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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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SUCCEED
FOUNDED 1880

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

Census and Statistics Dec. 31, 1910
Dept. of Agriculture

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VOL. XLV.

LONDON, ONTARIO, NOVEMBER 17, 1910.

No. 947



"THE ELL" 2024

At a cost of only two-thirds of a cent a day per Animal, Royal Purple Stock Specific makes each Animal worth 25 per cent. more.

You never heard of any other Specific, or "Stock Food," doing likewise.

Royal Purple will permanently cure the Bots, Colic, Worms, Skin Diseases and Debility, and restore run-down Animals to plumpness and vigor.

It will increase the milk-yield three to five pounds per cow a day inside of from two to three weeks. It makes the milk richer than ever before.

MR. ANDREW WEGRICH, of Wainfleet, Ont., says: "This is to certify that I have tried your Royal Purple Stock Specific for two weeks, on one cow. On the 16th I weighed her milk as 17 pounds. I noticed a change after 5 or 6 days, as there was an extra weight of milk. On the 29th, I carefully weighed the milk, and she gave 22 pounds. I am giving an order for 5 boxes, as I consider it the best I have ever used."

"Stock Food" will not do this. Because "Stock Food" is nothing more or less than a mixture of the very things which you, yourself, grow on your own farm.

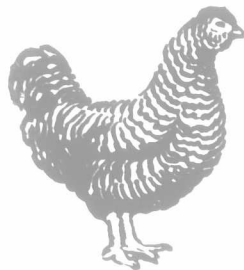
It is not more food your Animals need. They must have something to help their bodies get all the nourishment from the food they are getting. So that they will fatten, and stay fat, all the year 'round.

They need something to prevent disease, to cure disease, and to keep them in the best of health, all the time.

Not a Stock Food

Royal Purple is not a "Stock Food," nor a "medicine." It is a Conditioner.

It does not contain Grain, nor farm products. Nor does it contain "Dope," or any other injurious ingredient. Royal Purple does not merely temporarily bloat or inspire the Animal. It fattens and strengthens it, permanently.



No other Specific known adds flesh so quickly as Royal Purple. It makes 6-weeks-old Calves as large as ordinary-fed Calves are at 10 weeks.

Royal Purple makes naturally thin Animals fat.

and heavy. And it builds up the health and restores the former plumpness and vigor of run-down stock, in little or no time.

The very best time to use this Conditioner is NOW. It digests the hard food properly and prevents the animals getting indigestion or losing flesh.

50 per cent. Cheaper

One 50-cent Package of Royal Purple will last one Animal 70 days. This figures a little over two-thirds of a cent per day.

Most "Stock Foods" in 50-cent Packages last but 50 days, and are given three times a day.

But Royal Purple Specific is given only once a day, and lasts 50 per cent. longer.

(A \$1.50 Pail, containing four times the amount of the 50-cent Package, lasts 280 days.)

So, you see, it is only necessary to give Royal Purple Specific once each day.

Just think of making each Animal worth 25 per cent. over its cost! What will that mean to you, Mr. Stock Owner!

Royal Purple

STOCK AND POULTRY SPECIFICS

Royal Purple creates an appetite for food, and helps nature to digest and turn it into flesh and muscle.

As a Hog fatterer, Royal Purple has no equal.

Never Off Feed

Dan McEwen, the horseman, says: "I have used Royal Purple Stock Specific persistently in feeding 'The Fel,' 2,024, largest winner of any pacer on Grand Circuit in 1908 and 1909, and 'Henry Winters,' 2,104, brother of 'Allen Winters,' winner of \$30,000 in trotting stakes in 1908.

"These horses have never been off their feed since I started using Royal Purple Specific. I will always have it in my stables. Your Cough Powder works like magic."

For Poultry

Royal Purple Poultry Specific is our other Specific. It is for Poultry—not for stock.

It makes the Hens lay Eggs in Winter as well as in the Summer.

MRS. WM. BURNHAM, Sanford, Ont., says: "Dear Sirs,—This is to certify that I have used two boxes of your Poultry Specific for my hens. They laid so well while feeding it to them, I wondered if you would mind sending me word how or where I could get some this winter. I bought it from your agent last winter. I had 32 hens, and some days I got two dozen eggs a day in February and March, while feeding them the Specific."

Royal Purple Poultry Specific prevents Fowls losing flesh at moulting time, and permanently cures every poultry disease. It makes their plumage bright and keeps them always in prime condition.

It makes your Poultry worth more than they could ever be without it.

Yet one 50-cent Package will last 25 Hens 70 days. Or a \$1.50 Pail will do 25 Hens 280 days. This is four times more material at only three times the cost.

Make This Test

Every ounce of Royal Purple Stock and Poultry Specific is guaranteed.

To prove that Royal Purple has no equal, we want you to make this test:

Feed Royal Purple to any one of your Animals for four weeks. And at the same time feed any other preparation to any other Animal in the same condition.

If Royal Purple does not prove to you, by actual results, that it is the best you ever used, we'll return your money.

And we'll ask no questions—make no excuses. You will be the judge—not us.

This is an honest test, isn't it? We ask you to make it because we know that Royal Purple is the best Conditioner on the market.

If you are not satisfied, after testing it, you don't lose anything, do you?



Centralia, Ont., Feb. 7, '10.

The W. A. Jenkins Mfg. Co., London, Ont.: Gentlemen.—We have been using Royal Purple Poultry and Stock Specific for the last three weeks, and must say that results are remarkable. Am feeding the Stock Specific to two milking cows, and they have increased 30 per cent. in their milk. The Poultry results are even more marked than this. We have about 60 hens, laying age. When we commenced feeding, we were getting five and six eggs a day, and in the last five days the same flock of hens laid 150 eggs, almost an average of 31 each day, and those five days have been the coldest this winter.

You can see results plainly in two or three days after the use of "Royal Purple," and the poultry have the same hustle and appearance now as in the summer time. With cows and poultry, am using exactly the same feed and care as before starting to feed "Royal Purple."

When farmers and stockmen get acquainted with Royal Purple, it will have a greater demand than all other tonics and stock foods on the market combined.

Yours truly, ANDREW HICKS.

Aug. 28, 1910.

W. A. Jenkins Mfg. Co., London, Ont.:

Gentlemen,—Last Fall we had in our stables a young mare belonging to Miss Clouston, of Montreal. We could not feed her any bran on account of causing violent scouring, consequently causing her to become weak and thin. We commenced using your Royal Purple Stock Specific, and the results were wonderful. After using it three weeks, we found we could feed the animal bran or any other soft feed without scouring her, and she actually took on in this time twenty-five pounds of flesh, we working her at the same time through the hump. I can heartily recommend your Stock Specific.

TOM SMITH.

Trainer for the Hon. Adam Beck.

We also manufacture:
Royal Purple Hog Killer, 25¢
Royal Purple Gall Cure, 25¢
Royal Purple Sweet Lard, 50¢
Royal Purple Cough Cure, 50¢

Our Cough Cure will cure any ordinary cough in four days, and will break up and cure distemper in ten to twelve days.

If your dealer cannot supply you with any Royal Purple Brand, we will ship you upon receipt of \$1.00 cash or bank paid, for either poultry or stock specific. You want any of our other products, such as Cough Powder, we will send it to you postpaid upon receipt of price.

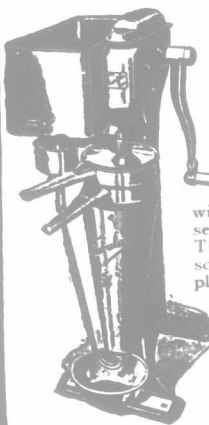
W. A. JENKINS MFG. COMPANY, LONDON, ONTARIO

Cream Separator Buyers TAKE NOTICE

You know that the Babcock tester—used the world over for testing skimmed milk—contains neither disks nor other contraptions. Since the Babcock tester does not need inside contraptions, it is plain that a properly built cream separator does not need them.

Sharples Dairy Tubular Cream Separators

are the only separators free from disks and other contraptions. The only simple—the only properly built separators. The World's Best. Produce twice the skimming force of common separators and proved by the Babcock tester to skim twice as clean. The saving Tubulars thus make you clear profit you cannot get any other way.



Tubulars are guaranteed forever.

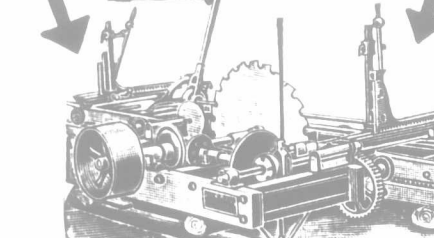
Waste no time with common, complicated separators. You will want a Tubular until you have one—so why not get it in the first place. The manufacture of Tubulars is one of Canada's leading industries. We made the first separators manufactured on this continent and have been at the business thirty years. Write for illustrated catalog No. 193 telling all about Tubulars.

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Steel Shoes are the strongest and easiest working shoes made. There's more good wear in one pair of Steel Shoes than in three to six pairs of the best all-leather work shoes. The leather is waterproof. The Steel Soles are wear-proof and rust-resisting. They are lighter than all-leather work shoes. Need no breaking in. Comfortable from the first moment you put them on. Impossible to get out of shape. They keep the feet dry. They retain their flexibility in spite of mud, slush or water. They cure corns and bunions, prevent colds and rheumatism—save doctors' bills and medicines.

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The enthusiasm of users knows no bounds. People can't say enough for their comfort, economy, lightness and astonishing durability. The introduction of Steel Shoes in a neighborhood always arouses such interest that an avalanche of orders follows. Here is the way Steel Shoes are made. The uppers are made of a superior quality of leather, as waterproof as leather can be tanned. Wonderfully soft and pliable—never gets stiff. The soles and sides are made out of one piece of special light, thin, springy, rust-resisting Steel. Soles and heels are studded with adjustable Steel Rivets, which prevent the bottoms from wearing out. Rivets easily replaced when partly worn. Extra rivets cost only 30 cents and should keep the shoes in good repair for at least two years! No other repairs ever needed! The uppers are tightly joined to the steel by small rivets of rust-resisting metal, so that no water can get between. The soles are lined with soft, springy, comfortable Hair Cushions, which absorb perspiration and odors and add to ease of walking.



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For Men—Sizes 5 to 12 6, 9, 12 and 16 Inches High

Steel Shoes, 6 inches high, \$2.50 per pair.
Steel Shoes, 6 inches high, better grade of leather, \$3.00 per pair.
Steel Shoes, 6 inches high, extra grade of leather, black or tan color, \$3.50 per pair.
Steel Shoes, 9 inches high, \$4.00 per pair.
Steel Shoes, 9 inches high, extra grade of leather, black or tan color, \$5.00 per pair.
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Overwhelmed by the World-Wide Demand
The success of Steel Shoes is almost startling. Within three years two established Steel Shoe factories in Racine, Wis., Toronto, Canada and Northampton, England. These great factories, running at full capacity, can scarcely keep up with the demand from all over the world. The public is rapidly learning that Steel Shoes are

Good for the Feet! Good for the Health! Good for the Bank Account!
These shoes are better for the feet, better for the health, better for the pocketbook than heavy work shoes or rubber-soled shoes.

You Actually Save \$5 to \$10 a Year
by wearing Steel Shoes. Figure it out for yourself. One pair will outlast 4 to 6 pairs of ordinary work shoes. They save all repair bills and keep your feet in perfect condition.

Free Examination
And Your Money Back Promptly if It Looks Better Than the Shoes!

You owe it to yourself to investigate. Get a pair of Steel Shoes for Free Examination by sending the price, which will be returned if you and your own feet are not convinced of their merits.

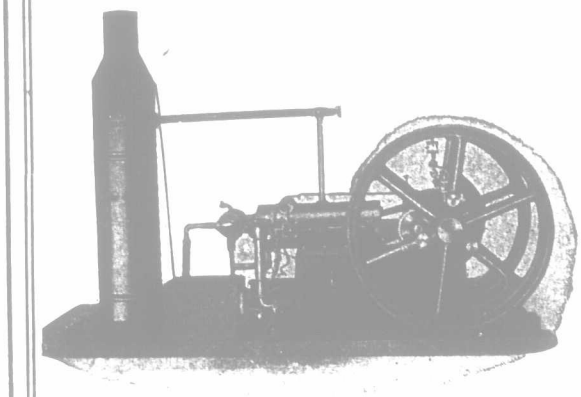
For Boys—Sizes 1 to 5
Boys' Steel Shoes, 6 inches high, \$2.50 per pair.
Boys' Steel Shoes, 9 inches high, extra grade of leather, black or tan color, \$3.50 per pair.

Why Wait? Send Now!
No risk! No bother! No obligation! Don't hesitate! Act while this offer is open! Simply state size of shoe you want, enclose the price and get the shoes for Free Examination.

For general field work we strongly recommend our 6 inch high Steel Shoes at \$3.50 per pair or the 9 inch at \$5.00 per pair. For all classes of use requiring high-top shoes our 12 or 16-inch high Steel Shoes are absolutely indispensable.

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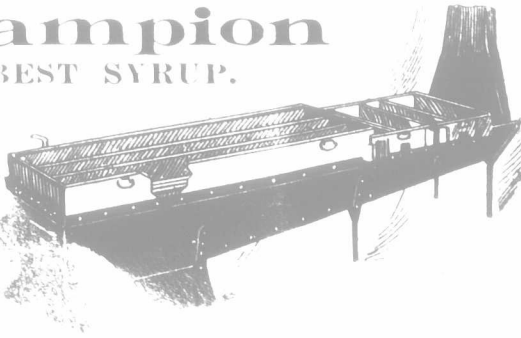
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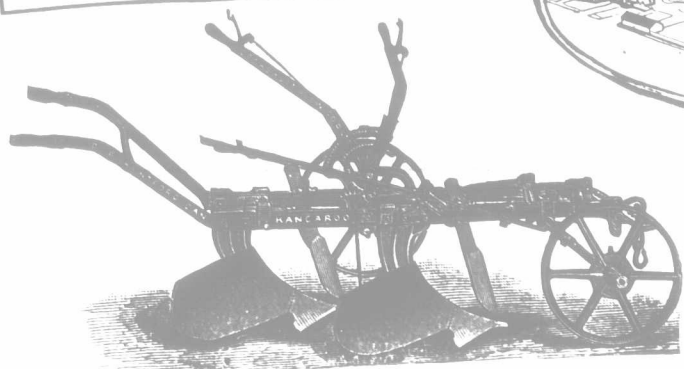
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 Your Farm Pay Big Profits

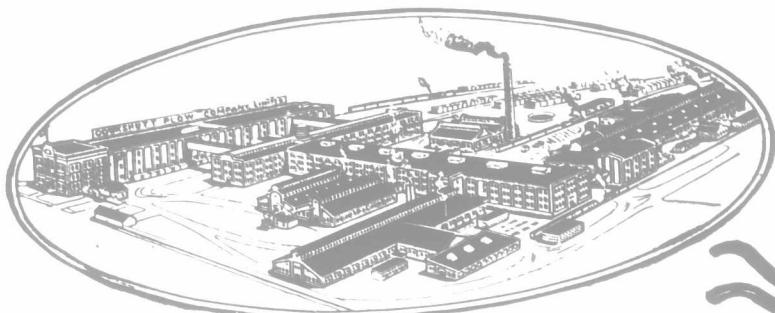
Kid Kangaroo



WE have sold many thousands of these plows and we have yet to hear of a single complaint from any buyer.

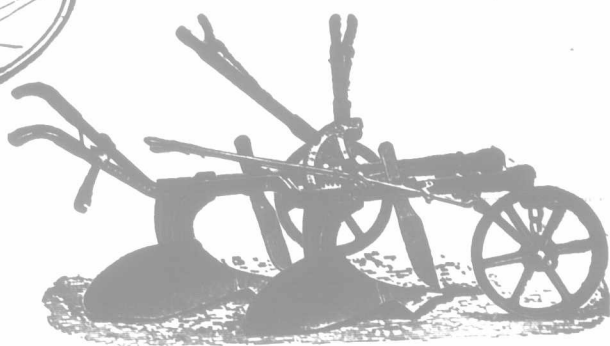
The Kid Kangaroo is fitted with our new patent straightener device which is very convenient for controlling the plow. It is fitted with special soft-centre crucible steel moldboards that will clean in any soil. Frames can be adjusted for wide or narrow furrows. We can furnish either wide or narrow bottoms, rolling colters, jointer or knife colters as desired. Three horses can easily draw this plow in the heaviest land.

NOTE the position of the wheels of this plow. The front wheel is fitted with spring attachment and not being directly opposite, permits the plow following the unevenness of the ground and yet keeping an even depth of furrow. The levers, being to the right of the operator, enable him to easily adjust the plow to the necessary



Where Cockshutt Plows are Made

Maple Leaf



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NO farmer should be without a Cockshutt Catalogue. It describes and illustrates a large range of implements which have revolutionized farming—made it profitable—put the farmer's work on a scientific business-like basis, ensuring him of a good income in return for his labor, time and money.

THIS plow combines great strength, durability and remarkable light draft. It has been carefully and thoroughly tested, and will do perfect work. The frame is built to combine strength with the least weight. A special feature of this plow is the adjustable frame. By unloosening two bolts and two set-screws, it can be adjusted to any width from 7 to 10 inches, within a few minutes. It has our new fine adjustment ratchets for gauging the depth of the furrows. Levers are conveniently placed and are easy to operate. The wheels are absolutely dustproof straightener device can be fitted to plow when called for. This plow can be handled by two horses, yet is quite strong enough to stand the strain of three. Can be fitted with wide or narrow bottoms, rolling colter, knife colter or jointer. This is, without doubt, the most popular two furrow plow manufactured.

Beaver

Gang



depth and width of furrow, thereby insuring good work. Can be fitted with wide or narrow bottoms suitable to the soil—also rolling colters, knife colters or jointers. It is also shipped with three horse trees, tongue and neck yoke. We cannot recommend this plow too strongly to farmers who want good work done quickly and cheaply. The great demand we have for the Beaver Gang is proof of its efficiency.

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Its construction is simpler than any other—fewer parts to wear out.

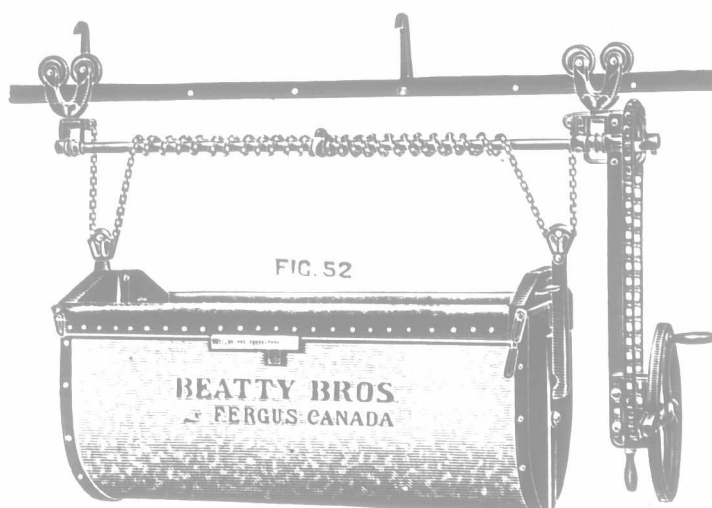
Its parts are heavier and more strongly built.

Only the very best of materials are allowed to enter into the construction of the "BT" Carrier.

These features, together with the following points of advantage, have made the "BT" Carrier famous.

1st. In lifting we use double purchase. This is an exclusive feature of merit on our Carriers.

2nd. The bucket on the "BT" Carrier can be tipped either way to discharge—most buckets will only tip one way.



3rd. It is made of 18-gauge galvanized steel, being some four gauges heavier than the material used by other firms.

4th. The bucket can be elevated higher than any other. The bottom of the box is within three feet of the track when wound up.

5th. The "BT" Litter Carrier Track is heavier per foot and stronger than any other on the market. It is made of the toughest and stiffest high-carbon steel.

If you are thinking of buying a Litter Carrier, let us send you our new catalogue on the "BT" Litter Carrier. It is just off the press and is free.

WRITE TO-DAY for catalogue and information.

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THE MOST SATISFACTORY

ORGANS

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you secure one with the charming tone of a pipe organ, and at a price that will please you. Buy a Bell and get the best made. We are the only makers of the patent Pipe Tone Reed Cells. Send for free catalogue No. 40.

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Mineral or smooth surface. Don't be misled by the similar surface of other roofings. Time tells the tale. Ask your dealer for Genasco. Look for the trade mark—your real guarantee. Highest award, Seattle, 1909. Write for the Good Roof Guide Book and samples.

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British Plowmen for Canada.

The Canadian Northern Immigration Department, through its agencies in Great Britain, will furnish plowmen, who are also all-round farm hands, to Canadian farmers.

The men are selected from hundreds of the very best class of land workers who are anxious to come to Canada, but require assistance for the passage, which would be paid by deduction from wages.

For further information write:

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160 acres of land, convenient to railways, in Northern Ontario's great Clay Belt, for each settler.

The soil is rich and productive, and covered with valuable timber.

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MONROE, MICHIGAN

1910

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, NOVEMBER 17, 1910

No. 947

EDITORIAL.

A thousand dollars a year will not purchase in the average Canadian city as good a living as many a family is enjoying on the farm.

The wealth of a nation is not in her natural resources, but in the genius which she brings to bear upon these natural resources.—N. Dwight Hillis.

Beware of the disease called "little peach." Mr. Casar reports that Michigan growers consider it several times more destructive than peach yellows.

All wealth is for the people. If a man takes out of the granary of society with one hand more than he puts back in with the other, through creative labor, he is a pauper.—N. Dwight Hillis.

Cow-testing is the bed-rock foundation of real progress in milk production. Nothing in connection with the dairy industry is more satisfactory than the growing practice of keeping milk records, with periodical testing for butter-fat.

There is one good thing about the fence-corner plan of implement storage—a fire is not likely to burn the machinery all up at once. On the whole, though, we would prefer to take this slight chance in a well-located implement shed.

Land values on this continent are rising. In at least one section of the Illinois corn belt, we learn, there are no farms selling for less than \$200 an acre. We have scarcely begun to appreciate the producing capacity and earning power of an acre of good land.

"The Farmer's Advocate" saved a good many of its readers several dollars apiece this summer by refusing to publish the advertisement of an egg preservative until the article could be tested. Nor is this by any means an isolated case. Tens of thousands of dollars' worth of advertising running regularly in prominent papers is being annually declined by the publishers of this journal.

Freer exchange of natural products has been mooted as a first basis of reciprocity negotiations between Canada and United States. A very substantial measure of tariff easement may be effected in this way—if the American farmers are willing. We must not, however, consent to the continued unrestricted export of those valuable natural resources of which Canada has a measurable monopoly, such as pulpwood and certain forms of minerals. These should be manufactured at home, or, if exported in raw form, should be subject to an export duty.

The moral of the rabies situation is that thoroughness is essential to make such laws as the dog muzzling order completely effective. Every evasion provides a loophole for contagion to spread. It is a poor friend of the dog who will, by laxity in compliance, prolong his necessary period of restraint and extend the danger of his being from such a horrible disease. Let us, as honorable citizens, comply with beneficent regulations, and thus stamp out the contagion which threatens the health and safety not only of dogs, but of other animals and of human beings.

Rabies Not Yet Stamped Out.

Disturbing reports come to hand again of rabies outbreaks in Western Ontario. Inasmuch as the muzzling order, proclaimed early in February of this year by the joint authority of the Dominion and Provincial Governments, should, if faithfully observed and enforced, have been the means of stamping out ere this the dread contagion, attention may be properly directed to the lax manner in which the order has been executed and obeyed.

As intimated above, two separate Governments are concerned in the control of rabies. The Health of Animals Branch of the Dominion Department of Agriculture had to deal with it from a veterinary point of view in so far as it affected or endangered the health of dogs and live stock, about one hundred head of which (other than dogs) had succumbed up to the date of the passage of the dog-muzzling order. The Provincial authorities were concerned in the disease from a still more important standpoint, namely, that of Public Health. Now, in order for the Dominion Department to properly enforce a muzzling order over the large area involved, it would have been necessary to employ a large force of special inspectors whose salary and expenses would have been an extra charge on the country; while, owing to the fact that the majority of them would be more or less new to their duty, it would likely, in some cases, have been rather inefficiently performed.

Under these circumstances, the co-operation of the Provincial authorities was solicited through Dr. Hodgetts, then Chief Health Officer for Ontario, who, with the full approval of the Provincial Secretary, undertook the passage and enforcement of an order identical in every way with that passed by the Dominion Department of Agriculture. This arrangement was looked upon as eminently proper and satisfactory, especially as the Provincial authorities possessed their magistrates, city and town police, county constables and other machinery necessary for the proper enforcement of the order.

