the labor, handling and freight charges on rotten eggs, and you will readily admit that some improvement is necessary. It would pay us, if we could, to shut down our plants during the hot weather, were it not for the necessity of holding our trade connections until the cooler weather, when we can make some profits."

"How is improvement to be brought about so that our country will get the benefit? I see but one solution. It rests entirely with the producer. If he will market his eggs while they are strictly new-laid, whether through the storekeeper or otherwise, 99 per cent. of the present loss can be overcome, and it will not be long before his quality will be recognized, and a price to compare with the quality realized."

"We would rather pay 20 cents a dozen for eggs we could depend on than to pay 13 or 14 cents for the line of stuff we are getting from you now. We could cut off half our hands, save a lot of expense, and all this nightmare about customers telephoning us about rotten eggs, and making us, as one confectioner did, lately, pay for 160 pounds of cake, spoiled by eggs we had supplied him. These are some of the reasons why we have been willing to hire Mr. Brown, at a big weekly bill for salary and expenses, to work up these co-operative egg circles. It is not immediately profitable to us, but our firms are old ones, and willing to spend a few thousand dollars to help put the egg trade on a better basis. And so we are going to keep him at it."

"There is, as you know, a movement going on to have pure-food standards established by law, at Ottawa. I have been interesting myself in having such a standard adopted for eggs. It is needed worse for eggs than for most other lines. You can open a can of some stuff before you buy it, but you can't open an egg before you buy it. There should be a standard for eggs."

**TO CLASSIFY THE PRODUCERS.**

"We are out," said Mr. Brown, "to put the people who are supplying the good eggs in a class by themselves. At present, those who supply the good eggs are paying for the other fellow's carelessness and dishonesty. We are willing, whenever farmers in any section of Kent, Essex or Lambton Counties want to organize, to come and help them. The essential requirement is that only absolutely fresh-laid eggs be offered. They must be delivered at least twice a week, except in winter, when they must be delivered at least once a week. The membership fee is \$1. Circles may be organized at any convenient local centers." The rules and regulations, as published in "The Farmer's Advocate" of June 9th, pages 953 and 954, were then reviewed.

"Details as to methods of delivery are left to be worked out to advantage in each center. In the circles already organized, the company has one wagon, and the producers have one. The plan adopted in Peterborough is for eight or ten members to bring their eggs to a central gathering station agreed upon, and the wagons call here twice a week for the eggs. The eggs are candled at Peterborough, and any that is not strictly fresh is returned to the member whose stamp it bears. He refunds the price, and if the rotten egg is worth anything to him, he has it. Each egg is stamped on the large end with the letter G and two numbers. G stands for the name of the firm, and is our guarantee to our customer; the first figure stands for the number of the circle, and the second for the number of the member in that circle, so that anything off may be traced right back to the source of supply. There is no use trying to put in eggs more than three or four days old, for our expert candlers can detect such infallibly. The eggs are candled the day they are delivered, and checks may be made payable to the farmer's wife. The eggs should not be kept in wicker baskets, nor set beside the stove. We supply our patrons boxes that hold six or twelve dozen eggs, which are very suitable for keeping them in. As to price, we have been paying the circle members in Peterborough 20 cents a dozen, f. o. b., at the gathering stations where the wagons call—this while in Chatham, last Saturday, 14 cents was the going price."

"One of the best features of this co-operative movement," said Mr. Duff, is its educational value. One farmer found he had a hen laying a green egg. This was traced back, proved to him, and he killed the hen. Diseased ovaries was the cause. By a curious coincidence, this was discovered on the twelfth of July. The case, though unusual, is not unknown. When the co-operative organization was commenced, Gunns had been paying 14 cents a pound for old hens in Peterborough. At the same time, middlemen were travelling through the country buying such hens at 7, 8, 9 and 11 cents a pound. Through the meetings, producers got wise, and began bringing these hens in and getting 14 cents a pound. Members of the Peterborough circles are well pleased. One circle has 50 members, and expects more, and from all parts of the county, and from other counties, letters have come, asking advice how to start egg circles."

The vigorous and practical addresses of Profs. Graham and Elford we reserve for later use in our Poultry Department.

**Seed Cases.**

**BOTH FARMERS AND DEALERS PROSECUTED**

Of late, the representative of the Dominion Seed Branch for the Province of Ontario has been busy prosecuting a number of persons for violation of the Seed Control Act during this season's trade. It may be said that the Department of Agriculture has in nearly every case given the persons in question every opportunity to know the application of the law, and a chance to get their seeds tested free of charge at the Seed Branch, Ottawa. When they neglect to avail themselves of these opportunities, they have only themselves to blame when they are caught with low-grade seed on their hands. In a few cases some wholesale houses are involved, and these cases will be taken up later.

Some of the cases have involved farmers who may not have known that the law applied to their case. There were three such cases. Two young farmers in Huron County, Duncan McGregor, of Kintail, and Kenneth J. McKenzie, of Laurier, had each left a quantity of seed in a store at Kintail for the storekeeper to sell for them, in which case the storekeeper was liable for violation of the law, as well. Their seed contained ribgrass or buckhorn, 24 per 1,000 and 12 per 1,000, respectively, when only 5 per 1,000 is allowed. Information was laid by Inspector T. G. Raynor before Magistrate Jno. Griffin, of Kintail. Each paid the costs and a fine. Another farmer, Sylvester Stratford, of East Oakland, near Scotland, in Brant Co., had 22 1/2 bushels of seed cleaned by a Brantford seed firm, and left his seed in his warehouse, and went on the market and sold by sample in competition with the regular seed dealers. His seed tested six per thousand of buckhorn. He was also fined.

Some of the seed dealers who were fined were Videan & Co., Goderich. They had got red clover seed from a farmer, with 12 ribgrass per 1,000. G. H. Clare, Tweed, had alsike with over 6 per cent. catchfly in it, or 63 per 1,000; he got his locally. Godfrey & Sibbald, of Owen Sound, a wholesale, as well as retail, firm, had sold red clover seed bad with buckhorn and catchfly in it to a Mr. McLean, grocer, and retailer of seeds, of the same town. Mr. McLean was first complained against, and took refuge under sub-clause 2, sec. 9 of the Act, and escaped the fine. Ryan & Son, of Newburg, had got some alsike seed of a farmer near town, who had the reputation of having a clean farm. The seed was badly infested with catchfly. Hanley Bros., of Belleville, had some local-grown red clover seed which should have been labelled as containing ragweed. They also had some alfalfa seed from the firm of Jas. Goodall, of Toronto, which should have been labelled by them before sending it out. L. H. Feomans & Co., of Mt. Forest, had two lots of alsike very bad with catchfly. One lot he swore he got of R. L. Stephen, of Markdale; it had 51 per 1,000 in it. Another lot had about half as much, which he swore either came from O'Flynn, of Shelburne, or from R. L. Stephen, of Markdale. R. E. McKenzie, Belgrave, had got some alsike from E. Edmunds, of Simcoe, as extra choice, which term he understood to mean No. 1, and was so selling it. This is taken up as a test case, to see if such terms will not be construed to mean No. 1, although the firm had a grade higher, called "Fancy." A number of other cases will come on later.

**Good Potato Market in Cuba.**

Almost half our exports of potatoes for the fiscal year ending March 31st went to Cuba, shipments to that Island amounting to \$605,898 worth, representing an increase over the previous year of \$103,834. The increase in volume was much larger, but prices were, on the whole, from a third to a half lower than in former years. American buyers, enjoying, as they do, a preferential tariff in that market, made every effort to capture it, quoting lower and still lower prices, till their potatoes were offered in Havana at \$1.50 per barrel, c. i. f., and finally \$1.40 per barrel. Still, with the new Cuban crop on the market, Canadian potatoes continued to arrive in undiminished quantities, and on June 24th were still holding the market, to the exclusion of potatoes from all other countries.

An international railway commission, with supervisory authority over the railroads of the United States and Canada, probably will be the result of the action by the United States Government in the appointment of Chairman Martin A. Knapp, of the Interstate Commerce Commission, as the representative of the United States to confer with Hon. J. P. Mabee, Chairman of the Railway Commission of Canada, on the subject of the joint control of international traffic rates. It is understood that meetings between Mr. Knapp and Mr. Mabee will take place in the United States or Canada, or both, during the summer, and upon the completion of the conferences a report with recommendations will be made by the commissioners, either jointly to both Governments or separately to their respective Governments.

### Harvesting in Essex.

The sound of the reaper is again heard in the land. Fall-wheat cutting started in this section on July 11th, and is now (July 15th) quite general. Quantity and quality are well up to that of former years. Although spring opened earlier than usual, yet harvesting did not commence until several days later than 1909. Copious showers on the 12th inst. has given sufficient moisture to overcome the drouth that was beginning to affect the crops somewhat seriously in certain localities. Tobacco, of which there is a very increased area planted, is making rapid progress. Recent rains have proved the salvation of raspberries, etc. Cattle are in great demand, but very scarce. J. S. Ainslie, Comber, disposed of his herd, 31 in number, a few weeks ago, for over \$3,200. A considerable number of hogs have been shipped lately, but the supply is not equal to the demand.

Essex Co., Ont.

A. E.

### Saskatchewan Alfalfa Competition Popular.

The Saskatchewan alfalfa-growing competition has caught the popular fancy to a degree that was hardly expected, even by those most interested in the plan. The number of inquiries for information in regard to the rules of the competition has been large, and those who have sought expert advice in the growing of this important crop have not been few. Last spring, Superintendent Angus MacKay, Indian Head, who is one of the first and most successful growers of alfalfa in Saskatchewan, offered to give a sack of inoculated soil to any person who would pay the freight charges on it, and more than two hundred requests in a short time was the result.

### GOSSIP.

J. Deane Willis, who is coming across to judge Shorthorns at the Canadian National Exhibition, has been secured to render the same service at the Iowa State Fair, according to the Breeders' Gazette.

The belted Hampshire hogs advertised by the pioneer Canadian importers and breeders, A. O'Neil & Son, of Birr, Ont., near London, are attracting widespread attention, and the demand for them is reported to be steadily increasing. Messrs. O'Neil also advertise for sale 25 choice two-year-old, high-grade steers, suitable for immediate shipment, and also a few real good yearling steers of the same class, which should find ready purchasers, with present market prospects.

### THE WESTERN FAIR, LONDON.

The management have just completed the work of preparing and shipping their billboards to the different railway stations throughout Ontario. One thousand dollars' cash increase in the live-stock department of the prize list alone this year should induce a good show, and every effort is being put forth to accommodate the large number of exhibitors, both new and old, who will be in attendance at the Western Fair, London, Ont., this year. Prize lists, entry forms, and all information, may be obtained from the secretary, A. M. Hunt, London, Ont.

### ALMA COLLEGE COMMENCEMENT.

Alma College (St. Thomas, Ont.) Commencement Exercises included a full week's programmes and functions, among which were undergraduates' musical and elocution recitals; domestic science dinner, Y. W. C. A. anniversary; graduate musical recitals; elocution graduates' recital; exhibit of paintings, drawings and china; physical culture drills; banquet by juniors to seniors; class-night play; field-day games; meeting of Alma Daughters' Board, Alma Daughters' banquet, reunion reception given by Principal and Mrs. Warner; Alma Daughters' concert; Miss Louise Hinds, reader. Two new exercises were introduced by the seniors, namely: planting the class tree, and the senior loving-cup service.

A matter of unique interest in connection with Alma Daughters' Day was the formal presentation of the Jubilee Gates to the College Corporation by the Daughters. These gates and fence are granite and steel, and cost \$1,240. The Baccalaureate sermon was preached by Rev. R. Whiting, B. A., London. Principal Warner presided, and Miss Henwood acted as registrar at commencement-day exercises. Miss Nelson read the Valedictory. Dr. Silcox, Principal of Strat-

ford Normal School, addressed the graduates. Principal Warner also briefly addressed the students and graduates. The registration for the year numbers 202.

### BOOK REVIEW.

#### "THE WYANDOTTES."

We are in receipt of a revised edition of a book called "The Wyandottes," published by the Reliable Poultry Journal, Quincy, Ill. It consists of 160 pages, 8 1/2 x 11 1/4, and is printed on first-class paper. It is edited by J. H. Drevestadt, a breeder and judge of twenty-five years' experience; is fully illustrated, and is contributed to by the leading breeders of this type of fowl in America. The text and illustrations are based on the changes to appear in the 1910 American Standard of Perfection, and treats of all the varieties of this beautiful and useful breed. The history of the origin of the breed, and the steps in its development, are fully recorded. The desirable color-markings on the various parts of the body, and the form sought in each variety, is clearly set forth. Improvement, breeding, and management suggestions of value are given. The price of the book is \$1 per copy, postage prepaid. It should be a very valuable textbook, welcomed by every person interested in this particular breed.

### TRADE TOPIC.

SPECIAL ATTRACTIONS AT SHERBROOKE FAIR.—The prize lists for Canada's Great Eastern Exhibition, at Sherbrooke, Que., have just been published, and are being mailed. Owing to the fact that the price of admission has been raised to 50 cents, the directors are making a special effort to increase the attractiveness of the show. Ten vaudeville acts, \$3,500 in prizes for horse races, six bands to furnish music, and various special prizes and features should, together with the strongly maintained regular departments, guarantee a very successful show. A special prize of \$50 is to be adjudged to the County in the Province of Quebec whose exhibitors shall together win the largest amount of prizes. This amount will be paid to the Agricultural Society of the county. The entries in the bread-making competition promise to break all records. This year two of the large flour mills have offered valuable prizes. The judging competition will also have a number of entries. Farmers' sons enter this competition in large numbers. The demand for space up to date is larger than it was at this time last year. For prize lists and information, address H. E. Channell, Secretary-Treasurer, Box 728, Sherbrooke, Quebec.

### Dairymen Get Demands.

For some time the Manitoba Dairymen's Association have tried to induce the railway companies to remedy grievances in regard to the shipment of milk and cream. For a time nothing was done, and the association executive laid the matter before the Railway Commission in Winnipeg on May 13th.

The demands included a reduction in rates to conform with rates on American roads; agents to accept delivery of milk at platform or baggage room at point of shipment and give receipt; and return of empty cans by way bill so that lost cans may be traced.

The Railway Commissioners on hearing the evidence agreed that these requests were reasonable. They gave the railway companies thirty days to make satisfactory arrangements with the dairymen. When representatives of the association met representatives of the railways, the latter did not care to grant all the demands. The dairymen, however, stood firm. Finally the C.N.R. and the C.P.R. gave in. Cans will be loaded and unloaded at shipping points and receipt given. At flag stations receipts are received from the train baggage men. No receipt is given for empty cans. All cans must be clearly marked.

The question of rates on cream is not yet settled. The dairymen want same rates on sweet and sour cream, and also want the tariff on the same changed to cover 5, 10, 15, 20, etc., miles area, rather than 10, 25, 50, etc., miles as at present. Sweet cream is wanted for the manufacture of high-grade butter, and dairymen do not feel that it is fair to charge double rates on the better-grade raw product.

### Controlling Foul Brood in New Zealand.

"New Zealand," writes our Australian correspondent, "is the only country in the world where the State has power to compel the bee-keeper to use a frame hive, the means by which foul brood—the great menace of the industry—can be readily detected. Beekeeping cannot succeed unless foul brood is effectively controlled. The New Zealand law quickly placed the industry on a firm footing."

Commenting upon this, a leading Canadian bee-keeper writes: "As far as I know, this is quite correct as to law, but there is this to remember, a movable frame enables us to detect. Yet, the modern system, with interchange of combs between hives, with often interchange of combs in supers after extracting, and with danger of robbing in modern manipulation, the danger of spreading the disease is very much greater than with the old natural swarming, brimstoning, etc., system. In Ontario there are very few box hives. In Quebec, more."

The Manitoba Horse-breeders' Association is waging a vigorous crusade against the practice of keeping stallions in stud without proper enrollment and registration of the animals. On June 29th five charges made by the Association were heard in Mr. Justice McMicken's court, at Winnipeg. The several owners pleaded guilty to failure to enroll stallions and to posting notice of said enrollment, and were fined.

Where the potato goes the bug finds its way. Potato-growers on our Western prairies are gradually making personal acquaintance with the Colorado beetle. Their one-time immunity is no more.

### 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.

#### PRUNING MELON AND CUCUMBER VINES.

Kindly advise me how to prune cucumber or melon vines. G. W. P.

Ans.—When the melon vines begin to run freely, it is well to nip off the terminal buds of the main vines when they reach four or five feet in length, to induce the formation of laterals, upon which the fruit is mostly produced. We have never heard of anyone pruning cucumber vines when grown out of doors, though we have heard of the vines being trained and pruned when grown under glass. Any subscriber who has tried it, under either condition, will confer a favor by detailing his practices and the results, with explanation of the conditions under which he might consider it advisable.

#### BINDWEED.

I am sending a weed which we cannot get rid of, and would like to know the name of it, also how to get rid of it?

HARRY PETER.

Ans.—Though the specimen was not received in a perfect condition for identification, it is quite evidently field bindweed, the hardest weed to eradicate that infests Canadian fields. The one redeeming feature is that it is not hard to keep from spreading by seed. Its running rootstocks, however, are very deep-ranging and hardy. Cultivation sufficient to destroy most other weeds, only seems to make bindweed thrive all the better. It will yield, nevertheless, to thorough, persistent cultivation, repeated about every five days for a whole summer. This should be given either on a bare fallow or a hoed crop, preferably the former. The cultivation up to about July may appear to have the discouraging effect of invigorating the weed, but about August its vitality will show signs of weakening, and by autumn the weed will either be eradicated or so reduced in strength that it may be easily finished the next year. Small patches may be smothered with tar paper, held down well at the edges, but on extended areas, cultivation is to be recommended. Do not trifle with this weed. It is a desperately bad one.

## MARKETS.

### Toronto.

#### LIVE STOCK.

At West Toronto, on Monday, July 18th, receipts numbered 109 cars, comprising 2,304 cattle, 269 sheep, 28 calves. The quality of the cattle was generally good; trade good, with prices firm, especially for butchers'. Exporters, \$6.25 to \$7.15; bulls, \$4.75 to \$5.50; picked lots of butchers', \$6.75 to \$6.85; good loads, \$6.25 to \$6.50; medium, \$5.75 to \$6; common, \$5 to \$5.75; cows, \$3 to \$5.25; milkers, \$4 to \$6.50, and one Holstein, \$85; calves, \$3 to \$7 per cwt. Sheep, \$3.50 to \$4.50. Hogs, \$9.50, fed and watered, and \$9.15, f. o. b. cars at country points.

#### REVIEW OF LAST WEEK'S MARKETS

The total receipts of live stock at the City and Union Stock-yards last week were as follows:

	City.	Union.	Total.
Cars	186	201	387
Cattle	221	3,464	5,685
Hogs	3,085	1,626	4,711
Sheep	2,713	1,145	3,858
Calves	685	157	842
Horses	9	77	86

The total receipts of live stock at the City and Union Stock-yards for the corresponding week of 1909 were:

	City.	Union.	Total.
Cars	167	176	343
Cattle	2,437	3,165	5,602
Hogs	2,828	763	3,586
Sheep	2,622	429	3,051
Calves	500	183	683
Horses	1	148	149

The above figures show a total increase of the combined receipts of live stock at the City and Union Stock-yards for the week, in comparison with the corresponding week of 1908, of 44 cars, 83 cattle, 1,125 hogs, 807 sheep, 159 calves; but a decrease of 63 horses.

On Monday, at the Union yards, the receipts of cattle were heavy, but at the City market for the rest of the week the supply was light. At the Union yards, trade was good (although prices were 10c. to 25c. per cwt. lower), as not a hoof out of the large number on sale was left unsold. At the City market, the bulk of the cattle on sale were common to medium quality, and sold at about the same prices, quality considered.

Exporters.—Prices ranged from \$6 to \$6.50, but only three or four loads at the latter price, export bulls, \$5 to \$5.50; export heifers, \$5.75 to \$6.80.

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# FARMERS

## Should Know

that their spare money is in safety.

Many offers of investments promise large profits, but the large-profit investment is seldom a SAFE ONE.

The Savings Department of the Bank of Toronto has three strong points:

Safety.  
Interest paid regularly.  
The money at credit always ready when required.

# Bank of Toronto

Head Office: Toronto, Canada.  
RESOURCES, \$47,000,000

Butchers'.—Prime picked lots sold at \$6.75 to \$6.85; loads of good, \$6.25 to \$6.80; medium, \$5.90 to \$6.15; common, \$4.75 to \$5.50; cows, \$3.50 to \$5.25; canners, \$2 to \$2.50.

Stockers and Feeders.—There has been very little doing in the stockers and feeders, few being offered, and few wanted, as farmers seem to be afraid of the present high prices. Harry Murby, the largest dealer in feeders, quotes prices as follows: Steers, 850 to 1,000 lbs., at \$4.75 to \$5.25; steers, 700 to 800 lbs. each, at \$4.25 to \$4.75; stockers, \$3.75 to \$4.25.

Milkers and Springers.—The demand for milkers and springers at the City market, where the bulk of these are sold, was not as good, and prices were from \$5 to \$7 per head lower. Prices ranged from \$35 to \$55, with an odd one now and again reaching \$60.

Veal Calves.—Receipts moderate, with prices firm, at \$3 to \$7 per cwt.

Sheep and Lambs.—Receipts were fairly large, with prices easier for the sheep, but about steady for lambs. Ewes, heavy, \$3.50 to \$4 per cwt.; ewes, light, \$4 to \$4.50; rams, \$3 to \$3.50 per cwt.; lambs, \$7.50 to \$8 per cwt.

Hogs.—Receipts were moderate, with prices quoted as follows: Selects, fed and watered at the market, \$9.25, and \$8.75, f. o. b. cars at country points, up to the latter end of the week, when prices advanced to \$9.40, fed and watered, and \$9, f. o. b. cars at country points.

Horses.—J. Herbert Smith, manager of the Union Horse Exchange, West Toronto, reports a fair trade during the week, notwithstanding that the months of July and August are generally supposed to be the duller of the year for the horse trade. Mr. Smith disposed of about 100 horses during the week, and shipped a carload each to Montreal, Ottawa and Hamilton, as well as several minor shipments to other points of Ontario. Prices ranged as follows: Drafters, \$200 to \$230; general-purpose, \$130 to \$210; expressers, \$150 to \$230; drivers, \$150 to \$250; serviceably sound, \$35 to \$100.

### BREADSTUFFS.

Wheat.—No. 2 white or mixed winter, \$1.02, nominal. Manitoba wheat—No. 1 northern, \$1.14; No. 2 northern, \$1.11, track, lake ports. Rye—No. 2, 68c. Peas—No. 2, 70c. to 71c., outside. Buckwheat No. 2, 51c., outside. Barley—No. 2, 52c. to 53c.; No. 3X, 50c. to 51c.; No. 3, 45c. to 47c., outside. Oats—Manitoba, No. 2, 39c.; No. 3, 38c., at lake ports; Ontario, No. 2, 35c., outside. Corn—American, No. 2 yellow, 68c.; No. 3 yellow, 67c.; Canadian, 62c. to 63c., Toronto freights. Flour—Ontario 90 per cent winter wheat patents, for export, \$3.75; Montreal, car lots, in buyers' bags, Manitoba flour—Toronto prices are: First patents, \$5.80; second patents, \$5.30; strong bakers, \$5.10.