On February 9th, the Secretary of the Provincial Board of Health sent out to local boards within the 23 counties specified a copy of the Provincial order, reminding them that, under the provisions of Sec. 14 of the Public Health Act, it was the duty of the local Boards of Health to superintend and see to the execution of any regulations made by the Provincial Board. The attention of all municipal councils and Boards of Health, and police commissioners in cities of 100,000 or more, was directed to the provisions of Sec. 540 of the Consolidated Municipal Act, which empowered them to pass by-laws and to make regulations as to dogs and the killing of the same. The hearty support and co-operation of all municipalities was confidently bespoken. Thus, we had a joint Federal and Provincial order, not any too popular among dog-owners, left to municipal execution.

However, thanks to the alarm of many outbreaks and a horrible human death by rabies, the machinery of the law, after being rather tardily and irregularly started into action, worked fairly well for a time, and a marked diminution in the cases of rabies—and, incidentally, in the number of dogs—was soon noticeable. As alarm subsided, the municipal authorities became lax, while dog-owners, many of whom were never any too punctilious about observing the order, became increasingly neglectful. In many cases the rural telephone was used to warn a whole neighborhood of the approach of the dog-catcher in his automobile, so that muzzles which had been hanging

around unused would be quickly brought into requisition, until the danger (of being fined) had passed, when Fido would again be allowed the liberty of his jaws. The Provincial Board of Health, when it would hear of municipalities that were not enforcing the regulations as required, would continually communicate with them urging compliance. Other than this, we have heard of no pressure brought to bear to insure the thorough enforcement of the order, which in many localities has practically become a dead letter. Indeed, in the City of London, a police magistrate refused to impose a fine, on the ground that the owners of the dogs had been misled by the public prints to think the order had expired. Subsequently, the City Council, in its omniscience, repealed the by-law.

Had the muzzling order been properly and effectively enforced throughout the whole of the affected area, Dr. Rutherford, the efficient Dominion Veterinary Director-General, declares that the disease would long ago have completely disappeared. As matters stand, an occasional case is from time to time reported, and it would almost appear as if the Dominion Department would be obliged to amend its policy somewhat, and pass local muzzling orders, trusting to the intelligence and common sense of the communities interested to assist in their proper enforcement.

It must, of course, be distinctly understood that it is the Dominion Department of Agriculture that is enforcing the order prohibiting the removal of dogs from the infected area, a number of persons having been heavily fined for infractions of this regulation.

How to Improve Rural Education.

Before the Royal Commission on Industrial Training and Technical Education we told an experience which we think illustrates well the manner in which rural education could be advantageously related to agriculture.

Visiting, not long since, at the homes of a couple of middle-aged farmers who have been trying alfalfa, one of the editors of "The Farmer's Advocate," walking across the new-seeded meadow in company with the two men and their three sons, age four, six and nine years, respectively, asked for a spade, and began digging down to examine the roots, which were found rather plentifully supplied with nodules. Not altogether to his surprise, it proved that neither of the two men had ever seen the nodules before, although they had been reading agricultural journals to some extent, and one of them had acted upon a friend's suggestion to inoculate some of his seed with nitro-culture. Neither had they ever seen the nodules on clover roots, though all that anyone need do to find them is to take up a clover root carefully, so as to avoid stripping them off. Of course, the journalist explained how, within these little nodules, varying in size from a pin-head to a pea, dwell the microscopic bacteria which take up from the air, circulating through the soil, the gas called nitrogen, and, after using it in their own life processes, pass it on to the plants, to be built up in their tissues; and how that in this way the clovers, alfalfa, peas and other legumes capture from the atmosphere many dollars' worth per acre of this nitrogen, which, if purchased in the form of commercial fertilizers, would cost 16 to 18 cents a pound. No doubt they had read this before, but, not seeing the nodules, it had not become a vivid reality to them.

Then we dug down to see how deep the roots had penetrated, and, after excavating quite a large hole, were content to cut the taproot off at 21 inches below the surface. Both men were

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

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astonished. Probably they had read about the
length of alfalfa roots, but, again, it was not a
reality. When, however, one digs up a root,
every inch being harder to dig than the one
above it, the impression of depth becomes very
graphic and lasting. "I'm going to subsoil my
whole farm with alfalfa roots," said one. It is
safe to say both men will make larger and more
intelligent use of legumes than they have ever
done before.

Best of all, the boys shared their father's in-
terest. The young "codgers" were all eyes and
ears. Picking around in the earth, they discovered
the nodules almost more quickly and eagerly
than their elders. "Well," said one of the
fathers to his elder son, "you know more about
alfalfa roots now than I ever did." And there
was no doubt he spoke truly. Those boys have
received an impression they will never forget.
Legumes, as nitrogen gatherers, will no longer
be an abstract idea to them. They have seen
for themselves. It will not take them half a
lifetime to appreciate the value of alfalfa and
clover.

Now, that is the kind of thing that should
be taught and illustrated in our public schools,
not as a separate subject, but woven into the
warp and woof of the curriculum. The value of
the soil mulch in conserving moisture, how seeds
germinate, the composition of milk, and any
number of other important practical points can
be most interestingly explained and illustrated
before the child's mind. Our school-teaching has
been too abstract for maximum efficiency from a
pedagogical standpoint. There is nothing like
actualities, and especially living things, to in-
terest a child. Let the juvenile mind study, for
instance, the germinating seed, and, as the em-
bryo plant unfolds, the child's mind will unfold
with it in the most natural way. Thus shall we
educate our youth along lines that will be con-
tinued into old age, conducing not only to edu-
cational efficiency, but to the training of an alert,
informed, masterful people, who will raise the
plane of agriculture, the plane of industry, and
the plane of character and citizenship.

A Study of Corn.

Mrs. Anna E. McGovern, of Cedar Falls, Iowa,
in a late issue of the Journal of Education, has
given an illustrative lesson on corn, intended for
use in schools where there is more or less teach-
ing of the elements of agriculture. Some of the
questions may possibly set the older folks to
thinking, also. At all events, they indicate how
fruitful of suggestion the study of some common
plants may be made:

1. What kind of roots has the corn?
2. How far do the roots extend into the ground?
3. Study the brace-roots found an inch or more above the ground. Of what use are these to the plant?
4. What is the work of the roots?
5. What is the height of the corn plant?
6. How many joints on a stalk?
7. Are the joints the same distance apart throughout the entire length of the stalk?
8. Does the stalk break more easily at or between the joints?
9. What is the work of the stalk?
10. Have you any reason for thinking that the corn belongs to the grass family?
11. Where do the bases of the leaves clasp the stalk?
12. How does this arrangement benefit the corn stalk?
13. Find the growth (rain guard) at the base of the leaf that prevents the rain from flowing down between the stalk and the clasping leaf. If water should get in between the leaf and the stem, how might it injure the plant?
14. What is the work of the leaf?
15. What kind of flowers has the corn plant?
16. What would be the result if the tassels were cut off as soon as they were formed?
17. Is there a thread of silk for each kernel?
18. How are the ears arranged on the stalk?
19. What is the difference between the outer and the inner husk?
20. What birds frequent cornfields?
21. How long does it take corn to mature?
22. What are the enemies of the corn plant?
23. Why are pumpkins not planted in corn fields as commonly as they were in former times?

School Corn Fairs in Kent.

THE CHATHAM TOWNSHIP CORN FAIR.
Editor "The Farmer's Advocate":

One of the ways the Ontario Corn-growers' Association are taking to arouse farmers in Ontario to the importance of the corn crop and the chance for the improvement of the same, is the School Township Corn Fair. The idea is by offering prizes to the school children for different varieties of corn, to get the parents interested. When the children come home from school and tell about the prizes they can win by exhibiting corn at the fair, the father and older brothers get interested, and in most cases it is their selection of corn that goes to the fair to be judged. Farmers who would hesitate a long while to show corn at the Ontario Corn-growers' Exhibition, would not hesitate to let their corn be shown by their children.

I believe that the idea of giving prizes for a type of corn which the Corn-growers' Association approve of to be the very best way in which to improve the crop on the whole. It will not only improve the crop of those who have shown corn in competition and won a prize, or those who have shown corn and failed, but have, by so doing, gained better knowledge of what a good ear of corn should be like, but it will also improve the crop of these contestants' neighbors; for what farmer would be satisfied to grow year after year a strain of corn inferior to that of his neighbor?

The work that the Corn-growers' Association are doing in Ontario, especially in Kent and Essex, is filling a want that has been for years neglected. The corn crop in Ontario for years had been planted and cultivated in a more or less indifferent manner, farmers in most cases going to the crib in the spring of the year to select seed, in some cases doing it with a scoop-shovel. To-day, in certain localities, certain individuals are producing a strain of corn which would compare favorably with anything produced in the corn belt in the United States. This is a direct result of the work which the Corn-growers' Association are doing.

Last year there were two School Corn Fairs held in Kent, one at S. S. No. 5, Raleigh, and the other at S. S. No. 2, Chatham. They were held as sort of experiments, and passed the expectations of the Association, with the result that this year they are being held in each township in Kent and Essex. The fair in Chatham Township was held in the township hall. It was organized some three weeks before it was held. A president, a secretary-treasurer and a board of directors were elected. Money was freely subscribed to meet expenses. The fair was held October 29th, and, considering the kind of weather, there was a remarkably large crowd of

people present. A programme of sports was run off while the corn was being judged. The judges for the corn were J. O. Duke, President Corn-growers' Association, and A. McKenny, B. S. A., Secretary Corn-growers' Association. The first prize for best five ears Yellow Dent was won by Gordon Cummings, S. S. No. 6, North. First prize for best five ears White Dent was won by Gertrude Lamb, S. S. No. 6. Best five ears 12-rowed Flint—1, Jean Stark, S. S. No. 6, South. Best five ears 8-rowed Flint—1, S. S. Shaw, S. S. No. 8. Best five ears, any variety—1, T. J. Shaw, S. S. No. 8.

In the evening, an open corn discussion was held. Mr. McKenny and Mr. Duke gave some very valuable suggestions in connection with seed-corn selection. R. H. ABRAHAM,
Kent Co., Ont.

HORSES

Progeny is supposed to represent the proto-type of ancestors. An ill-proportioned horse reflects the attributes of progenitors.

Temperament has a commercial value in the horse-breeding industry. Farmers should breed for reliable dispositions, as well as soundness and symmetrical conformation, if they expect to realize top market prices for their horses.

Sires should be perfect in qualities in which dams are deficient. If the mare is undersized, she should be stunted to a sire that possesses representative or average size of his class. Two undersized animals mated are almost certain to produce undersized progeny.

There is just one way of being even tolerably sure of raising sound colts, and that is by using sound sires and sound dams. Saving five or ten dollars on the service fee by patronizing an inferior or unsound stallion, makes most other forms of horse-breeding follies look like the proverbs of Solomon.

Soundness should always be insisted on in purchasing a horse. One can usually buy an unsound horse much more cheaply than a sound one, but such practice is often poor economy. The horse that is sound is ready for a full day's work every day; the unsound horse seldom, if ever, can do his full quota, and is a source of discomfort and annoyance to his driver.

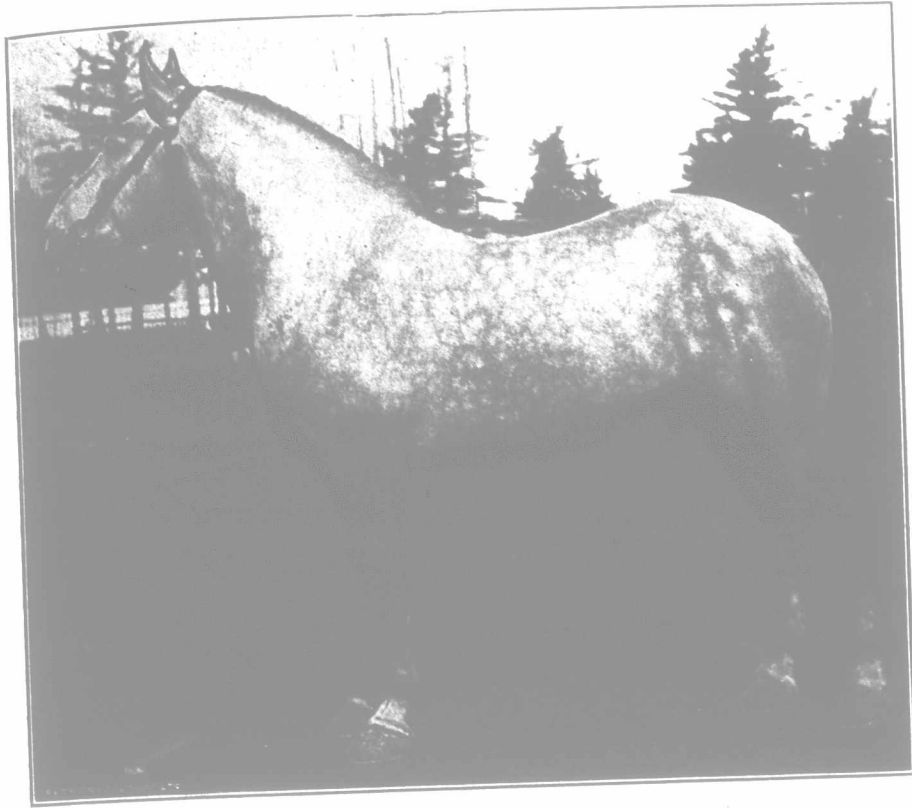
The breeder should not anticipate miracles in the laws of breeding, but rather anticipate their ordinary operation along the lines that "like produces like." When fillies attain the age to be relegated to the stud, the farmer should carefully weed out such as possess any marked imperfections, and breed only such fillies as show superior attributes of soundness and conformation.

Horses sleep but little—usually three to four hours in the twenty-four. Consequently, whatever can be, should be done to make them comfortable. Narrow stalls, insufficient bedding, stiffened joints on arising, all discourage the horse from lying down as much as he should, and some from lying down at all. These conditions should be remedied. Stalls should be wide and well bedded.

The care of the legs is really of more importance than the care of the body. They are subjected to severe concussion and strain, often covered with mud, and in the winter, ice, or soaked with water all day. These conditions are bound to injure the legs in time. While, in regard to the body, the use of a blanket largely displaces grooming, with the legs nothing can dispense with that care.

Danger of injury to the limbs, as well as discomfort, result from allowing a horse to remain all night with damp legs, covered with mud, in drafty stables. Wherever straw is used for bedding, one of the very best possible materials is at hand for cleaning and invigorating the legs. A willing groom, with a wisp of clean straw in each hand, is all that is necessary for putting the legs in excellent condition after a day's work in the mud and wet. A wisp of coarse pea straw, twisted, is even more effective in cleaning the legs than the straw of wheat or rye.

The mare in foal should never be overworked or fatigued, particularly under saddle or on uneven ground, or put to unsuitable work. Exercise throughout the whole period of gestation is beneficial—in fact, necessary—to both mother and offspring, and unless moderate work of a suitable character can be provided, concerning which there is rarely any difficulty with the heavy breeds on



Cadet [1600] (66914).

Percheron stallion. Winner of first prize, and championship as best stallion any age, at Western Fair, London, 1910. Owned and exhibited by R. Hamilton & Son, Simcoe, Ont. Sold to Ed. Blayney, Ed. Meredith and Clayton Hunter, Lynville, Ont.

concentrates, or grain part of the ration, should at once be reduced by one-third, and the normal allowance should not again be given until the work is resumed. Carriage horses are usually overfed, because of the desire of the owner to keep them in the pink of condition. This overfeeding and irregular exercise is the cause of most of the ills of the driving horse. Oats leads easily among the grains. When it is fed, the horse exhibits mettle as from no other food. If at any time the animal should seem constipated, a bran mash should be given. While a certain amount of roughness must be fed to give bulk or volume to the ration, in order that the digestive functions may be properly maintained, yet we must remember that a large abdomen cannot be tolerated in a carriage horse. Another factor that the feeder of this class of horses must ever be on his guard against is the feeding of laxative foods, such as clover or alfalfa hay or bran, in too large quantities, for, when the horses are put on the road and warmed up, they will prove very draining on the system, as well as disagreeable to the driver. Style and action are prerequisites, while economy in feeding standards, and oftentimes the health of the animal, are held but secondary."

Very strong, well-muscled quarters; croup short and very level; a short, strong back, full heart-girth; good body, being close-ribbed; an oblique, well-muscled shoulder, with an exceptionally strong forearm—all follow very closely the Hackney lines. A head with strong, characteristic jaws; a full, active eye, surmounted by two typically-set ears, is carried sufficiently high on a strong, well-muscled neck to indicate that an overcheck would be out of the question." The horse is named Findon Grey Shales (H. S. B., Vol. 28). Sire, Walpole Shales 7193, dam Mirabell, by Cadet 6483, by Cook's Cadet, sold for 3,000 gs.

The Horse's Feet.

While few capable judges become so imbued with the importance of good feet on a draft horse that they disregard the many other vitally important points, yet none can disregard the feet and expect to be called capable horsemen. Condition conceals a multitude of grievous defects in many horses, but the feet and legs, though subject to temporary corrections by shrewd practitioners, admit of much less "doctoring" than do the other parts of the animal. They stand out clearly defined, uncovered by fat or other fixing, representing the naked truth about themselves. It is, therefore, really easier for a man to observe accurately, and, consequently, to judge of the feet and legs of a horse than it is of the body, wind or constitution. Yet, one commonly sees breeders, in looking over a horse, studying the body, neck, chest and rump, perhaps observing the feet and legs, but not feeling as competent to form an opinion concerning them as of those other points. Shape, size, quality and placement are the four chief factors whose standards are used in examining the feet. While these terms have a similar significance for both light and heavy horses, they are found to vary greatly in all these factors, but, since draft horses are of widest distribution, ideal feet for them will be considered here.

The horn of the wall, sole and frog should be thick, hard and tough, so as to resist in an efficient manner the effects of impact and wear. When the horn of the wall and sole is weak, it cannot support the weight, and the foot will have a tendency to become flat. The horn should be dense and elastic in its structure, being ebony-like. It is noticeable that the density, strength and shape of the foot is affected by moisture conditions; horses that are reared in dry latitudes invariably have the denser, tougher, stronger hoofs.

The feet should be of good size, and open at the hoof-heads. Viewed from the side, the wall of the front feet should form an angle of about 45 degrees with the ground, while the hind foot is somewhat steeper, and should form an angle of about 55 degrees. The surface should be free from wrinkles, ridges or cracks. Most horses' feet will show slight concentric rings, but these should never be marked or uneven. The depths of the wall at the heel, side and toe should be as 1, 2 and 3 in relation to each

the farm, the mare should run out to grass, so that she gets sufficient exercise in searching for food. The difficulty is in finding suitable occupation for lighter mares. It is not desirable that they should carry a saddle, be trotted on hard roads, or do any work causing fatigue on account of either pace or distance.

Horse Improvement.

Editor "The Farmer's Advocate":

Much improvement of late has been marked in the breeding and development of the Orloffs, by reason of the encouragement given them by the Government of that country, who have inaugurated a policy which has proved very efficacious in the improvement of the breed, and which the breeders of that country have availed themselves of to a very large extent.

Government aid goes hand in hand with such conditions that no unsound animal is permitted to be bred, and carries with it a severe penalty in the case of any violation of the same. All owners of stallions of this breed are required to take out a license, which can only be obtained by a proper examination by competent veterinarians, who issue the required certificate, before the owner can put the animal to stud service.

This I consider a very wise law, as it promotes among breeders a strong desire to have only sound animals. It marks a strong contrast with the breeders of this country, who are permitted much latitude in using animals for breeding purposes, irrespective of soundness, which is the means of filling the country with a lot of useless cripples.

The passing of some such law should be advocated in this country, and many advantages in the breeding of animals of all classes of breeds would invariably be the result. I. M. Halifax Co., N. S.

Feeding the Driver.

There is more general knowledge about feeding the draft horse amongst farmers than there is concerning the proper method of feeding a driver. Bulletin 48 of the Cornell Reading Course discusses this subject in the subjoined paragraphs. One suggestion given, that of reducing the feed when a horse is to be idle, may be a little difficult to reconcile in some instances with the warning good horsemen offer against giving an idle horse extra feed the day he is taken out for a hard drive. How to feed the irregularly-driven roadster is, indeed, a problem requiring judgment, and sometimes compromise.

The driving or carriage horse is more difficult to keep in condition than the work horse. The periods of enforced idleness occasioned by lack of business engagements of his master or by inclement weather, are often followed by long drives and hours of over-exertion. This irregular work weakens the constitution of the driving horse, which generally has but a brief career. When daily driving cannot be practiced, under-feeding is considered the safe course.

In feeding this class of horses, the same general plan that has been suggested for the work horse should be followed. When the horse is not taken from the stable during the day, the con-

Breed-study Contest.

Twelve opinions have been received concerning the breed of the gray horse illustrated on page 1699 of "The Farmer's Advocate" of October 27th. Five classed him as an Arab or an Arabian, two as a Standard-bred, two as a Coach horse, one as a Thoroughbred, and only two as a Hackney, which, in fact, he is. The prize has been awarded to S. D. Harding, Ontario Agricultural College, Guelph, whose reasons given are as follows:

"In examining the illustration in the Breed-study Contest of your paper dated October 27th, 1910, I concluded that it must be a representative of the Hackney breed. A gray Hackney, as far as the breed is known in America, is not often, if ever, seen; but in some parts of England it is to be seen, and, at the "Gray Stud," Findon, Sussex, a fully registered stud of nothing but gray Hackneys and Arabs may be viewed. To substantiate my conclusions, although we have a horse represented with a long tail, and not shown to the same advantage as we are in the habit of seeing the Hackney in our show-rings, yet he shows more of that general type than of any other breed that I know of, in general appearance, a horse showing good quality, with a stronger, heavier conformation than you would look for in the Arab, Thoroughbred, Standard-bred, or the American saddle, and yet not sufficiently heavy and high enough to class with the Cleveland Bays, French or German Coach horse.

His good bone and exceptionally strong joints, namely, the hock and knee, with fairly short cannons, are all very typical of the breed.



Breed-study Contest.

What breed is this horse? For the best answer to this question, giving reasons, to be in our office by November 26th, a one-dollar book prize will be awarded. Same conditions as before.

other. The heels should be wide, and of good depth. In draft horses, too frequently, shallowness at the heels is characteristic.

The front foot should be almost circular in shape, but the hind foot is narrow, and longer from front to rear. The hind foot is also deeper at the heel, and less open at the hoof-head, being adapted for propulsion, while the front foot must withstand much concussion. The sole should be slightly concave, the frog large, healthy and elastic, free from a deep cleft, and the bars should be strong. Feet that are small, brittle, flat in

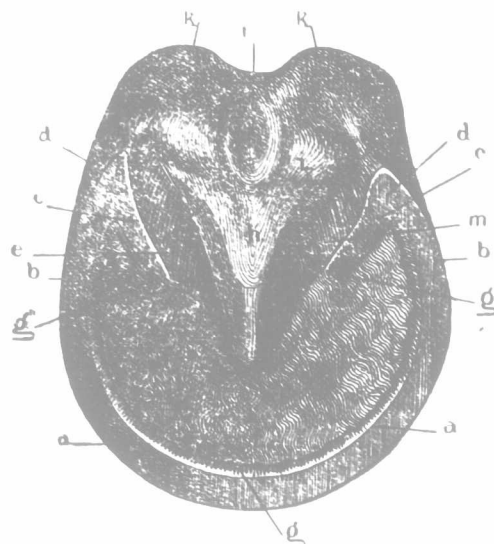


Fig. 1.—Ground surface of a right fore hoof of the regular form: a-a, wall; a-a, the toe; a-b, the side walls; b-d, the quarters; c-c, the bars; d-d, the buttresses; e, lateral cleft of the frog; f, body of the sole; g-g', leafy layer (white line) of the toe and bars; h, body of the frog; i, i, branches of the frog; k, k, horny bulbs of the heels; l, middle cleft of the frog.

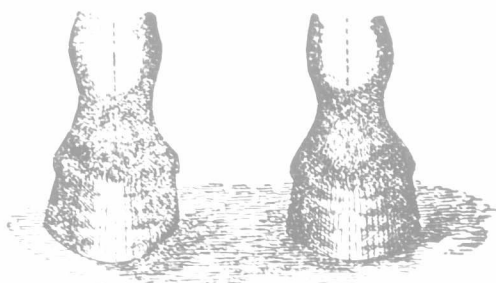


Fig. 2.—Pair of fore feet of regular form in regular standing position.

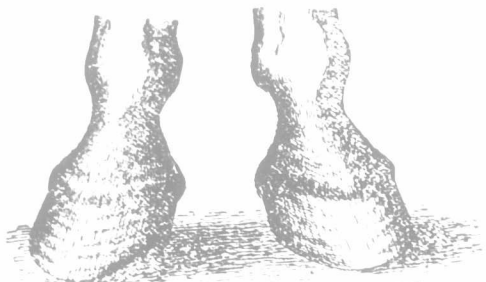


Fig. 3.—Pair of fore feet of base-wide form in toe-wide standing position.