### HAY AND MILLFEED.

Hay.—Baled, car lots, on track, Toronto, No. 1, \$15 to \$15.50; No. 2, \$12 to \$13.50.

Straw.—Baled, car lots, on track, Toronto, \$7.50 to \$8.

Bran.—Manitoba bran, \$19 per ton; shorts, \$21, track, Toronto; Ontario bran, \$20, in bags. Shorts, \$21, track, Toronto.

### COUNTRY PRODUCE.

There have been heavy deliveries. Market steady, at following quotations: Creamery pound rolls, 24c. to 25c.; creamery solids, 22c. to 23c.; separator dairy, 20c. to 21c.; store lots, 18c. to 19c.

Eggs.—Receipts large, but demand is also large, with prices firm, at 20c.

Cheese.—Receipts large; new, 12c. for large and 12c. for twins. Old cheese is also plentiful, at 12½c. to 13c.

Honey.—Market unchanged. Extracted, 10c. to 10½c.; combs, per dozen sections, \$2.25 to \$2.75.

Beans.—Dealers quote prices firm, but unchanged; hand-picked, \$2.15 to \$2.25; primes, \$2 to \$2.10.

Potatoes.—Prices easier, at 25c. per bag, for car lots of old Ontario-grown. New American-grown potatoes, car lots, on track, Toronto, per barrel, \$2.20 to \$2.30.

Poultry.—Spring chickens dressed, 25c. per lb.; alive, 18c. per lb., by the crate; ducks, 22c. per lb., dressed; alive, by the crate, 18c.; turkeys, old toms, 14c. per lb.; fowl, hens, 13c. per lb., alive; old roosters, 10c. per lb., alive. Pigeons, per dozen, \$1.25.

### HIDES AND WOOL.

E. T. Carter & Co., 85 East Front street, have been paying the following prices: No. 1 inspected steers and cows, 10c.; No. 2 inspected steers and cows, 9c.; No. 3 inspected steers, cows and bulls, 8c.; country hides, 8c. to 8½c.; calf skins, 11c. to 13c.; horse hides, No. 1, \$2.75; horse hair, per lb., 30c.; tallow, per lb., 5c. to 6½c.; lamb skins, 20c. to 25c.; wool, unwashed, 13c. to 14c.; wool, washed, 18c. to 20c.; wool, rejections, 15c.

### FRUITS AND VEGETABLES.

Receipts of Canadian-grown fruits are growing larger each week as the season advances. Prices ranged as follows: Currants, red, per basket, 75c.; gooseberries, basket, 75c. to \$1.25; raspberries, per quart, 12c.; strawberries, 8c. per quart; green peas, basket, 40c.; cabbage, crate, \$1 to \$1.25; cucumbers, hamper, \$2; onions, crate, \$2 to \$2.50; water-melons, 30c. to 40c. each.

### Cheese Markets.

Campbellford, Ont., 10½c. Stirling, Ont., 10 13-16c. Lindsay, Ont., 10½c. to 10 13-16c. Woodstock, Ont., 10½c. bid. Madoc, Ont., 10 13-16c. and 10½c. Belleville, Ont., 10½c. Kingston, Ont., 10½c. to 10 13-16c. Brockville, Ont., 10½c. bid. Vankleek Hill, Ont., 10½c. London, Ont., 10½c. and 10 13-16c. St. Hyacinthe, Que., 10½c.; butter, 22c. Cowansville, Que., 10½c. to 10½c.; butter, 22c. Chicago, Ill., daisies, 15½c. to 16c.; twins, 15c. to 15½c.; young Americans, 15½c. to 16c.; longhorns, 16c. to 16½c. Listowel, Ont., 10½c. Napanea, Ont., 10½c. Iroquois, Ont., 10½c. Picton, Ont., 10 13-16c. and 10½c. Ottawa, Ont., 10½c. and 10 13-16c. Perth, Ont., 10½c. Kemptville, Ont., 10½c.

### Chicago.

Cattle.—Beeves, \$5.30 to \$8.60; Texas steers, \$2.75 to \$6.85; Western, steers, \$4.15 to \$6.60; stockers and feeders, \$3.60 to \$5.75; cows and heifers, \$2.75 to \$6.85; calves, \$6.75 to \$8.50.

Hogs.—Light, \$8.60 to \$9; mixed, \$8.50 to \$9; heavy, \$8.20 to \$8.75; rough, \$8.20 to \$8.35; good to choice heavy, \$8.35 to \$8.75; pigs, \$8.60 to \$9; bulk of sales, \$8.45 to \$8.75.

Sheep and Lambs.—Native, \$2.55 to \$4.35; Western, \$2.50 to \$4.30; yearlings, \$4.40 to \$5.35; lambs, native, \$4.50 to \$7; Western, \$4.50 to \$7.

### British Cattle Markets.

London cables 14½c. for Canadian cattle. Liverpool reported the best small cattle in good demand last Saturday, with a reduction on rougher sorts. Quotations were: States steers, 15c. to 15½c.; Canadians, 14½c. to 15c., and fed ranchers, 13c. to 13½c.

### Montreal.

Live Stock.—Exports of cattle from the port of Montreal during the week ending July 9, amounted to 1,901 head. Choice cattle were scarce on the local market last week, and, as the demand was fair, prices advanced fractionally. Choice steers brought from 7c. to 7½c. per lb., fine around 6½c., good 6c. to 6½c., medium 5½c. to 5½c., and common 4c. to 5c. Cows ranged down to 3c., but choice stock sold as high as 5½c. Spring lambs have been coming forward more freely, and butchers are looking for lower prices. Meantime lambs and sheep have sold at previous prices, which have been \$3 to \$5 or \$6 each for lambs, and 3½c. to 3¾c. per lb. for sheep. Calves have had a firm tendency, and prices ranged from \$3 to \$8 each for lower grades, and 5½c. to 6c. per lb. for choice. The market for hogs showed some improvement. A stronger feeling developed and prices advanced fractionally. Sales of selected lots were made at 9½c. to 10c. per lb., weighed off cars.

Horses.—There were a few horses shipped to the West during last week, and some demand developed from Quebec and Eastern points. At the same time, prices seemed to be rather above what buyers were prepared to pay. It did not seem that holders throughout the country were at all disposed to lower their asking prices to meet buyers, inasmuch as they were not overburdened with stock, and they were apparently able to dispose of all they have at present prices. The market has been holding steady, as follows: Heavy draft horses, weighing from 1,500 to 1,700 lbs., \$275 to \$325 each; light draft horses, weighing from 1,400 to 1,500 lbs., \$225 to \$275 each; light horses, weighing from 1,000 to 1,100 each, \$100 to \$175 each; inferior, broken-down animals, \$50 to \$100 each; and choice saddle and carriage animals, \$350 to \$500.

Dressed Hogs and Provisions.—Dressed hogs continued at about the same price as during the past few weeks, the slight alterations in the market for live stock having evidently passed over them. They sold at 13c. to 13½c. per lb., for selects. English, boneless, breakfast bacon, was steady, at 19½c. to 20c. per lb., Windsor skinned backs 22c., Wiltshire sides 18c., spiced rolls and picnic hams 17c. Extra large hams, weighing from 25 lbs. upwards, sold at 17c.; large hams, 18 to 25 lbs., sold at 18c.; medium sizes, 13 to 18 lbs., sold at 19½c.; extra small sizes, 10 to 13 lbs., sold at 20c. per lb. Barreled pork was steady, at \$25 to \$32.50 per barrel, beef being \$18. Lard, pure, 15½c. to 16½c.; compound, 11½c. to 13½c. per lb.

Potatoes.—New Canadian stock has been coming in, although very slow as yet, and dealers predicted an advance during the week. Prices were \$2.75 to \$3 per barrel. So far as can be seen at the moment, the new crop promises to be a very fair one. There has been very little demand for old potatoes, and prices ranged from 55c. to 75c. per 90 lbs., according to quality. Stocks are almost exhausted.

Eggs.—The hot weather has affected the quality of the stock very greatly, although prices did not appear to have greatly altered. Dealers reported paying 16½c. per dozen for straight-gathered, at country points. This stock was sold here at an advance of about 2c., No. 1 candled selling about 19c., and selects 22c. to 24c.

Butter.—The tendency of prices in the country has been upwards, and advances of about ½c. have taken place, 22½c. to 22¾c. per lb. being the range for last week. This means that more has had to be obtained here. Some good stock was obtainable at about 22½c., but for the choicest 23½c. was demanded, some fine goods being 22½c. Exports to Great Britain continue to show slight increases over those of a year ago, the total this season being, to date, 2,500 boxes, against 1,800 a year ago.

Cheese.—Exports from Montreal so far this season have amounted to 510,000 boxes, being still about 26,000 less than for the corresponding period of last year. Prices had a narrow range, being 10½c. for Quebecs, 10½c. to 10½c. for Townships, and around 11c. for Ontarios. The general tone was firm.

Grain.—The market for oats continued to advance from time to time, and was at the highest point for some time past.

## The Canadian Bank of Commerce

affords to farmers and others every facility for the transaction of their banking business.

Accounts may be opened by mail and moneys deposited or withdrawn in this way with equal facility.

SALES NOTES will be cashed or taken for collection.

Branches throughout Canada, including Toronto, Hamilton, Montreal, Charlottetown, New Glasgow, and Truro.

No. 2 Canadian Western oats sold at 39½c. to 40c. per bushel, ex store, car lots, No. 3 oats being 38½c. to 39c. No. 3 barley was 49c. to 50c., and No. 4, 45c. to 46c.

Flour.—Although the price of flour advanced early last week, a further advance took place before the close, making the closing price of Manitoba first patents, per barrel, in bags, \$5.90; second patents being \$5.40, and strong bakers' \$5.20. Ontario winter wheat patents sold at \$5.25, and straight rollers at \$4.90 to \$5 per barrel.

Feed.—There was a rather improved demand for millfeed, and prices were higher, owing to the price of wheat. Quotations were \$19 per ton for Manitoba bran, in bags, and \$21 per ton for shorts. Ontario bran was \$19.50 to \$20, middlings \$21 to \$22, pure grain mouille being \$32 to \$33, and mixed mouille \$25 to \$28. Cotton-seed meal was about \$27 per ton.

Hay.—Owing, no doubt, to the approach of the new crop, old hay was easier, being \$14.50 to \$15 per ton for No. 1, carloads, Montreal; \$13.50 to \$14 for No. 2 extra; \$12 to \$12.50 for No. 2; \$11 to \$11.50 for clover mixed, and \$10.50 to \$11 for clover.

Hides.—Demand for hides was dull, and prices of calf skins and beef hides had declined. Uninspected hides were steady, at 9c. per lb., Montreal; No. 3 hides, 4c. down, at 10c.; No. 2 at 11c., and No. 1 at 12c., calf skins being 1c. down, at 18c. for No. 2, and 15c. for No. 1. Lamb skins were still 25c. each, and horse hides \$1.75 to \$2.50. Rough tallow, 1½c. to 5c. per lb., and rendered, 5c. to 6c.

### Buffalo.

Cattle.—Prime steers, \$7.50 to \$8; veals, \$7 to \$10.50.

Hogs.—Heavy, \$9 to \$9.10; mixed, \$9.25 to \$9.40; Yorkers, \$9.50 to \$9.80; pigs, \$9.80 to \$9.85; roughs, \$7.75 to \$8; dairies, \$8.50 to \$9.60.

Sheep and Lambs.—Lambs, \$5.50 to \$7.25; yearlings, \$5.75 to \$6.25; wethers, \$4.75 to \$5; ewes, \$3.75 to \$4.25; sheep, mixed, \$3 to \$4.50.

### SEEING DOUBLE.

The judge at a Kentucky horserace one day took too many mint-juleps before he went to his day's work. There was a race during the afternoon between two horses, a roan and a bay.

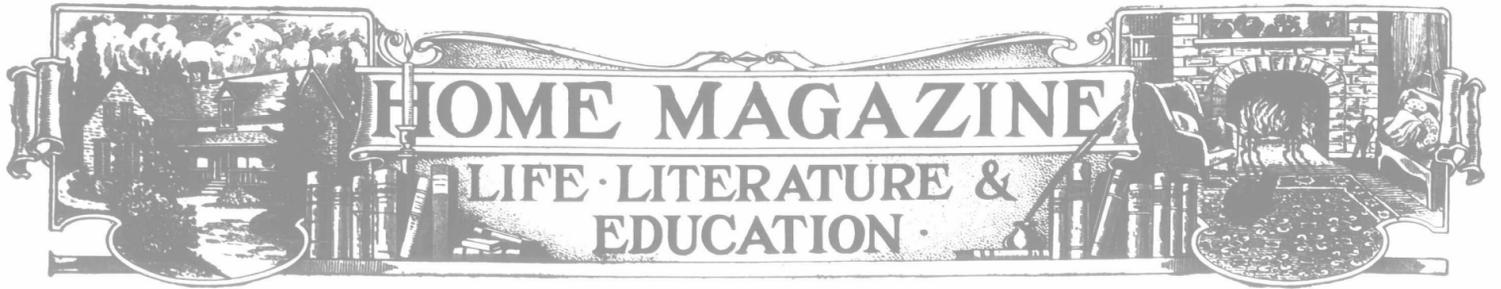
The horses ran well together until the head of the stretch, when the bay fell down and the roan cantered under the wire alone. Whereupon the judge started everybody by leaning over the edge of the judge's stand and solemnly announcing: "Dead heat, gentlemen; dead heat."

"What's that?" shouted the owner of the roan. "How do you make it a dead heat? Didn't you see the accident at the head of the stretch?"

"Certainly," announced the judge, "I saw it. The two bays fell down at the head of the stretch, but the two roans finished nose and nose."

"Did you ever hear her say anything particular about me?"

"No; she is never very particular what she says about you."



### The Tragedy of Greatness

O'er the horizon of earth's common souls,  
A great man rises;  
Some cry, "A genius; Favorite of the gods!"  
Ah, vain surmises!

They little know the tender truth that lies  
Neath his bright name;  
A mother's sacrifice, a father's toil  
Have made his fame.

The lonely homestead and the quiet farm  
Have made sublime  
Love's sacrifice, upon the shrine of Hope,  
To Life and Time.

VERNE DEWITT ROWELL.

London, Ont.

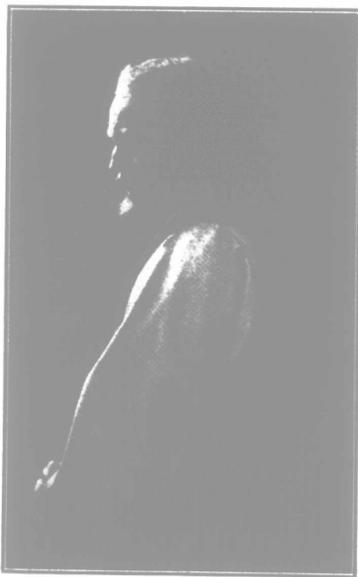
Dr. Goldwin Smith, although a man of purely academic education, was remarkably interested in agriculture; yet it was, perhaps, a coincidence that in Cornell, the University to which he bequeathed the greater portion of his wealth, the leading department is that of agriculture. "Cornell," says Edwin Slosson, "has more graduate students in the single department of agriculture than some universities have either in their entire graduate schools, or in their undergraduate colleges of agriculture. Of more significance than their number is the high quality of the young men now being attracted by agricultural research. This is due, as I have said before, not so much to the practical demands of the industry or to the heavy subsidizing of such work by the Government . . . but rather to the new field of discovery which has suddenly been opened in this direction. One of the most interesting examinations that I attended in my rounds of the universities was one in Cornell on the methods of manufacture of new kinds of fruit. Even an outsider could catch something of the fascination there must be in the modeling of plants and animals according to a pre-existent concept."

All farmers, it is true, cannot devote time to such abstruse problems as the creation of new species, but any farmer who chooses can conduct the ordinary operations of farming according to scientific bases. He must study to do so, but the study will yield a rich harvest of interest and gain. According as farming becomes scientific it is raised from the plane of mere drudgery for a living to that of a fascinating profession.

General Yin Chang, Minister of War for China, who has been travelling in Europe, recently let fall some observations which are regarded as significant of signal changes in the organization of the Celestial Empire. China has, he stated, already in hand plans for the formation of a strong army, to be composed of Chinese exclusively, all Japanese who are at present serving in the Chinese army to be removed. China, he declared, only lacks capable instructors, and with the object of providing such instructors, all Chinese officers at present attached to European armies, and many students studying abroad, will be recalled. As a preliminary, the military establishments of France, Germany, Austria, etc., will be inspected by eminent men of the Empire.

China's aversion to war has long been pointed to as proof that the Chinese army could never loom large among offensive and defensive forces. New times, however, bring new man-

ners. It is now well known that the once sleeping Empire is forging ahead industrially at a rate that must make her ere long a formidable, commercial rival of western nations, and it is only reasonable to expect that, recognizing the necessity, in the present stage of the earth's morals, of a protective force to every rich country, in order that the rights of "mine and thine" be respected, she should set about actively to provide that force. What the Oriental does



Anton Lang.

As "Christus," in the Oberammergau Passion Play.

he does well, and there is no doubt a great future ahead of this greatest Oriental nation.

During the present summer the majority of tourists in Europe are taking advantage of the opportunity to see, at Oberammergau, a little village 2,745 feet up among the Bavarian highlands, the famous Passion Play, given there once in every ten years by the peasants of the district.

The story of the strange presentation is as follows: After the visitation of the plague in 1663, the people of this village made a solemn vow to represent the passion tragedy every ten years, and the record-state that "from this time on not a single man died of plague." In 1664, then, the play was given for the first time, and in 1820 it was enriched by music, composed by Rochus Dedler, an Oberammergau schoolmaster. Ever since then, regularly, at the end of the prescribed time, the play is given, and by degrees costumes of finest and most durable quality have been procured for the actors. As no wigs or make-ups of any kind are allowed, a few months before the presentation of the drama the men and boys allow their hair to grow.

At first the play was held in the village church, but as the decades passed on visitors increased in numbers, and to-day it is given in a sheltered auditorium containing 1,000 seats.

Notwithstanding the money that must flow into the little place from such an attendance, the spirit in which the villagers carry out the drama is said to have no taint of

commercialism. They are deeply religious at all times. Most of them are wood-carvers, simple, godly people, who have come to look upon themselves as born for the enactment of the Passion Play. They have received repeatedly lucrative offers to present it in other places, but will act nowhere but at Oberammergau.

Anton Lang, the present "Christus," is a potter and stovemaker, described as "a gentle, earnest soul, unspoiled by a life rich in experience." There are 574 performers, 76 musicians, and 50 others connected with the play, about 700 in all.

### The Windrow.

Archery is a fad for women of the United States this season.

A new-book by John Burroughs, entitled, "In the Catskills," is in the hands of Houghton, Mifflin Co.

A laundry for washing, starching and ironing dirty "goenbacks" has been installed in Washington by the U. S. Government.

Mr. Joseph Thomas, who made a fortune by inventing a pliable hoop-skirt in the old days, died not long ago in Hoboken, N.J.

John D. Rockefeller has offered a gift of \$50,000 to Acadia College, Wolfville, N. S., on condition that \$150,000 shall be raised to supplement it.

Roosevelt's book of his travels, which will be published this fall, will be entitled "African Game Trails."



Albrecht Bierling.

Who is taking the part of St. John in the Oberammergau Passion Play.

and will be printed in English, French and German.

Nearly all of the women novelists of England, among them the well-known Beatrice Harraden, are Sudragettes. Mrs. Humphrey Ward is a noted and active "anti."

The City of Aberdeen, Scotland, is about to erect a statue to the memory of Lord Byron, who spent several years of his boyhood there. It will be placed on the grounds of the old Grammar School.

It costs at least \$10,000,000 to build a Dreadnought, and \$1,000,000 per annum to keep one of them afloat. It also costs about \$1,500 every time one of their 12-inch guns is fired. Yet in about ten years the ship that costs all this is so out-of-date as to be practically useless.

A short list of the more notable works of fiction to appear during the coming season includes "An Affair of Dishonor," by Mr. William de Morgan; "Rest Harrow," by Mr. Maurice Hewlett; "Lady Good-for-Nothing," by Mr. A. T. Quiller-Couch; "Clayhanger," by Mr. Arnold Bennett; "Early Victorian," by Mr. S. G. Tallentyre; "A Doctor's Christmas Eve," by James Lane Allen; "Adrian Savage," by Lucas Malet; and "Men, Women and Ghosts," by Mrs. Edith Wharton.

Canada has the largest wheat field in the world, the largest elevator and the largest mill. The largest lift-lock in the world is at Peterboro. The longest bridge span is being built at Quebec. The largest railway yard in the Empire is in Winnipeg, and the largest collieries in the world are in Nova Scotia. Canada has the most prolific and extensive sea fisheries in the world, the largest silver, nickel and copper mines, and the thickest known coal seam in the world.—[Oakville Star.

The guillotine owes its name to the fact that, during the Revolution a Dr. Guillotin, disgusted by tortures which were inflicted on the poorer classes when they were brought up for judgment, proposed to the Constituent Assembly that all "criminals" should be treated the same, irrespective of rank, and that the least painful possible execution for all condemned to death should be fixed upon. The motion was accepted, and another physician, Dr. Antoine Louis, devised the machine, first known as the "Louissette," but afterwards as the "Guillotine," which was deemed more distinctive, because of the prevalence of the names Louis and Louise in France. The awful carnage of the guillotine, which had not been foreseen by the benevolent Dr. Guillotin, was a source of endless sorrow to him. "He could never," writes a friend, "console himself for what he called the involuntary blot on his career. His venerable features wore an expression of great sadness, his hair had been bleached by anxiety. In endeavoring to mitigate the suffering of humanity he felt that he had unwillingly been the means of destroying many lives." Dr. Guillotin died in 1814, just a few days before Napoleon abdicated at Fontainebleau for the first time.

It may not be generally known that, during excavations carried on by Dr. D. B. Spooner, of the Indian Archaeological Survey, near Peshawar, India, some time ago, a portion of the remains of the founder of Buddhism was discovered. It is a well-attested fact that on the death of Gautama Buddha his body was burned, and an immense tumuli built to preserve the relics. In time, after the invasions of Mahmud of Ghazni, the site was lost, and remained so until discovered by Dr. Spooner, at the suggestion of M. Foucher, the French archaeologist. The account of the finding is as follows: "After much hard work a relic chamber was discovered. Its contents included a metal casket, and within it a reliquary of rock crystal. The contents of the casket is de-

JULY 21, 1910

rated with delicately carved Kharsathi inscriptions and Buddhistic figures. The most important inscription runs, "Homage of the teachers of the Sarvasivadin Sect"—the sect which is known to have conveyed one portion of the remains of Gautama to the north. In a corner is the signature of the Greek maker of the casket, one Agesilaus, who describes himself as the "superintending engineer" of the monastery. The contents of the reliquary consist of three small fragments of bone packed tightly together, and originally covered by a clay sealing bearing an impress of what is doubtless the Royal signet. As the Pioneer observes, the fact that the loftiest and most magnificent monument of ancient India should have been deemed necessary for the worthy preservation of these tiny fragments of bone is striking evidence of the sanctity in which they were held, and strongly confirms the assertion of Hieun Tsang, that they are relics of Gautama.

**In the Little Ugly Brick Building.**

Is the quality of the teacher to be engaged for the rural school a matter of importance at all? How far does our school and the manner in which it is conducted lie from the ideal? What is the bias of mind which is being given our children day by day in that little, stiff, and very ugly brick building down the road?

Doubtless, the world has advanced marvellously, prodigiously, during the past nineteen hundred years or more, yet it is a question if, in some things, even the ancients have not something to teach us mortals of a later day. Socrates and Epictetus taught "school." Men of experience, and culture, and great wisdom were they,—philosophers; and the young men came and sat at their feet, learning, not only knowledge, but also that which should form in them character, resolution, the power to take up life and make the best of it.

Were not those ideal schools? And will they not stand contrast with many a school of to-day over which presides, perhaps, a young girl of eighteen or nineteen, her own character unformed, her mind possibly taken up much more with her gentlemen friends and her new dresses than with the little humans whose lives she may have so great an influence in moulding? A girl at such an age can and usually does teach considerable "knowledge." In exceptional cases she may do much more—for occasionally a girl at eighteen possesses more character and more insight than the ordinary woman of thirty;—but, as a rule, her personality makes no decided impression; or, perhaps, with the best intentions in the world, she directs along very mistaken lines. We hold that every teacher's personality should make a decided impression, and, at that, along right lines.

A paragraph from a bulletin issued by the State Board of Agriculture of Columbia, Missouri, University, has awakened a train of reflections as to what trend the personality of the rural teacher should give the rural school. This paragraph is as follows:

"The time is rapidly coming, if it be not already here, when country people will demand of their teachers that they be men and women who are in full sympathy with country life—men and women capable of appreciating the problems and possibilities of farming as a profession. That education which is supposed to fit our boys and girls so that they will not have to work is worse than worthless. The education that is worth while is that which trains how to work. That teacher who advises his pupils to study hard so that they may be able to leave the farm, go to town, and amount to something should have no place in a rural school-room."

There is a great and important truth here. Would that it might sink deep into the mind of every

parent and every teacher. Work is the best thing in the world; work of hands and work of mind, and the ideal life is that which combines the two.

Coming more specifically to the subject of the teaching of agriculture in the rural schools: It is only reasonable to start with the premise that the great majority of the children who attend these schools will remain permanently on the farms. The only reasonable course, then, is to fill these children with such a love for and such an interest in the rural life as will cause them to live happily, usefully, and enthusiastically; and to give them such a start on the principles of agriculture as will inspire them to farm scientifically, and so to the greatest profit. Such a love for and interest in the old farm home will not in the least disqualify those who elect to follow a professional or business life in the city.

Of course, no sane person can expect that "farming" can be taught in the public schools. All that can ever be satisfactorily attempted is to impart a love for it through opening the eyes of the children to see the wonders of plant, insect and bird life that are a part of every farm, and an interest for the work itself through the teaching of a few important principles. As the French Minister of Education, in giving instructions to teachers of agriculture in the French Provinces has said: "Instruction in the elementary principles of agriculture, such as can be properly included in the programme of common schools, ought to be addressed less to the memory than to the intelligence of the children. It should be based on observation of the every-day facts of rural life, and of a system of simple experiments appropriate to the resources of the school, and calculated to bring out clearly the fundamental scientific principles underlying the most important agricultural operations."

To our bulletin again: "The teacher of agriculture in the rural school will very naturally deal more with the 'why' than the 'how.' Most farmers would, perhaps, resent the idea of the average country-school teacher presuming to instruct them or their sons as to how they should plow their ground or cultivate their crops, yet the 'why' of cultivation is almost certain to prove of interest to both pupil and patron. The boy who does not understand the 'why,' and who is sent to the cornfield to plow when the ground is free of weeds, may go in a complaining mood, and may think that his father 'just wants to keep him at work all the time, even when there isn't any use in it.' On the other hand, if he has been taught the principles of conserving moisture, and understands how the 'dry blanket'—the soil mulch—prevents the rapid evaporation of water from the soil, the chances are that while he may not plow better he will work more willingly. The boy who loves nature, and who is able to learn her secrets, is not the one who is dreaming of the time when he will be able to get away from the farm. Fortunate is the country child who has as teacher one who will encourage investigation and promote the spirit of enquiry, ever keeping in mind the story of 'Eyes and No Eyes.' A dozen 'whys' and 'hows' are better than a hundred memorized and perhaps little understood statements."

"What a wonderfully interesting story is that of corn! How eagerly will the boys—yes, and the girls, too—listen as the teacher tells of how corn, or maize, was found by Columbus in the Island of Hayti, where it was known as 'mahiz,' and of how it is to-day so extensively cultivated! Not less fascinating is the story of a grain of wheat, to which might be added the story of a loaf of bread. And there are other stories, numberless, almost, but none dull unless we make them so. All country children are eager for such stories. The only question is, Is the teacher capable of properly presenting them?"

(To be continued.)

**Our English Letter.**

XV.

AGAIN AT THE JAPAN-BRITISH EXHIBITION—AT THE CONFERENCE HALL.

As the object of my second day's visit to the White City was hardly one of sight-seeing only, I had to postpone my inspection of the several British sections, the exhibits from the army and navy departments, the statuary and the paintings; King Edward's loan collection, with its most interesting historical and other relics; the beautiful work from the Alexandra Technical Schools at Sandringham; the Antarctic photographs; the British Dress Tableaux, illustrating the costumes worn by a lady from infancy to picturesque old age; a "veritable feast of fashion," showing the appropriate gowns for sports and recreation, for evening wear, and for presentation at Court; some or all of which I may, perhaps, be able to see and report upon on another occasion. Neither was I able to get within sight of what I had considered a part of my day's programme, namely, a visit to "The Canadian Toboggan," but what I learnt of the manner in which that distinctly Canadian pastime was presented to the British public I will pass on to you, and let you judge of how true to nature the representation is. Apparently the winter sport of tobogganing both in Switzerland and Canada were shown as in combination, and, as such, have completely ousted the old and greatly patronized "Switchback" of former years. The new development is practically on the same principle as the old, with certain points of difference. The cars are raised by motive power, descending by gravity, and travel not only up and down a series of undulations, running around turns, twists and curves, which so delight the travellers that many of them are actually ready to repeat the exciting journey, with all its shocks and sensations over and over again.

**WOMEN AND THE FRANCHISE.**

On this day I was anxious to attend, in company with a friend who could secure me a seat in the Conference Hall, a meeting at which the cause of woman's suffrage was to be discussed on non-party lines; suffragists, militant and non-militant, seeking how best to join hands in promoting, if possible, by pacific measures, the passing through Parliament of their Conciliation Bill. All sections of suffragists were "watching and waiting" we were told, a truce being called even by the fighting wing, who were refraining from aggressive measures until the Government should consent to provide facilities for its passing through Parliament this session.

Lady Frances Balfour, who was in the chair, reminded her hearers that it was one of the members of the present Government (now representing his sovereignty in South Africa) who had told them some time ago that they "wanted an overwhelming expression of opinion from women in every part of the country." Seeing that the ballot-box, the only channel through which such an opinion could obtain a recognized hearing, was denied to women, such advice was as illogical as bidding the dumb to speak. However, a reply which should be convincing enough would be given before many days, in the monster demonstration in which it was expected that at least 10,000 women of every profession and trade, of every degree of social status, from the lady of title to the humble mill-worker of the north, would join in token of the unanimity of woman's protest against being absolutely disqualified by sex from having a voice in the affairs of her country.

Here let me say that this prophecy was more than realized—10,000 representative women, 700 banners, a peaceable, well-conducted procession of two miles long, composed of suffragists, militant and non-militant, being their reply to the question, "Do women really want the fran-

chise?" At their subsequent meeting at the Albert Hall, no less a sum than £5,000 was subscribed towards the financial support of the movement.

The principal speaker was Mrs. Fawcett, who was loudly cheered, and was evidently a great favorite with her audience. She said, amongst many other things, that the Conciliation Bill might not give women all they had been working for, but conciliation was in the air, and surely it must come as a presage of hope to their cause, that for the first time in history the Sovereign, on assuming the responsibilities of his high estate, recorded in his first speech that he relied for help and support upon the sympathy and support of a woman—his wife. Mrs. Fawcett claimed that the change asked for would not be a revolutionary one, but simply consistent with changes that had already taken place in the status of women in economic, social, educational, industrial and other positions, so why should not their political status be correspondingly adjusted?

In allusion to Mrs. Humphrey Ward's energetic efforts on behalf of getting her son into Parliament, whilst at the same time posing as an anti-suffragist, Mrs. Fawcett raised a good-humored laugh by saying that whilst sorry so distinguished a writer should be against them, she perhaps did them more good than harm, for she was "so beautifully inconsistent"; and of Miss Correlli she remarked, that seeing that lady had asserted that "all women required was love," we might be devoutly thankful that she was not a suffragist. However, their movement was now so strong that it would survive even if Miss Correlli did join it.

One man sympathizer, amongst other good things said that they had less to dread from "arguments" against the cause than from "objections" which were more frequently heard. It was not people with arguments, but people with "feelings in their bones" who were most difficult to answer, a remark which, I venture to think, applies equally well to many more subjects than that of what is now become a burning question in England, the granting of the suffrage to women. H. A. B.

**Hope's Quiet Hour.**

**The Master's Tenderness.**

Jesus saith unto them, Come and break your fast.—St. John xxi: 12. (R. V.)

Last Sunday I was reading a sermon called "The Fire on the Shore," which attempted to explain the mysterious event described in the last chapter of St. John's Gospel. It was considered to be a parable of the life beyond death. The net, which was full of great fishes, was explained to mean the Church, with its harvest of souls. The fish, which Christ had already prepared for the refreshment of the disciples, represent the souls saved in Old Testament days. The fire "was typical of the propitiatory work of the Redeemer, through whom alone the men of any age can be presented as a sacrifice acceptable unto God"—so says the writer of "The Fire on the Shore."

Now, I have no reason to object to this parabolical way of studying the Bible. If our Lord found parables in such everyday duties as sowing seed, sweeping a house, weeding a field, making bread, etc., it is very certain that He intended to teach deep spiritual lessons to the whole Church that spring morning by the Sea of Galilee.

But we must not let our perception of parables blind us to facts. A great deal of the Bible—probably much more of it than we formerly supposed—is intended to convey spiritual truth in allegorical fashion. But the Bible is not only brimming with parables, it is a record of facts. Let us examine the account given in this chapter as if it were a bit of history written in any other book.

Seven men had been fishing all night long and had nothing to show for all their hard work. The morning was

breaking and they were feeling discouraged and tired out. Did anyone care for their disappointment? Did it matter to anyone that they were cold and hungry? Yes; a cheery voice comes from the beach asking in friendliest fashion if they have anything to eat. Their answer is short and gloomy, "No."

But the stranger on the shore does not turn away, although His friendliness meets with no encouragement. His help is not asked, but it is needed, and the cry of need is in His ears a call for help. "Cast the net on the right side of the ship," He says, and when the advice was taken, their weariness and discouragement vanished, and the toil of the long night was forgotten in the joy of finding the net full of great fishes.

When the fishermen reached the shore, they found themselves expected. There was a fire on the shore to warm them and dry their wet clothes. Breakfast was ready, and the Master not only gave a hearty invitation, "Come and break your fast," but He also reversed the usual position of master and servant. He waited on His hungry disciples with the pleasure of a man serving his dear friends, giving them bread and fish with His own hands—the hands that were pierced because of His love to them.

Probably it is intended to give us some idea of the welcome that will meet each faithful worker when the Great Morning shall break on the shore of eternity.

"Where the Light for ever shineth,  
Where no storm ariseth more,  
Where the SAVIOUR meets His loved ones  
On the shore."

But, as I said, it is also a record of facts. No wonder those men loved One who, though He was so evidently far above them, was so thoughtful and considerate, so friendly and obliging, so tender and practical in caring for their ordinary needs. They were cold and wet and hungry, so He provided a fire and a good hot breakfast. They were weary, so He waited on them. Has He changed since then?

In these last days, we are told, God has spoken unto us by His Son, "by Whom also He made the worlds." Think of the thoughtful consideration for our comfort and pleasure which is shown everywhere in this world of ours. We are hungry for beauty, for the mystery of infinite distance, for harmonious coloring and graceful forms. We soon tire of looking at a never-changing wall—as invalids know. Think of the changing beauty and coloring of sky and landscape and sea. There is infinite variety and harmonious coloring everywhere. Just think what we should have suffered if the sky had been a glaring crimson all over, and the grass and trees had been black. But no mother could prepare a nursery for her darling with more thoughtful tenderness and profusion of beauty than our Father has lavished on us. As Browning says:

"I find earth not gray, but rosy,  
Heaven not grim, but fair of hue.  
Do I stoop? I pluck a posy,  
Do I stand and stare? All's blue."

There is a tradition that when Moses was keeping Jethro's flock, a little lamb ran away and was lost in the desert. Moses searched for it for hours, and when he found it, he laid it in his bosom, saying, "Little lamb, thou knewest not what is good for thee, trust me, thy shepherd, who will guide thee aright." Because of his tenderness to one stray lamb, he was chosen to be shepherd to God's people. And the Good Shepherd never fails in thoughtful tenderness for each of us.

Let us try to trust Him, though we may not understand everything He sends. We are assured of His considerate love in a thousand ways. We have the outward beauty of flowers and trees, the sweet sounds of the summer breeze, the rippling water, the songs of birds, and the pleasant hum of insects. There is an infinite variety of good things provided for us—to eat—meat, vegetables, fruit, etc. If our Father had not taken delight in giving us pleasures, would He have got together so many things for our enjoyment? And so now we are waited on. We plant seeds and the great sun exerts himself to make them grow. We launch boats and the mighty wind puts his shoulder against the sails; the giant force of steam is harnessed to our cars;

electricity could destroy us in a moment, but it submits obediently to do our work and run errands at our bidding. But these things are not the greatest proof of God's considerate tenderness. He has given us that marvelous sweetener of life—human love—to reveal something of His own Love which passeth knowledge. The lives that are rich and full and sweet, are those which are rejoicing in an atmosphere of love—love given and received. Never call yourself "poor" while you love and are loved. Margaret Sangster sings:

"There's always love that's caring,  
And shielding and forbearing,  
Dear woman's love to hold us close and  
keep our hearts in thrall;  
There's home to share together,  
In calm or stormy weather,  
And while the hearth-flame burns, it is  
a good world, after all.  
The lisp of children's voices,  
The chance of happy choices,  
The bugle sounds, the hope and faith,  
through fogs and mists that call,  
The heaven that stretches o'er us,  
The better days before us,  
They all combine to make this earth a  
good world, after all."

And what can we do to follow the example of our Master? Does He ask us for great sacrifices most days, or for the little tokens of tender, considerate thoughtfulness that reflect His care for the tired fishermen on the shore?

In a certain home one day, the grocer had forgotten to send some eggs. It was a bacon-and-eggs dinner, and there was a probability of the one who had cooked the dinner having nothing over for her share. The master of the house jumped up from the dinner-table, mounted his wheel, and returned from the store with a dozen eggs before the family realized what he was going to do. He



How to Live in the Open Air.

This veranda is arranged so that it may be enclosed by glass to form a sun-room in cold weather. Wide porches and verandas are a very sensible fashion.

proved himself a true master by providing for a servant—as Christ has commanded: "Whosoever will be great among you, let him be your minister."

Emerson says: "'Tis the fine soul that serves," and again: "It never troubles the sun that some of his rays fall wide and vain into ungrateful space, and only a small part on the reflecting plant. Thou art enlarged by thine own shining."

DORA FARNCOMB.

A married couple stood looking into a shop window. A handsome tailor-made dress took the lady's fancy, and she left her husband's side to examine it more closely. Then she went back to where she had been standing and took his arm. "You never look at anything I want to look at!" she exclaimed. "You don't care how I dress! You don't care for me now! Why, you haven't kissed me for three weeks!" "Indeed, I am sorry. It is not my fault, but my misfortune!" said the man. Turning round, she looked at him and gasped. She had taken the arm of the wrong man.—Argonaut.

## 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. (4) Allow one month, in this department, for answers to questions to appear.]

Dear Chatterers,—I am going to ask your indulgence for just this once. As you see, but one letter appears. I did want, you know, to let you all read an article which I read lately in *Suburban Life*. There are so many hints in it, and it is so interesting. I am giving it to you practically in its entirety; not, of course, that any of you may try to copy the methods given exactly—circumstances and places must always be considered—but because of the suggestions, and that it may be evident that a woman with brains and foresight can often help herself, if necessary, on the land.

I shall be very glad if any reader can send us an equally clear and interesting account of a similar success made by a Canadian woman, on a Canadian farm.

## A Woman with Twenty Acres.

By Marthe A. de Bois Reymond.

Her Own Account of How She Makes a Good Living from the Land.

When I decided to move to Vineland, N. J., nine years ago, I had two objects in view; to get a country home near enough to a large city so that my boys might go daily to college, and to regain my broken health.

When a rich American buys a country home, he expects that it will entail a

and I attribute my success to my adherence to them. If my experience can be of assistance to others, it will be most gratifying to me.

I felt from the first that, if I was to exact a living from my twenty acres, it must be done by good management, intelligent direction, the finding of good markets, wise discernment in the selection of crops, and the careful choice of hired help. After visiting a number of places, I decided that the twenty-acre fruit farm where I now live was the most appropriate for me, and one where my own special ability could find scope and bring out satisfactory results. Half of the farm was in grapes, there being 5,000 vines. Like most French people, I knew something of grape culture, and, as Italian farmers were numerous in the district, I was certain that I could find competent help, at a reasonable price, to work under my direction. I calculated, before buying, that the crop of grapes alone could be made to pay more than the interest on the investment; and, for the rest of the farm, I resolved to study, during the first season, the methods of other farmers and their favorite crops.

Every newcomer in a farming community will get an abundance of advice, solicited and unsolicited, and so many confusing and conflicting statements generally are bewildering. During my first season, I paid the penalty of listening to free advice.

Sweet potatoes constitute one of the leading products of this region. The soil is well adapted to their culture, the yield and quality are excellent; therefore, it is in good faith that ordinary farmers will advise the newcomer to plant a few acres of "sweets." But the genuine farmer is able to do a lot of hard work; he generally has several children who are also made to do their share of labor, and, having no hired hands to pay, the income from the crop is really very large; and, while sweet potatoes are a good-paying crop for such farmers, their cultivation requires such a lot of work from beginning to end, that those who must hire all their help should avoid their culture.

During my first season, I had four acres planted, and, although the yield was satisfactory, I did not come within a hundred dollars of making my expenses. I resolved, then and there, to eliminate from my farm all such crops as "sweets," peppers, and berries, and to engage in the growing of those crops, the total possible cost of which I could calculate in advance, as well as the probable income. I noticed that the majority of people were too much engrossed in the culture of vegetables and berries to grow the hay and corn they needed; yet, such products were in great demand, were selling at high prices, and the possible cost and income from them was easier of approximation than from almost any other crop. This was the first consideration to make me decide in favor of their selection.

Another consideration, no less important, was that I needed corn for poultry; then, the farm, vineyard, orchard and all, had been neglected for years; it needed fertilizing, and to that effect I resolved to put in crimson clover on the whole twenty acres, but, fearing that the soil was too poor to grow it, I purchased three cars of lime and two of stable manure. The resulting crop of clover was immense, and paid more than three times over the cost of fertilizing. I used the lime and manure the first year only, to redeem the long-neglected soil, but every year since that the crimson clover has been sufficient to keep the soil in fine condition. In the spring, in places where it is heavy, it is rut and the rest is plowed under. The soil is then prepared for corn, or some other crop. I manage every year to have a few acres of corn, where the soil is suitable; but I occasionally grow some other crop, to rest the land. Whatever I select to plant, I always make sure beforehand of the safe disposal of the produce, in a good market. For instance, I planted some cucumbers and tomatoes, after making a contract with the purchaser, who furnished the goods, the barrels or baskets, paid the shipping expenses, and paid weekly \$1.50 a barrel for cucumbers, and twenty-five cents a half-bushel basket for green tomatoes. The yield gave me a net profit of \$75 an acre. The first crop had been crimson clover, cut in May, just

before the planting of the cucumbers, and the vines were dry when the time came to put in the clover seed again in August.

When I came here, the grapes offered me another problem to solve. There was an outlay and a market for them, but the prices were so low that it did not compensate the growers for the labor involved, and many of my neighbors had begun to dig out the vines. Why, on one nice morning, three men with picks called on me, to ask me for the job of "grubbing out that old vineyard." Having heard that I intended to improve the place, they had come prepared to make the first step in that direction.

Dig it out? No, indeed! The vineyard and the half-circular hemlock hedge had been the two chief attractions on the place for me, and if the price of grapes was not right, I would try to have it made so.

The year following I had succeeded in finding another market for the grapes, and this competition has contributed to raise the price gradually from \$25 to \$50 a ton. I have a contract with the purchaser for a number of years; and I also ship to him some of my neighbors' grapes, making some gain, while, at the same time, relieving the glutted market here, so helping to maintain the higher price.

During the first year, I kept a horse, hiring a man to do the work required; but where hay, corn and oats command high prices, a horse is a costly boarder; and, not being inclined personally to take care of animals, I decided to hire, when needed, a man having his own horse. When I was a tiny child, learning to take my first steps, I acquired the reputation of being unusually cautious, looking ahead for obstacles that might cause a fall, and the whole family could not record that I ever fell. I have kept this habit of looking ahead through life, to ward off probable pitfalls. Hiring a man to do your work at irregular periods is taking a risk, as he may have promised somebody else just at the time when you may incur great loss if the work is not done immediately. To avoid this danger, I selected an old, honest, practical German farmer, slow, but a steady worker, and I promised him all the work on the place which required a man and a horse, at \$2.50 a day, he, on his part, to give me preference over all others. He has worked for me the last seven years, always being ready at a moment's notice. He receives a little over one hundred dollars a year for his work here, which includes plowing, cultivating, seeding, haying, hauling the crops to the station, and everything else where a horse is required.

My other expenses consist chiefly in trimming and fastening the grapevines, in replanting some poles every year, picking grapes and pears, cutting and husking corn, and buying the clover seed and a little fertilizer for the corn. All these items together make a total of about \$75. It is well to admit, however, that I find fastening the grapes and picking the pears pleasant work, and do most of it; I also attend to the details of the garden and the care of the poultry. My income the last year was as follows:

Ten tons of grapes .....	\$ 500
Gain on grapes shipped for others ..	50
Pears (from 600 trees).....	250
Corn and fodder (5 acres).....	280
Clover hay (4 acres).....	100
Rent of tenant house .....	75
White potatoes .....	25
Cider vinegar .....	25
Poultry and eggs .....	75
Peaches .....	20

Total .....\$1,400

My expenses were as follows:	
Work done with a horse .....	\$ 100
All other labor, and for seeds.....	75
Insurance and taxes .....	100

Total .....\$ 275

Net income .....\$1,125

The crop this year was below the average, as frost in the spring and drought in the summer played havoc in this district; nevertheless, I consider this income as very gratifying; and if we note that I have the enjoyment of a fine country home, a good garden, providing us with

vegetables for the year round, and eggs and poultry without stint, as well as wine made from fancy grapes, cider and vinegar and preserves for the whole year, we can see that many of the living expenses should also be added to the cash income of the farm. Moreover, we have the pleasure of sending to our city friends fresh eggs and broilers, and of entertaining them bountifully when they come, without calculating the cost. Is not this a genuine satisfaction?