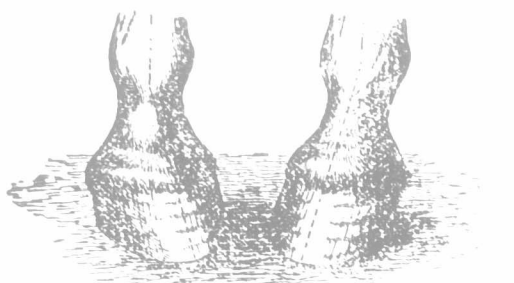


Fig. 4.—Pair of fore feet of base-narrow form in toe-narrow standing position.



Fig. 5.—a, side view of an acute-angled fore foot (shod); b, side view of a regular fore foot, showing the most desirable degree of obliquity (45°); c, side view of a stumpy or "upright" fore foot, obliquity above 50°. In a, b, c, note particularly the relation between the length of the shoe and the overhanging of the heels. Note also the toe roll of the shoes.

sole, shallow of heel, spongy and weak, are always to be avoided.

The placement of the feet in relation to the axis of the leg is never a negligible factor. That plane which divides the normally-set leg into interior and exterior halves, also similarly divides the foot. The deviations from this give "toe-wide" when more than one-half the foot falls outside of the dividing plane, and "toe-narrow" when more than one-half the foot falls on the inside of this dividing plane. A horse that stands toe-narrow throws his feet outwards when travelling, while one that is toe-wide brings them inwards, thus having a tendency to interfere if he is otherwise normal. Irregularities in the placement of the legs may accentuate the evils of these irregularly-placed feet. Thus, a horse may be closer than usual at the fetlocks, and still be toe-wide; such a horse is predestined to interfere badly.

The executive officers of the States that have laws governing the licensing of stallions have formed an organization named the National Association of Stallion Registration Boards, with the object of unifying the laws of the various States, urging more careful supervision of horse registry associations, and encouraging the more general use of pure-bred, sound stallions by the farmers of the country.

LIVE STOCK.

The quickly-matured sheep makes the choicest mutton.

Improve your flock systematically. Careful selection and proper handling will produce a higher standard for wool and mutton.

A nice round body, pink skin, with a clean face, clear, bright wool, and sportive disposition, are good indications that the lambs are doing well.

Breed only to first-class rams, and remember that, while a sheep may be of the purest blood, its form and fleece may be so deficient as to render it unfit for breeding purposes.

Judging Pavilion Needed.

The Canadian National Exhibition stands in a class by itself amongst all the fairs held on the American continent. It has not the reputation of the Chicago International, yet in its scope is more varied than that show, covering, as it does, all breeds and classes of stock. It is larger, of longer duration and more widely representative than are the State Fairs of the adjacent Republic. Thus, the Toronto Exhibition stands by itself.

There is another respect in which the Toronto Exhibition is practically in a class by itself amongst the large fairs, and that is in its failure to make adequate provision for the judging of live stock. The Illinois State Fair executive have built an amphitheatre 225 x 325 feet, with a tanbark oval in the center, and a seating capacity of 7,000, all under one roof, for \$65,000. This makes the judging possible, and more comfortable, in all kinds of weather, and gives the people a chance to see both cattle and horses at the same time, and be comfortable while doing so. For sheep and swine there is a smaller pavilion. The attendance at this fair in 1909 was about 330,000. Admissions in the day time were 50 cents for adults, and at night 25 cents.

Wisconsin has provided a similar pavilion for the judging of cattle and horses, and for the seating of the interested people.

Minnesota has an amphitheatre 350 x 250 feet, costing \$110,000, built of brick, with cement finish, and a tile roof. This pavilion has a seating capacity of 7,500. The arena is 270 x 120 feet, and allows for the judging of cattle and horses at the same time. With two large cities to draw from, the attendance at Minnesota Fair this year was about 330,000, and the admission is, as above, 50 cents and 25 cents.

The Iowa State Fair in 1902 built a pavilion 225 x 275 feet, with an arena 120 x 175 feet, and a seating capacity of 2,200, for \$45,000. Horses and cattle are judged in this pavilion, the morning being devoted to horses, and the afternoon to cattle. They have also steel-and-concrete hog pens, with accommodation for nearly 1,000 hogs, and a pavilion in which to judge them, furnished with ample seating. The attendance at this fair in 1910 was 235,000, with a 50 and 25 cent gate.

The Toronto Fair had in round numbers 800,000 attendants in 1910, paying a 25-cent admission; thus, her receipts should exceed those of any of the above State fairs. Yet Toronto provides an open-air ring for the judging of both horses and cattle, surrounded by a picket fence, whereon farmers who have come to see and learn

something about horses and cattle may hang themselves, if they come early enough to get next the fence. It is true that seats are provided for probably seven or eight hundred, but the seating provided is scarce a beginning of what is needed, and they are roofed with canvas that may exclude the sun, but is scarcely rain-proof. Moreover, the glaring sun is uncomfortable for both stock and onlookers, while, when it rains, the show must stop.

The structure of the Art Building, and the proposed extensions thereto for next year, we appreciate, but there are a vast number of live-stock artists who bring their works to the Fair year after year, with no adequate opportunity to display the results of their skill; and there are thousands of persons interested in their work who come to the fair to watch the judging of them, but have small opportunity to do so.

Some time ago, \$110,000 was voted by the directors for the erection of a live-stock judging pavilion at the Toronto Fair, but, for various reasons, it has not been expedient to execute the plans. The management again committed themselves to this plan during the recent exhibition, while the stockmen again urgently expressed their wishes in the matter.

The interests of these live-stock producers—artists, if you choose—and the farmer-students who come to see and learn, but fail for the lack of a decent opportunity, we commend to the executive of the Toronto Exhibition. On behalf of the exhibitors, the attending farmers, the Toronto Fair, and Ontario live-stock and agricultural interests, let us hope these plans may soon be acted upon.

Contagious Abortion in Cows.

A committee of seven prominent men, including four eminent veterinarians, appointed by the president of the Board of Agriculture of Great Britain to inquire, by means of experimental investigation and otherwise, into the pathology and etiology of epizootic or contagious abortion in cattle and other stock, and to consider whether any, and, if any, what preventive and remedial measures may, with advantage, be adopted with respect to that disease, has published its first report. For the purpose of intimately studying the disease, it was necessary to start it and pass it from animal to animal in the laboratory. Unfortunately—from the farmer's point of view, at least—there was no dearth of material, and the Committee were able, without going far afield, to purchase animals in which the act of abortion was imminent, from herds in which they considered epizootic abortion had prevailed for some time.

A detailed description of the animals purchased, and found by post-mortem examination to be diseased, is given in the report, which is too lengthy to be reproduced here. Through the sympathetic co-operation of the Board's Honorary Agricultural Correspondents, the Committee were put in touch with a large number of farmers in whose herds the disease prevailed, many of whom undertook, at the Committee's request, to forward material in the form of aborted fetuses, foetal membranes from aborting cows, and cotton-wool swabs containing the discharges from aborting animals. Post-mortem descriptions of cows obtained from infected herds in the field, and those experimentally infected at the laboratory, are given in detail, in which it is seen that the appearances in both classes of animals were identical. The method of examination adopted was to open the abdomen of the animal immediately after slaughter, ligature the neck of the uterus, cut the organ out, and take it to the laboratory for minute examination. In no case were lesions that could be connected with abortion found in any other organ than the uterus. A description typical of a cow's uterus when affected, and of the microbe of cattle abortion, is given in the report.

From the report we quote: "Affected in-calf cows may be introduced into a clean herd, and be the means of establishing fresh centers when they abort; this is one of the most insidious ways in which abortion may be spread, for it is impossible for the ordinary individual to say whether a pregnant animal is affected or not. Cows which have aborted must be considered sources of infection as long as the discharge continues to come from the genital organs, and it may continue intermittently for a few weeks if the animal be not treated. Such animals, if not isolated, may continue to infect the stables or the pasture when turned out to grass."

Coming to the natural methods of infection, there are two ways in which the virulent material may gain access to the pregnant uterus, viz., by the vagina, and by the mouth. A table in the report shows that, by introducing virulent material per vaginam, five positive and three negative results were obtained. Another table shows that, by ingestion (by the mouth), three negative results were obtained against one negative.

We do not think it would be warrantable, on this comparatively small number of experi-



Provision for Stock Judging at Some Leading American State Fairs.

Upper view: Live-stock judging pavilion at the Wisconsin Fair. Center view: The Coliseum, Illinois State Fair. Lower view: Live-stock Pavilion at the Iowa State Fair.

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ments alone, to conclude that infection is more likely to follow when virulent material is swallowed than when it is introduced by the vagina. With regard to infection by the mouth, however, it is a natural method of infection which until recently did not enter into anybody's calculations regarding the spread of abortion, and, knowing, as we do, that the food, including the pastures, and even the feeding trough, may more or less easily be contaminated on an infected establishment, it seems highly probable that infection by ingestion often takes place. In fact, we are inclined to believe that the disease is more frequently contracted in this way than in any other. Presumably, the bacilli are absorbed from the intestine, and gain the blood stream, whereby they reach the uterus. In the case of a ewe, the microbe of cattle abortion was found in the cotyledons six days after infection by the mouth.

"Infection by the vagina has always been supposed to be the most frequent natural method partly because it is thought that the gutter, which in most cowsheds runs behind cows standing in line, often bring the discharges from an aborting cow in contact with the tails and external genital organs of her companions. In considering the relative importance of infection resulting from the more or less accidental admission of infected material from the floor or dirt of the cowshed, it must be borne in mind that even when discharges from an infected cow do reach the floor or become mixed with the excreta in the channel behind the cows, the chances must usually be against the bacilli gaining entrance to the genital passages, and that the number of bacilli which could be so admitted to the vulva or vagina under ordinary conditions must generally be small.

"In the experimental attempts to infect with natural virus by way of the vagina, three were followed by positive results, and three by negative, in spite of the fact that the material was deposited in enormous quantity right on and around the os uteri by means of a long tube.

INFECTION BY AGENCY OF THE BULL.

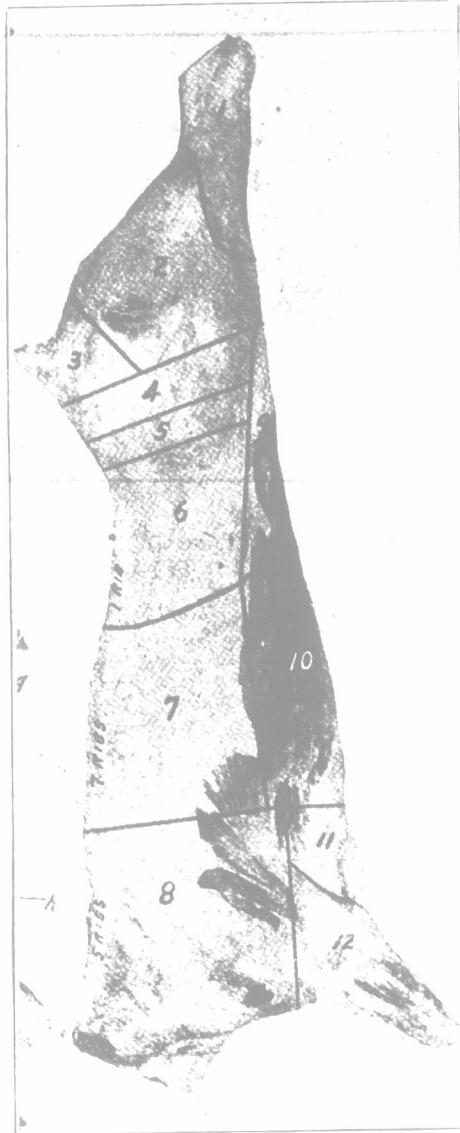
"This must be viewed as a special form of infection per vaginam, since it is supposed that the bull, by means of his penis, transfers the bacilli from the vagina of one cow to that of another. There are a priori reasons which compel one to admit that such an occurrence is possible, and there is a certain amount of circumstantial evidence to show that, in particular cases in actual practice, the disease has been spread in that way. We have scarcely been able to approach this question from the experimental side, and for the following reasons: It is obvious that, in order to test the ability of a bull to transmit the disease, each experiment must be planned so that a diseased cow, with her genital passages still infected, and a healthy cow, shall be served in succession, and with only a short interval, by the same bull. But, owing to the moderate number of diseased and healthy animals at our disposal, we never had available for experiment a recently-aborted cow and a healthy heifer which were both in oestrus on the same day. In one experiment of this kind, an interval of thirteen days elapsed between the service of the cow which had aborted and that of the healthy heifer; the result was negative, but little importance can be attached to the fact (1) because the interval between the services was too long, and (2) because a single experiment with a negative result carries very little weight. It has to be observed that, with the discovery that infection can readily be brought about by ingestion of virulent material, most of the circumstantial evidence which seemed to establish the bull as a factor of the first importance, admits of another and more probable interpretation. For example, it was held that, when heifers which had never been in the infected byres aborted at pasture, they must have been infected by the bull, but in such case we are now in a position to say that, if recently-aborted cows have grazed on the pastures, the heifers may have been infected by swallowing grass or water contaminated by the discharge from the genitals of the former, or that virulent material may have been conveyed on artificial foodstuffs from the buildings. Without denying that the disease may sometimes be spread by coition, we think that nothing more than a quite subsidiary role in the spread of epizootic abortion can now be assigned to the bull.

CURATIVE MEASURES.

"On account of a somewhat prevalent idea that carbolic acid given internally will cure animals affected with abortion, or prevent the infection of healthy, pregnant animals, it was considered advisable to put this alleged remedy to an experimental test. A heifer was infected with virulent material 43 days after becoming pregnant, and 30 days after infection she received every other day two drachms of carbolic acid in a mash, by the mouth, alternated every fortnight by subcutaneous injections of one drachm in glycerine and water, given every other day. This treatment was continued for ten weeks. She aborted 102 days after infection, and in the

tenth week of treatment; abortion bacilli were found in the discharges. From the first, it seemed unlikely that carbolic acid, or any other disinfectant, administered even in a poisonous dose, would be absorbed and reach the uterus in a sufficiently concentrated form to have any action on its bacterial contents. There are many farmers who have had no success whatever in the field with the carbolic-acid treatment for abortion, and the evidence on which the alleged successes are based will hardly stand analysis. In the first place, the animals put under the treatment are not known to be infected, and yet every one which does not abort is regarded as cured by the advocates of the method. In the second place, the treatment is usually adopted towards the end of an outbreak; that is to say, at a time when abortion is practically confined to a proportion of the animals recently brought into the herd, and the reduction in the number of cases is attributed to the alleged remedy, whereas it is more open to a totally different explanation, viz., that, after the third year, the disease practically confines itself to some of the new animals brought in, with the result that, since these form only a small proportion of the whole, the opportunities for infection are greatly diminished.

"The usual history of an outbreak of abortion is that for the first two or even three years it claims many victims in the original herd, and after this one gets only a few odd cases a year, unless many new animals have been introduced. This is owing to cows becoming immune, as a rule, after two, or, at most, three abortions."



- | | |
|--------------------|---------------------|
| 1. Hind shank. | 7. Rib. |
| 2. Round. | 8. Chuck. |
| 3. Rump. | 9. Flank. |
| 4 and 5. Loin end. | 10 and 11. Brisket. |
| 6. Pin-bone loin. | 12. Shank. |

Note: In Canada, No. 6 is known as the short loin.

PREVENTION AND ERADICATION.

The methods which have been relied upon in the past for the prevention of abortion and its eradication from a herd, are disposed of by the report, briefly, as follows.

"1. Spraying the external genital organs. We think that this method is useless, so long as the animals remain in an infected byre, and that it may be discarded. Immediately before removing an animal from infected to clean premises, however, we think it would be advisable to thoroughly wash the posterior portions of its body with a disinfectant solution, such as corrosive sublimate, 1 in 2,000, or carbolic acid, 3 per cent.

"2. Isolation of animals as soon as they show signs of abortion. Isolation of the infected animals must be complete before and after the act to be of any real value.

"3. Internal administration of carbolic acid

As a preventive agent, by internal administration, we believe carbolic acid to be useless.

"4. Irrigation of the genital passages after abortion. Almost immediately after abortion and expulsion of the membranes, the uterus contracts, and its internal surfaces come into apposition. Its condition is such that it would not be possible to force fluid into it with a pump from the vagina.

"5. The keeping of a special bull for cows which have aborted. We think there is something to be said in favor of this, and, when this is not possible, of disinfecting the external genital organ of the bull after he has served such cows."

The committee do not consider this, their first report, by any means exhaustive of the subject, as their experiments so far have been but partial, and the work will be continued on a more extensive scale, with the hope of making additional discoveries.

Beef Cuts.

The regular cuts of meat as handled in most markets are: Loins, ribs, rounds, chucks, flanks, shanks and briskets or plates. Just where these cuts are taken from in the carcass of beef is readily seen from the accompanying illustration. The loin is separated from the round at the hip joint; the flank is cut from about the middle of the thirteenth rib to the opposite lower corner of the loin. The shank is sawed off just below the second knuckle (or shoulder joint); the brisket is cut off on a line extending from the middle of the twelfth rib, through the point at which the shank is removed; the rib and chuck are separated between the fifth and sixth ribs.

These cuts are graded into No. 1, No. 2 and No. 3, according to the thickness, covering, quality and weight. Cuts that are too deficient in thickness and quality to be used in the retail trade, are made into boneless cuts, barreled beef, sausage, and such products. Thickness of lean flesh is of prime importance. Lean beef has a much higher market value than fat or bone. The depth of the flesh usually indicates the source of the beef, and affects the general appearance and shape of the cut. Covering or depth of fat is most essential in the more valuable cuts. The highest quality of lean can be secured only at the expense of a liberal amount of fat. Those who usually buy round or chuck steaks expect little fat, but those buying loin steaks expect a liberal amount. In second-class retail markets it is not uncommon to see ribs and loins, as well as the cheaper cuts, devoid of fat. Quality refers to the grain and firmness of the lean, the marbling (i. e., the distribution of the fat through the lean), and the proportion of bone and other waste in the cut. The grain of meat consists in its fineness of fibre and the smooth, velvety appearance of the cut surface, as opposed to stringiness or coarseness. Firmness indicates maturity, in contradistinction to the waxy appearance of immaturity. The proper distribution of fat through the lean greatly affects the tenderness, juiciness and flavor. In color, the fresh-cut surface of lean meat should be a rich bright-red, and should turn brighter, rather than darker, after exposure to the air at cool temperatures. Exposure in a warm atmosphere will produce a dark color on the surface of even the best beef. A very pale or pink tinge indicates immaturity. The fat should be clear white; in the lower grades it varies from white to yellow.

These cuts grade in price in the following order: Loins, ribs, rounds, chucks, briskets, flanks, shanks, and suet, the loin being the highest-priced cut.

Several different cuts of the loin are used extensively. The regular short loin is the portion between the thirteenth rib and the hip-bone, and contains from 45 to 55 per cent. of the full loin. It contains porterhouse or T-bone and club steaks. The remainder of the full loin is called the loin end, and is used for sirloin steaks. The tenderloin is a long muscle lying between the kidney fat and the backbone, extending from the thirteenth rib to the butt end of the loin. The tenderloins required to supply the trade are taken from No. 3 and stripper loins, and practically never from the better carcasses. Loins from which the tenderloin has been removed are called strip loins, and are used for cheap restaurant and hotel trade, to be cut into small steaks.

The rib cut contains the best roasts. The various grades of ribs differ in thickness, covering and quality, as do the loin grades. No. 3 and stripper ribs are made into rolls.

The cut surface of the full round being identical with the butt end of the corresponding loin, the conditions as to grain, marbling, covering and color at that point determine the grade in each case. Three wholesale cuts are made for fresh trade from rounds, viz., buttocks, rumps and shanks. The buttock is wholly suited to cut as round steaks, those nearest the rump being of best quality. The rump, when used fresh, is sold as rump left, or boneless rump, but is generally used for corned beef. The hind shank consists of several parts of bone and boiling meat.

The preference for loin and rib cuts renders it

necessary to dispose of a large share of the lower-grade rounds otherwise than over the block as fresh cuts. For this purpose, they are stripped and made into beef hams, rump butts and sausage meat.

Nearly equal parts of the chuck are retailed as shoulder steaks and boiling pieces, and a roast may be cut from the last two or three ribs of a No. 1 chuck. In Canadian markets, the neck is cut from the chuck for stewing. Pot-roasts are cut from the lower or shank side, and stews or soup meat from the neck. The proportions of the chuck which are suitable for roasts, steaks and boiling meat vary greatly, according to the thickness and shape.

Plates or briskets are graded largely upon the quality of bone and the proportion of lean to fat. Point briskets are of higher value than the navel ends, though there is not a big demand for either in the retail markets. The lower grades are used for canning, sausage and soup meats.

The flank is a boneless cut, and its quality depends entirely upon the thickness and quality of the lean and fat. The flank steak is a cut in general good demand. It forms only about ten per cent. of the whole flank cut, but is worth about twice as much per pound as the straight flank. It is pulled from the medium and heavy flanks.

The term shanks refers in the market usually to fore flanks or shins. The important point in them is thickness of lean meat; a large percentage of shanks are stripped in the slaughter-house, and the meat used for sausage. When sold fresh, they serve for soup meats and stews.

Smoked beef or drier beef is almost entirely limited to beef hams, which, after curing in sweet pickle, are dried and smoked. Drier beef hams are sold as chipped beef by retail butchers and grocers. Much drier beef is also put up in sliced form and sealed in glass jars or tins.

Parts of carcasses which will not sell profitably over the block are used for canning. In this way an outlet is provided for much of the emaciated beef that comes to the market, and those parts of the fore quarters not wanted by the fresh-meat trade. With the exception of a few products, they are given a mild cure, and, excepting dried beef, are parboiled immediately before sealing. Canned beef is principally retailed by the domestic grocery trade, and is used also to supply army, navy and other contracts.

THE FARM.

Grimm Alfalfa in Minnesota.

Editor "The Farmer's Advocate":

Alfalfa the past summer has shown its great drought resistance. Ordinarily, alfalfa will cut from four and one-half to five tons per acre on the three crops, while this year the yield was less than four tons, yet it will partly make up in quality what is lacking in quantity.

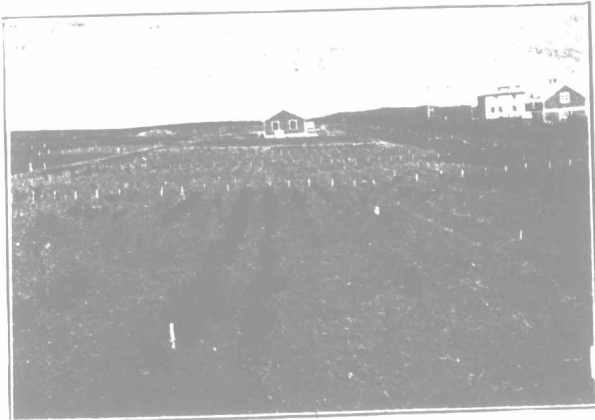
The variety so successfully grown here is what is known as the Grimm Alfalfa. It was so named by Professor W. M. Hayes, now Assistant Secretary of Agriculture, Washington, D. C., in his bulletin, No. 20, written in March, 1904, while Professor Hayes was connected with the Minnesota Experiment Station at St. Anthony Park. He named it in honor of Wendelin Grimm, the German emigrant, who developed it from seed he brought with him from his old home in Baden, Germany, to his new home in Carver County, Minnesota, in 1857. Grimm was an alfalfa enthusiast, and did all he could to grow seed. It is thought to day that this hardy alfalfa is the production of this sturdy old German, because of his persistence in seed growing.

Charles J. Brand, of the U. S. Department of Agriculture, in a magazine article entitled, "The Acclimatization of an Alfalfa Variety in Minnesota," in Magazine Science, of December, 1908, writes as follows: "Wendelin Grimm died 48 years ago, hence exact details of his experience are lacking. Nevertheless, it is apparent that in the early years of his attempt to grow alfalfa in Minnesota, he suffered many setbacks. With characteristic German persistence, realizing the practical not scientific importance of the various experiments in acclimatization, he patiently persevered, generation after generation of seedling plants that survived each successive winter planting new fields to replace his depleted ones on his own farm, and selling his seed to his neighbors. He was probably discouraged both to the difficulty of the task he had undertaken and to the great value of the results, as a matter of course, the yearly depletion of his strands."