I have very little patience with people who despise the country in general, and some special place in particular, because it has witnessed their failure. If they would observe the methods of successful farmers, and compare them with their own, they would have to admit that the blame for their failure belongs to them, not to the country. But, to succeed, one must love the farm; for only love will bring forth the interest which is essential. It can be said of farmers, as well as of poets, that they "are born, not made."

I have been asked frequently by friends who knew that by birth and education I had been fitted for a profession entirely different, how I came to choose farm-life. Born and bred in a large French city, there was nothing apparently in my earliest youth to give me a hint that some day I should by choice be just a farmer. Yet, I was only eight years old when the first agricultural aspiration and ambition came to me. I was sent, at that time, partly for my health, to a large boarding-school, situated in a country town, near the Alps (Alpes du Jura). The parting from my mother caused me such grief that I became very ill; I was melancholy to the highest degree, and nothing, month after month, could make me forget my grief.

A friend of the school principal was professor in a "ferme-ecole," as we call it in French, or experimental station, as it is termed here. He was the author of several agricultural treatises about the elements taken from air and soil by plants, the composition of different soils, and their comparative fitness for one crop or another, the composition of divers fertilizers, and which to use according to soil and crops, the rotation of crops, etc. He found it necessary that his manuscripts should be copied a few times, in order to send copies to various authorities, and, as typewriters were not then used, it was possibly with his own accommodation in view that he suggested to the school principal trying a "mind-cure" for me, by employing me to copy his manuscripts. Although very young, I was studious and attentive, and wrote a good hand. The cure was effective, as the work became very fascinating; so much so that, before finishing the last copy, I knew the contents of the books thoroughly.

I wanted to put into practice some of the experiments described, and to this end I had to bribe the teacher who was the business manager of the school to let me have a plot in the garden. She had desired very much a dozen hand-embroidered handkerchiefs which my mother had sent me, as well as a coral necklace. These, then, constituted the rent paid for my first farm—12 x 12 feet—in which I grew flax, rye, barley, wheat, potatoes, and other things, applying the scientific principles learned from the books, especially the rotation of crops, which was my hobby. Only the most tender care could make anything grow, as the climate in that region is very unfavorable. I did not neglect the fertilizing, either. From one window of the schoolroom I had a view of the street, and not a horse or a chicken would pass unnoticed, as I was almost unconsciously on a constant lookout for the welfare of my farm. One day, during school hours, spying on the street an abundant supply of fertilizer, I forgot my surroundings and all school rules entirely, without even asking permission, I ran out of the schoolroom to gather the precious stuff. Oh, the exclamations of horror from all teachers and pupils! And how they tried to shame me! But, indeed, I could never perceive why I should blush for what I had done, except the breaking of school rules. To this day, I have never felt shame or uneasiness, or need to excuse myself when found busy at any kind of farm work, even by society people.

I kept my little farm for several years, until leaving the school to enter college. Then, for a few years, my studies, the seeking of diplomas, society and marriage, made me forget my agricultural aspirations. Another period of the deepest grief, however, was soon to bring back to me the need of diversion, and I was once more to be soothed and relieved by close communication with nature, just as my first cure had been effected by the professor's agricultural treatises. I longed to find relief in Nature's own manuscript—the fields; and nowhere on earth is that book so interesting and so full of precious teaching as in America—the real "God's country."

Bacteria.

(Another of the held-over essays.)

How are we to keep bacteria out of our food and drink? In winter we do not have to think so much about them, but when summer comes, and hot weather seems to make them increase so fast, we have to be very careful, or our food would soon be full of them.

The individual germs consist of single-celled plants, and are very small; indeed, it is only when massed together that they can be seen, unless with a powerful microscope. They cannot be seen at all with the naked eye.

They are found in milk and water, in all kinds of food, and in the soil. Some are beneficial and others are injurious. Take, for instance, the bacteria that causes the putrefaction of food; in one way they are a benefit and aid in reducing all dead bodies to dust again, but in another way they are an injury, as they spoil our food. Since they do not thrive in cold weather, we must keep our food in as near the same condition as possible in warm weather by the use of ice. Or if we cannot get ice, we can keep some kinds of food by boiling, or by keeping air-tight. Nearly three thousand different species of bacteria have been described, and most of the infectious diseases are due to bacteria, each disease having germs peculiar to itself.

Germs of all kinds thrive in dirt, so the cleaner everything is kept, the fewer germs there will be. Food should never be left in a sick room, not even milk, or water, but should be brought fresh each time it is needed. All that comes from lungs or bowels of a sick person should be either burned or buried. Especially is this the case in regard to fevers or consumption. I think there would not be so much of this horrible disease if the people would pay attention to the advice given in the papers to be more particular and not have the germs from the lungs deposited where other people will breathe them in.

In the canning of fruit we need to be very careful. The cans should be washed as soon as emptied, and should be well washed again when about to be filled. They should be sterilized by boiling, and each should have a new rubber ring. No over-ripe or unsound fruit should be used, and the sugar should be the best granulated. The cans should be filled to overflowing with the boiling fruit, the rubbers put on smoothly, the lids pressed firmly down and screwed down tightly. The next morning they should be tightened again. Put up in this way, they will be air-tight, and so will be free from wild yeasts and bacteria.

The whole question of bacteria may be given in a few words, namely, Be Clean (painfully so). But as we value our lives, it will pay us to give attention to this matter. It will pay us in better health, and fewer doctor's bills.

AMELIA.

Essex Co., Ont.

Elderberry Wine.

(Requested.)

To 1 peck elderberries take 2 1/2 gallons water, 1/2 lb. sugar, and 1/2 pint hop yeast. Bruise the berries, then add the water and boil ten minutes. Strain, pressing out the juice as much as possible, and add the sugar and yeast while the liquid is still warm. Set aside for ten days to ferment, then cork tightly and let stand fully three months before attempting to draw off in bottles.

Cooking Vegetables.

Vegetables, it goes without saying, form a very important portion of the diet, but in order that the maximum of their nutriment and medicinal properties be obtained, it is necessary that they be prepared and cooked in the right way. All vegetables, whether green or otherwise, should be crisp and firm when put on to cook. If at all wilted or withered, they should be put into very cold water and soaked there until crispness has returned, probably half an hour or an hour for green vegetables, overnight for old roots and tubers. Cabbage, cauliflower and Brussels sprouts should be soaked, heads turned down, in cold salted water for at least half an hour, in order that lurking insect life may be removed. All green or young vegetables which are to be boiled, should be put into boiling, salted water to cook; afterwards herbaceous vegetables—"greens" of all kinds, etc.—should be kept boiling rapidly. Tubers, roots, cauliflower and all such vegetables as are to be kept in shape, also green peas, should just simmer. If peas or green beans have become a little old, a small bit of baking soda should be added to the water. A process called "blanching," improves all strong, rank vegetables, such as turnips, cabbage and onions. To blanch, simply boil the vegetable for 5 to 20 minutes, depending upon the vegetable, then drain off the water, cut fine, and complete the cooking in a very little water, with butter and seasoning to taste. During the first boiling the cover should be partially off the vessel, and while simmering with the butter, but a very small opening should be left for ventilation.

As a rule, butter, pepper and salt make the best dressing for any vegetable, although cream dressings are often liked. Any cold, cooked vegetable may, of course, be combined with salad dressing, to make vegetable salad.

SOME SALAD RECIPES.

(Maria Parloa's.)

Lettuce with Cream.—Take crisp, well-blanch inner leaves of lettuce, wash quickly in cold water, and drain. Tear each leaf into three or four pieces. Mix 1/2 teaspoon salt, 1/2 teaspoon pepper, and 1 tablespoon vinegar together and sprinkle over the lettuce, then add 4 tablespoons cream, one at a time, and mix by tossing the lettuce lightly. Serve at once.

French Dressing.—Put 1/2 teaspoon salt, 1/2 teaspoon pepper, in a bowl. Add a little olive oil and stir well, then add more oil until 4 tablespoonfuls have been used, stirring all the time. Last of all, stir in one tablespoon vinegar, diluted with a little water, if very strong.

Cooked Salad Dressing.—Two eggs, 1 gill vinegar, 2 gills milk, 1 tablespoon butter, 1 teaspoon salt, 1 teaspoon mustard, 1/2 teaspoon pepper. Put the butter and dry ingredients into a bowl and mix. Add the eggs and beat for five minutes, then add the vinegar and beat one minute. Now add the milk, place the bowl in a pan of boiling water, and cook until thick as cream, stirring constantly.

Sour Cream Dressing.—One cup sour cream, 2 tablespoons lemon juice, 2 tablespoons vinegar, 1 scant tablespoon sugar, 1 teaspoon salt, 1/2 teaspoon pepper, 1 teaspoon or more of mixed mustard. Beat the cream well with an eggbeater; mix the other ingredients together, and gradually add to it, beating all the time.

Cream Dressing.—One cup cream (sweet or sour), 1/2 cup tomato catsup, 2 tablespoons olive oil or melted butter, 2 tablespoons vinegar, 2 tablespoons sugar, 1 teaspoon salt. Mix the oil, salt, sugar and vinegar together, then beat in the catsup, and finally add the cream, beating it in gradually. This dressing is good for cooked vegetable or fish salad.

His ignorance of history recently shocked one of the woman friends of a young Buffalo society man. It was after a dinner party at his house, and she was telling him what she had learned in her private history class. One thing led to another, and all the time he was getting into deeper water. At last she surprised him by inquiring: "Now, tell me, Mr. —, what are the Knights of the Bath?" He stammered for a while, and finally blurted out: "Why, Saturday nights, I suppose."

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## Health in the Home.

### Care of the Well Child.

(By "Juanita," Que.)

#### BATHING.

Baby should have a tub bath every day after it is ten days' old, unless it is sick or very delicate. Do not bathe sooner than one hour after eating. Never use the baby's bath for anything else but baby.

Use a soft sponge to wash the head and limbs, a fine linen cloth for the face, and have several flannel wash cloths for the buttocks. Use fine soft towels, and a very little good soap. Never use baby's wash cloths, soap or towels for anyone else, as infection is often carried to the eyes, nose, mouth or genitals by that means.

Temperature of bath should be 100 degrees first month, 98 degrees until the sixth month, 95 until a year and a half, and 85 to 90 degrees after that. It is best to have a floating bath thermometer, but if not convenient, test the water with the bare elbow; if water feels warm, but not hot, it is all right. When drying the baby, never rub hard, it is apt to chafe the skin; rather better to pat each little limb dry. If the bath is planned to come at a regular hour, just before the morning nap, and his food given him, he will sleep two or three hours.

#### CARE OF THE EYES.

Wash baby's eyes every day with a piece of clean soft old linen dipped in weak boric acid or salt solution; half a teaspoon of salt or boric acid in one of boiled water. Never wash the eyes with a sponge, as they carry germs, and wash your own hands before washing baby's eyes. If eyes are sore or running, wash with stronger solution of boric; 1/4 teaspoon of boric acid to 4 tablespoons boiled water.

Vaseline will help the eyes when eyelids are stuck together.

#### CARE OF THE NOSE.

Twist a piece of absorbent cotton around a toothpick and smear it with vaseline. Gently wipe inside each nostril, removing any crusts that may be present. Vaseline will help when baby has snuffles. If this nose gets sore, no oxide or zinc ointment in the same way.

#### CARE OF EARS.

In caring for the ears, never poke anything in them to clean them of wax. Take great care by washing, powdering and using vaseline, that baby does not get sore cracks behind the ears. If the ear discharges, syringe it three times a day with a boric acid solution, warm but not too hot. Dry the ear gently with swab of absorbent cotton twisted on a toothpick. If the skin is very sensitive, stop using soap and give bran or salt baths—a teacup of common salt to two gallons of water, or a pint of wheat bran in a cheesecloth bag and squeezed until the water is thick and milky.

#### BABY'S BED AND SLEEP.

Baby should never sleep in the same bed with an older person. A bassinet, made of a clothes basket, trimmed with washable goods, is convenient for the first few months. After that a crib is best, with a piece of rubber cloth under the sheet, stretched smoothly over the mattress, with a piece of muslin sewed on each side to tuck in underneath is necessary; lay over the sheet a white washable pad, and if the mattress becomes wet, wash the spot with ammonia water and place in the sun to dry. All of the bedding should be aired in the sun every day.

In winter a young infant should never be put in a cold crib. A hot-water bottle laid where the body will rest will warm it sufficiently. A hot-water bottle is useful to lay near the feet or abdomen for a few minutes when baby has colic. If there is drafts, one side and end should be covered with pad of washable material.

Cover the crib with fish net when the child gets old enough to stand up, and sew double tapes to the corners of the sheet and blankets, so that tied to the bars of the crib they leave only room to turn over.

In the daytime, in warm weather, put the baby outside for its nap, protected from the wind; or in a room in colder weather, with the doors all shut and windows slightly raised.

A strong baby may be carried out for air at a week or ten days old in summer, one month old in fall, and three months in winter, when weather is suitable. Take baby out in a carriage or tucked up in a basket where the wind will not strike it.

#### TEETHING.

There is no need to worry about late teething, unless the child is thin and weak, then it may be a sign of rickets.

Fretfulness, slight fever, or an attack of vomiting or diarrhea, as a rule, accompanies teething. No medicine is needed, just careful management. The food should be thinner, with longer intervals between feeds. Give plenty of water to drink, bathe if very feverish, then let it be quite still.

At one year a child generally has two middle teeth in one jaw, and the four front middle teeth in the other. At a year and a half the front double teeth are generally through; at two years baby generally has sixteen teeth; at two years and a half, twenty teeth.

Baby's fretfulness is not always caused by teeth; sometimes it is a temper cry, when it has been put down or something taken from it. Then the cry is strong, baby kicks and stiffens out its back, but stops crying again the minute he gets what he wants.

The cry of pain is usually sharp, interrupted and strong; often baby draws its feet up, screws up its face and sheds tears.

The moaning, weak wailing crying, indicates frequent pain, or that a baby is half starved, not in the quantity of food it gets, but the nourishing qualities.

#### CLOTHING FOR THE BABY.

Wear more flannel and less frills. The dresses now are not made so long as they used to be, and no starch is used, except in the hem of long skirts. Baby's outfit contains a flannel band, long-sleeved undershirt, booties and diaper, a flannel petticoat and a simple white dress. The bands, properly made, are of soft warm flannel, with little slits at front and back, which button on the booties, and little tabs at the bottom of flannel into the diaper, this keeps the band from wrinkling up, and also hold the diaper in position, if another undershirt is put in the back.

Be careful of danger of rupture, a little bit of cardboard a circle of cardboard

covered with cotton should be fastened under the band, so that it will press over the navel. The band generally is worn from four to five months to support the abdomen, and after that a knitted woollen band should be worn from five months until two years of age, and even longer, if the child is very thin or has a tendency to diarrhea.

A very light gauze undershirt should be worn all summer, but the rest of the clothing should be thin in the middle of the day, with the addition of a light kimona in the late afternoon.

The flannel petticoat is much more comfortable if cut gored, in the form of a sleeveless slip, hanging from the shoulder. It is not bunched around the waist like the old-fashioned petticoat, and is the same weight over the abdomen. Baby's nightgown should be made rather long, and a drawing string placed in the bottom and drawn up to prevent kicking the coverings off.

Baby's head should never be covered in the house, or perspiration will break out, and it will catch cold. Protect it with a covering when going from room to room; also draw a covering lightly around the head while sleeping to protect from drafts.

For outdoor wear, a long cloak of thin washable woollen goods is the best, as it can be worn over a wadded silk or cheesecloth slip in the winter. The wadded white cloaks are hard to clean.

Napkins should be made in three sizes. For the first month they should be made of old linen eighteen inches square when stitched double. The next should be a twenty-inch diaper, cut forty-four inches long to allow for hems and shrinkage. The next size is twenty-four inches. Napkins should always be warmed slightly in cold weather, and babies should never be left in a wet soiled napkin; they are apt to get chafed or chilled.

A lap protector, to be used when changing or washing baby, may be made like a fourteen-inch pillow slip, with buttons and button holes, and into this fit a piece of rubber cloth. One of these laid between baby's clothing and napkin while sleeping saves the baby's clothing.

(To be continued.)

### Current Events.

Four thousand people were rendered homeless by the fire at Campbellton, N. B., last week.

The second reading of the Women's Suffrage Bill passed the British House of Commons on July 12th.

The Charlottetown (P. E. I.) Guardian suggests a dirigible Zeppelin airship for crossing the Channel.

Premier Asquith has announced an autumn session of Parliament, the Budget to be retained in all its main features.

An Anglo-German pact is suggested by some of the German papers, as a protest against the Russo-Japanese exclusion treaty in Manchuria.

General Botha's speech, last week, outlining his political programme for South Africa, was enthusiastically received. It has been called a "magnificent Imperial deliverance."

Sir Lomer Goun, Premier of Quebec, has assured a deputation that a criminal prosecution will follow any attempt to show the Johnson-Jeffries light pictures in Montreal.

In France, measures recently introduced into the French Chamber of Deputies seek to impose additional military service on bachelors over 29 years of age, and to make obligatory the marriage of all State employees of 25 with supplementary salaries, and pensions, and to have more than three children.

Some spectacular aeroplane flights were made at Weston during the past week, July 14th. Count de

Lesseps flew from the aviation grounds over a part of the City of Toronto, reaching an elevation of over 3,000 feet. The famous "Le Scarabee," operated by Count de Lesseps, and a Wright biplane by Johnstone, made every successful flight at Weston on July 16th. De Lesseps also ascended in his Bleriot No. 9. Johnstone arose to a height of over 3,200 feet.

Accidents with aeroplanes and dirigibles have been frequent of late. A fortnight ago, at Atlantic City, the gasoline in the machine operated by Walter Brookins ran out high in the air, and the aviator, although successful in landing safely, narrowly missed death. Last week, at Mineola, N. Y., Chas. K. Hamilton's machine was completely wrecked. At Bournemouth, Eng., Hon. Chas. S. Rolls, the hero of the double flight across the English Channel, was killed. At Weston, the Bleriot monoplane, belonging to Mr. Carruthers, of Montreal, was wrecked in a tree; and in Germany five men were killed by the falling of a dirigible. Nevertheless, the trials go steadily on, and the building of a remarkable new racing monoplane, designed by M. Bleriot, at Bordeaux, is exciting much interest.

### The Vampire of the Slums

(A Picture of Slum Life in a Big City.)

For ten minutes or so the neighborhood was in a flurry of excitement—it takes so little to cause a flurry of excitement in the slums. This is what had happened. A woman hanging out clothes on a roof had fallen and been killed. Nobody seemed to know which roof; only that it was nearby.

John, the janitor, devoted a moment to exclaiming, then ascended to the top floor. The group of foreigners at the door chattered volubly, as was their wont, employing hands, eyes and teeth in expressing their thoughts and feelings in regard to the accident.

Then something else happened—something is always happening in the slums; and the woman who had fallen from the roof and been killed was forgotten.

Caroline and I talked of her a few minutes longer before we, too, forgot her.

"It's a wonder to me they don't all fall from the roofs and get killed," said Caroline—"the reckless way in which they run across them, dangle from the clothes-lines, and juggle with infinity at the parapet's edge. And why not? It's a pity they don't all fall off. The world would be better without them. It is too full of people, anyway, especially these people down here on the East Side."

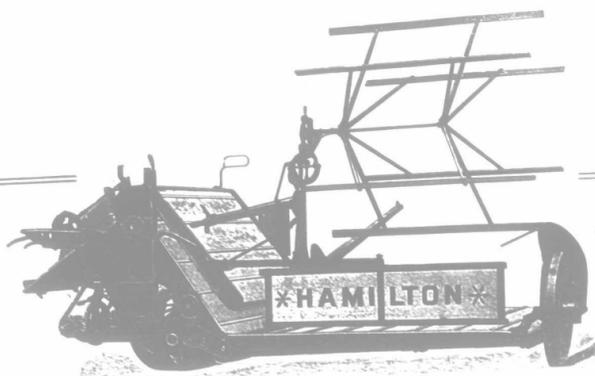
Caroline lived in the rear top flat and I lived in the flat below. I never knew why she lived in the slums, but I had come there in order to get the atmosphere. Before I had been there two days I had it. Garlic it is. But I kept on staying, on account of the cheapness of the rent, I think.

At any rate, a long, wide court intervened between our Fifteenth Street rear flats and the Fourteenth Street buildings across from us, and our windows, opening upon this court, were like operahouses. From this point of vantage we looked out on a small but lively world, a foreign world, so typical of the Old Country that it might have been picked out of it bodily and set down here.

Like the negroes of the South, these people delighted to live their lives in sight and hearing of an audience. Their windows swarmed with humanity. So did their fire-escapes.

But most conspicuous of all was the parrot of the court, brightly green in his painted cage, on a fire-escape directly across from my flat window. All day long, as comment upon the happenings in the court, he alternately laughed aloud and yelled, "O Lord!"

"He seems to rejoice in the ridiculous sadness of it all," said Caroline. "He is a fiendish bird. I call him the Vampire of the Slums. He preys upon them, he takes of their best, he eats of their food, and laughs at their sorrows. There is hardly a house in the slums, poor though it be, that hasn't this bright, sleek, well-cared-for idol, this denunciated bird specimen. They waste more money and time on him than they do on their children, and what do they get for it in



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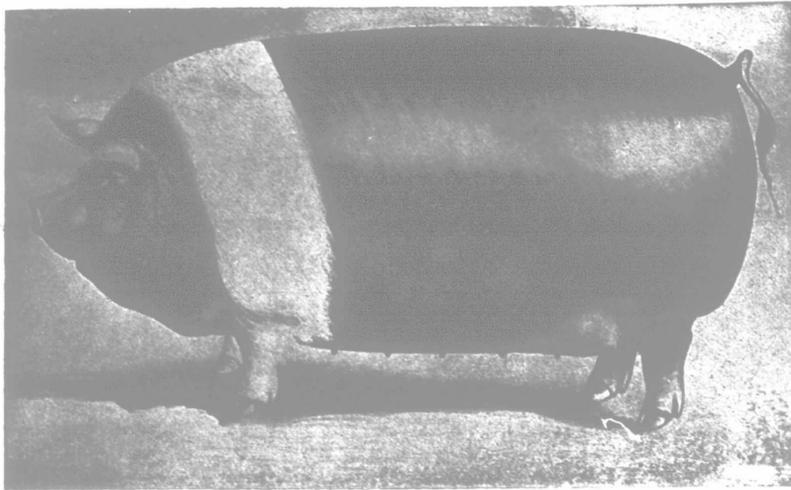
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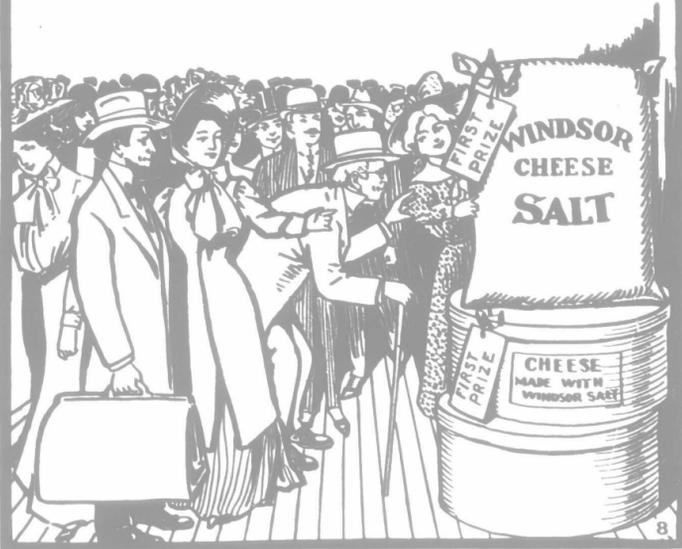
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return? Hoarse, guttural, mocking laughter and cries of "O Lord!"

It was some days after the catastrophe considered so lightly by Caroline of the doubting heart and by the world of the slums, that we sat at my window, looking out on the panorama of the court. My window was even with the roofs of the opposite buildings, and from the small, two-story houses that cover the stairways leading to the roof, ever and anon emerged people, who crossed over into other small roof-houses, walking the length of a block up there in the air.

On the roof directly opposite us, some

little girls commenced to play at "Come to see." A tea-party was also in progress. A small child decked out in a bright pink dress—they sometimes dress very well on the roofs of the slums—was laying the table.

It was a little round table and low. She daintily spread out a fringed cloth and set the cups and saucers about. Then she went in at the door of her roof-house for something, and a small boy came out from behind a chimney and upset the table.

The grief of the child was great when she came back, so great that the parrot, seeming somehow to scent it, cried out from below, "O Lord!" and laughed with ghoulish glee.

"Didn't I tell you?" reminded Caroline.

The little girl once more spread the cloth and set out the cups and saucers that remained unbroken. Her guests

commenced to arrive, coming up through a certain roof-house door and saluting her. She was an exceedingly gracious hostess for her years. In a charming way she bowed and seated them, and from the tiny table handed them their tea.

One of them, rising, came to the edge of the roof and looked over at the bird. "Have a cracker, Polly?" asked she. "Well, what was that he answered?" asked I in amazement.

"I think," said Caroline, "that he answered 'Rats!'"

Lower down, tea-parties were being conducted on a smaller scale. Two children set a table on a fire-escape. Their dolls sat by, looking glass-eyedly on. They were not well-behaved dolls at all, judging from the numerous spankings their mothers interrupted the tea to give them.

A man emerged from the depths of a basement, a sallow-faced creature who had evidently inhabited the depths of basements since his birth. He walked slowly across the court. Two dogs sprang out from somewhere and bit fiercely at his trousers' legs.

The man cried out. The dogs had bitten into his legs.

And the parrot from his high-up fire-escape, turning his bright green head sidewise and observing this, yelled hoarsely, "O Lord!" and laughed. He shook his green sides with laughter before he finally quieted down and pecked at his wings.

"It is to be hoped," reflected Caroline, "that these people of the slums are hydrophobia proof. And, indeed, I have more fear for the dogs."

In front of the third-floor window opposite was a longish balcony. On this balcony a man lay outstretched upon a comfortable, his face on his arm, the open window gaping behind him. Now and again cries of children apparently in mortal combat emanated from this window. Once the man raised his head, called out something to them, lowered his head again, and lay motionless.

"A man who works all night," decided Caroline, "and so must sleep through the day. It's a pity his children won't let him sleep. Where is the mother, do you suppose? Gadding about somewhere?"

In another window sat an old woman, knitting a long woollen sock.

"She comes from Switzerland," announced Caroline, "or somewhere in the Old Country. We Americans have never found the time to knit."

Beside her sat her husband, old, gray-haired, reading a time-worn paper filled with strange characters.

By and by, since it was Thursday, there arrived by a circuitous route the German band. A long way off we could hear them coming nearer, court by court, until now, standing in a bunch on ours, they commenced to play on instruments that, putting it in mild form, were hardly attuned.

From the height of his perch the parrot looked down on them.

"O Lord!" he cried.

Caroline stopped her ears.

"He's right this time," she groaned. The German band played loud and long. The parrot screeched. In a frantic endeavor to get the band to stop the noise, the children flung pennies, pennies wrapped in paper to prevent scattering.

The pennies had an opposite and disastrous effect. The band played on.

Finally, however, they came to the end of their repertoire and left the court. We could hear their discord in a near-by court, in one farther off, then, happily, the sounds ceased altogether to distract us.

Caroline unstopped her ears.

"I thought that the parrot breathed a sigh of relief," said she.

The parrot seemed to have heard her mention him. All of a sudden he shrieked aloud.

"What did he say?" I demanded, for Caroline was better acquainted than I with the patois of the neighborhood, having lived there longer.

"I thought he said, 'Oh, look who's here!'" Caroline replied.

True enough. The parrot was looking into the court at something and laughing. We craned our necks to see what it was, and at length beheld it. It was an accordion player sprawled lamely out on the pavement below.

"Do you suppose he is really lame?" asked Caroline of the doubting heart.

To judge from his subsequent maneuvers, he was. For when at the end of the scream of the accordion a child threw a penny down, he was forced by his exaggerated lameness to sprawl his ungainly length along the flags in order to reach it.

"If someone yelled 'fire!'" suggested Caroline, "I'll wager he'd get up and hustle all right enough." Caroline has little belief in the truthfulness of this world of the East Side.

When the lame man had crawled away, and the parrot had duly yelled and laughed, and the tea-table on the roof had been replaced by small rocking-chairs in which the guests reclined and enjoyed the view of our opposite roofs, our attention was turned again to the man on the balcony.

All this time, through German band and accordion, he had lain motionless.

Now the cries of the children within aroused him.

"It's a pity they won't let him sleep," repeated Caroline. "Where in the world is their mother?"

One of the children—a boy—rushed to the window and scrambled out, stepping ruthlessly on the man in his excitement. He poured forth a tale of woe, his tears falling. Frantically he exhibited a long red scratch on his brown arm.

The man sprang up and vaulted heavily in at the window. We could hear his voice, now beseeching, now scolding. Sometimes it was angry, then again it had the sound of a sob. He begged the children pitiously to be still and let him rest awhile. He was so tired, he told them. He fell wholly to sobbing after a time, so that the children, awed by this sight—a strong man he was, and it is a pitiful thing to young and old alike to see a strong man sob—sank into submission.

We heard them promise to behave better. We heard them say in their piping treble that they would be still. We saw him come once more to the balcony and throw himself down. We saw him throw his arm over his head and continue to sob. His broad shoulders shook. We could hear the long-drawn echo of his pitiful sobbing.

Caroline leaned out over the sill and looked down at him.

"Do you know who he is?" she asked me presently.

"Why, no," said I.

"It comes to me now," she said, and for once she sighed. "He is the husband of the woman who was killed the other night, and they are her children. The woman, I mean, who fell from the roof."

The court was all of a sudden still.

Perhaps it was the sobs of the father of the motherless children that had stilled it. Perhaps, on the other hand, it was only the traditional hush of the twenty minutes to, or the twenty minutes after. But the Vampire of the Slums is unsubdued by sobs or time.

Out of the stillness his voice came sobbingly.

"O Lord!" he cried.

And then he laughed—[By Zoe Norris, in "The Slum"]

### The Beaver Circle.

[All children in second part and second books, will write for the Junior Beavers' Department. Those in third and fourth books, also those who have left school, or are in High School, between the ages of 11 and 15, inclusive, will write for Senior Beavers'. Kindly state book at school, or age, if you have left school, in each letter sent to the Beaver Circle.]

#### Beetles.

(Family Coleoptera.)



The Carpet Beetle.

a, larva; b, larval skin, split to expose the pupa inside; c, pupa; d, beetle. The larva is known as "buffalo bug."

A swamp, or marsh, wild, as Nature made it, is always a thing of beauty. What wonderful things may be found in it, "fiddle-heads" in the spring, developing into great ferns, breast-high, later on; Joe Pye weed, and boneset; thick velvety mosses; graceful willow bushes, sometimes with queer willow-galls on them; feathery meadow rue and wild roses; dewberry and twin flower; perhaps even orchids and pitcher plants.

Never, however, is it more beautiful than at dusk of a warm evening in early summer, when the fireflies flitting about by the thousands.

"Gleam, living diamonds, the trees among."

You have heard the story, have you not, of the Irishman and the firefly? Two Irishmen, "just out," were vainly trying to sleep one night, because of mosquitoes, which kept annoying them. They fought them and fought them, all to no effect. Presently a firefly came in at the window, and Pat groaned, "It's no use, Mike. Here comes one of them wid a lantern!"

Now, every Canadian boy and girl knows that a firefly is not a mosquito with a lantern; what many of them do not know is that it is not a fly at all. It is a beetle, and a very curious and beautiful beetle, too, its peculiarity consisting of a bright sulphur-colored portion on the abdomen, which the beetle can make shine at will with the phosphorescent glow which we know so well. You have seen "glow-worms," too, glowing like pale, greenish coals among the grass of a damp evening. Perhaps you will be surprised to know that these are not worms at all, but just the females of one species of firefly. They have no wings, and so cannot fly round among the trees and bushes, or over the meadows, and even into our houses as the others so often do.

And, now, something about beetles in general. They are very numerous, as many as over 12,000 kinds having been classified in America alone. All of them are "horn-winged," that is, they have hard, horny, or tough, leathery forewings, which meet in a straight line down the back. These wings are not used for flying, but simply to protect the under-wings.

All beetles chew their food and have mandibles, but in one species, called "snout-beetles," the head is prolonged into a snout, or beak. Some beetles are destructive, others, such as the lady-bug, are very useful. The various species may be found everywhere, some on plants, others burrowing in the ground or under bark, some, such as the "water-tigers," on the water, others in our houses, particularly wherever a bit of flour or bacon may have been left undisturbed for a time.

At day eggs, from which larvae hatch out, just as from fly eggs, and the larvae change into pupae, which, in turn, emerge from the pupae as full-grown beetles. Much that you will see is the very same thing that goes on in the case of flies, butterflies, and moths. Some of the larvae are very curious in shape, as you may know from your acquaintance with the flattened larvae of the potato beetle.

Have you ever had to "pick" them? I can remember very well of knocking them off with a stick into a pail, when I was little, at the rate of "a cent a row."

Some beetles are very plain in color, others are very pretty, especially the "goldsmith beetle," which is sometimes found on swamp-willows. It is of a shining yellow, with a head of burnished gold. There are also beautiful green, and bronze, and red-banded beetles. Very pretty, too, is the little lady-bug, to which you have all said:

"Lady-bug, lady-bug,  
Fly away home,  
Your house is on fire,  
Your children alone."

I hope you let the lady-bug go, too, for she is very useful at eating the destructive plant-lice. Some lady-bugs are red, with black spots; others are black, with red or yellow spots. They are always small in size.

One very curious beetle emits a puff of bluish smoke when it is suddenly disturbed, and so it has been called the "Bombardier beetle."

Now, I will just refer to three more, which you know very well, in some form, at least. The first is the clumsy "June bug," which comes into the house, bumping about the walls and ceiling, often, on warm evenings. This great bug has come from a large larva, known as one of the "white grubs," which, as you know, do injury to crops and gardens.

Again, you all know the wireworm very well. But do you know that it is just the larva of a creek beetle?

If your big brother wants to get either white grubs or wireworms out of the soil, he will have to plow the land every fall, as plowing destroys most of the pupae and beetles in the ground, and so prevents just so many of the larvae from being produced to eat the crop next season. Frequent change of crops is advised for infested lands.

Last of all, the carpet beetle. Have you ever heard your mother complaining about it? Perhaps she calls it "buffalo-bug." It is a broad, oval beetle, with brick-red patches, and two white curving bands on its back. The larva of this beetle is hairy, and so gets the name "buffalo," and it is these which eat holes in woollen things or carpets. Soaking the infested things with gasoline will kill both beetles and larvae, but when using it there must be no fire in the room, not even a lamp or a burning match, for fear of explosion and a big burn-up. I know a girl who was very badly burned because her little brother came near with a toy lantern when she was washing a pair of gloves with gasoline. There is no danger, however, if no flame is near, and if windows are kept open until all the fumes and gases from the liquid have gone out. Gasoline should be tightly corked, and kept in a cool place. P.

#### Our School Fair.

[The following is the second composition on the North Dumfries School Fair. The third will be held over until towards spring, when it will be time to think about planting things for next year's fairs. By that time, I hope it will have some company from other schools, and some pictures of rural-school fairs, and the boys and girls who got them up. Don't you think we can manage this? By the way, this is a very good composition, Bessie.]

Dear Puck and Beavers,—I feel as if I should write to the Beavers and tell them of what is going on in Waterloo County. I am very shy, like some red squirrels, and I do not like beginning a composition.

I am going to give the Beavers a description of a Rural-school Fair that was held at the Riverside school, near Galt, October 1st, 1909.

In the year 1908, in the fall, about November, a certain man visited the Riverside school. I noticed he was well dressed, and he was tall, with blue eyes and fair hair. He also had a buggy and horse.

Miss McPherson, the lady who taught at the Riverside school then, told us his name and what he came there for. She said, "Here is a man who has come here this afternoon to speak to you on Farming Hints."

### Are Your Children Properly Fed?

LET us talk about the right feeding of children. Of course, you want your children to grow up strong and healthy; you want to equip them for the battle of life with rugged constitutions and good red blood. Now, the first step is to see that they are properly fed. And these words "properly fed" mean much in the diet of children. For it isn't quantity that counts, but quality.

There is no better food under Heaven for growing children than plenty of first class bread and butter. They thrive on it, grow strong and fat and rugged. Their systems crave it because it is a complete, well-balanced food.

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With "Royal Household" you need never have anything but the very best results for it is always the same, absolutely uniform, year in and year out and is just as good for Pastry as it is for Bread.

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## J. C. McGehe

Catalogues of this long-established school will be sent on any address upon request. Forest City Business and Shorthand College, London, Ontario.

J. W. WESTERVELT, BR. S. A. J. W. WESTERVELT, PRINCIPAL. 141 GERRARD ST. E. LONDON, ONT.

When Writing Mention This Paper.

He began to speak to us, saying: "How many of the pupils that come to this school know my name?" None of us knew, but he told us his name was Mr. Hart, a man who was sent out by the Ontario Agricultural College to start up Rural-school Fairs.

He asked us how many of us knew what a potato bug was? We didn't all know, but most of us said "It was an insect," and he said we were right. He went on, little by little, till at last he said he had read a piece in "The Farmer's Advocate" about Rural-school Fall Fairs. He thought it would be a fine plan to have three schools to have a fall fair.

We thought over it, and then we decided we would do it. When we went home that night we told our parents about the plan, and they said we could if we wished.

The next time he came around, he gave each pupil a leaflet, and on it were the different things I am going to mention. There was a list of flowers and vegetables, and we had the pick of three, or we could have two, or one. Then, below this, we read that we could make collections of butterflies, diseased leaves, wild flowers, weeds and weed seeds.

The next spring, about March, we gave him the list of things we were going to grow, and then he set out over the Province to get good seeds and vegetables.

My garden consisted of watermelons, sugar beets, and potatoes. These seeds were the best kind ever used. The name of the watermelons was "The Cole's Early"; they were certainly very good ones. The sugar beets were called the "Giant White Feeding." The potatoes were called the "Empire State."

On the third of May, 1909, I planted my potatoes in a plot, being of a certain size. It was fifteen feet long, and four rows. I was given twelve potatoes, mixed, large and small ones. I cut them up, and I had fourteen hills in one row, and fifty-six on the whole plot. About a week after I planted them, I saw them coming up.

I sowed the sugar beets in a plot the same size as my potato plot. I soaked the seed in water over a day in order to soften the hard seed around the black seeds in the center. When they came up, I thinned them out till I had seventy left. I only needed sixty-eight. The reason I did this was in fear of a plant or two dying, or a hen might take the pleasure to scratch one out.

I planted my watermelons in hills, after the manure was put in the bottom. I also soaked these seeds, so they would come up quicker. They came up about a week after they were planted. Then I took some of the plants out in order to let the rest have a good chance.

In May, the wild flowers began to come out one after the other. The first wild flowers I got was a Mayflower. I bought some blotters about a foot and a half long and a foot wide. Then I laid the flower between these two blotters particularly. I left a leaf turned upwards on the wrong side, and the other leaves pressed out on the right side; then I had the flowers laid out so that one might be able to count the petals. I also had a very nice root with it, but I washed the clay from its roots.

I laid a smooth board on top of the blotters to keep them even, and then I laid ninety-six pounds of flour on top to press it.

A day after this I changed the blotters, and I put dry ones on the plant, for if I didn't, my plant would have moulded with the juice out of the plant. Three days after I had the weight on them, I bought some mounting paper to mount the plant on. The sheets were about the same size as the blotters, and I placed the plant on the center of the page. I then bought a spool of transparent tape to keep the plant on the paper. I cut it up in strips, and I pasted it on to the stalks, and when I lifted it up it didn't drop off.

I then bought some labels, and I filled the blanks in. I put the English name, habitat, collector, school, county, and the date I found it on. I pressed wild flowers till I had forty-five pressed.

I pressed weeds the same way as the wild flowers. But on the farms in Southern Ontario there are a great many more weeds than wild flowers.

After the weeds were full-grown, and had flowered, the seeds began to come on

them. In gathering the weed seeds, I needed a number of bottles to put them in. I filled one bottle of a certain kind of seed, and then, when the cork was put in the bottle, I got a piece of paper and printed the name of the seed.

When I had my bottles filled, I bought a piece of black cardboard. I took a darning-needle and I sewed the bottles on, one by one after the other, on a line.

It was coming near the fair day, and people seemed to be troubled about a large patch of watermelons near by. So one moonlight night I carried them into the cellar. I weighed them, and then I chose two of the largest for the fair. I was given a label, and I put the total weight of one on it. Near the fair time, I pulled the weeds from my watermelons, and I watered them after the sun went down.

The next thing I was to do was to dig my potatoes and weigh twelve of them. I weighed them, and I put the total weight on a label.

I then had to weigh sixty-eight sugar beets, and I was to save six of the best for the fair. The day came along before we expected it, and I am sure we had a fine time.

On the first of October, the Rural-school Fall Fair was held at the Riverside school. There were two other schools who were in the business, and they all met at the school at about 9 o'clock; the people in the section came, too.

About 10 o'clock some men made three tables. The vegetables were placed on them, and the specimens. In the forenoon the people arranged the things. About 12 o'clock they served dinner, and I'm sure everyone enjoyed it. The ladies washed the dishes in cold water, and the judges judged the things.

Nearly every person won a prize. The prizes were given in money. I got \$3.50 in prizes. The Stone school won the sweetstake prize. But we'll try again. In the afternoon we had races, and about 4 o'clock I got Mr. Hart to sell my watermelons, 50c. each. This letter is getting long, so I must close, hoping this letter does not take up too much space in your valuable paper, or in the W.F.A. either. I am your new friend,

BESSIE DEANS (Book III.), Galt, Ont.

### Whip-poor-will.

(Sent by "Whip-poor-will.")  
 When the evening shadows fall,  
 "Whip-poor-will,"  
 Comes the soft, sonorous call,  
 "Whip-poor-will!"  
 By the streamlet 'neath the moon,  
 When the cowslips are in bloom,  
 Faintly sounds the harp-like thrill,  
 "Whip-poor-will!"  
 Through the vale and by the mill,  
 "Whip-poor-will—Whip-poor-will!"  
 Like a tale that music tells,  
 "Whip-poor-will,"  
 Through the woodland's swampy dells,  
 "Whip-poor-will,"  
 Where the bluebell droops its head,  
 When the twilight sky is red,  
 Softly comes the mournful trill,  
 "Whip-poor-will—Whip-poor-will!"  
 Kindly thoughts those voices bring,  
 "Whip-poor-will,"  
 Fondest memories round me cling,  
 "Whip-poor-will,"  
 Pictures of our childhood years,  
 While my eyes are filled with tears,  
 Thoughts of you my fancies fill,  
 "Whip-poor-will—Whip-poor-will!"

### A Fairy Tale.

Dear Pickle, As I have seen a few fairy stories in "The Farmer's Advocate," I thought I would write one too. If I see this in print, I might write another one some time. It is about a man whose first wife had died and left one daughter. So he married his second wife, who also had one daughter. This mother was very wicked to her step-daughter. So one very sticky day in winter she made the step-daughter a paper dress and had her go out and pick strawberries and give her a piece of dry bread to eat. So she walked a long distance and at last she came to a house where there were two old men living. They had her come in and sit for a piece of her bread. So she sat

There is only one

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WANTED—A few private farmers to ship me Poultry, Eggs, Dairy Butter, Syrup, and all other farm produce. Will pay highest market price. W. J. Falle, Prince Albert Ave., Westmount, Montreal.

each a piece. So each brother gave her one good wish. The first one said that every word she spoke a dime would hop out of her mouth. The second said every day would be happy to her. The third said she shall marry a rich king. They told her to sweep their porch, and to her surprise, the porch was covered with strawberries. She filled her basket, thanked them, and went home. The step-mother hung a big kettle of boiling water over her shoulder, and told her to go fishing, and just as she poured the boiling water over the ice, out jumped a king in a beautiful coach. He told her to jump in. In a few days they were married, and lived happy ever after. Well, I must close, wishing you every success. ANNIE ROES (Book III). Brunner, Ont.

Riddles.

Why does a miller wear a white hat?  
 Ans.—To keep his head warm.  
 What grows longer by being cut off at each end?  
 Ans.—A ditch.  
 Sent by Annie Snide, Shubenacadie, N. S.

A Horse Show.

Dear Puck,—As this is my first letter to "The Farmer's Advocate," I do not want to take up too much room. We had a horse show here on the ninth to eleventh of June. They had many fine horses here. They have a horse show here every year, but this has been the best. Last summer I spent my holidays in Vancouver, B. C. It is a beautiful spot, with its mountains, ocean, in which a good bath does you good, and a sand beach. I am going out this summer to live. I am in the Junior Fourth book, and am eleven years old. I have a pet cat; I call him Earl Grey. Hoping this will escape the w-p. b., I will close, wishing "The Farmer's Advocate" success. LAURENCE PATTERSON. Galt, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

OX-EYE DAISY.

1. Is it possible to clean a field that is bad with ox-eye daisy. How many years would it take, and what manner of cultivation? Does the seed lie in the ground like mustard, and grow when plowed up? If you plow a field out of sod that has ox-eye in it, and take two crops of grain, a crop of turnips, and seed down the next year, are the ox-eye roots that were there when plowed up still there, or does it all come from the seed in the ground? J. R.

Ans.—1. Ox-eye daisy is a perennial, with a short, thick rootstock. It gives most trouble in pastures, but is fairly easily controlled by short rotations and thorough cultivation, as is given Canadian thistle. While the seed may live over a couple of years, yet it has not the vitality or persistence of wild mustard. Such treatment of a daisy-sod field as you indicate should eradicate the roots of the plant entirely, if you are faithful in cultivating. As the plant seeds from June to August, if you could prevent any seeds from forming and keep up your thorough cultivation, you should eradicate the pest.