It is only in 1890 it was discovered that alfalfa grown from seed purchased outside would winter kill, while the home variety, under some identical conditions, would remain green. In 1900 we called Prof. Hayes' attention to this fact, and he became deeply interested, and made a most careful examination. It is now known this alfalfa was known first locally, and is favorably known over a wide ter-

Through the Minnesota Experiment Station, the Department at Washington became interested in this alfalfa, and began several experiments with it. From page 25 of the Annual Report of 1909, of Dr. B. T. Galloway, Chief of the Bureau of Plant Industry, we copy the following:

"Grimm Alfalfa.—The investigations of this valuable alfalfa, planned in 1904, and begun during the following spring, have now progressed to a point where positive recommendation as to its use can be made. Experiments thus far conducted indicate that this is the hardiest variety of Medicago sativa of which we have knowledge. In an experiment in co-operation with Prof. L. R. Waldron, at the North Dakota Sub-station, at Dickinson, 68 strains of alfalfa, including two Grimm strains of slightly different heritage, were subjected to identical conditions and treatment in hill and drill rows. This spring, after a winter



Grimm alfalfa (the two full rows near the center), in comparison with 66 other kinds, after the winter of 1908-1909, at Dickinson, N. Dakota, June, 1909.

of normal severity, preceded by a moist autumn, the winter-killing in the 68 kinds was found to range from three per cent. to one hundred per cent. Seven-eighths of the varieties lost over one-half of their stand. Of the nine that lost less than one-half, but two lost less than 10 per cent. Both of these were Grimm alfalfa. Efforts are now being made to establish a Grimm alfalfa seed industry in order to safeguard farmers in making purchase of seed."

In 1908, Prof. C. A. Zavitz, of the Ontario Experiment Station, at Guelph, planted a small amount of the Grimm alfalfa as an experiment. Last spring he wrote me that it had shown superior hardiness over the other varieties they had under test.

All that have the Grimm alfalfa should do something toward seed-growing. It is only in this way that this variety will ever become general. If the second crop is grown during a reasonably dry time, and does not make too rank a growth, it will pay to leave for seed. Seed sets more freely on the clay hills and light soils than on the heavy black ground. This is especially true during a summer of excessive moisture. During a dry summer there is but little differ-

ence, as it seemed to seed readily on the different soils. The seed of the Grimm alfalfa is somewhat smaller than the seed of ordinary alfalfa. This variety also shows a diversity in color of bloom not found in ordinary alfalfa. It belongs to what is known as variegated alfalfa. There is also a great diversity in habit of growth of the different individual plants. Some are very upright, while others are of a more spreading growth. During a wet time, the stems are of a finer growth than those of ordinary alfalfa. Because of this difference, there is a tendency for the Grimm to lodge somewhat, yet we have noticed no bad results because of this, but, rather, it is a benefit, as stock will eat it more readily than they will the coarse stems.

A. B. LYMAN.

[Note.—Prof. C. A. Zavitz, of the Ontario Agricultural College, with whom we have communicated concerning the Grimm alfalfa, says: "It appears to be a hardy strain. We have had it in our plots for three years—not sufficient to test it very thoroughly yet. I would not say it is the hardiest of all, but it seems to be amongst the most hardy strains. I am now looking carefully into some of our own, which has been grown in Haldimand, etc., for some time, and which, I think, are pretty hardy, also. I am not yet in a position to say whether the Grimm alfalfa will yield as well as some of the other kinds, but we are getting some good information on the question."—Editor.]

THE DAIRY.

Cost of Milk Production.

Editor "The Farmer's Advocate":

Does buttermaking pay?

As a fair specimen of the average Canadian farmer, we cannot go so deeply into the theory nor so learnedly into the scientific aspects of buttermaking as to befog the reader and leave him "revelling in a sea of doubts," and then throw out assertions and label them conclusions.

No, we attempt no such thing, but candidly confess at this the commencement of the article, that it bears but one claim to recognition—that of practical experience.

Our herd consists of 12 milch cows, two of which are always undergoing a six weeks' rest before freshening, thus leaving us 10 cows from which profits accrue, although 12 cows add to the expense account. The odd weeks in which extra cows were used in this report are not credited with the extra milk, because it was diverted to other uses. The test was made in order to discover the profit or loss in buttermaking from 10 cows in one year. It took 12 cows to supply that number, and leave the herd in as good condition from a buttermaking point of view for another year, beginning April 1st, 1910.

The expense consisted (1) in food for the cows and expense in securing that food; (2) feeding it, etc., and incidental expenses through all the stages until the butter was turned into cash. Let us first consider the food account:



In the Single-furrow Rut.

First Farmer: "Well, Hiram, I suppose you'll be along to the Winter Fair?"

Second Farmer: "Winter Fair? No, John, I do not. Why, it'll take me till then to finish plowing alone, even if the weather does keep over. I never seem to have time for anything but work."

F. F.: "Hiram, you're getting away down into the very rut where I used to be. Instead of following that plow, why not get a double-barreled rider, carry out the same idea wherever possible in all your farm operations, and save a bit of your time and strength for occasional recreation. It's the steady grind that plays a man out."

(1) The food for the year consisted of pasture, 800 bushels of mangels, silage and alfalfa—none of which can be considered the special food of any particular time, because the silage lasted well into the summer, and the alfalfa throughout the year.

Pasture consisted of 30 acres of land in good condition, and furnishing good grass all summer—clover and timothy. It was worth \$1 per month per cow, or land and all would probably rent for \$2.50 per acre. At the former figures the total cost of 12 cows would be \$72.00; at the latter figures, \$75.00. We will accept the latter figures as maximum cost.

We had five acres of ensilage corn, sown in rows 3 feet apart and 10 rods long; two rows made a load, weighing from 3,000 to 3,100 lbs. It cost as follows:

Seed	\$ 1.80
Seeding (man and team), 5 days, at \$1.	20.00
Planting, hoeing and cultivating, 23-§2.	46.00
Cutting	8.00
Filling silo	27.00
Total	\$102.80

Mangels in this neighborhood may be either bought or sold at 10c. per bushel, although we believe the cost of production may be slightly less. Say, then, 800 bushels, at 10c. \$80.00

From five acres of alfalfa, in three cuttings last year we secured 39 tons of hay. This year we secured 4 tons more. The actual cost last year was:

Maximum rent	\$ 25.00
Labor in storing	36.00
Total	\$ 61.00

(2) The expenses incidental to feeding, milking, churning, printing and marketing the butter are made up as follows:

Milking, 2 hours per day for 365 days=73 days. Now, we have a man by the year, at \$225 per annum. Sometimes two do the milking; sometimes three hands are available. We will pay the highest marketable price for farm labor; say \$1.50 per day for 73 days...\$109.50
Churning, daily, 2 hours per day per year (twice Monday)=73 days. This labor is worth, say, \$2.50 per day... 182.50

The extra labor choring, feeding and watering we will consider offset by the possession of the manure, with a balance due the credit side but not counted.

Total	\$292.00
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We will now add a doubtful expense, that of marketing. Our other affairs call us to market once per week, and therefore this load of butter costs us nothing extra. However, it is really an expense from a business point of view, and requires one-half day per week. 52x\$1.50...\$78.00
Thus expense totals as follows:

Silo	\$102.80
800 bushels mangels	80.00
Alfalfa	61.00
Dairy labor	292.00
Marketing	78.00
Total cost	\$613.80

Let us now turn for a moment to the other side of the question—the credit side.

We have a yearly contract of delivering 105 lbs. of butter a week, at 25c. per lb. These 12 cows during the year never varied more than 3 lbs. from that amount. When they did vary, the amount was made up or deducted, as the case might be, from those cows not in the test, but was as faithfully and accurately repaid. Thus the test was maintained and the market supply sustained at the same time.

The following is the statement of monthly milk produce and test of butter-fat:

	Lbs. milk.	Lbs. butter-fat.	Butter to nearest point.
1909.			
April	10,819	378	451
May	11,261	390x	469
June	10,927	382x	459
July	11,161	391	465
August	11,060	386	460
September	10,675	374	442
October	11,140	390x	465
November	10,796	378x	449
December	11,060	387	460
1910.			
January	11,258	394	470
February	9,980	349	416
March	11,264	391	468

There is a balance of 5 ozs. due the Dr. side of this account in order to make up the 52 weekly shipments of 105 lbs. each, thus making the total butter production 5,474 lbs. 11 ozs., at 25c. lb. \$1,368.40
Add to this 12 calves, 7 of which were butchered and sold for .. 59.25
And 5 heifers, worth now .. 50.00

These are all profit, because they were fed out of the feed already charged to the account of the food for the cows and on milk from these cows, some before separating, more after separating. The remaining separated milk is fed to the pigs, and is worth 50c. per day, but I place opposite this the extra care of the calves and the extra care of the cows at calving time. We consider this work well paid at that.

An inventory of feed on hand at close of year (as estimated in cost).....\$38.50 (Four loads of hay already charged were sold for \$60.00, and the proceeds invested in chop and bran, which was fed to the cows, and so does not affect the standing of the account.)

We will now summarize the credit side of the account, as follows:

5,478 lbs. 11 ozs. butter, at 25c.	\$1,368.40
7 veal calves	59.25
5 heifer calves	50.00
Inventory	38.50

Total receipts	\$1,516.15
Total cost (see above).....	613.80
Net gain	\$ 902.35

Farmers, like all other good Canadian citizens, must be ready equally to lend a helping hand to their neighbors, or to do an odd turn for himself, without rushing in haste to charge it up; otherwise there would be many a heartache as well as backache, that would total high. However, taking all in all, you will find a liberal allowance, both in wages and in manure—to say nothing of the skim milk—for all extra labor that could possibly be demanded.

We are now in a position to answer several questions.

What does it cost to feed a cow for a year?
613.80—38.50
————— = \$47.94—
12

approximately \$40—\$45, making allowance for calves' food out of the above.

What does it cost per cwt. to produce milk?
100 (575.30—(182.50+78.00))
————— × ————— = 24c.
131401 1 [approx.

What is the returns per cow?
1368.40
————— = \$114.03½.
12

What is the profit per cow?
902.35
————— = \$75.20 (app.).
12

All other necessary answers may be obtained from the accounts above.

A word in closing. Will any herd under proper conditions do this? We answer decidedly no. This herd is the result of nine years' careful selection and weeding of Holsteins. The highest test is 4.8 and the lowest is 3.3, and this year shows a decided improvement over last.

We do our own testing, and the figures, though serviceable to us, may not stand the scrutiny of those who go more into theory and scientific research. However, they have stood the greater test of practical experience, and where in some cases spilling or waste may have caused the butter-fat to vary from the corresponding pounds of milk, or the number of pounds of butter to vary from the corresponding pounds of butter-fat, still we would say that the butter was there, sold and paid for. This, then, is a little theory attested by many facts, and vouched for by practical experience. Whether or not buttermaking pays depends upon a man's interpretation of the word "pays." It looks good to us. Are we too easily satisfied? WM. J. MAIN
Wentworth Co., Ont. (Johnston & Main.

GARDEN & ORCHARD.

Ontario Entomologists Confer.

The forty-seventh annual meeting of the Ontario Entomological Society was held at the Ontario Agricultural College, Guelph, on Thursday and Friday, November 3rd and 4th. A large number of prominent entomologists were present, and took an active part in the meetings.

Thursday morning, a business meeting of the Council was held, at which Prof. C. J. S. Bethune was made an honorary life member, in recognition of his long and devoted services in the interests of the Society.

INSECTS OF THE YEAR.

On Thursday afternoon, the directors' reports on the insects of the year were read, and Dr. C. Gordon Hewitt, Ottawa, Canada, and L. Caesar, Ontario Agricultural College, discussed the more important injurious insects, while Dr. Hewitt took up the most numerous ones noted throughout Canada.

J. B. Williams, reporting for No. 3 Division, Toronto, called attention to the prevalence of the Tussock Moth in Toronto during the season, and to the fact that, while the city authorities had done something towards controlling this pest on the city streets, private property owners had neglected it, and, therefore, its numbers were but little diminished. Mr. Morris reported the pear tree slug and the apple maggot or railroad worm as having been bad in the Port Hope district. R. C. Treherne, reporting for the Niagara district, stated that the codling moth had been very bad. The San Jose was reported as increasing, and spreading to new orchards in the Grandby district. Other insects reported as serious in this district were the shot-hole borer, the pear curculio, apple aphids, the snowy tree cricket on raspberries, and a wood-boring wasp working in the pith of young sweet cherry trees, making it necessary to rehead them.

Mr. Caesar, in dealing with "The Insect of the Year in Ontario," stated that the results of spraying in Ontario during the season had been exceedingly satisfactory, and that the codling moth and apple scab had been serious only in unsprayed or poorly sprayed orchards. The lesser apple worm, he stated, had been present, and had done considerable damage in a few districts. A large amount of damage had been done to apples by the plum curculio this fall, especially in neglected orchards. One grower had reported 15 tons of unsalable apples, due to the work of this pest. The apple maggot, or railroad worm, was also very bad. Mr. Caesar reported finding it all through Ontario, from Trenton to Pickering, and in the Niagara district. It attacked Snows, Spies and Alexanders, as well as Talman Sweet's. The cherry fruit fly had been plentiful in one locality of the Niagara district. The cherries attacked showed no sign of the pest on the outside, but, when ripe cherries were opened, little white maggots were found in the flesh inside. This insect, Mr. Caesar said, bred and increased on the wild cherries in the district, and from them spread to the cultivated ones. The blister mite was on the increase, there being hardly a district in Ontario where it is not now found, and in many orchards during the past season it fairly covered the leaves. Mr. Caesar thought it might be a blessing in disguise, as it might be the means of inducing more men to spray. The fruit-bark beetle, Mr. Caesar stated to be on the decrease in Ontario, due to the fact that it had been kept in check by a Hymenopterous parasite. The pear psylla was worse this year than for many years in the Niagara district. The black-berry leaf-miner had spread over the Province, and was quite a serious pest. Other insects of the season mentioned by Mr. Caesar as doing serious harm, were wireworms, white grubs, pea aphids, and the spruce gall louse.

Dr. Gordon Hewitt discussed briefly the serious insect pests in Canada during the past year, omitting those taken up by the directors or Mr. Caesar. The red spider, he stated, had been very serious on hops in British Columbia, reducing the average yield per acre from 600 or 700 lbs. to 200 lbs. One egg-mass of the Brown-tail moth had been found during the season at St. Stephen, in New Brunswick. In Nova Scotia, the area infested by this pest had been slightly decreased, and an active campaign was being conducted against it. The winter webs were being destroyed, and a rigid inspection of imported nursery stock was being made. The narcissus fly, which is a serious pest in Holland, had done a large amount of damage to narcissus bulbs in British Columbia during the past year. The spruce-bud worm was on the increase, and experiments were being carried on to learn more regarding its life-history and its parasites. The white-marked Tussock moth had been very bad, especially in the cities of the Maritime Provinces. In Halifax, a civic league had been formed to fight this pest. In New Brunswick and British Columbia the forest tent caterpillar had done serious injury to forest trees, and around Rideau Lake and along the north shore of Lake Superior the green-striped maple worm had wrought serious damage to the maple trees.

FRESH-WATER FISHING AN IMPORTANT INDUSTRY.

On Thursday evening a public meeting was held in Massey Hall. Prof. C. C. James, Deputy Minister of Agriculture, occupied the chair, and a large audience was present to hear the address by Prof. Needham, of Cornell, on "The Role of Insects in Water Life." Prof. Needham's remarks were of great interest, and profusely illustrated by most excellent lantern pictures. He pointed out the great importance of a knowledge of aquatic insect life, in order that the fisheries of Canada and the United States might be preserved and increased. The waters of Canada and the United States, he stated, were as productive, acre to acre, as the land, and the fresh-water fishing might be made as important an industry as agriculture, lumbering or mining. As yet, however, it had been largely neglected, and people were just beginning to realize that if this industry was to thrive, more must be learned about the insect food of fishes, and the best

methods of increasing and preserving it. At the conclusion of the address, Prof. James spoke briefly of the importance of the subject, and how it was being actively taken up in England by the Board of Agriculture and Fisheries. President Creelman confessed his surprise at the importance of the subject, which he had not realized before, and expressed his hope that active measures might soon be taken along these lines in Ontario.

ELECTION OF OFFICERS.

On Friday morning the following officers were elected to transact the business of the Society for the ensuing year:

- President—Dr. E. M. Walker, Toronto University.
- Vice-President—Dr. C. Gordon Hewitt, Ottawa.
- Sec.-Treas.—J. Eaton Howitt, O. A. C., Guelph.
- Curator—L. Caesar, O. A. C.
- Librarian—Prof. C. J. S. Bethune, O. A. C.
- Directors—A. Gibson, C. E. Grant, A. Cosens, C. W. Nash, F. J. A. Morris, R. S. Hamilton, and R. C. Treherne.
- Delegate to the Royal Society—J. M. Swaine, Macdonald College, P. Q.
- Auditors—Prof. McCready and Prof. Crow, Ontario Agricultural College.

CONCLUDING SESSION.

Friday afternoon was devoted to the more scientific papers. These were very varied, and greatly enjoyed by the members present. The following papers were read: "Spread of Diseases Amongst Animals and Man by Acarids," by T. D. Jarvis, O. A. C.; "Leaf-eating Beetles," by F. J. A. Morris, Port Hope; "The Pool," by Dr. T. W. Fyles, Hull, P. Q.; "Collecting in the White Mountains," by H. H. Lyman, Montreal; "The Horse-radish Flea Beetle," by A. F. Winn, Westmount, P. Q.; "Some Observations on the Practical Importance of Parasitic Insects," by Dr. C. Gordon Hewitt, Ottawa.

First Canadian National Apple Show a Great Success.

An event of great importance to the apple-growing industry of this continent, and one which will prove a stimulus both from the standpoint of production and of consumption, was the First Canadian National Apple Show, which was held in the Vancouver Horse Show Building on Oct. 31st to Nov. 1st. In size and quality of the exhibits, the show far surpassed the hopes of the most optimistic.

The Horse Show Building, with its seating capacity of 3,000, and its large and magnificent arena, with an area of 15,000 square feet, proved an ideal place for the show, and it was thought at first that it would be large enough to accommodate all the exhibits. On account of the large number of entries, however, it was found necessary to build an annex to the main building, which more than doubled the exhibit capacity, and both these buildings were filled.

The apple was king, no other fruits being exhibited, and varied from a perfectly-formed and well-colored specimen of Jonathan, which would barely cover a five-cent piece, to specimens which weighed as much as 2 pounds 6 ounces. In all, there were 3,424 exhibits, with 194 varieties, not including the Dominion Government and Australia exhibits or the window displays of the city. The exhibitors numbered 287. In the carload exhibit there were 12 solid carloads, comprising 72,000 boxes; 79 displays in the 10-box exhibits, comprising 790 boxes; 74 five-box displays, comprising 370 boxes; 724 single-box exhibits, and 10 three-box exhibits, or a grand total of 9,132 boxes; 1,944 plate exhibits, and 407 boxes in the pack displays; six collections of big apples; 13 entries in the biggest-apple contest; 8 freak apples; 6 crabapple displays; 8 district exhibits; 5 limited displays; 19 entries in the apple by-products, making a grand total of about 20 carloads of exhibits. Every important apple-growing district in Canada, the neighboring States of Washington and Oregon, and Tasmania, were represented in the exhibits, thereby making the show not only national in the truest sense of the term, but also international in character.

The unbounded success of what was, in the words of W. E. Scott, Deputy Minister of Agriculture, "The greatest apple exhibit the world has ever seen," was largely due to the work of the energetic manager, Maxwell Smith, in whose mind was conceived and developed the great idea of holding a Canadian National Apple Show. To finance and carry through a show of such magnitude, in which the prizes alone amounted to \$25,000, was no easy task, but Mr. Smith and his associates were fully capable of undertaking the work, as indicated by the success which was attained in every department.

The opening ceremonies took place Monday afternoon, with an attendance of upwards of 5,000. The famous 48th Highlander Band, of Toronto, gave two concerts daily, and the appreciation of their work was shown in the numerous encores received, and favorable comments from those in attendance.

The sight which met the gaze of the visitor

as he entered the amphitheatre was one never to be forgotten. The box exhibits were arranged at an angle of 45 degrees, extending all the way around the arena, the boxes placed end to end, seven tiers high. From any place in the auditorium, the visitor could look down on the great ranks of bright apples, box after box, tier after tier, right around the vast oval, and from the floor level he could look up at the unbroken surface, solid with apples, with the exception of the straight lines which indicated the sides and ends of the boxes. In the annex, nine carloads were arranged in a similar manner to those in the main building, and, in gazing down them in lengthening perspective, it showed box after box, tier after tier, row after row, apples after apples, until the eye could not follow them, and all was blended in the distance in one mass of color. The Dominion Government occupied a space at the west end of the annex, where they had displayed boxes of Ontario Northern Spy, Quebec Fameuse, and others from other Provinces. They also had on exhibit a number of promising seedlings from well-known varieties, and the whole exhibit had a distinctive educational value. In the center of the annex building were arranged the plate exhibits, occupying a space 250 feet long and 6 feet wide. In the center of the main building the district exhibits were displayed, and also the medals which were offered as prizes. A special prize of \$500 was allotted to the best district exhibit at the time of the opening session. The exhibit of by-products was placed upstairs, owing to the lack of accommodation on the ground floor. A display of medals and awards won by B. C. fruit in British, American and other shows was also on exhibition upstairs.

The judges were chosen from the best that could be secured on this continent, and they gave good satisfaction. The chief judge was Prof. H. E. Van Deman, of Washington, D. C., who has acted in a similar capacity at Spokane and many other of the larger fruit shows. Associated with him were Prof. F. C. Sears, Amherst, Mass.; Prof. W. K. Newell, of Gaston, Oregon; Martin Burrill, M. P., of Grand Forks, B. C., and Prof. Rowe, of Michigan.

The premier prize in the carload exhibits—the grand sweepstakes of \$1,000, and gold medal—was won by Kelowna, B. C., whose car of Jonathans was pronounced by the judges to be the finest car of apples ever shown at any exhibition. There were 120 apples—no more, no less—in each of the 600 boxes, and in practically every respect the apples were perfect. Out of 1,000 marks possible, this car was allotted 970, and if it had not been that the rules of the American Pomological Society, by which the fruit was judged, scaled the Jonathan a little lower in quality than some of the other varieties, the exhibit would have been awarded the maximum of marks. This car also received the first prize of \$500 in the Jonathan class. "The best I have ever seen," was Chief Judge Van Deman's comment. Summerland, B. C., secured second in sweepstakes, with a mixed carload, which also received first prize in its class. The third prize for sweepstakes went to E. Renshaw, of Medford, Ore., with a car of Yellow Newtons, which also received first prize in its class. C. Starcher, of Yakima, received second prize with his car of Yellow Newtons. The Vernon Board of Trade received second prize, and M. Horan, of Wenatchee, Wash., third prize, in the mixed-carload exhibit. Car of Northern Spy—First, Coldstream Estate, Vernon, B. C. Car Grimes' Golden—First, W. W. Sawyer Land Co., Sunnyside, Wash. Car of King of Tompkins—First, Victoria Fruit-growers' Association, Victoria, B. C. The mixed carload from Summerland, B. C., which secured second prize in sweepstakes, consisted of Spitzenburg, Yellow Newton, Winter Banana, Northern Spy, and Grimes' Golden. In the district displays, Kelowna, B. C., won first place; Grand Forks, B. C., second, and Vernon, B. C., third. In the limited display, which consisted of two barrels, two boxes, two jars and two plates, Salmon Arm, B. C., won first place; Kelowna, B. C., second, and West Kootenay, B. C., third.

The quality and extent of the exhibits at the show was an indication of what can be accomplished by the proper planting and care of the orchard, and in this way was of distinct educational value. None of the fruit exhibited could have been brought through to such perfection only in orchards where all the various practices, such as pruning, cultivation, spraying, thinning, etc., were given their proper attention. It also showed clearly what varieties do well in certain districts, and that it is necessary to plant only those varieties that do well and are of high commercial value. The time of the experimental orchard, when a grower planted twenty or thirty varieties on a few acres, is past, and, in order that the grower may obtain carload lots of one variety which the market demands, he must plant only a few of the best varieties in his orchard. Some of the benefits of co-operation could also be gleaned from a study of the exhibits, as a number of the larger exhibits were put up by co-operative societies, and, although their exhibits came from a number of orchards, they showed

uniformity in quality and pack, such as could not be obtained by the individual growers working separately. Apple-buyers, and the public generally, were able to see apples in a condition in which they would like to purchase them, and there is no doubt but what the demand for the quality of fruit exhibited will be greatly increased through the apple show. These are a few of the many benefits which the public and fruit-growers will derive from this apple show, and the second Canadian National Apple Show, wherever it may be held, will be looked forward to by all those who were in a position to visit the first one.

The Little-peach Disease.

[Press bulletin from the Ontario Agricultural College, Guelph, Canada.]

During a recent trip to the peach districts of Michigan to investigate the disease known as Little Peach, the writer gained the following information:

1. Little Peach is a very destructive disease, and, in the opinion of the majority of Michigan growers is several times more destructive than Peach Yellows. Wherever affected trees have been allowed to remain, the whole orchard, as a rule, has become hopelessly diseased in four or five years. An expert grower stated that he had himself seen more than 100 orchards thus destroyed.