INFANT OWNING LAND—REMOVING SAND.

1. I would like to own a few acres of land here near Paris, but am doubtful if the law would allow me to or not, as I'm only nineteen. Think I am well able to manage things, having six years' experience in the business, and have capital to start up now. What is the law? Must I be 21? If I bought it and built on it, could I own and rent the land? What could the law do? I intend going into chickens and market gardening.

2. How close to a road fence can men take sand from roadside, and how deep can they dig?  
 Ontario.

Ans.—1. You could take a deed of the land in your own name and become the owner of it, notwithstanding that you have not yet attained your majority. You would not be in a position legally to convey or lease it until 21, but you could operate it as proposed in the meantime, and be quite within the law.

2. We cannot give figures. There is no hard-and-fast rule in that regard. But they must not go so close or deep with their digging and removal of soil as to interfere with the requisite support by land of the fence in question.

GOSSIP.

S. J. Pearson, Son & Co., of Meadowvale, Ont., a station on the C. P. R., near Streetsville Junction, in the advertisement of their Valley Home herd of Shorthorns, offer for sale some first-class young bulls and heifers of the most desirable breeding.

T. H. Hassard, Markham, Ont., makes a change in his advertisement of Clydesdales in this issue, in which he announces that he has for sale some extra fine Clydesdale stallions, and fifteen imported and registered mares, two and three years old, that are up to a big size, have the best of breeding and quality, and have been bred to first-class imported stallions. These should be well worth looking after, in view of the very keen demand for good heavy horse stock.

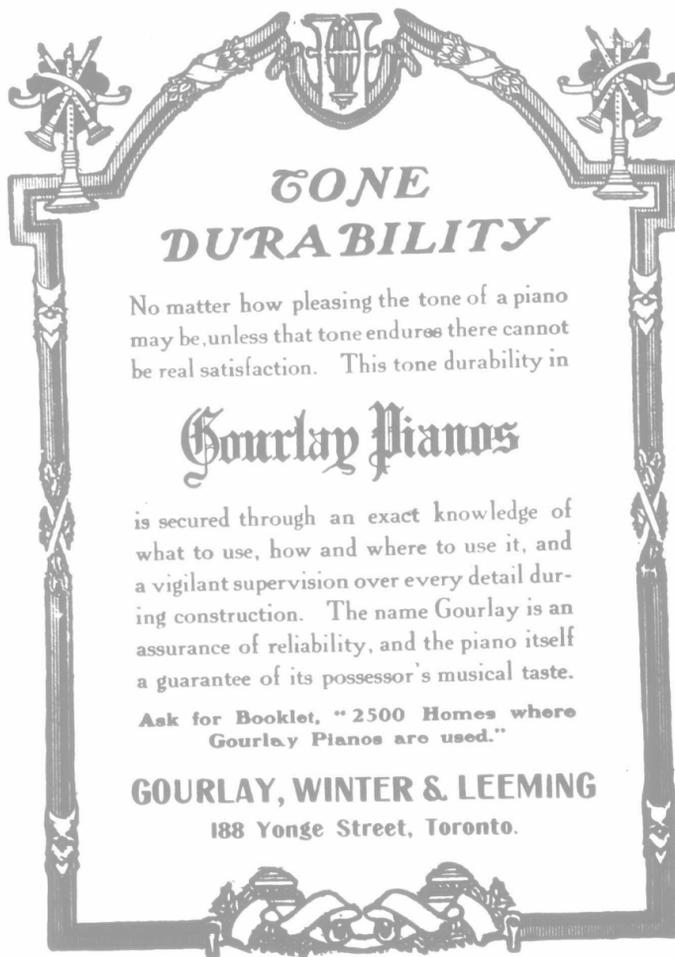
B. H. Bull & Son, proprietors of the Brampton herd of Jerseys, have recently received word that the cow, Cromwell's Grey Buttercup, the dam of Brampton Golden Butter Lad, also of Golden Butter Lad, who is the youngest son of Golden Fern's Lad, has just completed an official seven-day butter test, authenticated and supervised by the American Jersey Cattle Club, of over 19 lbs. butter. This cow made this test after milking for almost four months. Brampton Golden Butter Lad is by Eminent 14th, the greatest son of Eminent 2nd, who sold for \$10,000 at public auction, and his daughters are doing butter-test work to back up his value. Eminent 14th is out of the greatest butter-test cow of the Fontaine family, who made over 21 lbs. butter per week on the Island of Jersey. Brampton Golden Butter Lad surely has sufficient butter back of him to insure a continuance of the production of great producers at Brampton. Messrs. Bull & Son are using this great young sire, Brampton Stockwell, on the cows and heifers which they have entered for the Record of Merit.

TRADE TOPICS.

PROFITABLE DAIRYING.—This subject is very clearly and cleverly discussed in a neat pamphlet by that name, published by the Massey-Harris Co., Ltd., Toronto. The booklet sets forth the advantages arising from keeping individual records, weeding out the boarders, how to feed and care for stock, and how to get best results. Incidentally, the merits of the Massey-Harris separator are mentioned. The pamphlet is worth anyone's time to study, as it contains many valuable suggestions. It may be had for the asking.

ABERDEEN-ANGUS CATTLE.—A capable, energetic secretary, supported by a generous executive, can do a great deal toward advancing the interests of any breed of cattle. The American Aberdeen-Angus Association have such a secretary and executive, and they are not failing to keep the merits of this unexcelled breed of beef cattle well before the public. There has just been issued by Secretary Gray, the second edition of the pamphlet, "Supremacy of Aberdeen-Angus Cattle." This contains all the show-yard and slaughter-tests history of the last ten years, giving the relative winnings of the beef breeds of cattle. The adaptability of the Aberdeen-Angus, their special qualities as beef-producers, their feeding and slaughtering merits are strongly set forth. The pamphlet is artistically illustrated and bound, making it an attractive addition to anyone's library. A copy is obtainable for the asking, by writing to Secretary Chas. Gray, Live-stock Record Building, Union Stock-yards, Chicago, Ill.

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 "So soon?"  
 "Yes; the chickens have tasted everything, and they are perfectly enthusiastic."



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is secured through an exact knowledge of what to use, how and where to use it, and a vigilant supervision over every detail during construction. The name Gourlay is an assurance of reliability, and the piano itself a guarantee of its possessor's musical taste.

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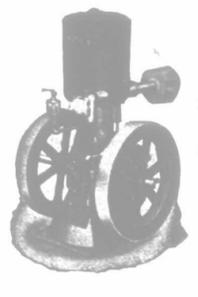


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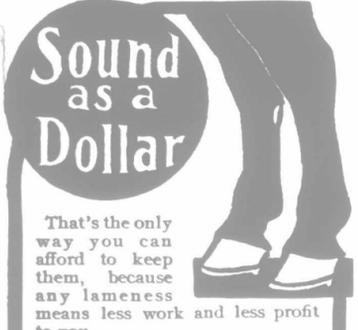


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A safe, speedy and positive cure. The safest, Best BLISTER ever used. Removes all bunches from Horses. Impossible to produce scar or bluish. Send for circulars. Special advice free.  
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It works while the horse works—takes away the pain—reduces swellings—makes legs and joints sound and strong—leaves no scars or white hairs because it does not blister.

**Kendall's Spavin Cure**

has been the horseman's standby for 40 years and is used all over the world.

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WILLIAM H. DOUD.

Keep your horses sound as a dollar. Get Kendall's today and you will have it tomorrow if needed. \$1 a bottle—6 for \$5.

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A BOG SPAVIN, PUFF or THOROUGHFIN, but **ABSORBINE**

will clean them off permanently, and you work the horse same time. Does not blister or remove the hair. \$2.00 per bottle, delivered. Book 4 E free. ABSORBINE, J.R., for mankind, \$1 and \$2 bottle. Redness, Varicose Veins, Before After: Varicocele, Hydrocele, Ruptured Muscles or Ligaments, Enlarged Glands, Allays pain quickly. Your druggist can supply and give references. Will tell you more if you write. Manufactured only by W. F. YOUNG, P. O. F., 258 Temple St., Springfield, Mass. Canadian Agents: Lymans' Ltd., Montreal.

**NOTICE TO HORSE IMPORTERS**  
**Gerald Powell**, Commission Agent and Interpreter, **Nogent Le Roi, France**, will meet importers at any port in France or Belgium, and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking and pedigrees. Many years' experience; best references; correspondence solicited.

**Peachblow Clydesdales and Ayrshires!**

CLYDES 2 four-year registered stallions, one imported. AYRSHIRES 3 very choice bull calves, all registered. All good colors, and from good milking dams. Prices right.

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Always on hand, stallions, colts, mares and fillies. The champion stallion, "Baron Howes" (13847), was purchased from this stud. Apply:

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**Imported Clydesdales** Imported and Canadian-bred Clydesdale mares and fillies and some of the most fashionable breeding mares, all with character and quality. Phone connections. ALEX F. McNIVEN, St. Thomas, Ont.

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PORT PERRY, ONTARIO.

Real estate and real-estate AUCTIONEER. Graduate of Jones' National School.

**QUESTIONS AND ANSWERS. Veterinary.**

**FISTULA OF TEAT.**

Cow had teat badly torn by barbed wire. The quarter is swollen and the milk curdles, and after the curds are pressed out of a hole that reaches the milk duct, the milk runs freely out of the opening. The skin is nearly all torn off the front of the teat. J. W. M.

Ans. Give her a purgative of 1 1/2 lbs. Epsom salts and 1 ounce ginger. Follow up with a dessertspoonful of saltpetre, twice daily, for three days. Bathe the quarter well with hot water, three times daily, and, after bathing, rub well with camphorated oil. Dress the raw surface, three times, daily, with carbolic acid 1 part, sweet oil 30 parts. When inflammation subsides, the fistula (the opening through the side of teat) can be treated by scarifying the edges and stitching the opening with silk sutures, and inserting a self-retaining teat syphon to allow the milk to escape until the fistula heals. As it is hard to get the syphon to remain in, it is usually better to allow the fistula to remain open until she goes dry, then scarify and stitch, and the teat will be sound at next calving. V.

**Miscellaneous.**

**WORMSEED MUSTARD.**

I am inclosing a weed for identification. It is growing in the low places of a field of oats. If it is not mustard, what may it be, and is it a bad weed? T. C. G.

Ans.—The weed submitted is wormseed mustard (*Erysimum cheiranthoides*, L.). It is a noxious annual and winter annual weed, propagating by its seeds, of which one plant ripens about 25,000. It is frequent in waste places and on cultivated lands, is a common impurity in clover seed, and is so abundant occasionally as to crowd out grain crops. Most injury arises from the seeds, which germinate in autumn and remain in the land through the winter. It is easily destroyed by thorough cultivation in fall and the early spring.

**FIELD STONE IN SILO WALL—SILO DRAINAGE—WIRE FOR REINFORCING.**

1. How many yards of field stone would it be advisable to put into a silo, cement concrete, wall? Inside diameter is 12 feet and wall 10 inches thick at the bottom and 5 inches at the top.

2. Is it necessary, or is there much to be gained, to have a concave bottom, with a drain from the center, in a silo?

3. If barbed wire is used for reinforcing, about how much should be used? J. D.

Ans. 1. As many as you can conveniently work in, allowing no stone to come within an inch and a half or two inches of the face (either inner or outer) of the wall. The quantity will depend upon the fineness of your gravel. With fine gravel, as much as eight or ten yards of field stone might be worked in.

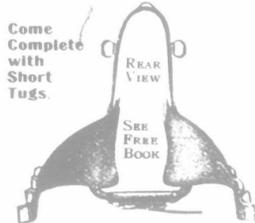
It is not necessary, though some consider it advisable. We think we should provide such a drain. The chief advantage arising from a cement bottom to a silo is in preventing the entrance of rats. The cement bottom prevents any escape of the juices should the drain become blocked, and so will develop an unhealthy sour silage. A good many men of much experience prefer the clay floor in the silo, putting it in level with the tile drain beneath the outside walls.

3. Two strands of barbed wire, twisted, every two and a half feet, as used by riders, however, declare that common bar iron, quarter inch, or three eighths inch, is better, as barbed wire is so kinky and irregular that the wall could spread a great deal before the full tensile strength of the wire was exerted. They say that 200 pounds of iron, obtainable at \$1.90 to \$2 per cwt. will reinforce a silo better than twice the weight of barbed wire, which moreover is awkward to use. We have not investigated the matter minutely for ourselves, but the statement seems to have force.

**All Horse-Collar Troubles Now Prevented or Quickly Cured**

Every horse-owner who will now consider the practical in valuable time and horseflesh by using a set of HUMANE HORSE COLLARS to prevent all collar troubles, will certainly buy a set with his spring harness. Or get a set to cure your sore horses while they work. The success of the HUMANE HORSE COLLARS for the past three years proves this. Investigate.

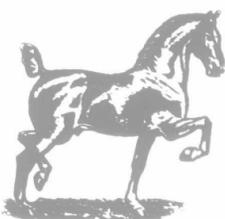
**HUMANE HORSE COLLARS**



It is a fact that only one set of HUMANE HORSE COLLARS on a farm will cure up and keep cured of collar troubles all your horses. Don't use "sweat pads" it's cruel, especially in hot weather, injures your horses; and besides, the sweat pads cost you more than most collars before you get through. You don't need them with these collars. Every set comes complete with short tugs and ready to use. Less trouble to put on and take off, and fit any horse perfectly all the time by simple adjustment. Built to last for years by expert workmen, and durable materials.

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**Clydesdale Stallions and Mares** I have still some extra good Clydesdale stallions, a good fifteen imported and registered mares. The mares have all been bred, are all up to a big size, 2 and 3 years old, and are of choice Clydesdale breeding. C. P. R. and phone connection.

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The services of any one of the following high-class stallions can be secured for approved mares by applying to the manager: **Mograzia**, Champion Standard-bred stallion; **Bingen Pilot**, by Bingen, 2061; **Jim Tod**, by Tod, 2114; also sire of Kentucky Tod; **Crayke Mikado**, Hackney stallion, Champion at Chicago International, and the Canadian National, Toronto; **Baron Howes**, Champion Clydesdale stallion, considered by expert judges to be the best Clydesdale stallion in America. For all particulars, apply to

**JAS. WETHERILL, Manager, Galt, Ont.**

**CLYDESDALES AND HACKNEYS**

We have still for sale several good Clydesdale Stallions; also our prizewinning Hackney stallion, **Blanch Surprise**, and a few good Clydesdale and Hackney mares. All of which will be sold on reasonable terms. Phone connection.

**JOHN A. BOAG & SON, Bayview Farm, Queensville, Ont.**

**SMITH & RICHARDSON'S CLYDESDALES.**

Black Ivory, Commodore, Royal Gretna, Pride of Newmills, Dunure Acknowledgment, Dunure Souter, Captain Vasey, Look Again, Baron Aime, and some younger ones, all sold, but a few good ones left yet, and at moderate prices. SMITH & RICHARDSON, COLUMBUS, ONT. Myrtle, C. P. R.; Brooklin, G. T. R. Phone.

**CLYDESDALES and HACKNEYS**

We have for sale a few choice Clydesdale mares, imported and Canadian-bred; also some Canadian-bred Clydesdale stallions. Hackney stallions and mares for sale always. Long-distance phone. **Hodgkinson & Tisdale, Beaverton, Ont.** G. T. R. and C. N. R.

**CLYDESDALES, Imported and Canadian-bred.**

I have on hand 2 Imported Clydesdale Stallions, one 4, the other 5 yrs. old; 2 Canadian-bred Clydesdale Stallions, one 2, the other 3 yrs. old; one French Coach Stallion, 3 yrs. old; one Shire Stallion, and the noted Hackney Stallion, **Chocolate Jr.** I will sell these horses cheap for quick sale. **T. D. Elliott, Bolton, Ont.**

**WAVERLY CLYDESDALES AND HACKNEYS**

My 1910 importation of Clydesdale stallions and fillies, and Hackney stallions and fillies, are now in my barns. One and two-year-old Clyde fillies of a character and quality never before excelled. My Hackney stud was never so strong in high-class animals. All are for sale and prices right. **ROBT. BEITH, BOWMANVILLE, ONT.**

**IMPORTED CLYDESDALES AND HACKNEYS**

In my stables at Ingersoll, Ont., I have always on hand Clydesdale stallions and fillies, and Hackney stallions, personally selected in Scotland for their high-class type, quality and breeding. Let me know your wants. **W. E. BUTLER, INGERSOLL, ONT.**

**IMPORTED CLYDESDALE FILLIES**

I have still on hand six Clydesdale fillies. They are big, smooth fillies, exceptionally well bred, and their underpinning is the kind Canadians like. I have only one stallion left, a right good one. My prices are as low as any man's in the business. Phone connection. **GEO. G. STEWART, HOWICK, QUEBEC.**

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Importation and breeding of high-class Clydesdales a specialty. Special importations will be made for breeders at minimum cost. My next importation will arrive about January 1st. **Duncan McEachran.**

**Imported Clydesdales**

1910 has arrived. They are a selection of the best with the Canadian standard, combining size, style, quality and type. They are imported with Scotland's richest blood. They will be priced right, and on reasonable terms. **C. W. BARBER, GATINEAU PT., QUEBEC.**

JULY 21, 1910

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**QUESTIONS AND ANSWERS. Miscellaneous.**

**HARD MILKERS--FLY MIXTURE**

Will you please tell me, in your next paper, if you know of anything to put on milk cows to keep flies off; also if there is any cure for a cow that is hard to milk?

Ans.—1. To keep flies off of cows, use the following mixture: Fish oil, ½ gallon; coal oil, ½ pint; crude carbolic acid, 4 tablespoonfuls. Mix, and apply to all parts of the cow except the udder, once or twice a week.

2. To cure a hard milker, the use of a wooden plug has frequently been resorted to. This is whittled to such shape that it remains in the teat, and is of such a size as to distend the muscles closing the orifice at the end of the teat. Hard wood is preferably used to make this plug. Others have used a sharp, small knife-blade, and slit the end of the teat just a little. Would suggest that you try the plug first, leaving it in the teat all the time between milking, for a period of a week or longer. If it fails, you might try the second method, though it is less desirable. Before and after using the knife, wash the end of the teat with an antiseptic solution daily.

**COURSES AT O. A. C. -- COWS NOT COMING IN HEAT.**

1. To whom should I write for information regarding the winter courses of the Ontario Agricultural College? Are any of the courses advisable for a young man of 22 years of age?

2. We have six cows which have been milking for two or three months that do not come in heat. Is there any remedy? Would forcing do any good? Were grainfed until middle of June.

Ans.—1. Address Dr. G. C. Creelman, President Ontario Agricultural College, Guelph, Ont. The question whether it is advisable for a young man of 22 to attend any but the special short courses, must depend upon circumstances. If possible to get away, however, we believe a two-years' course will pay in the long run, especially when one considers the increased satisfaction of living that results from education and culture of the mind. Money is not everything, but even on a strictly financial basis, it might easily pay to attend the Agricultural College, if one made good use of his time while there.

2. Forced service might possibly prove effective, though it is an expedient we always hesitate to recommend. Letting the cows down in condition, and then flushing them up, sometimes induces them to show oestrus.

**MILK-GIVING MARE.**

I am writing you about a mare I have; she is giving milk and never had a colt; has a bag the same as a mare that had foaled. She had the service of a stallion about the 5th of April, 1910, and again the 22nd of June, 1910. After the last service, she has been giving milk. I have milked it out on the ground occasionally. She is in good, healthy condition. Her food is clover and grass.

1. What would be good to feed her?
2. Will driving hurt her while under treatment?
3. What treatment should I give her?
4. Where had she better be kept, in the barn or in the pasture?
5. Is there danger of any disease setting in?

Ans.—1. It is a rather unusual condition to have a mare continue to give milk, though it is not an unknown thing for mares to give a little milk while in oestrus. Evidently, the maternal instincts are particularly strong in this mare, and the flow of milk once started has continued. Feed her upon dry hay, using grasses, such as timothy, in preference to clover.

2. Work will do her good, and will help to more quickly stop the flow of milk.
3. Feed her upon dry feeds, feeding rather lightly; keep her off the grass and put her to work.
4. Keep in the barn.
5. There is no particular danger of any disease setting in.

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

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**BICKMORE'S GALL CURE**  
Is guaranteed to cure while horse is under harness or saddle. The great army of dealers who sell it are authorized to return your money if it fails. Buy it and have it on your stable shelf ready for emergencies. It is the standard remedy of leading horsemen, trainers, large stable owners and veterinarians. Sample Bickmore's Gall Cure sent for the postage. Address: WINGATE CHEMICAL CO., Ltd., Canadian Distributors, 880 Notre Dame St. W., Montreal, Canada.

**Bone Spavin**

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use **Fleming's Spavin and Ringbone Paste**. Use it under our guarantee--your money refunded if it doesn't make the horse go sound. Most cases cured by a single 5-minute application--occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of **Fleming's Vest-Pocket Veterinary Adviser**. Ninety-six pages, durably bound, indexed and illustrated. Covers over one-hundred veterinary subjects. Read this book before you treat any kind of lameness in horses. **FLEMING BROS., Chemists 75 Church St., Toronto, Ontario**

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**Balmedie Polled Angus** and Oxford Down sheep—Offering several exceptionally nice heifers, and a few young bulls. Discriminating buyers will be pleased with my herd. Anything in the herd will be priced. Also ram and ewe lambs. **T. B. Broadfoot, Fergus P. O. and Station.**

**Aberdeen-Angus Cattle** Stock all ages, good strains, at reasonable prices. Apply to **ANDREW DINSMORE, "Grape Grange" Farm, Clarksburg, Ont.**

**ABERDEEN - ANGUS**  
Will sell both sexes; fair prices. Come and see them before buying. Drumsbo station. **WALTER HALL, Washington, Ont.**

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**Shorthorns (Scotch)**  
Cows imported and home-bred, either in calf or with calf at foot. Royally bred and right quality. Catalogue. **John Clancy, Manager. H. CARGILL & SON, Cargill, Ont.**

**VALLEY HOME SHORTHORNS AND BERKSHIRES**  
If you want a first-class Shorthorn bull or heifer, come and see what we have, or if you want a show animal with a choice pedigree, we have them. For description of herd see Xmas Number of The Farmer's Advocate, on last page. **S. J. PEARSON, SON & CO., MEADOWVALE, ONT., P. O. AND STATION, C. P. R.**

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**LIFE WAS A BURDEN**

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Mr. Alexander McKay, Port Philips, N. S., writes:—"Seeing testimonials in the B.B.B. Almanac of how many poor sufferers had been helped by Milburn's Heart and Nerve Pills, I thought mine would not be amiss. I am a man of fifty-four years, and have a family of five children. About two years ago I was a sufferer from heart trouble, and life was a burden to myself as well as others. I could not lie on my left side and sometimes I would nearly choke, and was very nervous and run down. My father, a very old man of eighty-five years, told me that he often heard people recommend Milburn's Heart and Nerve Pills to be a great cure so thought it would do no harm to give them a trial, but I had very little faith in them. My wife went to the store and got me two boxes, and before I had used the last of the first box I noticed a change, and before the second box was done I was cured and am a well man to-day."

Price 50 cents per box, or 3 boxes for \$1.25 at all dealers, or mailed direct by The T. Milburn Co., Limited, Toronto, Ont.

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Herd headed by Scottish Signet, Scotland's Crown and Waverly, and consisting of females of the leading Scotch families. Correspondence solicited. Inspection invited.

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An offering of an extra choice lot of 1, 2- and 3-year-old heifers, Scotch and Scotch-topped, Clarets, Nonpareils, etc., sired by Royal Bruce, Imp., and among them are daughters and granddaughters of imp. cows. Young bulls also for sale.

**R. J. DOYLE, Owen Sound, Ont.**  
Phone connection.

**GLENGOW Shorthorns**

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:

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50 Shorthorns on hand, including 1 yearling bull, 3 bull calves, 12 heifer calves from imp. and home-bred cows, 7 yearling heifers, 7 two-year-old heifers, and the balance cows, from 3 years up. No Berkshires to offer. In Cotswolds, about 24 lambs for fall trade. **CHAS. E. BONNYCASTLE, Station and P. O., CAMPBELLFORD, ONT.**

**JOHN GARDHOUSE & SONS**

Always have for sale a number of first-class Shorthorns, Shires and Lincolns, of both sexes. Drop us a line, or better, come and see for yourself. Weston Sta., G. T. R. & C. P. R. Long-distance phone in house.

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**Clydesdales, Shorthorns and Cotswolds**  
Young stock for sale—most fashionably bred.

**GOODFELLOW BROS., MACVILLE P. O., ONT.**  
Bolton Station, C. P. R.; Caledon East, G. T. R. Local and Long-distance telephone.

**CLOVER DELL SHORTHORNS**

Always have for sale, young stock of both sexes. Milking strains a specialty. Moderate prices.

**L. A. Wakely, Bolton, Ont.**  
Bolton Junction, on C. P. R., within half mile of farm.

**For Sale or Exchange Shorthorn Bull.**

Imp. Scottish Price \$800. In good breeding condition. I will sell reasonable, or exchange him for an imported bull for breeding purposes, of a good family and a stock producer, to avoid inbreeding.

**E. A. GARNHAM, Straffordville P. O.**  
Pt. Burwell Branch C. P. R.

**Shorthorns, Clydesdales and Oxford Down Sheep.**

Several red bulls, 10 months of age, by Prefector, imp.; some with imp. dams, heifers 2 and 3 years of age. Clydesdale mares and fillies. Lincoln and Oxford sheep. All at reasonable prices. Phone connection. **McFarlane & Ford, Dutton, Ont.**

**Shorthorns and Oxford Down Sheep**

Young bulls and heifers of richest Scotch breeding and highest quality. Twelve ewe lambs, two aged rams and two ram lambs. None better. Phone connection. **Duncan Brown, Iona P. O., Ont.**

**QUESTIONS AND ANSWERS. Miscellaneous.**

**TO KEEP FLIES OFF COWS.**

Will you kindly let me know the best way to keep flies off cows during the summer? T. C. G.

Ans.—The following treatment for flies has been frequently recommended, and has proved very satisfactory: Fish oil  $\frac{1}{4}$  gallon, coal oil  $\frac{1}{4}$  pint, crude carbolic acid 4 tablespoonfuls, mixed and applied to all parts of the cow, except the udder, once a week.

**PROPERTY IN LOG.**

A long cedar log belonging to A floated off his farm on to B's farm during the high spring flood. Soon after, B sold his farm to C. C cuts the log up, although B tells it does not belong to him, but to A. Can A collect the price of log from C? A. B. C.

Ans.—It is possible, but under the circumstances we are inclined to think that A would have great difficulty in enforcing payment from C, by an action such as is suggested. It appears to us that A may fairly be regarded as having, in point of law, abandoned the log.

**THE DOBSON.**

The insect submitted by G. R., Huron Co., Ont., is the Dobson (Corydalis cornuta L.). The adult is large, having a wing-spread of more than four inches, and possessed in the female of powerful biting jaws. The jaws of the male are extended into long curved, piercing organs, which cross when at rest, and are not used offensively. The female lays her eggs in white, chalky-looking masses, about three-quarters of an inch in diameter, on the leaves of trees overhanging water, and similar situations. The young, on hatching, drop at once into the water, descend to the bottom, where they remain during their entire larval life of two years and eleven months. They feed upon aquatic insects. They possess, at the anal end of the body, two strong tubercles, which serve for attachments. The larva is about two inches long, and slate-gray in color. When full-grown, they leave the water to pupate. The pupa is light yellow in color, and transforms to the adult insect in about one month.

**LUMP JAW—ECZEMA.**

Just noticed quite a hard lump on the side of my bull's neck, just back of the point of the jaw bone, about the size and shape of a goose egg. The end may be attached to the bone, but not sure. (1) Is this lump jaw, and what can be done for it?

I also have a mare with flat lumps, varying in size from a pea to that of a hen's egg, on her body, especially around shoulders and neck. A few broke, and she appears to be itchy. She is not let out on pasture, is worked rather hard, and fed about all the grain and hay she will eat. (2) What would you recommend to be done for her? G. W. M.

Ans.—1. The indications are those of lump jaw. Though it does not usually appear so far back, the probability is that it is attached to the bone of the jaw. If the animal is in good condition, and not very valuable, it may be well to dispose of him before the trouble grows. The most successful remedy for lump jaw is the iodide-of-potassium treatment. Commence with one-dram doses, three times daily, dissolving in a pint of warm water, and sprinkling on feed, or giving as a drench; increase the dose by half a dram, daily, until loss of appetite or desire for water appears, or discharge of saliva from the mouth, or tears from the eyes and scurfiness of the skin. When any of these symptoms appear, cease giving the drug for three or four weeks, when, if necessary, repeat the treatment.

2. This is, evidently, eczema, probably induced by too generous feeding in warm weather. Purge her with a ball composed of 8 drams aloes and 2 drams ginger. Feed only bran mash until purgation commences. After the bowels have regained normal condition, give 1 ounce Fowler's Solution of Arsenic, night and morning, for ten days. Wash the itchy parts well twice daily, with a solution of potassium sublimate, 30 grains to a quart of water.

**World's Greatest Separator**

**Standard**  
Lasts Longest



**STANDARD.**  
Sizes: No. 4, No. 6, No. 8.  
Capacities: 400, 550 and 750 Lbs.  
Prices and terms on application.

The "STANDARD'S" durability has been proved. A "STANDARD" was connected up with a line shaft, and run continuously long enough to skim 2,160,000 lbs. of milk, and when taken apart showed practically no signs of wear; in fact, was good as new. During this entire running there were no adjustments made, and no oiling done. The oil chamber was filled when machine was started, and required no further attention.

This proves better than words that the "STANDARD" will last nearly a lifetime, or easily twice as long as any other separator, and requires the least amount of attention.

WRITE FOR CATALOGUE TO-DAY.

**The Renfrew Machinery Co., Ltd.**  
Renfrew, Ont.

A good cream separator made at home is of more value to you than a good cream separator made abroad.

GOOD AGENTS WANTED.

**275 BURLINGTON SHORTHORNS 275**

**3 Choice Imported Scotch Shorthorn Bulls—yearlings.**  
**1 Imported 2-year-old Bull, red—an extra sire.**  
**10 Bulls, 9 to 16 months old—all by imported sire.**  
**30 Choice Young Cows and Heifers—mostly bred or have Calves at foot.** Long-distance telephone. Farm  $\frac{1}{2}$  mile from Burlington Jct. Sta., G. T. R. **J. F. Mitchell, Burlington, Ont.**

**SCOTCH SHORTHORNS**—Eight extra good young bulls, from 10 to 15 months old; 20 choice cows and heifers, forward in calf or with calves at foot. Prices reasonable. Inspection invited. **W. G. PETTIT & SONS, Freeman, Ont.**

Farms close to Burlington Jct., G. T. R.

**INVERNESS SHORTHORNS**—I can supply Shorthorns of all ages, with richest Scotch breeding and high-class individuality. **W. H. EASTERBROOK, Freeman, Ont.**

**Maple Leaf Shires, Shorthorns, Hampshire Hogs**  
1- and 2-yr. old Shire stallions, females from yearling fillies up; Shorthorns, both bulls and heifers; a choice lot of young Hampshire pigs, both sexes, beautifully belted. **PORTER BROS., APPLEBY P. O., BURLINGTON STA. Phone.**

**Scotch Shorthorns A. Edward Meyer**

**P. O. Box 378, Guelph, Ont.**  
Breeds **SCOTCH SHORTHORNS** Exclusively. Twelve of the most noted Scotch tribes have representatives in my herd. Herd bulls: Scottish Hero (imp.)—5302—(9965) 295765; A. H. B.; Gloster King—68713—28304; A. H. B. Young stock for sale. Long-distance phone in house.

**CHOICE SCOTCH BULLS**

**FOR SALE. HERD-HEADING QUALITY.**  
**H. SMITH R. R. 3, Hay, Huron Co., Ont.** Farm adjoins Exeter, on G. T. R.

**HIGH-CLASS SHORTHORNS** I have on hand young bulls and heifers of high-class show type, pure Scotch and Scotch-topped, sired by that sire of champions, Mildred's Royal. If you want a show bull or heifer, write me. **GEO. GIER, Grand Valley P. O. and station, also Waldemar station.**

**Spring Valley SHORTHORNS** We have for sale Newton Ringleader (imp.)—73783—A good bull, with first-class breeding. Also a Canadian-bred 15-month-old bull of the choicest quality. Phone connection. **Kyle Bros., Ayr, Ont.**

**SALEM SHORTHORNS**

I have generally what you want in choice Shorthorns. **Elora Station, G. T. R. and C. P. R.** **J. A. WATT, SALEM.**

**Three Choice Shorthorn Bulls for Sale.** Show animals, choice breeding. Prices reasonable. Stock in fine condition. **Geo. D. Fletcher, Binkham P. O., Huron Co., Ont.**

**SHORTHORNS AND LEICESTERS** Present of 1-yr. old light choicely bred one and two year old bulls and cow calves. Choice shagging rams and ewe lambs. Show material. Write: **W. A. Douglas, Tuscarora, Ont. Caledonia Station.**

**CRUICKSHANK NONPAREILS**

Best quality Scotch Shorthorn bulls, sires; 2-yearling and 2-year-old bulls, all in fine condition, and choice animals. The best of the breed. **W. D. Robertson, Oakville, Ont.**

## Lump Jaw



The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or how long the lump has been there. It will cure your case or what else you may have had the lump on your jaw back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durable, bound, indexed and illustrated. Write us for a free copy.

**FLEMING BROS., Chemists,**  
75 Church St., Toronto, Ontario

## BRAMPTON Jerseys

CANADA'S GREATEST JERSEY HERD

We are offering for sale one 2-year-old bull and four yearlings, fit for service; also six bull calves; females of all ages. Come and see them or write.

**R. H. BULL & SON, BRAMPTON, ONT.**

## Jerseys and Chester Whites

I am offering some choice young Jersey bulls, sired by Brampton's Blucher, winner of first prize, Toronto and Winnipeg, and from choice, deep-milking cows with good teats. Also Chester White pigs, 3 to 4 months old, both sexes, at special prices.

**CHAS. E. ROGERS, Dorchester, Ont.**

## WANTED!

Ten Jersey Heifer Calves, from 2 to 4 months old, eligible to register. Send description, with lowest cash price, to: **High Grove Stock Farm P. O. Box 111, Tweed, Ont.**

## A High Percentage

The combined percentage of Protein and Fat in

## BRANTFORD GLUTEN FEED

is 25%

There is no better feed for milking cows. Present price, \$24.00 per ton.

**The Brantford Starch Works**  
BRANTFORD, ONTARIO.

## CENTRE AND HILLVIEW HOLSTEINS

Offers a number of young bulls: One born Oct. 5, more black; his dam gave at 5 years old 418 lbs. milk and 17 1/2 lbs. butter; his sister, at 4 years old, gave 416 lbs. milk and 17.13 lbs. butter in 7 days; his sire is Brockbank Butter Baron, who has a number of A. R. O. daughters, one 23.66 lbs. butter in 7 days at 3 years old. Price \$60 if sold at once. A few 2-year-old heifers from B. B. B. for sale. **P. D. EDE, Oxford Centre, Woodstock Station.** Long-distance telephone.

## MAPLE HILL HOLSTEIN-FRIESIANS SPECIAL OFFERING:

Four-year-old cow, fresh last October, bred April 2nd to Choicest Canary, whose dam is the highest seven-and-thirty-day record cow in Canada.

**G. W. CLEMONS, St. George, Ont.**  
Bell phone.

## Fairmount Holsteins.

Must sell 35 head before fall, as I have sold one of my farms. Herd headed by Aaggie Grace Cornucopia Lad, whose dams for four generations have records that average 21.30 pounds.

**C. R. Gies, Heidelberg P. O., St. Jacob's Sta.**

## Glenwood Stock Farm 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.

## Ridgedale Holsteins

I have left three bull calves that will be priced right for a quick sale; their dams are heavy producers and their sire was bred right.

**R. W. WALKER, Utica, Ont.** Phone connection.

PLEASE MENTION THIS PAPER.

## GOSSIP

### BLASTING BOULDERS

Prof. Stewart, chief of the Division of Engineering at the Minnesota Agricultural College, says that ordinarily it is not economical to break rocks by placing explosives on top of them—a method requiring a very high grade and large quantity of dynamite. In such case, if the boulder is hard, the attempt will often result in failure. The efficiency of this method may be somewhat increased by laying the explosive in a depression in the rock and covering it with wet clay.

Another method is to make a hole with a long auger or spade, through the earth, to a point under the center of the rock, and place the explosive there, tamping the hole full of dirt afterward. This method is much more satisfactory than the first, though it many times throws the rock out of the ground unbroken.

The surest method, and the one requiring the least explosive, is to drill a hole in the rock and tamp in the charge with damp clay.

The proper plan, where a large number of rocks are to be broken up, is to do a little experimenting. Try each of these methods, keeping an account of the time required to prepare the charge, the cost of explosive used, and the results, and from these determine the best method to use with the rocks in question. With high-priced explosive and cheap labor, it will, ordinarily, be most economical to drill the rock. If labor is scarce and high-priced, it may be more desirable to use a larger quantity of explosive under the rock, as suggested above. Rock has been satisfactorily disposed of by all these methods.

### THE CEDAR-POST INDUSTRY.

The extent of many industries which, to the casual observer, seem small, is well exemplified in the cedar-post industry. A circular issued by United States Government in 1907, states that there were over 800,000 miles of pole lines in operation then in the United States. The average line contains 40 poles to the mile, making 32,000,000 then in use; assuming the average life of a pole to be about 12 years, the maintenance of these lines requires 2,650,000 poles yearly. In addition to these, a great number is required in installing new lines. In 1906, 3,574,666 poles were purchased at a cost of \$9,471,171, at point of purchase; this does not include poles under twenty feet in length.

The chief consumers are telegraph and telephone companies, steam railroads, street railways, electric light and power companies. Two-thirds of these posts were cedar, which gives the most satisfaction. The qualities sought in posts are: Durability in contact with soil, weight, straightness; the wood must be soft so as to allow the spikes of the climber to enter readily, yet must have strength; in these qualities cedar stands high. The life of cedar posts is about 15 years, chestnut 9, cypress 8, Southern yellow pine from 4 to 8 years.

Cedar is getting scarcer each year, as a consequence of this drain upon the supply. A tree, to make a 30-foot pole, must live, it is said, one hundred and ninety years. This means a slow renewal of the supply. Furthermore, cedar forests are usually cut clean, the smaller trees going for ties and shingles. The trees are felled, the bark trimmed off, cut to length and straightness on the ground where grown, after which they are generally shipped to a central yard, where they are seasoned from one to two years. This process renders them lighter, stronger, and longer-lived. One of the largest, oldest-established firms following this business is the W. C. Stirling & Son Co., of Monroe, Michigan, from whom a pamphlet concerning the business is obtainable for the asking.

A young lady who taught a class of small boys in the Sunday school desired to impress on them the meaning of returning thanks before a meal. Turning to one of the class, whose father was a deacon in the church, she asked him:

"William, what is the first thing your father says when he sits down to the table?"

"He says, 'Go slow with the butter, kids, it's forty cents a pound,'" replied the youngster.

## The Full Percentage of Cream

Getting the full percentage of cream from milk depends as much upon the oil used to lubricate the separator as upon the separator itself. Gummy oil will cut the fine bearings of your machine, spoil its balance and waste good cream in the skim-milk pail.



## STANDARD Hand Separator Oil

never gums, never rusts, never corrodes. It feeds freely into the closest bearings and insures the perfect lubrication that is essential to the free spinning of the bowl and the complete separation of cream from milk. It lessens the driving effort and lengthens the life of your separator.

One gallon cans. All dealers. Or write to

**The Imperial Oil Company, Limited**

Ontario Agents: **The Queen City Oil Co., Ltd.**

## Holstein - Friesians

**FAIRVIEW FARM** offers young bulls, sired by Pontiac Korndyke and Rag Apple Korndyke, without question the two greatest Korndyke bulls in the world, and out of cows with large A. R. O. records and testing 4; fat. Come and see them or write.

**E. H. DOLLAR, Heuvelton, N. Y.**  
Near Prescott.

**Elmwood Holsteins** Choice-bred calves for April and May delivery. Sired by imported Ykema Sir Posch and Pontiac Sarcastic, a grandson of Sarcastic Lad. Registered. Delivered. Express paid. Safe delivery guaranteed.

**E. D. GEORGE & SONS, PUTNAM, ONT.**

## WOODBINE FARM HOLSTEINS

Offers a number of fine bulls and bull calves, sired by Sir Creamelle, who is a direct descendant in two different lines of the great cow, Duchess Ormsby, 24.4 lbs. butter in 7 days, dam of five daughters with records that average 20 lbs. of butter in 7 days, the greatest producing family of the breed. Write for prices. Telephone connection. Shipping stations: Ayr, C. P. R.; Paris, G. T. R.

**A. KENNEDY, AYR, ONTARIO.**

**Spring Bank Holsteins and Yorkshires**  
For sale: 1 cow, 6 years old, good producer; 3 bull calves; young Yorkshire sows.

**Wm. Barnett & Sons, Living Springs, Ont.**  
Fergus Station, G. T. R. and C. P. R.

## LAKEVIEW HOLSTEINS!

Bull calves sired by Count Hengerveld Fayne de Kol, whose sire is the sire of the world's champion milk cow, and whose dam is the dam of the world's champion butter cow. These calves are from A. R. O. cows with records up to 24 lbs. butter in 7 days. Also a few females for sale.

**E. F. OSLER, Bronte, Ont.**

## World's Champion-Bred Bull High-class Holsteins

Grace Fayne 2nd Sir Colantha. His dam, sire's dam and two sisters average 31.80 lbs. butter in 7 days. For further particulars send for catalogue. Address **M. L. HALEY or M. H. HALEY, Springford, Ontario.**

Head of herd, Pietje Korndyke Lad. Two nearest dams average 26.09 lbs. butter in 7 days. His sire's dam, Pietje 22nd, has a record of 31.62 lbs. butter in 7 days. Present offering: now booking orders for bull calves sired by above sire and out of A. R. O. dams.

**W. M. C. STEVENS, PHILLIPSVILLE, ONT.**

## High-class Holsteins and Tamworths.

I am now offering a number of two and three year old heifers, with official records from 11 to 20 pounds butter in 7 days; also bull calves with rich backing. Tamworth boars from 6 weeks to 1 year old—imp. sire and dam.

**A. C. HALLMAN, BRÉSLAU, ONT.**

## The Maples Holstein Herd

of Record-of-Merit cows, headed by King Posch De Kol. Nothing for sale at present except choice bull calves from Record-of-Merit cows. Also one or two good cows.

**WALBURN RIVERS, FOLDEN'S, ONTARIO**

## CRAIGALEA AYRSHIRES

have won more money the last four years than all competitors combined. They are heavy producers and high testers; records of production given. Stock of both sexes for sale of show-ring form.

**H. C. HAMILL, BOX GROVE P. O., ONT.**  
Markham, G. T. R.; Locust Hill, C. P. R. Bell phone connection from Markham.

## BURNSIDE AYRSHIRES!

Fresh importation just landed in quarantine of 60 head. I have the choicest lot of 12 young bulls I have ever imported. From the best herds in Scotland, such as Auchebraun, Osborne, Netherhall, Bargetoch, Barr of Hobsland, Mitchell of Lochfergus. All fit for service. A number of cows, 3-year-olds, 2-year-olds, and 20 choice yearling heifers. All are for sale.

**R. R. Ness, Howick, Que.**

## ISALEIGH GRANGE AYRSHIRES!

Our herd were all selected on their ability to produce a heavy yield of milk. We have a number of 40, 45 and 50 lb. cows, imported and Canadian-bred. From them are young bulls and heifers for sale. None better.

**JAMES BODEN, DANVILLE, QUEBEC, ISALEIGH GRANGE FARM.**

## Ayrshires

Bull calves, from 4 months to 9 months, from imported sire and Record of Performance dams. Records 50 to 63 pounds per day.

**N. Dymont, Clappison's Corners, Ont.**

## HILLCREST AYRSHIRES.

Bred for production and large teats. Record of Performance work a specialty. Fifty head to select from. Prices right.

**FRANK HARRIS, Mount Elgin, Ont.**

## Ayrshires and Yorkshires!

We still have a few choice individuals of almost any age on hand in Ayrshires, and are always ready to price any. Other breeders in this section. Bull calves from Record of Performance cows. A few young Yorkshires on hand.

Long-distance phone.

**ALEX. HUME & CO., MENIE, ONT.**

## Stonehouse Ayrshires

All ages. Am now booking orders for bull calves.

**Hector Gordon, Howick, Quebec.**

## A PUBLIC WARNING

We wish to warn the public against being imposed on by unscrupulous dealers who substitute with cheap and worthless preparations designed to be imitations of Dr. Fowler's Extract of Wild Strawberry, the wonderful Bowel Complaint cure.

Pharmaceutical concerns are flooding the market with these cheap and worthless preparations, some of which are even labelled "Extract of Wild Strawberry," "Wild Strawberry Compound," etc., but they dare not use the name "Dr. Fowler," in the hope that the public may be deceived and led to purchase them, thinking they are getting the genuine "Dr. Fowler's."

Are you willing to risk your health—perhaps even your life, to these no name, no reputation, likely dangerous, so-called Strawberry Extracts?

Dr. Fowler's Extract of Wild Strawberry has a reputation extending over sixty-five years, therefore when you buy it you are not experimenting with a new and untried remedy.

It cures Diarrhoea, Dysentery, Colic, Stomach Cramps, Seasickness, Cholera Morbus, Cholera Infantum, Summer Complaint, and all Looseness of the Bowels.

Ask for "Dr. Fowler's" and insist on getting what you ask for. Price 35 cents.

Manufactured only by The T. Milburn Co., Limited, Toronto, Ont.