2. So far as known, no variety of peach tree is exempt.

3. Japanese plums are quite subject to the disease. The writer himself saw three plum orchards with several of the trees attacked by Little Peach. It is clear, therefore, that they must not be overlooked when taking measures for the control of the disease.

4. Little Peach attacks trees from two years of age upwards. (This is also, of course, true of Yellows.)

5. The disease has been successfully controlled in Michigan and other places, but only by the removal each year, as soon as possible, of all the removal each year, as soon as possible, of all the clearly diseased trees, and also all suspected ones. It is absolutely necessary to remove the suspicious cases, as well as the clearly diseased.

6. Co-operation in control measures is necessary and, where orchards are close together, as in Ontario peach districts, is imperative; for no person can thoroughly control the disease in his own orchard by the removal of diseased trees, if his neighbor, only a few rods away, fails to remove his. If, however, the orchards are half a mile or more apart, one may hope to be able to keep his own orchard fairly free from the disease, even independently of his neighbors.

7. Where trees have been removed because of the disease, young trees may, if desired, be set in the same place next spring. Such trees are not any more subject to Little Peach and Yellows than any other trees in the orchard. (Prof. Waite, of Washington, D. C.; Prof. Blake, of New Jersey, and several others, agree with this statement.)

8. The cause of Little Peach (or of Yellows) is not yet discovered.

9. It is not definitely known in how many ways the disease may be spread. It is probably first brought into a district on nursery stock, and, once in the orchard, it certainly spreads from one tree to another, but just how no one knows. Many think that the time of infection is during the blossoming season. A number of things point that way, but the evidence is not conclusive.

10. The disease can be propagated by budding, as has been proven by Dr. Smith and Prof. Waite in the case of Yellows. Horace Welch, who is said to be the best expert on the disease in the State, took more than 200 buds from trees showing symptoms of Little Peach, and inserted some in young seedlings, and others in older trees. These buds took just as well as those from healthy trees, but in every case the disease developed, but not until the second year, and in some cases the third.

11. Whether the pits from Little Peach will grow and produce the disease, is not yet proven. (Prof. Phillips, of Virginia, believes a small percentage of them will do so.)

12. The ordinary system of inspection for Yellows (as practiced in Ontario) is not sufficient for Little Peach, as this disease often does not show in trees until the latter part of September. Therefore, inspection work should continue up to the coloring of the leaves by frost.

13. It is not an infrequent occurrence to find trees with all the symptoms of Little Peach, except that the fruit ripens somewhat prematurely, or, at latest, at the normal time. Such fruit shows no signs of Yellows. This is possibly an abnormal case of Little Peach, though some think it is due to both Little Peach and Yellows attacking the tree at the same time. Whatever be the cause, these trees must be destroyed, just as if they had typical Little Peach or Yellows.

WHAT PEACH-GROWERS IN ONTARIO SHOULD DO AT ONCE.

In some districts in Ontario, Little Peach has already caused the loss of several orchards, and of many trees in near-by orchards. No chance should be given it to make further progress; therefore, every grower is urged to destroy at once every tree marked by the inspector, and every suspected tree. It is very important not to let them remain in the orchard till next spring. There is no use hoping for the recovery of trees. They never recover from this disease.

A much fuller account of the Little Peach disease, with recommendations for its control, is being published, and may be obtained free in a few days from the Department of Agriculture, Toronto.

L. CAESAR, B. A., B. S. A.
O. A. C., Guelph.

New Superintendent for Jordan Harbor Station.

A. D. Harkness, of Irena P. O., Dundas Co., Ont., has been appointed by the Hon. Jas. S. Duff to be Superintendent of the Horticultural Experiment Station at Jordan Harbor, in succession to the late Harvey S. Peart, who died some months ago.

With his appointment is announced a slight change in the policy of the Minister of Agriculture with regard to the management of the Jordan Farm. Formerly it was in charge of a director who was responsible for all the work carried on. It is now proposed to place it under the immediate supervision of the director of the Fruit Branch of the Department, P. W. Hodgetts, who will visit the farm once a week, or as often as is necessary to keep closely in touch with the scientific and other work being carried on. Mr. Harkness will be the resident superintendent. It is believed that this policy will not only keep the Department in closer touch with the Farm, but also result in increased usefulness.

In Mr. Harkness, the Government believe they have secured an excellent man for the position. Since taking a course at the Ontario Agricultural College, he has been one of the most prominent fruit-growers in Eastern Ontario. He was one of the first to adopt spraying and other scientific methods, and has continued consistently in this line. As a consequence, he has built up one of the most successful commercial orchards in the eastern part of the Province—a good recommendation for his future work, as it is the desire of the Minister, while not neglecting the experimental side, to give as much attention as possible to the commercial aspect of the work. For many years Mr. Harkness served as a director of the Ontario Fruit-growers' Association, and he is widely known as an Institute speaker. Moreover, in the selection of an Eastern man, it is intended to further emphasize the fact that the farm is a Provincial, and not a local institution. Mr. Harkness will commence his new duties at once.

POULTRY.

Let the sun shine into the henhouse. Put in some windows, if necessary.

* * *

Poultry in early winter are prompted to roost early, and take none too much exercise during the day. Brighten them up with as much direct sunshine as can be gotten into their pens, and see that they scratch for their feed in clean, dry litter.

* * *

If poultry producers wish to place the marketing of their products on a thoroughly satisfactory basis, and command for superior quality the premium it deserves, it would seem as though co-operation were the chief hope of success. If it could be developed to the point of controlling the market, it would, of course, place the producer in a particularly favorable position.

* * *

The ventilation of poultry houses is not a difficult problem. A large area of canvas on the south or south and east sides, and a loose straw loft, with small apertures opening under a projecting gable or roof, provide inlet and outlet, respectively, the straw serving incidentally to help keep the atmosphere dry. So far from the canvas keeping the henhouse too cold, it will be found, in most latitudes, advantageous to have part of the space open for a portion of the time. Indeed, some poultrymen have dispensed with the canvas entirely.

The easier questions have largely been settled, but we shall never develop a satisfactory system of country life until we settle the hard questions as well, the better schools, better roads, better church and social advantages. We shall even develop a better skill in farming than many of us have ever dreamed of.—L. H. Bailey.

Poultry Business at Macdonald College.

Professor F. C. Elford, of Macdonald College, is demonstrating that there is money in poultry for the average farmer, without the installation of expensive buildings. "Twenty-five dollars should house twenty-five birds," he says, and practices what he preaches. Last year, his proceeds from 700 hens, in twelve months, were \$2,348.70 for eggs, and \$1,732.72 for dressed poultry, which totals \$4,081.42, and he had left a larger stock than he began with. Of course, he obtains fancy prices for his products. The feed bill was \$1,000. He advocates the use of colony houses, moving the hens about on the farm, thus utilizing the wastes and keeping them healthy. By using the hopper for feeding, he has to feed the hens only once a month, and the chicks, after about six weeks, are treated in the same manner, thus minimizing the labor.

THE FARM BULLETIN.

Big U. S. Corn Crop.

The Crop-reporting Board of the Bureau of Statistics of the United States Department of Agriculture estimates, from the reports of the correspondents and agents of the Bureau, as follows, for the United States:

Crops.	Yield per Acre.			Production.		Quality.	
	1910	1909	10-yr.	1910	1909	1910	10 yr.
Corn, bushels.....	27.4	25.5	25.8	3,121,381,000	2,772,376,000	87.2%	84.4
Buckwheat, bushels.....	20.9	20.9	18.5	17,084,000	17,438,000	92.0	90.7
Potatoes, bushels.....	93.4	106.8	91.4	328,787,000	376,537,000	88.5	87.7
Flaxseed, bushels.....	4.9	9.4	9.5	15,050,000	25,856,000	84.8	91.1
Tobacco, pounds.....	795.4	804.3	811.6	967,150,000	949,357,000	85.2	86.3

Corn.—Percentage of 1909 crop on farms, November 1st, 1910, is estimated at 4.3 per cent. (119,056,000 bushels), against 3.0 per cent. (79,779,000 bushels) of the 1908 crop on farms November 1st, 1909, and 3.8 per cent., the average of similar estimates of the past ten years.

Wheat.—The average weight per measured bushel of this year's crop is 58.5 pounds, against 57.9 pounds in 1909, and 57.6 the ten-year average.

Oats.—The average weight per measured bushel of this year's crop is 32.7 pounds, against 32.7 pounds in 1909, and 31.1 the ten-year average.

Barley.—The average weight per measured bushel of this year's crop is 46.9 pounds.

Apples.—Average production of 1910 crop, 43.5 per cent. of a full crop, against 42.5 per cent. of a full crop in 1909, and 50.7 the ten-year average percentage of a full production.

The "Distressful" (?) Country: An Optimistic Letter.

TILLAGE INCREASING.

Well-wishers of Ireland—and Canada contains many of them—will be pleased to learn that there are still hopes for the Old Land. The tillage area is in a sense the pulse of a country's agricultural health, and the encouraging information has come to hand since the last Irish Notes appeared in these columns, that the area under the plow in Ireland has this season shown an increase of almost 70,000 acres. A matter of two per cent.—that is the proportion—is not, of course, very substantial, but it encourages the belief that the tide is turning, and it is gratifying to find that all four Provinces share in the advance, notably poor Connaught in the west, which has to its credit an increase of just 7 per cent. In Connaught a great many of the big grazing ranches, purchased by the Estates Commissioners during the past couple of seasons, have been divided up among tenants evicted in the bad old times, and other suitable occupants, and the appearance of several districts has been totally and beneficially transformed in consequence, the new conditions working already a notable influence on the agricultural statistics. Comparing this year with last, the acreage under grain crops in the whole country has increased by 4 per cent. (wheat by 9 per cent.); that under green crops by 1 per cent.; under flax by 20 per cent., and under fruit by 3 per cent.

SATISFACTORY LIVE-STOCK CENSUS.

This season's official figures regarding live stock are also generally satisfactory, and possess more than local interest. Excluding two years (1907 and 1908), the number of milch cows and in-calf heifers, viz., 1,557,584, is the highest on record since 1860. Sheep declined from last year by less than 1 per cent.—doubtless due to the discouraging written trade experienced—to a figure almost reaching four millions. While pigs were over 50,000 more numerous, still the total of 1,200,000 is not as great as it ought to be, with current prices for pork so remunerative. With regard to horses, we have an increase of over 11,000, in spite of the growing popularity of the motor car and the motor-driven farm machinery.

The total equine population is now 613,214, the highest for the past eleven years. Poultry, too, have become more plentiful, numbering 24,339,000. Notwithstanding a rather trying hatching season, this indicates an increase of just one quarter of a million birds on the previous year.

NOTABLE HAPPENINGS AMONG PEDIGREE STOCK.

While on the subject of live stock it will not be amiss to refer to a couple of striking indications of Ireland's progress in pedigree stock breeding. At a recent sale in the Argentine of Shorthorn bulls imported from the United Kingdom, Irish-bred animals figured with unusual prominence, and one of them, Orphan Courier, realized the great price of £1,232, the second highest figure recorded. The breeder of this bull—which was from the famous Orphan-Luxury family—was the Right Hon. Fred. Wrench, of Ballybrack, Co. Dublin. The other notable incident alluded to is a great testimony to Irish enterprise, and occurred during the series of sensational Shorthorn sales in Scotland during the past month, when, at the offering from Mr. Gordon's herd at Combscauseway, a plucky Irish breeder, in R. J. Ogilby, of Dungiven, Co. Derry, distinguished himself by paying the record price of 1,300 guineas for a January bull calf. Several other lots were secured for Ireland, but need not be detailed.

By the way, we have had several important

pedigree sales in our own country since last I wrote. The Irish Shorthorn Breeders' Association's annual sale was a very successful affair, and prices ranging up to 100 gs. were realized, close on 40 animals being bought for English herds. Then one of the foremost Irish breeders of Aberdeen-Angus cattle, W. H. B. Moorhead, of Co. Down, disposed of a large portion of his herd at figures running up to over 60 gs., and a few days ago the premier Jersey herd in the country, and one that proved irresistible in the show-yard for its owner, M. O'Neill, Co. Dublin, was dispersed at very satisfactory prices. A notable and very choice Shropshire flock, kept for many years in Co. Meath by Capt. Naper, has also ceased to exist. Many buyers attended the breaking up, and as high as 40 guineas were paid for rams.

COMPLIMENTARY VISITS.

If proof were wanting to show that Ireland is developing, surely it is to be found in the extent to which it is being visited by those on the search for instruction and edification. Even the Canadian Pork Commission of last year found something to learn in the Green Isle, and this season we have had touring round and through the country organized parties of influential farmers from Essex, in England, and Glamorganshire, in Wales; while the English Arboricultural Society also selected Ireland for their annual trip. The country's agricultural resources, and the uses that are being made of them, have thus been subjected to critical scrutiny, and our visitors have been very appreciative in declaring the results of their observations. The more particular object of the Welsh farmers' visit was to study how the State helps Irish agriculture, and at the close of their tour they did not disguise the fact that they won't be happy till the gallant little principality has its own department of agriculture, organized and run on the same lines as the department in Ireland. Similarly, Scotland clamors for the same boon, and it is evident that Ireland has ceased to be the Cinderella of the Kingdom, and is now admittedly leading in many matters of supreme importance.

BENEFITS FROM THE BUDGET.

Lloyd George's immortal budget has brought, in the Development Grant, the promise—nay, the definite prospect—of real help to the agricultural industry of the United Kingdom. All told, Ireland has claimed a sum of £275,000 out of this fund, for four vitally important undertakings, viz., horse breeding, forestry, research work and fisheries, and the first three of these have practically been admitted. On behalf of horse-breeding the claim was £10,000 a year for five years. In this connection no new machinery is called for, but merely an extension of an existing scheme, which is considered so wise and practical that the new scheme to be adopted by the English authorities is almost a replica of it. The Commissioners displayed some tendency to shelve the demand for £20,000 per annum for five years, made on behalf of Irish forestry, but spirited protests have induced them to hurry up the tackling of this extremely urgent problem, which could never be solved more easily than at the present time. In the matter of preparedness to utilize wisely money

for the purposes of afforestation, Ireland is far ahead of any other part of the kingdom, thanks to the large amount of preliminary work that has been done. On behalf of scientific research applied to agriculture, a claim of £75,000 was put forward, and it is understood that the principle involved has been approved, and that the project is likely to materialize in the near future. Lastly, £10,000 was asked for Irish fisheries; this, however, may not be got without great difficulty. Still, if the other three grants "get through" all right, it would be, perhaps, not fair to complain.

The Sayings and Doings of Donald Ban.

By Peter McArthur.

"Yes," said Donald Ban, "I was at the sale to-day, and, to tell you the truth, I would rather have been at a funeral. The sale meant the death of a home, and, to my thinking, that is worse than the death of a man who had lived to the fullness of his days. When old Peter Shiras was buried last spring, I was sorry to lose an old neighbor, but he was well on to ninety, and nothing else could be expected. To-day his sons sold the farm and everything belonging to him, and that means the end of Old Peter and his hopes."

"He moved into the country before I was born, and there is not a field on the farm that he didn't clear with his own hands. The fences are all built from rails that he split, and as I walked over the place to-day I could see traces of the old man everywhere I went. He wrote his life-history on every acre. I couldn't help smiling when I looked at the ends of the rails, for I could tell by the bite that he had cut every one of them. He never got to be a good man with the axe, for he had been brought up as a sailor. He did his work more by brute strength than by skill, but he did his work. Many's the joke they used to tell about him and his wife in the old days, but I have forgotten most of them. Still, there was one thing. He seemed to think that if anything went wrong, from a button coming off his overalls, to the roof blowing off his barn, it could be fixed by putting a nail in it. A nail was his cure-all for everything. He never could understand machinery, and after his boys went off to college, he always had to have a hired man to run his mower and self-binder. If anything went wrong, Peter would come yelling across the field:

"Can't you put a nail in it?"

"But he didn't like to be joked about it. I remember one time, at a threshing, when a pinion broke in the old horse-power. The threshers were trying to fix things up, and Peter was standing watching them, fretting and fussing because the work had stopped and everybody was idle. After a while, Tom Hyse stuck his head out of the mow and yelled:

"Oh, Peter!"

"What do you want?" snarled the old man.

"Can't you put a nail in it?"

"I actually thought the old man would climb up the side of the barn to get at Tom, he was so mad."

"But though he was a hard driver on his men, and close with his money, it was a matter of pride with him that at no time of the day or night was his table without food on it. Everyone who went to his house was expected to eat, and to have a cup of hot tea. He had come to the new world to get a home, and his home was to be a place of hospitality. But to-day they even sold the old table he used to sit at the end of and ask the longest blessings that anyone ever heard. His wife was a woman like himself, and the best joke we had when I was a boy was the one that was going around about the first time she ate peaches. After she had eaten a couple, the farmer she was visiting offered her a couple more, but she said:

"No, thank you. They are very nice and tasty, but the seeds scratch my throat."

"But I saw the end of old Peter and Janet to-day. One of their sons is a lawyer, and the other a doctor, and they have no need of the farm. I guess it was because their father made farming so hard for them that they got away from it as soon as they got the chance. Farming can be made the worst kind of slavery if one is not careful. Still, Peter meant well. It was home-hunger that brought him to the woods, and when he got a home he wanted to make its foundations sure with plenty of money in the bank, and that made him scrimp and save. He wanted a home that would stay in his family for generations to come, for he knew what it meant not to have a home. His forefathers for generations before him knew what it meant to work land that belonged to other men, and the hunger for land of their own grew in them. There is no hunger like land-hunger, John, and if that is what is troubling the Germans and Japanese, as the papers say it is, nothing will keep them in bounds. It was the land hunger of the plain people that conquered the forests of the new world, and there never was a conquest like it."

The battle with the trees and the stubborn earth lasted for over a hundred years. Every field that we take crops from was a field of battle that needed both courage and endurance. Men wore out their lives to conquer the land, and yet the people of this generation give no thought to it. In the schools they are teaching the children about the little battles that were fought, as if that were the history of Canada. I tell you, John, the history of Canada will not be written till the story of the pioneers is set down in full."

"How were the prices at the sale?" asked the son.

"There you go," said Donald Ban testily. "You are no better than the rest. Though I have been trying all my life to drill into you a respect for the men who made the country you live in, you don't want to listen. Because you have cleared fields to raise crops from, and all the modern improvements, you haven't imagination enough to see the work that was done before you began."

"Why, father, I do respect them—but I can't be thinking about them all the time."

Donald Ban remained silent until he had regained control of his temper.

"Well, they sold out everything that belonged to old Peter Shiras, from the sea-chest he brought with him when he came to the farm, to the name-plate on his coffin. That's a fact. Among a lot of stuff that the auctioneer called bric-a-brac—sea-shells and coral that Peter gathered when he was a sailor, old samplers that Janet had worked when she was a girl, a picture of Nelson, and a lot of things like that—I saw the name-plate from Peter's coffin. Someone bought the whole lot for a quarter, and everybody laughed at the foolishness of making such a bid. I tell you what, John, the things that we treasure are seldom treasures to other people. When you come to sell this place, and the things that your mother and I think most of—"

"Stop right there, Donald Ban," interrupted his wife, vigorously. "You know well enough that John will never sell this place nor things belonging to us."

"Good. I am glad to hear your voice. I sometimes wonder if you are not forgetting how to talk."

"Don't you worry about my talking," said his wife, as she shifted the knitting kneedle in her waist-band, and went on with her work. "I might talk more if I didn't have to listen so much, but there are some things I'll not listen to. I knew the pioneers as well as you did, and a rougher, closer-fisted old lot never lived. And I am not going to hear my boy slurped at just because he gets tired of listening to the glories of men who had none of the great notions in their heads that you are always talking about. Them folks nation-builders! Huh! Lots of them were too shiftless to keep wood on their fires, even when it was so plenty that they couldn't walk from their doors without tripping over logs."

"But, for all that, they were the makers of a nation, even though they did not know it. This was their Promised Land, and they spent their years in the wilderness to win it, and now their children are not inheriting it as they should. But we will not be arguing about it," he said hastily, as he noted the light of battle in his wife's eye. "You were asking about the prices at the sale, John. Well, most everything went for more than it was worth to the folks that bought, though for less than they were worth if there had been a son to keep up the home and carry on the life of the home. Most of the implements were old-fashioned, for men like Shiras made their money by using such tools as they happened to have, and did not waste their substance keeping up-to-date. Old Peter was not one of those men who buy a corn-harvester because they happen to have in a couple of acres, or a root-pulper because they have a few mangels in the corner of the potato patch, and one cow to feed them to. I bet you the teeth in the old harrow that was sold to-day were the very ones that were in the first V harrow he used among the stumps. He had made the frame himself and had pounded through the teeth at any slant, but he put in many a fine field of wheat with it. Mind you, I am not arguing in favor of old-fashioned tools, but I don't think one should throw the tools he has in the scrap-heap for the Greeks to haul away just because someone comes along with something new because someone comes along with something new because someone comes along with something new. The fangled that looks pretty and saves work. The implements we get nowadays are good enough to use as long as they will last with good care, and that means for years, if they are not left in the fence-corners to rust to pieces after they have been used. Lots of the implements Peter had were good enough for anyone that was following him to use, but it was foolish for anyone else to buy them. When you are forced to buy, you should buy the best, but, having bought, you should keep from buying again as long as you can."

"The auctioneer was a good man, and he made things go for all they were worth. He was

business clean through, and had none of the jokes that the old auctioneers used to have. The only funny thing that happened at the sale had nothing to do with the sale at all. I was standing talking to Dan Bayne when Jim Holt came along."

"How much do you want for those three two-year-old steers of yours?" Jim asked.

"You can have them for forty dollars each."

"I'll take them," says he, and he passed over a dollar to bind the bargain. It was all done just as quick as I have told it, but that was not the end. About an hour after I met Jim, and I said to him:

"That was a quick sale you made."

"Yes, confound it," he grumbled. "If I had asked for more, I might have got it."

"When I met Dan, I said, 'It didn't take you long to buy those steers.'"

"No," he growled. "If I hadn't been in such a hurry I might have beaten him down a couple of dollars each on them."

"Did you ever hear of such foolishness? The man who was selling got the price he thought was right, and the man who bought them knew they were worth what he gave, and yet both were dissatisfied. It is a strange world we live in."

Having unburdened himself of his talk, Donald Ban took up his paper, put on his spectacles, and settled down in the big armchair for the rest of the evening.

Rot in the Potatoes.

The Census Office at Ottawa issued a bulletin Nov. 11th on the crops of Canada, as prepared from reports made up to the end of October.

The closing months of the year give good reports for nearly all of the field crops of the Dominion. Potatoes alone indicate partial failure, and in all the Provinces there are complaints of rot in the fields and in the heaps for winter storage. The area is 503,262 acres, and the estimated yield 74,048,000 bushels, being an average of about 147 bushels per acre, which is nearly uniform for all the Provinces. The quality is 84.42 per cent. Turnips and other field roots show a quality of 88.57, a yield per acre of 402 bushels, and a total yield of 95,207,000 bushels for a crop of 236,622 acres. Hay and clover are computed for 8,515,400 acres, and a yield per acre of 1.82 tons. The quality is 90.45 per cent., and the total yield 15,497,000 tons. Fodder corn has an estimated yield per acre of 9.38 tons, which, upon an area of 271,960 acres, gives a product of 2,551,000 tons. Sugar beets are grown most extensively in Ontario and Alberta, where they supply roots for three sugar factories. The area in crop this year is 16,000 acres, which is a substantial increase upon last year. The yield per acre is 9.69 tons, the total yield 155,000 tons, and the quality 93.15 per cent. The roots supplied to the Berlin factory are testing 17 per cent. of sugar, and at the Wallaceburg factory 16 per cent., but a product of 5,000 acres in Ontario is being shipped to factories in Michigan. The product of 8,200 acres in that Province is marketed at Wallaceburg and Berlin, where the average price is about \$5.86 per ton, or better than \$57.80 per acre. Computed at the average local prices, the market value of potatoes this year is \$33,446,000; of turnips and other roots, \$21,444,000; of hay and clover, \$149,716,000; of fodder corn, \$11,957,000; and, of sugar beets, \$887,000. The report on fall wheat sown this year shows an area of 790,300 acres, whereof 682,500 acres are in Ontario, and 107,800 acres in Alberta. Last year the area was 609,200 acres in Ontario, and 98,000 in Alberta. The condition of the crop is reported at 98.40 per cent., as compared with 93.60 last year.

The per cent. of fall plowing completed this year, compared with the area planned for, is less than last year, but the report is made for a period one month earlier. The per cent. of summer-fallowing, compared in the same way, is somewhat lower, but increases are shown for Saskatchewan and Alberta.

ARCHIBALD BLUE.