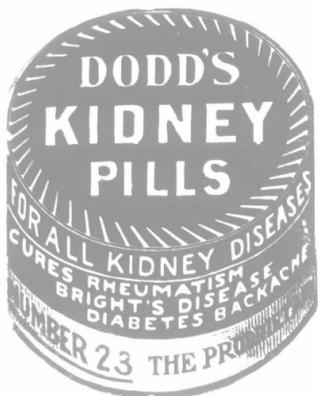
### ELECTRIC BEANS

Stand supreme as a Blood and Nerve Tonic.

They are unequalled for Biliousness, Sick Headache, Constipation, Heart Palpitation, Indigestion and Anæmia. Those who are in a position to know what is best use "ELECTRIC BEANS."

Write for Free Sample 50c a box at all Dealers or upon receipt of price, from THE ELECTRIC BEAN CHEMICAL CO. Ltd. OTTAWA.

"David Lloyd George," said the miner from Wales, as he emptied his glass of ewer—the National Welsh drink "David is a very witty speaker. I've heard him many a time in Carnarvon. Speaking in Welsh, he once ridiculed in Carnarvon the House of Lords. He said the average peer thought so much of himself that at family prayers he always made one well-known passage run:—"Surely goodness and mercy shall follow me all the days of my life, and I will dwell in the House of Lords forever."



### QUESTIONS AND ANSWERS. Miscellaneous.

#### COMPOSITION OF AN EGG.

Could you give me the ingredients or make-up of a hen's egg? SANDY.

Ans.—From the question, as framed, we are at a loss to understand whether our correspondent wishes to know the chemical composition or the structural parts of an egg. Assuming that it is the composition, indicating its value from a dietary standpoint, we reply as follows: The shell consists almost entirely (96 per cent) of carbonate of lime. The white is nearly seven-eighths water, the rest being nearly all protein. Of the yolk, about one-half is water; of the other half, one-third is protein and the rest fat. The shell constitutes about 12 per cent. of the whole egg, the white about 58 per cent., and the yolk about 30 per cent.

#### BLOODY MILK—WHEAT SMUT.

1. Cow, four years old, in good health, has one teat that has been producing bloody milk for about one week. Please state cause and remedy, if any.

2. Please state formula for treating wheat for smut. READER.

Ans.—1. This is due to a congenital weakness of the vessels of the udder, and, while in most cases the flow of blood can be checked, its recurrence can not be prevented. Bathe the affected quarter long and often with cold water, and give one ounce tincture of iron in a pint of cold water, as a drench, three times daily, until blood ceases to flow. If she becomes constipated, give a pint of raw linseed oil. Avoid exciting or running the cow.

2. Spread the wheat on the barn floor and sprinkle with a solution of 2 ounces formaldehyde solution in 4 gallons of water. Shovel while sprinkling is being done till all are thoroughly damp. Then shovel into a conical pile, cover with old blankets, and in three hours shovel out and keep stirred till dry. If possible, treat three days before sowing.

#### ORCHARDING ON SHARES.

If I were to take charge of an orchard that had never been sprayed or attended to with the thought of making money out of it, what share should I get for doing work and supplying everything? E. P.

Ans.—We can scarcely tell without knowing a great deal more about the orchard. Factors to be considered are the age, condition, and variety of the trees, location, soil, duration of your arrangement, etc. The longer you have the orchard after it is renovated, the greater return to be expected from your work. In some of these old orchards, it would not be more than fair for the person who does the work to have practically the whole of the first season's crop. Last year, the rent we paid on our demonstration orchard (which, in all respects but spraying, was better than the average orchard throughout the country), figured out to about one-ninth of the gross proceeds from the picked fruit, as sold, f.o.b. That left us one hundred dollars an acre profit. This year, owing to general apple-crop failure in this part of the country, the net proceeds from the three-acre orchard will likely be insufficient to meet the hundred dollars annual rent. Allowing for such risks, we should say that you ought to have for your share not less than four-fifths of the product, sold f.o.b., and, if handling the orchard for one year only, you should have about nine-tenths. At that, the owner of the orchard will almost certainly be money ahead, considering the improvement in condition of his trees. To our way of thinking, the most satisfactory way is to rent the orchard outright, then one derives the full yearly return from whatever labor he applies to it. This is also the fairest way to the owner, since he knows what he gets. On the share basis, a proposition that would be fair to the owner, is that if the orchard was to be rented for one year, he should receive, in addition to the rent, one-third of the net proceeds from the crop of fruit.

## FAMOUS FLEURY PLOWS

LIGHTEST IN DRAFT  
STEADIEST IN RUNNING



And doing the finest quality of work in the field. We are the ORIGINAL makers of plows: "DANDY," Nos. 21, 13

and 15A (one horse), and FAMOUS TINKLER WHEEL PLOWS. Do not take IMITATIONS. Insist on the GENUINE FLEURY.

## J. FLEURY'S SONS, AURORA, ONT.

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

## LEICESTER SHEEP

Willowdale Stock Farm, Lennoxville, Quebec.

Has Leicester sheep that cannot be beaten in Canada. Lambs of both sexes for sale. Exhibition stock. Lambs came in February and March. J. H. M. Parker, Lennoxville, Que.

I WILL SHEEP of the different English breeds for those wanting them. Selections will be made with the greatest care, and the charges will be moderate. Will also bring a few CLYDESDALES and SHORTHORNS on order. Let me know what you want, and ask for particulars. Have two Shorthorn bulls just landed that will be sold through the money, and they are high-class in every way. Have as usual home-bred Shorthorns. ROBERT MILLER, Stouffville, Ont.

### Oxford Rams

WANTED.

Parties having Oxford rams for sale are requested to write the undersigned, stating age of rams, weight, price, and if recorded.

PETER ARKELL & SONS, Teeswater, Ontario.



### LABELS

Metal Ear Labels for Cattle, Sheep and Hogs.

The old standby for all who have stock liable to stray, or to dispute as to identification or ownership; for herd or flock records, or for general convenience. Send for free circular and sample. It may save you much trouble. Write to-day. F. G. JAMES, BOWMANVILLE, ONTARIO.

Fairview's Shropshire Offerings: Their breeding is of the very best, and for 26 years they have proved their superior quality in the leading show-rings, including three World's Fairs, where the Fairview exhibits won more section, flock, champion and special prizes than all competitors combined. That's the kind we now offer. For a flock header or a few ewes, write for circular and prices to: J. & D. J. Campbell, Fairview Farm Woodville, Ont.

## WOOL

WE WANT TO BUY YOURS. WRITE NOW FOR OUR PRICES.

E. T. CARTER & CO., 84 FRONT ST. E., TORONTO, CANADA.

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs. Present offering: Lambs of either sex. For prices, etc., write to John Cousins & Sons, Harriston, Ont.

### 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.

Subscribe for "Farmer's Advocate"

## Maple Villa Yorkshires and Oxford Downs

For immediate disposal: A number of choice young boars ready for use. Some splendid sows bred to farrow in May, and others of breeding age. An excellent lot of ewe lambs. Satisfaction assured. J. A. CERSWELL, BOND HEAD, ONT.; BEETON OR BRADFORD STATIONS.

### Newcastle Tamworths and Shorthorns

FOR SALE: Young sows due April and May, by imp. boar, dams by Colwill's Choice, Canada's Champion boar in 1901-2-3-5; also choice pigs, both sexes. Two yearling Shorthorn bulls, Syme and Lavender families, and six choice heifers and heifer calves. Prices right. Bell phone.

A. A. Colwill, Box 9, Newcastle, Ont.

### Willowdale Berkshires!

Nothing to offer but suckers and three extra choice young sows, bred to farrow May and June. Be quick if you want one. J. J. WILSON, Importer and Breeder, Milton P. O. and Station. C. P. R. and G. T. R.

## LARGE WHITE YORKSHIRES.

Have for sale at the present time a fine lot of young sows bred to imp. boar, due to farrow end of May; also boars ready for service. A good lot of spring pigs. Pairs supplied not akin from large stock from the best British herds. Long-distance Bell phone. C. P. R. & G. T. R.

H. J. Davis, Woodstock, Ont.

Monkland Yorkshires With very nearly 100 sows in breeding, of modern type and high-class quality, our herd will stand comparison with any in Canada. We are always in a position to fill large or small orders with despatch. Long-distance phone. JAMES WILSON & SONS, FERGUS, 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, Hilton, Ont. Brighton Tel. & Sta.

### HILLVIEW YORKSHIRES

Are ideal in type and quality. We have young things of both sexes for sale. Also one ton Clyde mare, one grand Shorthorn bull. Long-distance Bell Phone, G. T. R. and C. P. R.

W. F. DISNEY, GREENWOOD, ONT.

### DUROC - JERSEY SWINE

Imported and home-bred. Sows ready to breed. Boars fit for service, and younger ones either sex. Also Embury geese. MAC CAMPBELL & SONS, HARWICH, ONT.

### MORRISTON TAMWORTHS

A grand lot of boars from 2 to 10 mos., also young sows (dandies). Some just bred. Some in farrow to first-class boars from best herd in England. Prices right. Chas. Currie, Morriston, Ont.

PINE GROVE YORKSHIRES At the late Guelph Winter Show we won more prizes than any two exhibitors, including all the firsts and sweepstakes for best dressed carcasses, both at Guelph and Ottawa. Winter Fat-stock Shows of 1908-09. Young pigs for sale, mated not akin, all the progeny of imported stock of superior excellence. Joseph Featherston & Son, Streetsville, Ont.

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Shorthorn Cattle,  
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P.R. & G.T.R.

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100 sows in breed-  
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FERGUS, ONT.

RKSHIRES

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JULY 21, 1910.

### Canada's Next Census of Population.

The next census of Canada will be taken under date of June 1st, 1911, and will embrace the subjects of population, mortality, agriculture, manufactures, minerals, fisheries, and dairy products.

Population will be recorded under the heads of residence and personal description; citizenship, nationality and religion; profession, occupation and trade or means of living; wage-earnings and insurance; education and language spoken, and infirmities.

Every person living on 1st June will be entered on the schedule of population by name, as member of a family, institution or household, together with place of habitation, sex, relationship to head of the family or household, and whether single, married, widowed, divorced or legally separated. The month of birth, year of birth, and age at last birthday, will also be recorded.

Entries will be made for each person to show the country or place of birth, year of immigration to Canada if born elsewhere, year of naturalization if formerly an alien, and also racial or tribal origin, nationality and religion. Every person of alien birth who has become a naturalized citizen is a Canadian by nationality; and every British subject with residence in Canada, as well as every native of Canada who has acquired citizenship by birth or naturalization, is also a Canadian by nationality. But there is no Canadian by racial or tribal origin, unless the Indians are so counted.

Every person having an occupation or trade will be entered for it, but if employed in the census year at some other occupation for part or whole time, he will be so recorded also. If the person is working on own account, the entry will be so made. An entry is also required to be made showing where the person is employed, as on farm, in woolen mill, at foundry shop, in drug store, etc.

Wage-earners are entered to show the number of weeks employed in 1910 at chief occupation or trade; at other than chief occupation if any; the hours of working time per week at chief occupation, or at other occupation if any; the total earnings in 1910 at chief occupation; the total earnings at other than chief occupation; and the rate per hour when employed by the hour.

Entries are required to be made for each person, showing the amount of insurance held at date of the census upon life, as well as against accident or sickness, together with the cost of such insurance in the census year.

Under the heading of education and language, records will be taken for every person of five years of age and over, showing the number of months at school in 1910, and if the person can read and write, and the language commonly spoken by each person. The cost of education in 1910 for persons over 16 years of age at college, convent or university is also called for.

The last question on the schedule of population relates to infirmities. It calls for a record of each person having an infirmity. If blind, deaf and dumb, crazy or lunatic, idiotic or silly, a record thereof will be made in the proper column, and the age at which the infirmity appeared is required to be specified.

A short time before his death, Phil May, the popular artist, received a circular letter from an American business house engaged in the sale of dried fruit, inviting him to compete for a prize to be given for the best design to be used in advertising their wares. Only one prize was to be given, and all unsuccessful drawings were to become the property of the fruit men.

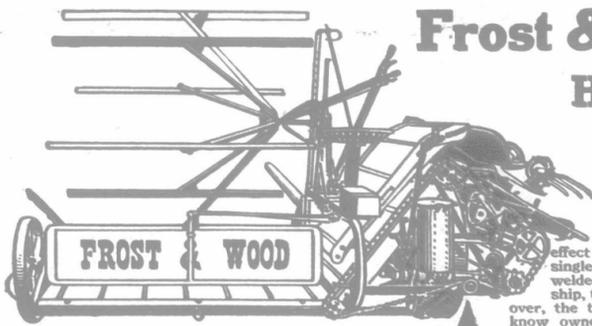
After reading the circular, Phil May sat down and wrote the following letter:

"The Directors, Dried Fruit Co.:  
"Gentlemen—I am offering a prize of half-a-crown for the best specimen of dried fruit and should be glad to have you take part in the competition. Twelve dozen boxes of each kind of fruit should be sent for examination, and all fruit that is not adjudged worthy of the prize will remain the property of the undersigned. It is also required that the charges of the fruit so forwarded be paid by the sender.—Yours very truly, Phil May."

## THE FARMER'S ADVOCATE.

1199

### Frost & Wood No. 3 Binder Has a Strong "Back Bone"



Dropping into a furrow harder than intended, or accidentally striking a boulder, does not "wreck" our No. 3—because it is built to stand more "hard knocks" than a binder is commonly supposed to encounter. The No. 3 Main Power Frame—the binder's "back bone"—consists of heavy pieces of steel firmly rivetted together. The Platform is connected to the Main Power Frame by a Double Steel Brace (see illustration). Hard work and rough ground have no effect on this brace. Certainly, no possibility of it sagging. Indeed, every single part of the No. 3 is of the best material, securely bolted, rivetted or welded to some other part. It's the QUALITY, in material and workmanship, that we put into our binders that enables them to beat, by five times over, the two or three seasons' durability-record of other binders. Why, we know owners (names on request) of Frost & Wood binders who have run their machines for 12 to 15 years, with practically no expense except for sections and oil.

The No. 3 cuts, binds and ties all kinds of grain—whether light, heavy, short, long, broken or lodged. It's no "quitter"—never goes to the fence. You always can count upon the No. 3 to do more than its share of the hard work connected with Canadian Harvesting.

Write for Binder Catalogue F 55 and become thoroughly familiar with construction of this strongest yet lightest draft binder.

"Canadian" conditions are "different" from those prevalent in other countries. It is well for the "Canadian" farmer to remember this. He will find it will pay him to purchase from a Canadian Company who know the requirements of the different sections and who build their machines accordingly. The Frost & Wood Co. have been manufacturing Farm Implements for the last 70 years and have the very best and most prosperous farmers as customers.

Frost & Wood organization covers Canada from Atlantic to Pacific. Branch Warehouses in New Westminster, Calgary, Edmonton, Regina, Brandon, Winnipeg, Toronto, London, Ottawa, Sherbrooke, Montreal, Quebec, St. John, Truro and Charlottetown. Your "local" agent can thus on shortest notice obtain for you (if he hasn't it on hand himself) any Frost & Wood Machine or part thereof that you may desire.

**THE FROST & WOOD CO. Limited**  
SMITH'S FALLS, CANADA

### The CAPITAL Is the Cream Separator that will "Buy Itself" For You.



As soon as you have read this advertisement, sit down and write a post card for The Capital book—the book that not only tells the story of the easy-running, cream-saving separator, but that tells how you can put The Capital in your own dairy practically without costing you a cent.

The book also tells all about the wonderful Capital gears, about their perfect meshing and non-wearing qualities—how they run in oil—how an automatic clutch stops them running the minute you let go of the handle—and about how they give the light, three-and-a-half-pound bowl 7,000 revolutions a minute.

It tells how and why The Capital skims closer—why The Capital wastes less than one-fifth the cream that other separators waste—and then explains how the machine can be made sweet and clean in two minutes after you are through using it.

This book is full of hard-and-fast facts—separator facts—which every dairyman owes it to himself to know; facts which will prove a revelation to the dairyman who is not familiar with The Capital.

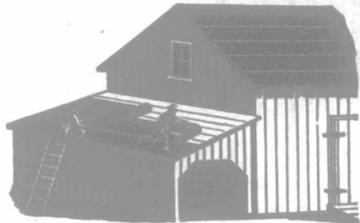
Write for the book to-day—NOW.

**THE NATIONAL MFG. CO., LIMITED,**  
Head Office: Ottawa. Factories: Ottawa and Brockville.  
Branch Offices:—Regina, Sask.; Edmonton, Alta.; Moncton, N.B.

### 4% Invest Your Money Safely at 4%

Think twice before you risk your hard-earned savings in mining or speculative stocks. Better be safe than sorry. Our 4% Debentures are an absolutely safe investment. Interest half-yearly. \$2,000,000 assets as security. AGRICULTURAL SAVINGS & LOAN CO., 109 DUNDAS STREET, LONDON, ONT.

### Mica Roofing



For steep or flat roofs, waterproof, fire-proof; easily laid; cheaper than other roofing. Send stamp for sample, and mention this paper.

**HAMILTON MICA ROOFING COMPANY,**  
101 REBECCA STREET HAMILTON, CANADA.

### Peerless Lawn Fence

Is Strong and Attractive. All the wires are uniformly crimped, large gauge, steel spring wire, heavily galvanized and coated with white enamel paint. Never sags, never rusts. Improve your property with a Peerless Fence. Cheap as wood and more handsome and durable. Also full line of farm and poultry fence and gates. Write for information. **THE SANWELL HOXIE WIRE FENCE CO., Ltd.** Dept. B, Hamilton, Ont., Winnipeg, Man.

### The Columbia Hay Press



It has the points that sell: Automatic Self Feeder, Automatic Safety Fly Wheel, Handiest Block-dropper, Double Gear through-out, Extra Long Tying Chamber, etc. Write for prices. **THE COLUMBIA HAY PRESS CO.,** Kingsville, Ontario.

### Land Plaster

Car lots or any quantity. Write for prices. **TORONTO SALT WORKS** 128 Adelaide St. E. Toronto, Ont. G. J. CLIFF, Manager.

PLEASE MENTION THIS PAPER.

## This 5-Ton Scale Is Easy To Buy—

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

**No Pit to Dig  
No Extras to Buy**



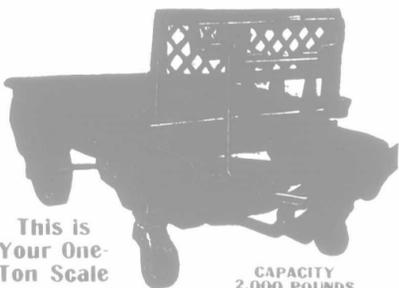
Your CHATHAM Pitless Scale will be YOUR Scale, that you can take with you when you move. You can always get for it what you paid for it. And you need no skilled help to set up the CHATHAM—it comes to you complete, with plain directions. Built wholly of heavy steel. Nothing to rust, decay or go wrong.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

### This is the Complete Scale

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

### Special Compound Beam—No Extra Cost

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



This is Your One-Ton Scale

CAPACITY 2,000 POUNDS

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

### You'll Never Wear it Out

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

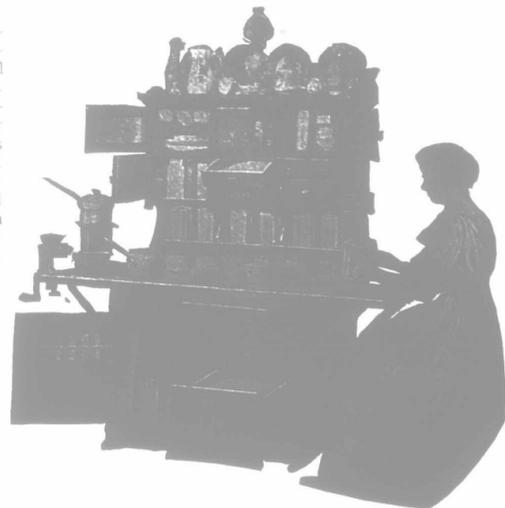


I personally vouch for every statement this advertisement makes, and I further guarantee that my Chatham Pitless Scale is the biggest scale value you can buy for money in this or any other country. Write me about it and I will see that this is proved to your complete satisfaction. Write now.

MANSON CAMPBELL  
President

## SAVES—MONEY— —TIME— —WORK— AND REALLY COSTS NOTHING

You can easily afford this handsome, practical kitchen necessity. For our special offer (please send for details of it) lets you pay for it out of what it actually saves in lessened grocery bills. You should ask us about it at once.



Whole table-top one heavy sheet

### OF BRIGHT ALUMINUM

You cannot begin to know the CHATHAM by this picture. For the picture cannot show even one of its most pleasing and valuable features—the SOLID SHEET OF BRIGHTLY-POLISHED HEAVY ALUMINUM that forms the covering of the table-top and extension leaves. This ALUMINUM is extra-heavy weight, pure metal—LOOKS LIKE SILVER—LASTS LIKE STEEL—cannot rust—won't gather dust or dirt—easily cleaned—simply perfection! And this is the ONLY kitchen cabinet you can buy with an aluminum top—which ADDS FULLY FIVE DOLLARS TO ITS VALUE. Yet you pay NOTHING EXTRA for it!

### You must see it to know it

You must see the Chatham Kitchen Cabinet to appreciate how handy, compact, sensible it is. Exterior of specially-selected black ash, hard as rock and beautifully polished. Panels of golden chestnut. Bake-board, drawers and flour-bin of snow-white basswood. With the CHATHAM everything you use in cooking is at your fingertips. You can get meals ready sitting down. Your flour-bin (metal lined—holds 75 pounds!) is right under your hand in easy reach. Sugar-bin (opened or closed by a touch) is just in front of you. Six air-tight canisters (free with every Chatham Cabinet) stand in the shelf-rack. Big, dust-tight drawers hold spoons, egg-beater, funnels, strainers, etc.; ample closets for kettles, pans, and the like.

Everything in its place Easily moved to sweep under

And you can tidy up as you go along when you have a CHATHAM. There is a place provided for all the things you now walk back and forth for, between pantry and table. The CHATHAM spares you all those countless steps. Cupboards for jams and tinned foods; three roomy drawers (besides the two large ones) for small packages. High top makes a fine shelf for dishes—enclosed on three sides, and a rod at the back as a plate rack. Fine French plate mirror in center door—fix your hair in a second if anyone comes. The CHATHAM is mounted on ball-bearing castors. You can readily move it when you are sweeping up. Yet it is most solidly built—nothing shaky nor wobbly about it. Whole thing is dust-tight, mouse-proof—a permanent, durable, satisfying kitchen help.

### You should now investigate

Yet, with all these conveniences—features found in nothing else—the cost of a CHATHAM is probably less than you imagine. You should write us for the address of our agent nearest you. He can name you a price that will surprise—and he will gladly show you the Cabinet and point out its merits. Allow us to send you illustrated explanatory.

**FREE BOOK  
JUST ADDRESS**



We use one of my Cabinets in my own home; and the women-folk say frankly that they simply could not get on without it. It certainly does cut kitchen-work square in half. And I know we build it so well it can safely be GUARANTEED to you.  
Manson Campbell, President

**The Manson Campbell Company, Limited, Chatham, Ontario.**

Quebec Agents: Cote & Company, 6 St. Peter St., Montreal.

Makers of the famous Chatham Fanning Mill.