Cost of Horse Power.

So far, the response to the offer of twenty dollars in prizes for the best essays on the cost of horse-power (see issue Oct. 13th) has been unusually small. Apparently, very few farmers have made calculations as to this important question. This, however, only emphasizes the need of focusing attention upon the subject. Even if one has not previously considered the matter, he can, by weighing a few feeds of hay and grain, and carefully figuring up the cost of feed, attention, stabling, interest, depreciation and risk, shoeing, harness, and the rest, prepare an article that will approximate the cost and serve to stimulate thought. Entries close Saturday, Nov. 26th, by which time competing essays must be in our office.

Winter Fair Programme.

The coming Winter Fair at Guelph will open with the judging of horses, beef cattle, sheep and swine on Monday afternoon and evening, December 5th. Judging of cattle, sheep and swine will be concluded on Tuesday, but the horse-judging will continue each day, and finish on Friday afternoon, Dec. 9th.

A special feature of the programme of addresses this year will be ten addresses on the production of feed for live stock. This series will be opened by C. C. James, Ontario Deputy Minister of Agriculture, with an address on the "Poorest and the Best in Crop Production." Following this, there will be an address on "Underdraining," two addresses on roots, four addresses on corn, one on grain-growing, and one on fodder crops. Other lecture sessions will be devoted to addresses on poultry, dairying, seeds and horses. The complete programme may be secured on application to the Secretary, A. P. Westervelt, Parliament Buildings, Toronto.

Prices for important farm crops in the United States on November 1st averaged about 5.4 per cent. lower than a year ago, according to the American Government's Bureau of Statistics.

Coming Events.

National Horse Show, Madison Square Garden, New York, Nov. 12-19.
Ontario Horticultural Exhibition, Nov. 15-19.
International Horse Show, Chicago, Nov. 22-26.
International Live-stock Exposition, Chicago, Nov. 26th to December 3rd.
Smithfield Fat-stock Show, London, Eng., December 5-9.
Ontario Winter Fair, Guelph, Dec. 5-9.
Maritime Winter Fair, Amherst, N. S., Dec. 5-8.
Toronto Fat-stock Show, Union Stock-yards, Dec. 12-13.
Eastern Ontario Live-stock and Poultry Show, Ottawa, Jan. 16-20, 1911.

Winter Fair Entries Close Saturday, November 19th.

Exhibitors are reminded that their entries for the coming Winter Fair should be sent at once to the Secretary, A. P. Westervelt, Toronto. This is an exhibition that no successful breeder and feeder can afford to miss. There are \$16,000 offered in large prizes for horses, beef cattle, dairy cattle, sheep, swine, poultry and seeds. Comfortable stabling is provided for all exhibits, and crowds of people will be in attendance.

The number of immigrants arriving in Canada for the four months, April to July, totalled 155,549, as compared with 90,248 for the corresponding four months of 1909. Immigration from the United States increased from 40,267 to 54,699, while the immigration via ocean points increased from 49,980 to 100,850, or an increase of 102 per cent. For the month of July alone the total immigration to Canada was 25,218, as compared with 16,113 for July, 1909, or an increase of 57 per cent.

What is claimed to be the biggest apple ever grown in England has been sold at Covent Garden to Messrs. Adams, of Bond Street, W., for £14 (\$68). Its diameter is some 5 in., a larger measurement than that of many a hothouse melon; its circumference is over 16 in., and its weight 27 ozs. Its color is that of fine gold, and its name is, very rightly, Gloria Mundi.—[Agricultural Gazette.]

The conference between the representatives of the United States and Canada on the subject of improved trade relations, terminated on Thursday, of last week, after four days' sittings. No conclusion was reached, but the ground was cleared for another conference, which will be held in Washington probably early in January.

GOSSIP.

SHROPSHIRE AT AUCTION.

One hundred and twenty-five head of Shropshire sheep, bred ewes, ewe lambs and ram lambs, as advertised in this issue, the property of Hanmer & Hodgson, of Brantford, Ont., are to be sold by auction at their Belmont Stock Farm, four miles west of the city of Brantford, on Tuesday, November 22nd. This firm have made a splendid record of prizewinning at leading shows in Canada and the United States, and this sale surely will afford an exceptionally good opportunity for securing superior breeding stock at the buyer's price.

Wm. Thorn, Lynedoch, Ont., writes: My Ayrshires have come into their winter quarters in good condition. They have had plenty of pasture all summer, and cows have milked extra well. I have several entered in the Record-of-performance test, and they are doing grand work; cows have milked over fifty pounds per day, and one two-year-old heifer, Flirt of Trout Run, gave as high as 45 pounds per day, testing 4.2, on grass. I have several very promising young bulls for sale, one out of Dalpeddar Aggie (imp.), who gave 51 pounds per day this summer, testing 4.8. This is a choice young bull, fit to head any herd. Another, out of Lessnesock Grace Darling (imp.), who has a record of 41 pounds per day, with first calf. These bulls are both sired by my stock bull, Hole House Pilot (imp.), who is getting great milking stock. Have also a few grand cows and heifers to spare. I have ten pair of very fine, large Toulouse geese for sale, at \$5 per pair, if taken before Christmas; also, grand, large, White Wyandotte cockerels.

A. Edward Meyer, of Guelph, Ont., states that the demand for young Shorthorns of both sexes seems to be brisk. He has recently sold the Marr Missie bull calf, Missie's Hero 2nd, to S. Palframan, Courcock, Ont. This is a good calf, exceedingly well bred, being sired by Scottish Hero (imp.), and out of Broadhooks Missie 2nd =75132=. T. S. Shantz, of Waterloo, Ont., secured the thirteen-months-old Campbell Bessie bull calf, Lord Bessie. Individually, this calf is a show bull, and his breeding cannot be excelled, he being by Scottish Hero (imp.), and out of Red Bessie =51454=. Watson Bros., of Lucknow, Ont., selected Avere 2nd, a yearling of the Avere tribe, sired by Violet's Crown (imp.), and out of Avere (imp.). This is a grand heifer, nicely-fleshed and thick, a show heifer all over Bryce Wright, of De Winton, Alta., took a pair West with him, both got by the grand old breeding bull, Scottish Hero (imp.). The bull, Lord Avere, is of the Avere tribe, and looks like his sire over again. His dam, Avere (imp.), is one of the best breeders at Sunny Slope Farm. The heifer, Ivy 5th, is out of Ivy (imp.), and is a low-down, deep, thick calf, of excellent quality. There are still some choice individuals in both young bulls and females for sale in Mr. Meyer's herd.

SALE DATES CLAIMED.

Nov. 22.—Gil & Askin, Cooksville, Ont.; Hackneys.
Nov. 22.—Hanmer & Hodgson, Brantford, Ont.; Shropshires.
Dec. 14.—S. J. Pearson, Son & Co., Meadowdale, Ont.; Shorthorns.
Dec. 15.—John I. Balsdon, Markham, Ont.; Shorthorns.

One hundred and thirty head of Clydesdales were shipped from Glasgow on Saturday, October 29th, including 49 head for T. H. Hassard, Markham, Ont., personally selected; 7 for D. Cargill, Medicine Hat, Alta.; 9 for H. J. Allison, Montreal, 10 for S. J. Prouse, Ingersoll, Ont.; 14 for G. A. Brodie, Stouffville, Ont.; 1 stallion for Adam Watson, Cobourg, and 19 for Ben Finlayson, Calgary. Mr. Hassard had also 4 Hackneys and 1 French Coaching stallion, described as "a dandy."

At the first annual sale of Jersey cattle, from Burr Oak herd of W. R. Spann & Sons, of Shelbyville, Kentucky, the 68 head made an average price of \$311.25. The first 53 in the catalogue, which included the Spann importation of 1910, averaged \$400.62. The bull, Noble Peer, sold for \$3,000, the highest price of the day, to Messrs. Stumph & Nelson, of Oregon. The bull Distinction's Noble, went to Dr. M. A. Scovell, of the Kentucky Agricultural College, at \$2,200. The highest price for a female was \$700. Two others brought \$600 and \$650, and twelve others sold for prices ranging from \$400 to \$580 each.

TRADE TOPICS.

HOME DYEING.—Has it ever occurred to you what a large number of things one can dye at home, and in that way make quite a saving? When on shopping expeditions, you have often noticed on the "Bargain Counters," remnants offered at ridiculously low prices because the shades or colors were out of style. Now, these bargains could be taken advantage of, and by dyeing the goods, the colors could be changed to the most delicate shade of any of the fashionable colors popular at the time. There are home dyes now with which one can color cloth of any kind perfectly. You may possibly have a dress that is out of fashion as to color and style. Rip it up, dye it a fashionable shade, and, with new patterns, make it up into a most stylish gown that will be the envy of your lady friends. It is not alone for "Wearing Apparel" that these improved Home Dyes may be used. Portiers, couch covers, table covers, shade curtains, draperies, or, in fact, anything that is made of cloth, can be made to look just like new. Never try to color anything a lighter shade than the article is originally. For the lighter shades, and for small articles such as ribbons, silk or cotton gloves, stockings, blouses, etc., one package of dye, as a rule, will be sufficient. For heavy suits, coats, curtains, etc., it is best, if possible, to weigh the goods before they are wet, and use a package to about a pound of goods.

Through an omission in the instructions accompanying the order for an extension advertisement of the Olds Gasoline engine, which will be found in this issue, the address of the Canadian agents has been omitted. The address should be Seager Engine Works, Lansing, Mich.; agent, E. B. Echlin & Co., 13 Park St., Hamilton, Ont. The correction arrived too late to make the change in this issue.

PRIZES FOR FINEST SHIPMENTS OF POULTRY

—One hundred dollars in gold is offered in prizes for shipments of poultry by the well-known firm of Gunn, Langlois & Co., Ltd., of Montreal. The money is divided into three prizes of \$50, \$30 and \$20, respectively. Shipments must consist of 12 turkeys, and also one of the following: 24 chickens, 12 ducks or 12 geese, special consideration being given to competitors who make entry in all classes. Birds must be delivered by express at the company's warehouse, 241 St. Paul St., Montreal, between December 13th and 16th. Competitors must be farmers only, though two or more may co-operate and ship under their joint names. It is understood that the company have the right to purchase for cash at current market prices, all the poultry shipped for competition. Awards will be decided by Prof. F. C. Elford, of Macdonald College, and will be announced December 24th. For further particulars, write Gunn, Langlois & Co., Ltd., Montreal, P. Q.

WHAT TWO COUNTRY BOYS HAVE DONE.—In 1870, an awkward, overgrown boy from the country appeared at Toronto University to attend lectures. His fellow students, noticing his uncouth appearance and the marks of the farm which still clung to him, promptly christened him "cowheels." This country boy recently succeeded in winning the Newfoundland Fisheries Dispute from the United States before The Hague Tribunal. His name is Hon. A. B. Aylesworth, Minister of Justice for Canada.

Another country boy who arrived in Toronto about the same time, found employment in a wholesale house. He had the privilege of walking a mile and a half each morning, working for twelve hours, and then walking the same distance back at night—all for the munificent salary of two dollars a week. This boy's salary did not remain at two dollars very long, for his employers soon discovered the stuff of which he was made, and rapidly advanced him. In course of time he became head of one of the largest stores in Canada. Then began, under his direction, the development of a mail-order business, which eventually covered the Dominion, from the Atlantic to the Pacific, from the Great Lakes to Hudson's Bay.

This country boy was H. H. Fudger, now president of the Robert Simpson Company. During the past year, one of Mr. Fudger's dearest ambitions has been realized—that of serving every resident of the Dominion on exactly equal terms. His house was the first to inaugurate the policy of shipping goods free of delivery charges to any destination in Canada.

This enterprise of Mr. Fudger's is a veritable boon to any Canadian living outside the large cities; it enables him to make his purchases at city prices, and receive the goods delivered free, no matter where he lives. The new system has just been put into operation, and is well worth a trial. Any of our readers can get a free copy of the Simpson Mail-order catalogue by writing for it.

QUESTIONS AND ANSWERS. Miscellaneous.

RED WATER IN COWS.

What is the cause of red water in cows, and is there any remedy? I have two valuable cows affected with it now.

V. B.

Ans.—Red water, or bloody urine, is due to a rupture of some of the small blood vessels in the kidneys. Give one ounce tincture of iron, three times daily, in a pint of cold water as a drench, until the escape of blood ceases. Feed easily-digested food and avoid excitement. Another prescription is, "Purge with 1½ lbs. Epsom Salts and 1 ounce ginger, dissolved in two quarts warm water, given as a drench. When purgation ceases, follow up with 4 drams chlorate of potash, and 1 dram each of sulphate of iron, gentian and nux vomica, three times daily, as long as necessary."

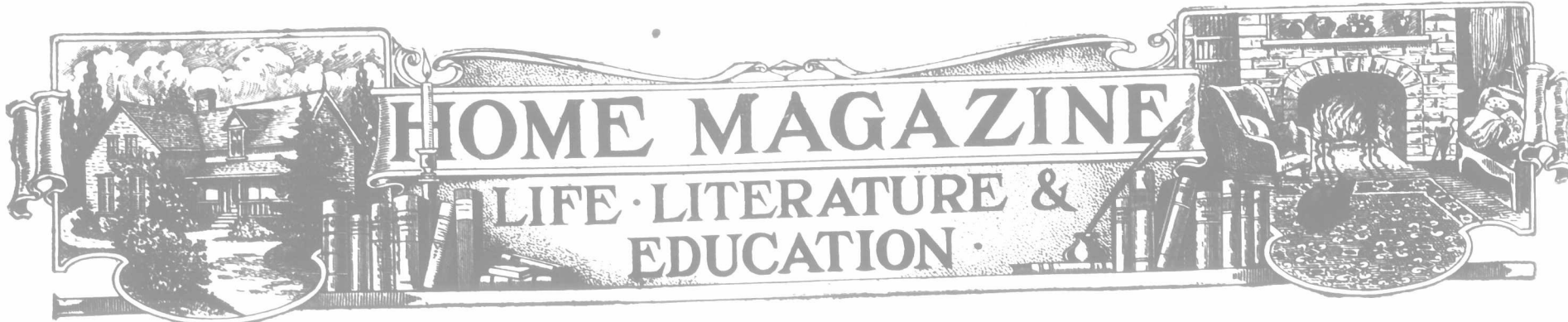
PRUNING GRAPES AND CHERRIES—PLOWING STUBBLE FIELDS.

1. When is the best time to trim grapevines and cherry trees, and should the vines be taken down for the winter?
2. In plowing stubble for a grain crop the next spring, would you advise plowing early as possible, three or four inches deep, and then plow deep in the fall?
SUBSCRIBER.

Ans.—1. As to the protection of grapevines, see article on page 1632 of "The Farmer's Advocate" of October 13, 1910. Laying down is not practiced in the commercial grape-growing districts of Canada, but is recommended for those sections where the vines are otherwise liable to winter-kill. In the commercial grape districts, where the canes are not laid down, pruning is done in late winter and early spring. Cherry trees should be pruned in the spring. The pruning to shape is much the same as of the apple, but after the tree becomes well shaped, the less pruning the better. Often serious injury occurs when cherry trees are severely pruned. Gum oozing from the tree is said to be an indication of such injury.

2. Either disking or light plowing and working of stubble-fields after harvest, to be followed by deeper plowing in the fall, is by some observant farmers considered good practice if one has the time to attend to it.

"She is very liberal in her charities," said one woman. "Yes," answered the other; "liberal, but not always practical. For instance, she wanted to send alarm clocks to Africa to aid sufferers from the sleeping sickness."—Washington Star.



Gleanings from Great Writers.

The Raven.

By E. A. Poe.

Once upon a midnight dreary, while
I pondered, weak and weary,
Over many a quaint and curious volume
of forgotten lore—
While I nodded, nearly napping, suddenly
there came a tapping,
As of some one gently rapping—rapping
at my chamber door.
"Tis some visitor," I muttered,
tapping at my chamber door—
Only this and nothing more."

Ah, distinctly I remember, it was in
the bleak December,
And each separate dying ember
wrought its ghost upon the floor.
Eagerly I wished the morrow—vainly
I had sought to borrow
From my books surcease of sorrow—
sorrow for the lost Lenore—
For the rare and radiant maiden
whom the angels name Lenore—
Nameless here for evermore.

And the silken sad uncertain rustling
of each purple curtain
Thrilled me—filled me with fantastic
terrors never felt before;
So that now, to still the beating of
my heart, I stood repeating
"Tis some visitor entreating entrance
at my chamber door—
Some late visitor entreating entrance
at my chamber door.
This it is and nothing more."

Presently my soul grew stronger;
hesitating then no longer;
"Sir," said I, "or madam, truly
your forgiveness I implore;
But the fact is I was napping, and
so gently you came rapping,
And so faintly you came tapping—
tapping at my chamber door—
That I scarce was sure I heard you,"
—here I opened wide the door—
Darkness there and nothing more.

Deep into that darkness peering, long
I stood there wondering, fearing,
Doubting, dreaming dreams no mortal
ever dared to dream before;
But the silence was unbroken, and
the darkness gave no token,
And the only word there spoken was
the whispered word "Lenore!"
This I whispered, and an echo murmured
back the word "Lenore!"—
Merely this, and nothing more.

Then into the chamber turning, all
my soul within me burning,
Soon again I heard a tapping, some
what louder than before.
"Surely," said I, "surely that is
something at my window lattice;
Let me see, then, what threat is,
and this mystery explore—
Let my heart be still a moment, and
this mystery explore—
"Tis the wind and nothing more.

Open here I flung the shutter, when,
with many a flirt and flutter,
In there stepped a stately Raven of
the saintly days of yore.
Not the least obeisance made he; not
an instant stopped or stayed he;
But, with mien of lord or lady,
perched above my chamber door—
Perched upon a bust of Pallas just
above my chamber door—
Perched and sat, and nothing
more.

Then this ebony bird beguiling my
sad fancy into smiling,
By the grave and stern decorum of
the countenance it wore,
"Though thy crest be shorn and

shaven, thou," I said, "art sure
no craven,
Ghastly grim and ancient Raven, wan-
dering from the Nightly shore—
Tell me what thy lordly name is on
the Night's Plutonian shore!"
Quoth the Raven, "Nevermore."

Much I marvelled this ungainly fowl
to hear discourse so plainly,
Though its answer little meaning—
—little relevancy bore;
For we cannot help agreeing that no
living human being
Ever yet was blessed with seeing
bird above his chamber door—
Bird or beast upon the sculptured
bust above his chamber door,
With such name as "Never-
more."

But the raven, sitting lonely on that
placid bust, spoke only
That one word, as if his soul in that
one word he did outpour.
Nothing further then he uttered; not
a feather then he fluttered—
Till I scarcely more than muttered,
"Other friends have flown before—
On the morrow he will leave me, as
"Other friends have flown before—
Then the bird said, "Never-
more."

Startled at the stillness broken by
reply so aptly spoken,
"Doubtless," said I, "what it utters
is its only stock and store,
Caught from some unhappy master,
whom unmerciful Disaster
Followed fast and followed faster,
till his songs one burden bore—
Till the dirges of his Hope the mel-
ancholy burden bore
Of "Never—nevermore!"

But the Raven still beguiling all my
sad soul into smiling,
Straight I wheeled a cushioned seat
in front of bird and bust and
door;
Then upon the velvet sinking, I be-
took myself to linking
Fancy into fancy, thinking what this
ominous bird of yore—
What this grim, ungodly, ghastly,
gaunt, and ominous bird of yore
Meant in croaking "Never-
more."

Thus I sat engaged in guessing, but
no syllable expressing
To the fowl whose fery eyes now
burned into my bosom's core;
This and more I sat divining, with
my head at ease reclining
On the cushion's velvet lining that
the lamp-light gloated o'er,
But whose velvet violet lining with
lamp-light gloating o'er,
"She" shall press, ah, never-
more!

Then, methought, the air grew denser,
perfumed from an unseen censer
Swung by Seraphim whose footfalls
tinkled on the tufted floor.
"Wretch," I cried, "thy God hath
lent thee—by these angels he
hath sent thee
Respite—respite and nepenthe from
the memories of Lenore!
Quaff, oh quaff this kind nepenthe,
and forget this lost Lenore!"
Quoth the Raven, "Nevermore!"

"Prophet!" said I, "thing of evil"
—prophet still, if bird or devil—
Whether Tempter sent, or whether
tempest tossed thee here ashore,
Desolate yet all undaunted, on this
desert land enchanted—
On this home by Horror haunted—
tell me truly, I implore—
Is there—is there balm in Gilead?—
tell me—tell me, I implore!"
Quoth the Raven, "Never-
more."

"Prophet!" said I, thing of evil—
prophet still, if bird or devil!
By that Heaven that bends above us
—by that God we both adore—
Tell this soul with sorrow laden, if,
within the distant Aidenn,
It shall clasp a sainted maiden
whom the angels name Lenore—
Clasp a rare and radiant maiden
whom the angels name Lenore?"
Quoth the Raven, "Nevermore."

"Be that word our sign of parting,
bird or fiend!" I shrieked, up-
starting—
"Get thee back into the tempest and
the Night's Plutonian shore!
Leave no black plume as a token of
that lie thy soul has spoken!
Leave my loneliness unbroken!—quit
the bust above my door!
Take thy beak from out my heart,
and take thy form from off my
door!"
Quoth the Raven, "Nevermore."

And the Raven, never fitting, still
is sitting—still is sitting
On the pallid bust of Pallas just
above my chamber door;
And his eyes have all the seeming of
a Demon's that is dreaming,
And the lamp-light o'er him stream-
ing throws his shadow on the
floor;
And my soul from out that shadow
that lies floating on the floor
Shall be lifted—nevermore!

The Bells.

By E. A. Poe.

I.

Hear the sledges with the bells—
Silver bells!
What a world of merriment their
melody foretells!
How they tinkle, tinkle, tinkle,
In the icy air of night!
While the stars that oversprinkle
All the heavens, seem to twinkle
With a crystalline delight;
Keeping time, time, time,
In a sort of Runic rhyme,
To the tintinnabulation that so
musically wells
From the bells, bells, bells, bells,
Bells, bells, bells—
From the jingling and the tinkling
of the bells.

II.

Hear the mellow wedding bells,
Golden bells!
What a world of happiness their
harmony foretells!
Through the balmy air of night
How they ring out their delight!
From the molten golden-notes,
And all in tune,
What a liquid ditty floats
To the turtle-dove that listens, while
she gloats
On the moon!
Oh, from out the sounding cells,
What a gush of euphony voluminous-
ly wells!
How it swells!
How it dwells
On the future! how it tells
Of the rapture that impels
To the swinging and the ringing
Of the bells, bells, bells,
Of the bells, bells, bells, bells,
Bells, bells, bells—
To the rhyming and the chiming of
the bells!

III.

Hear the loud alarum bells—
Brazen bells!
What a tale of terror now their tur-
bulency tells!
In the startled ear of night
How they scream out their affright!

Too much horrified to speak,
They can only shriek, shriek
Out of tune,
In a clamorous appealing to the
mercy of the fire,
In a mad expostulation with the deaf
and frantic fire
Leaping higher, higher, higher,
With a desperate desire,
And a resolute endeavor
Now—now to sit or never,
By the side of the pale-faced moon.
Oh, the bells, bells, bells!
What a tale their terror tells
Of Despair!
How they clang, and clash, and roar!
What a horror they outpour
On the bosom of the palpitating air!
Yet the ear it fully knows,
By the twanging
And the clanging,
How the danger ebbs and flows;
Yet the ear distinctly tells,
In the jangling
And the wrangling,
How the danger sinks and swells,
By the sinking or the swelling in the
anger of the bells—
Of the bells—
Of the bells, bells, bells, bells,
Bells, bells, bells—
In the clamor and the clangour of
the bells!

IV.

Hear the tolling of the bells—
Iron bells!
What a world of solemn thought their
monody compels!
In the silence of the night,
How we shiver with affright
At the melancholy menace of their
tone!
For every sound that floats
From the rust within their throats
Is a groan.
And the people—ah, the people—
They that dwell up in the steeple,
All alone,
And who tolling, tolling, tolling,
In that muffled monotone,
Feel a glory in so rolling
On the human heart a stone—
They are neither man nor woman—
They are neither brute nor human—
They are Ghouls:
And their king it is who tolls;
And he rolls, rolls, rolls,
Rolls
A pean from the bells!
And his merry bosom swells
With the pean of the bells!
And he dances and he jells;
Keeping time, time, time,
In a sort of Runic rhyme,
To the pean of the bells—
Of the bells:
Keeping time, time, time,
In a sort of Runic rhyme,
To the throbbing of the bells—
Of the bells, bells, bells—
To the sobbing of the bells,
Keeping time, time, time,
As he knells, knells, knells.
In a happy Runic rhyme,
To the rolling of the bells—
Of the bells, bells, bells—
To the tolling of the bells,
Of the bells, bells, bells, bells,
Bells, bells, bells—
To the moaning and the groaning of
the bells.

Canada's Lead in Church Union.

Following the lead of Canada in
the movement for the union of the
Presbyterian, Methodist and Congre-
gational Churches, Australians have
come to realize the waste and the
weakness of church divisions and the
shame and burden of outgrown sec-
tarianism. They have discerned that

Truth is above all creeds, and service to men more than the maintenance of names. Facing the situation with open hearts and minds, the result is a union movement not unlike that promulgated by the late Principal Cavan and others, of Canada, who became convinced what was the Christian and the common-sense thing to do. In furtherance of the reunion of the Christian church there, the Australian leaders have recently fortified themselves with complete data of the movement in Canada.

Hope's Quiet Hour.

Editor "Hope's Quiet Hour":
I am a reader of "The Farmer's Advocate," and enjoy Hope's Quiet Hour very much.
May I ask a favor? Would you kindly, in the near future, deal with the subject: "Our Lord's teaching about the Supper."—Matt. 26: 26-29.
Hoping and trusting for your explanation of these verses, I am, your friend,
"LELU."

One Bread and One Body.

And as they were eating, JESUS took bread, and blessed it, and brake it, and gave to the disciples, and said, Take eat, this is My body. And He took the cup, and gave thanks, and gave it to them, saying, Drink ye all of it; for this is My blood of the new testament, which is shed for many for the remission of sins. But I say unto you, I will not drink henceforth of this fruit of the vine, until that day when I drink it new with you in my Father's kingdom.—S. Matt. xxvi: 26-29.

In the letter given above, I am requested to explain these mysterious words. But that is a task far beyond my powers. For nearly two thousand years they have been studied prayerfully and carefully by many of the greatest men who have ever lived. The great sacrament of unity, intended to bind together in one communion and fellowship those who are—as St. Paul says—one bread and one body: "for we are all partakers of that one bread," has seemed to be a cause of endless strife. Some say that a miracle changes the bread and wine into the body and blood of Christ, and that there is no longer any bread or wine on the Table of the Lord. Though our Lord—after He said: "This is My blood"—called it "the fruit of the vine."

No, I can't explain the mystery, it is enough for me to believe it. We can't explain the lesser mystery of how dead things—such as bread or meat—become life to our bodies when we have eaten them. The life within us lays hold of them and transforms them into living flesh and blood, into muscles and nerves, into energy and thought and words. One person takes food and transforms it into music, another draws from it strength to plow the soil, another turns it into sermons or books. No one can tell how the miracle is done. We know that our bodies will grow weak and die without food, we know that the dead food is our life, therefore we eat it in faith—and God does the rest.

Can't we do the same in spiritual things? All through the centuries the noblest and holiest of God's saints have drawn life and power from the mysterious "Lord's Supper." Round it are gathered today all that is glorious in music and beauty, and yet the sacrament itself is absolutely simple. Like Naaman, the Syrian leper, who was willing to do a "great thing" to be cured, and yet scorned the prophet's command to do such a simple thing as to wash himself—people are willing to think that great efforts of their own can cure them of the disease of sin, but they scorn the simple remedy which God has commanded. If sin were a disease that man could cure, he might struggle his hardest, and then congratulate himself on his success; but it is not so. We are helpless to cure ourselves. The most respectable Christian is as helpless in his own strength—as a degraded outcast. As we draw life for our bodies from God, and can only breathe or work as He gives us power, so we must also draw our spiritual life from Him.

If we go to Him for life, we must accept it in the way He offers. Father we

believe He is speaking the truth, or we do not believe. There is no middle course. He has said: "Except ye eat the flesh of the Son of man, and drink His blood, ye have no life in you. Whoso eateth My flesh, and drinketh My blood, hath eternal life; and I will raise him up at the last day. For My flesh is meat indeed, and My blood is drink indeed. He that eateth My flesh, and drinketh My blood, dwelleth in Me, and I in him."—St. John vi: 53-56.

He said these strange words, and then told the disciples how they might, in true spiritual reality, eat His flesh and drink

daily food which would kill a typhoid patient, or injure a person with poor digestion.

The bread and wine in the Lord's Supper are not magical gifts, they can never do us any good without our own co-operation. If you eat food and do not digest it, there is no life or power added to the body. It does harm. And if you dare to pretend to draw near to God by coming to the Lord's Supper without any desire to get rid of your sins, without any belief in Him, or with a heart burning with anger, malice or envy, then you are presumptuously asking for help which

quite good enough, pushed in without preparation. When the king saw this man, in his soiled garments, he was unwilling to receive him. All were "unworthy" to come, but only one came "unworthily." God calls us all, and we are all most unworthy to approach Him, to sit at His Table and be served by Him. But if we come confessing our sins and pleading the death of Christ as our hope of pardon, and His righteousness as our covering, then we shall drink in His Life and become one with Him and He with us.

DORA FARNCOMB.



Charity.

(From a painting by Sydney Muschamp.)

His blood. If we call ourselves Christians, if we say we want the Life of God in our souls to give us spiritual power and holiness, and are NOT obeying the most solemn order of our chosen Master, then how can we dare to say we believe His words to be true? By our disobedience, we are proving that we don't believe.

I know that people offer excuses. If you saw Christ standing in the church, saying to all who are weary and heavy-laden: "Come unto Me!" would you take the trouble to hunt for an excuse which might sound good enough for Him to accept? Would you not gladly draw near to Him who can help you, whose love for you made Him willingly endure torture, shame and death?

you do not want, and braving the wrath of God. To do such a wicked thing would indeed be, as St. Paul says, to eat and drink unworthily, and so be "guilty of the body and blood of the Lord."—1 Cor., xi: 27.

I feel sure that no reader of the Quiet Hour would act in this way.

That eleventh chapter of St. Paul's First Epistle to the Corinthians has frightened many people from coming to the Lord's Supper. They are so afraid of eating and drinking "unworthily" that they prefer to disobey their Lord's command altogether; forgetting that He has said: "Except ye eat the flesh of the Son of man, and drink his blood, ye have no life in you." Is it not better to risk danger than to have "no life"?



Hauling in a Six-foot Sturgeon.

What if other communicants do not live as they should? To his own Master each disciple must give account. Christ is not asking you for your opinion of them—He can judge their case without your help. Has He ever once said that the bad behavior of one disciple is any excuse at all for the direct disobedience of another?

But if His spiritual Food has not helped some other people whom we know, how can we expect it to help us? Let us think of bodily food again. You healthy country people may draw strength from

But I think they confound the word "unworthily" with that very different word "unworthy." They know they are "unworthy" to come to God's Table, therefore they think they must come "unworthily" if they come at all. But that is a mistake.

A great king invited a great company of beggars to a feast. Each one, as he entered, was offered a bath and a beautiful robe. Those who felt that they were unworthy to eat at the king's table gladly accepted the purification and the spotless dress. One, who thought himself

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.]

Our Next Competition.

Girls.—Write a composition about the picture, "Charity."
Boys.—Write a composition about the picture, "Hauling in a Six-foot Sturgeon."

All letters to be received at this office not later than December 15th.

Our Last Competition.

The prizes in the last competition have been awarded as follows:

Girls.—Luella Killough, Annie Price, and "A Country Girl."
Boys.—Charlie Platt, Charlie Patterson, Cecil Miller.

Honor Roll.—Dorothy Parson, M. G. Switzer, Dolly.

I may say that M. G. Switzer wrote a splendid composition, but failed in getting a prize because she left the "sermon" part out altogether. The little girl did not fall asleep in a parlor, but in church. Dorothy Parson also wrote a good composition, but made the little girl fall asleep the first time she went to church. Dorothy forgot that there was a "second" sermon.

Next time, the boys' essays will appear. "Ladies first," you know, boys.

My First and Second Sermon.

(Prize composition.)

Mary Elizabeth was a little girl about six years old, and, as one can tell by her dress, lived quite a long time ago. She went to school along with her brothers and sisters. The old school-master was very strict and severe, but Mary was such a good little maiden that she had no need to fear him.

One day, Mary Elizabeth's mother said she would take her to church the next Sunday, provided she was very good for the remainder of the week, and she was, too. The next Sunday morning she arose bright and early. She was very excited about going to church, for, you see, she had never been to church before, as the church her parents worshipped in was about five miles away.

After breakfast, Mary Elizabeth's mother dressed her little girl in her new red-checked flannel dress, and her red Sunday coat with the red cape on it. Then she put on her little red-topped cap, with the fur around the edge and the little white feather at the side, and then her little gray leggings.

When all was ready, Mary Elizabeth seized her little red mitts and gray muff, and climbed into the sleigh along with her mother, father and brothers and sisters, and all started merrily on their way. The sleigh-bells jingled joyously on the frosty air, keeping time to the pat, pat, pat, of the horses' hoofs upon the frosty ground. They almost flew past trees and bushes, all covered with a snowy film. The twigs and branches were encased in a coat of ice, which glittered as the sun sent his soft rays shining upon them. The shadows of the tall pines and cedars swayed to and fro on the sparkling snow. Some little snow birds fluttered among their branches, casting their tiny shadows between the shadows of the trees. Now and then the branches of the trees shook, causing the snow lying on them to come showering to the ground. Never was Mary

Elizabeth so happy as on this day, her first experience at church, and never was a drive in the frosty air more appreciated than on this beautiful, sunny winter morning. Mary Elizabeth thought the snow was beautiful, for it was soft, and fine as powder. It glittered like diamonds in the sun. What could be more beautiful!

When they reached the church, her hands and feet were somewhat cold, but she soon got them quite warm again at the stove. Everybody was interested in the dear little lass, and asked her how she liked going to church, and if she was coming again, till she began to think it very nice to go to church. She thought the church was very beautiful. The pews were covered with beautiful soft velvet cushions, and she thought them very pretty. She loved to listen to the singing, joining in whenever she could. She listened intently to all the preacher said, for her mother would ask her the text when she got home, she knew, and, besides, she knew it was very ill-mannered to be looking around the room during the sermon. But she got very tired near the end. However, she managed to keep awake till the service was over.

The next Sunday she went to church again. She enjoyed the drive through the clear, frosty air, very much, but it was different in church, for the atmosphere was stuffy and hot, so hot that Mary Elizabeth took her hat off, and laid it on the seat at her side, along with her pretty little hymn-book. She managed to listen to the fore part of the sermon without getting tired, but it was pretty hard to keep her eyes fixed on the minister all the time, and he said such big words, too. Who could expect little girls to understand such long words? Oh, it was terribly hard to keep those eyes open. She tried very hard, but somehow they would not stay open, and, before she knew it, almost, those dear little eyelids closed over her tired blue eyes, and she wandered off to dreamland with her little white hands tucked in her little gray muff, and her little curly head drooping over her shoulder. She slept on till the end of the service, and then her mother woke her up to get ready for home. She rubbed her eyes and wondered how she could have fallen asleep. I guess Mr. Sandman's clock must have gone wrong.

F. LUELLA KILLOUGH
Auburn P. O., Ont. (Book IV.)

(Prize composition.)

Dear Puck and Beavers,—I have never written to the Beaver Circle before, so I thought I would like to begin by writing on your competition, "My First and Second Sermon."

Little six-year-old Gertie Watson was the only child of Mr. and Mrs. Robert Watson, of the village of Oakville. Her father and mother were both dead, and she was taken to live with her aunt and grandmother.

This little town of Oakville was a new place, and, as yet, they had not built a church, and there was no Sunday school, which Gertie missed very much, but she and her aunt and grandmother generally spent an hour or two on a lesson every Sunday.

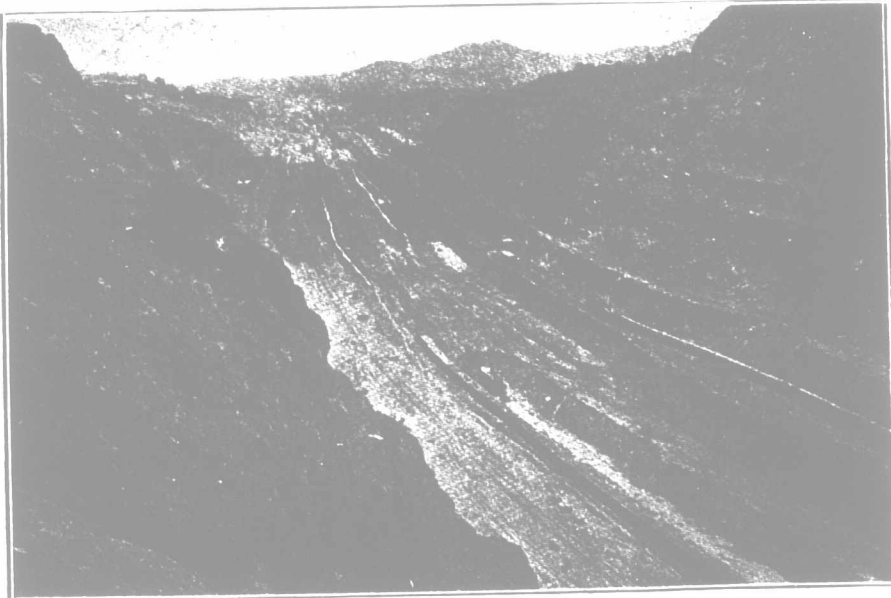
When Gertie had lived with her aunt and grandmother nearly two years, the church was started, which was to be a very grand building. It was nearing the last of October when it was completed. It stood about half a mile from Gertie's home.

In the course of a few weeks a minister came, and then they had regular services every Sunday afternoon.

Gertie's grandmother was too old to walk the distance which lay between them and the church, so Gertie and her aunt went alone. Gertie wore a new red dress which her aunt had made for her, and her red cloak and little red cap. Before they started, her aunt told her that she must never go to sleep in church, so, of course, she would try her best not to. It being the first Sunday, and everything around her seeming strange, she kept wide awake, and enjoyed it so much that she thought she would like to go again, and she looked forward with great anxiety to the next Sunday. But things were not so strange then. The minister's sermon was about Moses in the bulrushes, which, of course, was very interesting, but, in spite of all, about the middle of the sermon Gertie fell asleep. Her aunt was so interested

in the story that she did not notice her. While Gertie sat there sleeping she had a dream, which was this: She and her little girl companion were strolling along on the river's bank one bright summer's afternoon, when, hidden in some bushes, they found a small baby wrapped in blankets and lying in a basket. They noticed how carefully it was hidden, and nearby stood a girl watching it. As they stood there wondering what it could mean, a very pretty young lady came down to the river's edge. Seeing the child, she picked it up in her arms and

ary, such a morning as would tempt almost anybody to go out for a drive to church. There were a mother and father, namely, Mr. and Mrs. Scott, who lived about one mile from church. They had one child, who was called Grace. She had a fair complexion, and was almost six years of age. On this special morning, Mrs. Scott asked her daughter whether she would not like to go to church with her and her papa. Grace readily consented to go, as she had never been to church be-



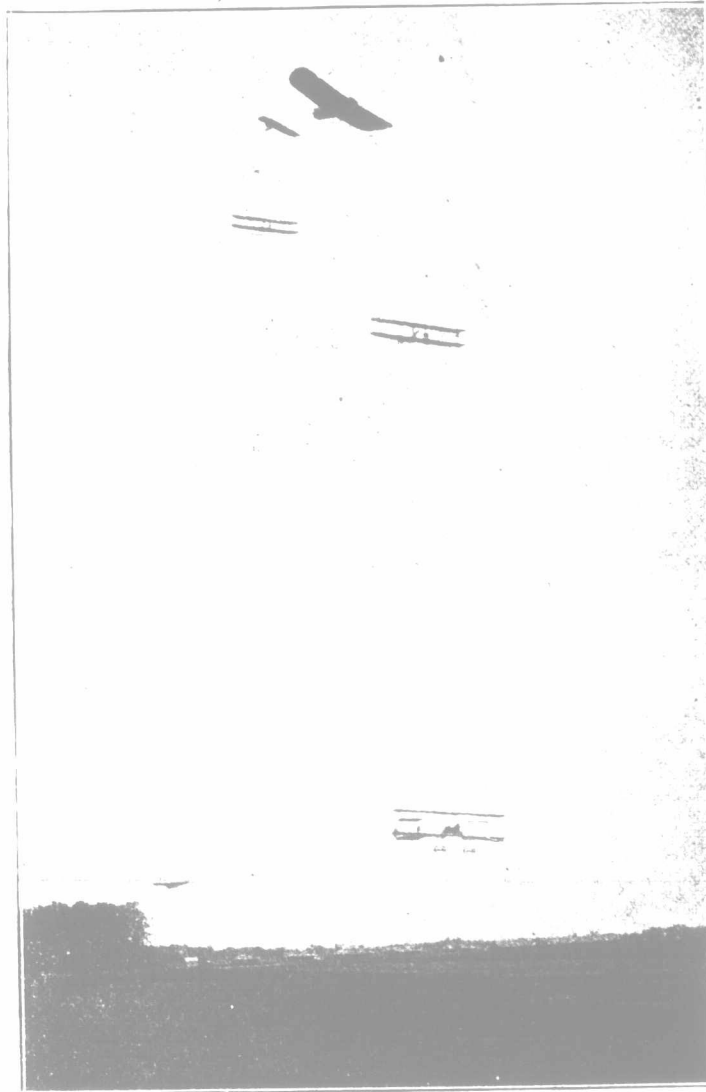
Man Conquering Nature at Culebra.

How the work is progressing at Panama. "One finds it hard to believe that excavation of such staggering dimensions is the work of man." From Literary Digest.

ran home. At this point Gertie woke up, and was just in time to put her penny on the collection-plate; and while they were going home she firmly made up her mind that she would never sleep in church again, and she didn't. ANNIE A. PRICE (age 13 Book IV.)
Mountain Grove, Ont.

(Prize composition.)

Dear Puck and Beavers,—It was a bright, cold, Sabbath morning in Janu-



Man Conquering the Air.

Five aeroplanes in flight at once, at Belmont Park, New York, a fortnight ago.

decorated the walls, and also listened to the sweet strains of music. When the sermon began, she was greatly interested in it, because it was about the birth of Christ, and was also given in a way that would draw the attention of any child.

The next time she went to church, she thought the pictures were not so beautiful, and the songs not so sweet as before. She also thought the sermon tiresome, and she pushed her stool away from under her feet, and at last fell asleep. When she awoke from her sleep she saw the people getting ready to leave the church, then she quickly jumped up and went to her mamma.

On the way home, her papa asked her how she liked the sermon. She started to blush, and said, "I do not know, for I was sleeping."

A COUNTRY GIRL (age 14).
New Dundee, Ont.

News of the Week.

Cable rates for ordinary messages are to be reduced by about one-half.

A new gold field, which promises vast wealth, has been discovered in Australia.

An English syndicate has arranged a \$5,000,000 lumber merger in British Columbia.

A School of Aviation is to be established by the Aerial League of the British Empire.

The Alberta Central Railway is applying for a charter enabling it to construct a railway from Saskatoon to Hudson's Bay.

The Montreal Association for the Blind is endeavoring to raise \$100,000 to provide for the English-speaking blind the facilities for making themselves self-supporting.

Mr. Bourassa has declared his intention of carrying his Nationalist campaign into Ontario, in order that he may make his attitude on naval and other questions clearly understood.

Significant returns in the recent United States election, which resulted in so signal a victory for the Democrats, are the victory of Dix over Stinson in New York, the election of Harmon as Governor in President Taft's home State, Ohio, and the election of Woodrow Wilson, former President of Princeton University, as Governor of the State of New Jersey.

The Way It Didn't Happen

"Mother," said little Willie Jones.

"If there's no work to do,

I'd like to join the other boys

And go in swimming, too."

"There's not a bit of work to-day,"

Said Willie's mother kind;

"It's useful to know how to swim,

So go,—I do not mind."

"Father," said Willie to his pa,

When he had older grown;

"I'd like to smoke and wish that I

A brier pipe might own."

"And so you shall," said Willie's pa,

Proud of his manly son;

And to the store he went to buy

A real expensive one.

"Dear folks," said Willie to them all

When he was twenty-three,

"I love Marie, and we're engaged,

And married soon will be."

"We love her so!" "She's just the girl!"

"The one for you we'd choose!"

Which goes to prove these lines are false,

And writ but to amuse.

—Alfred Trembly, in Puck.

It certainly costs the Panama Canal a lot of money trying to make both ends meet. Washington Post.

The Roundabout Club

A Word to Everybody.

You have not studied for years? That does not matter in the least. You may study, whether your age be eighteen or sixty-eight. As a matter of fact, we should all be happier if we studied more or less all through our lives.

What has a farmer to do with such things? Or a farmer's wife? Or a farmer's son or daughter? Rather, what have these people not to do with them? Farming is one of the best of the professions, why should not the farm folk have the greatest breadth of mind and vision possible? Why should they not be among the most progressive people—as many of them are—so far as culture, and interest and mental alertness go? And how can anyone progress without trying?

Then there are the long winter evenings. What are you going to do with them? You may have chores to do that keep you late at work, or sewing or mending that cannot be done at any other time. In such case, you are doing your clear duty, and must leave your studying for a time of more leisure. But in case you have not these things, why not do something that may add to your culture, or train you to think a little more deeply, or both?

There is one thing sure, no one ever yet undertook the earnest study of any subject whatever, without deriving therefrom a pleasure and a mental stimulus perhaps as unexpected as gratifying. The more we think, the more we can think. The more we refuse to use our brain, the more useless it becomes.

Now, to come to the point at which we have been aiming, what more convenient plan of study can you take up than these little Literary Society studies carried by our "Farmer's Advocate" right into your home? Why not try a few of them at any rate? And, why not, at the same time, start a Reading Club in your own neighborhood, or in your own family? No Magazine Literary Society can do everything. At best, it can only act as a side stimulus to individual home effort.

Our students of past years, we believe, never worked for remuneration. They worked for the love of the work itself, and for the benefit accruing to themselves therefrom. Nevertheless, it has been our habit to give souvenirs to those who took the highest marks. We are continuing this practice this winter, and with the "Raven" study are giving the following as souvenirs:

- I. Five "Everyman" classics, bound in leather. Or, one large cloth-bound volume of the Nature series, profusely illustrated.
- II. Three "Everyman" classics, bound in leather.
- III. Two, similar classics.

Study II.—The Raven.

In order to save space, as well as in consideration of the excellence of the poem itself, it has been decided to use Poe's "Raven," which appears elsewhere in this issue, as a subject for Study II.

Write an essay on "The Raven," embodying in it your answers to (or comments on, as the case may be) the following:

- (1) Discuss the length of the poem. Would anything have been gained by making it either longer or shorter?
- (2) What, do you consider, was Poe's prime motive in writing this poem?
- (3) What is the general tone or impression running through it?
- (4) What is gained by the ever-repeating refrain, "Nevermore"?
- (5) Would any other bird have been as effective here as the Raven? Give reasons for your answer.
- (6) Do you notice any change in the state of mind of the lover as the poem progresses?
- (7) In which stanza is the climax reached? Has it been reached in a way to make it particularly effective?
- (8) Why does the poet make the night so gloomy?
- (9) Why does he not make the poet and the bird meet in the bird's natural home, e. g., the forest?
- (10) Why does the lover jest in the latter part of the poem, and become fiercely

in earnest in the latter part? Quote the line at which you notice the beginning of this change?

(11) Give the effect of the two concluding stanzas.

(12) Poe himself, was not satisfied with two or three of the phrases in this poem. Can you pick these out?

(13) Sum up the devices by which the poet attains Beauty throughout the poem. You may answer these questions in any order that suits you, provided you weave the whole into a graceful, interesting, comprehensive essay.

Kindly send all contributions so that they may reach this office not later than December 8th.

Address: "The Roundabout Club," "The Farmer's Advocate," London, Ont.

The Young Man's Winter Evenings.

By W. Watson Evans.

With the approach of winter and the restraint from outdoor life, the thoughts of young men instinctively turn to meet the question, "What am I going to do this winter?"

When the holiday season has quite passed, many of the boys—scarcely any home in this broad Dominion without a representative—return to their school, collegiate or university duties, there to pursue a definite course of study during the college year; but a greater number are left at home to plan their winter's avocation, often with no definite end in view.

Of these, many will pass the time in non-productive pleasure and passive engagement. This is especially true of the city boy, where the lurid glare of the cheap show and the popular amusement house are strong to attract. Others will outline a suitable course of work for self-improvement, planned not only to accomplish something of real worth, but also adapted to provide most genuine pleasure and satisfaction in the process.

We may here consider profitably the real goal of education. "To let each one become all that he was created capable of being," Carlyle held to be the highest realization of the spirit of learning. In consequence of its simplicity, its directness, and its truth, every young man might, with benefit, make of that sentence a clear, mental image, to guide his endeavors.

The selection of a course of winter study must be largely determined by the surroundings of the individual. To attain the goal of certain ambitions, chiefly professional, it is necessary to attend for long terms at our colleges and universities. The wisdom of such courses need not here be discussed. Our chief interest, however, centers around a course with a different motive, more identical with Carlyle's definition. The spirit of nobility, of moral chivalry surging in the breast of every young man, must awaken an irrepressible desire to attain to this fullest manhood, and to realize in himself the grandest capabilities of his being. To no more worthy end may he spend his evenings around the family fireside, with no more splendid example may he inspire his young friend, than to earnestly seek the source of knowledge.

The spirit of education and true culture receives greater stimulus from the genuine appreciation of a few great thoughts and pure ideas, than from any amount of lifeless instruction. For the average young man seeking general instruction, the Literary page of "The Farmer's Advocate" will be found exceedingly satisfactory, and will furnish splendid material. This, with other general reading, may be supplemented by one or two good books for the year, the selection of which requires great care and considerable experience.

The young man about to take into his hand the sacred ballot, or who has already taken it, to be used as the instrument to decide great and far-reaching questions of tariff, of foreign policy, in fact all vital questions affecting the welfare of the nation, should know something definitely, and be possessed of information enabling him to judge soundly concerning these matters. Our much-boasted democracy and widely-extended franchise, is well intended to defeat its own purpose, if the intelligence of the voter to settle the questions on which he is called to decide is not well assured. Much may be argued in favor of an intellectual standard as a basis for the suffrage. At any rate, no young man

An Interesting Calculation

HERE is an interesting calculation for young housewives or old ones for that matter. A pound of the best bread in the



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ROYAL HOUSEHOLD FLOUR

ROYAL costs less than four cents.

A pound of the best beef steak costs 25 to 30 cents. Yet a pound of bread made from ROYAL HOUSEHOLD FLOUR contains more working energy than a pound and a half of beef steak. Or three pounds of pork, or two pounds of veal.

Whether figured by the pound or by actual units of health and strength, bread made from

Royal Household Flour

is the most economical food in the world. Especially is bread made from ROYAL HOUSEHOLD FLOUR good for growing children. They can't eat too much of it. For their general healthy growth and development it furnishes an almost complete food. As a matter of household economy children ought to be given all the bread they can eat at all times.

Statistics also prove that ROYAL HOUSEHOLD FLOUR will sustain life longer than animal food. It is extremely rich in high quality gluten which comes from the best Red Fye Wheat—the finest in the world. This large percentage of high quality gluten is what makes ROYAL HOUSEHOLD FLOUR so much better than ordinary flour. Red Fye Wheat is known the

world over for its richness in high quality gluten.

The beautiful white color of ROYAL HOUSEHOLD FLOUR is natural. It indicates the richness of the wheat from which it is made.

The one safe rule in buying flour is to get ROYAL HOUSEHOLD and in that way you will make sure of getting the largest percentage of nourishment and the cleanest, purest and most uniform flour. Best for pastry as well as for bread. Rich, nutritive, natural, most uniform and most satisfactory for all household baking. Insist on ROYAL HOUSEHOLD—your grocer will be glad to furnish it if you tell him that substitutes will not do.

"Ogilvie's Book for a Cook", with 125 pages of recipes that have been tried and tested, will be sent free to your address if you mention the name of your dealer. 35

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FREE! "How to Learn to Mount Birds and Animals," a copy of Taxidermy Magazine, and sample Diploma. Write today.

SPORTSMEN and NATURALISTS—You can quickly learn in just a few lessons how to mount your own specimens and trophies as well as a professional, a professional.

BIG PROFITS Good Taxidermists are scarce and always in demand. Many of our students earn \$12 to \$18 a week in their spare time or \$200 to \$300 a year as professionals. You can do as well. Write today for FREE copy of Taxidermy Magazine and handsome book, "How to Learn to Mount Birds and Animals," fully explaining our work.

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You CAN be—
Just get one bag of
"CREAM of the WEST" FLOUR

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TORONTO

will ever regret the time spent in acquiring an elementary knowledge of political and economic laws. The daily press, if discriminately and carefully read, gives familiarity with many political and a few economic movements. The latter might be well supplemented by some book of merit treating generally the scope of economic work, such as Gide, "Elements of Political Economy," an excellent and clearly-written work.

As a general preparation for good citizenship, such a training would be of great value, and would lend interest to the discussion of important questions, and facilitate their comprehension. The scope of economics is unlimited, dealing with every conceivable phase of industrial and commercial life. Its study opens an inviting field for leisure hours, and insures a rich reward for all the time and labor expended. The young man on the farm will be greatly helped by following closely the scientific side of agriculture and improving the methods employed. But it is wise to cultivate a broader vision, and to feel an interest in, and a responsibility for, the progress of society, and of general development. From such a viewpoint, interest will not only be aroused and sympathies broadened, but daily tasks, which, blindly pursued, are to all men in all vocations, an equal drudgery, will appear in their proper light, and the vision of work to be accomplished will transform the wearisome tasks of daily toil and selfish ambition, by the spirit of loving service.

In these days of golden opportunity there is much to be accomplished, but very much to be avoided. Our city life is weary in consequence of a mad rush for unsatisfying pleasure. The crowd pulls the soul out of a man—and leaves him forsaken—incapable of independent thoughts. There is no retreat like the retreat of the family fireside. There is no pleasure like that afforded by noble and unselfish thoughts. A nation to be great, a people to be happy, must rely on "homes." Home may be made more cheerful, life may be made brighter and broader, by this winter reading and assimilating a few notable ideas stored up in our vast literature and inviting our attention.

The Scarcity of Teachers.

By "Elizabeth Wood," Waterloo Co., Ont.

A great deal is being said just now about the scarcity of teachers to fill the positions in our Ontario public schools. Most of the blame is being heaped upon the head of the Government, where perhaps some of it justly belongs, but it seems to me that any thinking person, particularly if they be an introspective school teacher, will easily see that something more than the re-establishment of Model schools is at the bottom of the trouble.

The course of training which a teacher must take now is much more expensive, and does not admit of any teaching before the Normal course is taken. This, no doubt, keeps many out of the profession who would otherwise be most successful teachers. Of course, this method of training sends out more competent and thoroughly-trained teachers than heretofore, and the average age is higher. It also prevents teaching being a mere stepping-stone, as it has so frequently been in the past, but take for example a teacher who has put in the necessary years at a Collegiate and a year at Normal, and then finds from practical experience that he dislikes the work, and is not naturally fitted to make a successful teacher, is he going to lose that extra \$350 which his Normal training cost him and get into another and more congenial profession? No; I think not. He stays in the teaching profession and gets his money back, no matter what a poor teacher he may be. In the days of the Model school, a person had the opportunity to find out if the work was congenial before so much money was invested in training, and this naturally reduced the number of incompetent teachers in the profession.

These things may to some extent account for the seeming disinclination of many to enter the profession, but surely not for the decided tendency shown by many of our most successful teachers to leave it for other work. If the conditions were as ideal as some people would have us believe, why do these teachers wish to seek pastures new? What is the reason for the rush of our Ontario teach-

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Is a natural aid to natural beauty. It improves and preserves the complexion by removing the waste matter from the skin and the secretions from the pores. Freckles, Tan, Mole-patches, Sallowness and Muddiness disappear, so also do Acne, Eczema, Ringworm, Ivy Poisoning, etc. Price \$1.50, express paid.

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POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each initial counts for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 30 cents.

FOR SALE—Mammoth Bronze turkeys, off prizewinning stock. Eric Ritchie, Elmvale, Ontario.

FOR SALE—Buff Orpington cockerels, \$1 each. Geo. F. Lewis, Centreville, N.B.

I HAVE some grand birds, in R. O. White and Black Leghorns and W. C. Black Polands, at bargain prices. Robert Houser, Canboro, Ontario.

LARGE White Wyandotte and Brown Leghorn cockerels, also Black Minorcas, Rose and Single Comb. C. Day, Highgate, Ontario.

MAMMOTH BRONZE TURKEYS, Banded Plymouth Rock cockerels (Pringle strain); also White Wyandotte cockerels and pullets (Martin and Russel strain), for sale. Alton Stevens, Lambeth, Ontario.

DEACHGROVE FARM offers Indian Runner ducks and drakes at \$1.50 each; also Single-comb Rhode Island Red cockerels at \$1.50. Frank Baldwin, Glanworth, Ontario.

RHODE Island Reds, of high quality. W. J. Bunn, Spruce Grove Poultry-yards, Birt, Ontario.

WHITE Holland turkeys for sale. Toms, \$4.00. Miss Mary Caldwell, Box 10, Shanty Bay, Ontario, Canada.

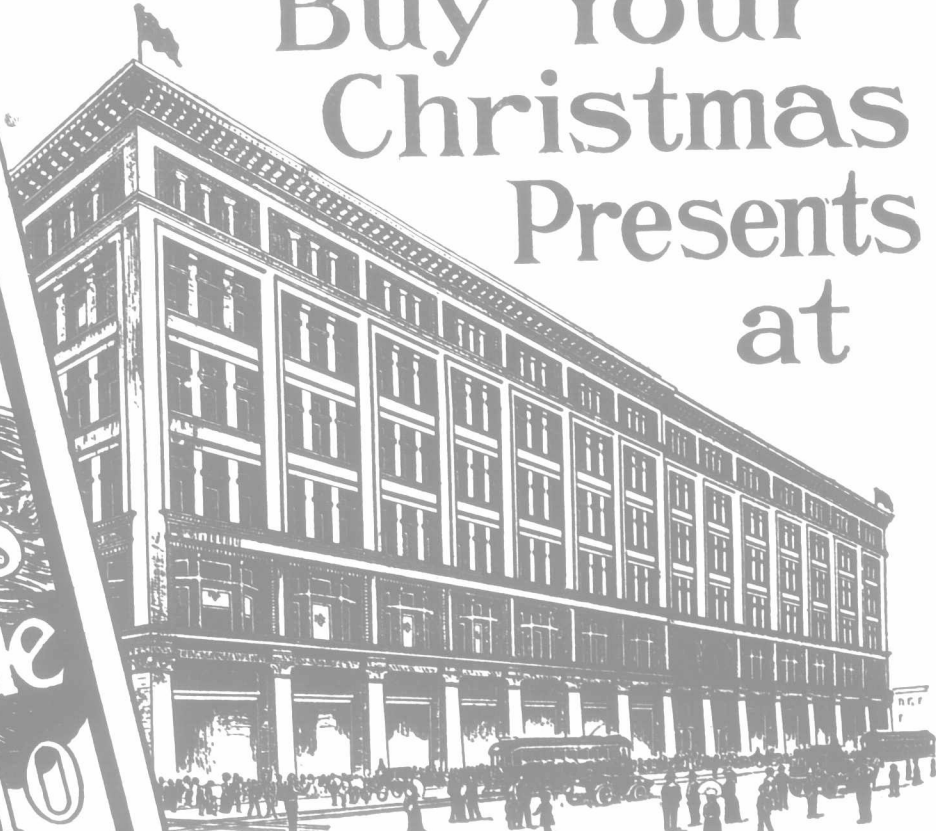
WANTED—A few private farmers to ship me Poultry, Eggs, Dairy Butter, Honey, and all other farm produce. Will pay highest market price. W. J. Falle, Prince Albert Ave., Westmount, Montreal.

WHITE WYANDOTTES (Martin hatching), Rose-comb Red (Kilger hatching), coo, cockerels, hens, pullets, one to three dollars each. Pens not related. Satisfaction guaranteed. Duncan McFarish, Chesley, Ontario.

Housewife—Have you any musk melons? Illiterate Grocer—Musk melons? Yes some people call them antelopes.



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We Pay Delivery Charges on Every Article in this Christmas Catalogue to any Destination in Canada

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It will go much further than you think—if you order your gifts from this Special Christmas Catalogue — just issued.

Suppose you could take your time about your Christmas buying — wouldn't your money go twice as far as if spent in a few hurried, crowded shopping hours?

Think of spending a whole day—a week—in our great store—looking over our extensive stocks, comparing prices and making out lists of the presents you would like to buy!

That's just what you do when you buy through Simpson's Special Christmas Catalogue.

We have a copy of the catalogue for you, just waiting for your name and address. It's free—send for it now.

*Just write on a post card: "Please send me Christmas Catalogue No. 15."
We will send it by return mail, prepaid.*

The **SIMPSON** Company
Robert Limited
TORONTO

WE PAY DELIVERY CHARGES on every article shown in our Christmas Catalogue. You buy just as cheaply as though you lived right here in Toronto, and you ship the goods back *at our expense* if you don't like them when they arrive—and *get your money back*. This means, of course, that we are going to be very careful about sending exactly what you order.

Our general mail order catalogue enables you to buy—at Toronto prices—almost anything shown in our great store. *We also pay delivery charges on all goods shown in our General catalogue with the exception of a very few heavy, bulky articles.*

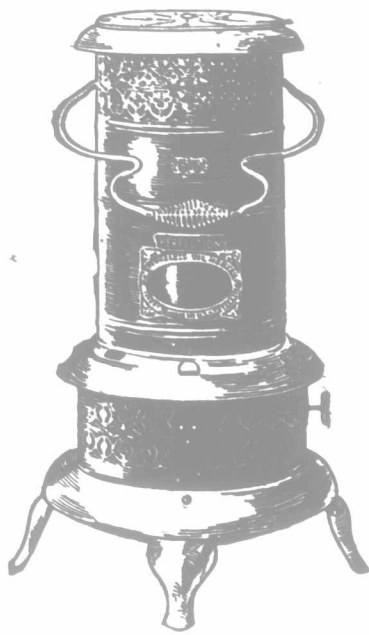
ers to the West? It seems to me that the reasons of these things may come under two heads. First, "Teaching as a business proposition," and second, "Teaching as an agreeable life-work."
In dealing with the first reason, a Hamilton minister said some months ago, "that a person was not worthy of the name of a Christian teacher who would let the thought of salary influence his action in choosing his school. I am sure that the reverend gentleman did not realize what he said. How many ministers in Ontario, I wonder, are preaching, regardless of salary. Not many, I

think, for, after all, no matter what a great sense of duty a person may develop, the loaves and the fishes hold an important place in the calculations of everyone."
Now, take for an example of the business aspect of teaching in a certain town of which I know. The initial salary for ladies is \$100. If the work is continuously graded "Excellent" by the Inspector, and the teacher does not grow weary in and the teacher does not grow weary in well doing, she will, at the end of five years, be receiving the magnificent salary of \$550. What business man, I wonder, would look on an increase of \$150 in five

years as a paying proposition, especially when all possible increase ends here, and no matter how many years of excellent work she may give the School Board, her salary remains stationary. And yet this town is above the average in point of salaries, as the School Board assured the lady teachers a few months ago when they petitioned that august body for an increase. This town pays its male assistants an initial salary of \$700, which is \$150 more than the lady assistants ever can attain to. Does this recommend itself as a basis for a life-work to any fair-minded girl?

On the other hand, take the teachers whose positions are in the country. Owing to a much-needed and much-abused law passed by the Whitney Government, the rural salaries were regulated by the assessed value of the school section. Although this law has since been severely pruned and modified, its good effects are still visible. Salaries in the country will never again reach the ridiculously low figure at which they once stood, and the rural teacher is in most cases drawing a better salary than those in the urban centers where the expenses are higher. Then, why are rural teachers so scarce?

You Can Work Near a Window



in winter when you have a Perfection Oil Heater. It is a portable radiator which can be moved to any part of a room, or to any room in a house. When you have a

PERFECTION SMOKELESS OIL HEATER

Absolutely smokeless and odorless

you do not have to work close to the stove, which is usually far from the window. You can work where you wish, and be warm. You can work on dull winter days in the full light near the window, without being chilled to the bone.

The Perfection Oil Heater quickly gives heat, and with one filling of the font burns steadily for nine hours, without smoke or smell. An indicator always shows the amount of oil in the font. The filler-cap, put in like a cork in a bottle, is attached by a chain. This heater has a cool handle and a damper top.

The Perfection Oil Heater has an **automatic-locking flame spreader**, which prevents the wick from being turned high enough to smoke, and is easy to remove and drop back, so the wick can be quickly cleaned. The burner body or gallery cannot become wedged and can be unscrewed in an instant for reworking. The Perfection Oil Heater is finished in japan or nickel, is strong, durable, well-made, built for service, and yet light and ornamental.

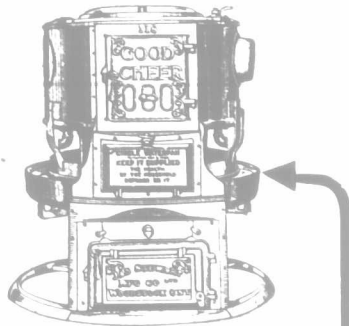
Dealers Everywhere. If not at yours, write for descriptive circular to the nearest agency of the

**The Queen City Oil Company,
Limited.**

DRAUGHTS NEVER CAUSED A COLD

Stuffy Rooms Alone Responsible Says Dr. Treves.

Special Cable to The Mail and Empire Over Our Own Leased Wires. London, June 26.—Dr. Sir Frederick Treves astonished the public last week by declaring that "the idea that colds are caused by draughts are absurd. No cold ever had such an origin. Colds are the origin not of draughts, but of stuffy rooms." Other famous London physicians back up Sir Frederick in holding that no cold was ever caused by draught.



You may question Sir Frederick's statement but there can be no doubt whatever as to the evil effects of a close stuffy atmosphere. In the winter-time, when storm doors and double windows help to make the house practically air-tight, we live in a death dealing atmosphere, breathing air vitiated with the vapor elimination from the lungs of the occupants and the organic secretions and moisture from the pores

of the skin. There should be humidity, but it must be pure and refreshing as that of the outdoor air, and it is through the introduction of fresh outdoor air and its ample humidification by means of the large Circle Waterpan that the

"GOOD CHEER"

Circle Waterpan Warm Air Furnace

makes the atmosphere of the house in winter like that of a bright June morning—warm, refreshing and life giving.

The demand for our booklet "Humidity and Humanity" is taxing the capacity of our mailing staff, but we have a copy for you upon request, stating where you saw this advertisement.

**The JAS. STEWART MFG. CO., Limited,
WOODSTOCK, Ont. - - - WINNIPEG, Man.**

Please Mention The Advocate

Anyone who has ever taught in the country will tell you. None of the farmers near the school want to be bothered with you in their homes, and when a reluctant entrance into some family is given you, there is, in all probability, a walk of a mile and a half or two miles between the school and your boarding-house. You must carry a lunch, eat it in unappetizing surroundings, amid the breath-laden air of the usual unventilated schoolhouse. Then the long walk back to your boarding-house after school. You are dependent upon strangers to carry you to and from trains, to see that your trunk is looked after, and to bring your mail. You have few social advantages, scant chance reading matter, and endless trivial gossip to put up with. Then, too, there are often children in the home, and when one has been shut up with them all day long, it is rather a cross to hear school, in all its phases, discussed during the evening. Of course, I am glad to say that there are exceptions to this state of affairs, but these are the average conditions which the teacher in the average school-section has to confront.

The salaries in the West certainly are higher than here, and even if your expenses are greater, you have the satisfaction of handling the money, anyway. It seems to me that there is something radically wrong with any educational system which will allow almost two thousand uncertified teachers to do work in the Ontario schools in the year 1909 and 1910. What is the satisfaction in attending the Normal school and struggling for your Junior Teachers' certificate when Collegiate pupils who have failed to obtain this certificate, and have not had one day's training which would practically or theoretically fit them for teachers, are holding good positions and receiving the same salaries as those who are qualified, or within a few dollars of the same salaries. I wonder if this condition of affairs would be tolerated in any other profession? The plea that no better teachers can be had is nonsense. Let these schools which are so situated offer a salary of six hundred dollars, and they would see how readily the positions would be filled, for what would then be the use of our teachers going West if good salaries could be obtained at home?

So much for the financial outlook of the teaching profession, and now let us view it from the standpoint of its pleasantness as a life-work. We have already touched on some of the unpleasant points confronting the average teacher in rural sections, now we shall take teachers as a whole. Elbert Hubbard says that in order to know what true happiness is one must have done good work. This may be true, but if Inspectors' reports may be taken literally, I have done good work, and never for an instant has it resulted in true happiness as far as my work was concerned. I have always disliked it, and have grasped the first opportunity to leave the profession for more congenial and more remunerative work.

I think that one of its most outstanding disadvantages is the effect it has on one's disposition. The teacher is there to criticise, and is constantly on the lookout for mistakes rather than perfections. What effect will a year or two of fault-finding have on the sweetest disposition. That teachers invariably talk shop, speak in loud voices, express cut-and-dried opinions, which in some respects resemble the laws of the Medes and Persians, and expect their views to be unquestionably assimilated by their hearers, is only the natural result of the environment in which they work day after day. If the salary received was enough to recompense them for this deterioration in social charm, if anything could recompense them, then it might be a different matter, but is it worth while losing all this, merely to be able to draw an annual \$400, and wear an "I've-done-my-duty" expression? When would-be teachers of a discerning mind see the effects of the work on their professional sisters, who can blame them for avoiding it, or for seeking pastures new before its hall-marks are irrevocably fixed. Just here, I may be pardoned for quoting a verse which I saw in an Educational Journal of some note. People will laugh at it, but, after all, there is some truth in it:

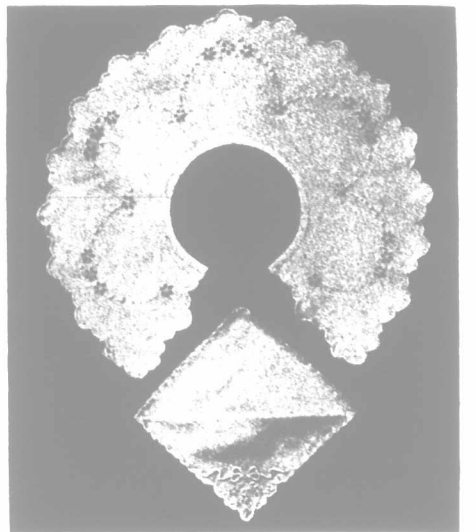
"Teachie, teachie, all day teachie,
All night longie, markie papers.
No more huggie, no more kissie,
Poor old maide."

Now, while I have much to say in favor of those unplucked flowerlets, yet teaching is not the profession which one would choose in which to spend these years, and it is this very outlook, coupled with the poor salaries paid, that is causing all this commotion in regard to the scarcity of teachers.

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.]

Just a very few lines this time, but really Christmas is so near that suggestions for presents must go in now or never. Are you raking your brain to know what to give to grandma, having already given her so many aprons, caps



Dutch Collar and Handkerchief, Embroidered.

and knitting-bags that she doesn't know what to do with them? Then, how would a hot-water bag, with a knitted cover, do? She will find it of plenty of use for cold feet during the winter, and when twinges of rheumatism come. Knit the cover of cherry-colored wool, with a ruffle all round, and draw up with a ribbon to match at the top.

Among the things that you can knit for someone else are "fronts," to slip inside of open-necked coats, silk ties for the boys, the inevitable bedroom slippers, and a tea-cosy—the very best kind going, made of pretty, soft wools, knitted in rib



Embroidered Whisk Cover.

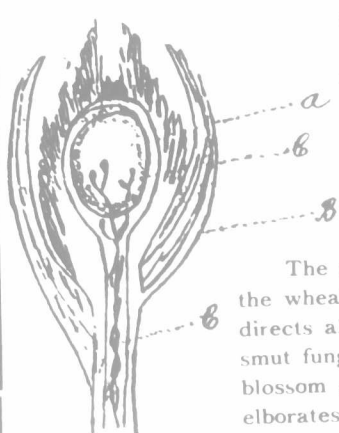
(Pictorial Review.)

design, exactly like a bag open at the bottom. Put a ruffle around the top, and draw in with a ribbon. And have you ever given anyone a set of wash-cloths in a pretty cretonne bag, or a pocket lined with oiled silk? Knit the cloths busily of knitting cotton, and put a loop on each to hang it up by while drying.

Fine handkerchief linen may be made into dainty collars and handkerchiefs, by embroidering a little in some simple pat-

SMUT

and its attack upon grain



A, Interior of young grain or smut ball.
 B, Chaff scales.
 C, Germ tubes of smut fungus travelling up the stem and entering ovule

The smut continues to keep pace in its growth with the wheat, and when the heads appear, the wheat plant directs all its energy to the production of seed. The smut fungus, however, prevents this, as it enters the blossom and feeds on the nutritive material that the plant elaborates to store up as starch and gluten. The grain is thus replaced by a thick mass of smut spores.

Formaldehyde properly used prevents Smut. Used and recommended by Agricultural Colleges and Experimental Farms.

WATCH FOR THE NEXT DRAWINGS

Pamphlet regarding Smut mailed free on request to

The Standard Chemical Company
 of Toronto, Ltd.

MANNING CHAMBERS

TORONTO

The Best Cough Syrup is Easily Made at Home.

Costs Little and Acts Quickly. Money Refunded If It Fails.

This recipe makes 16 ounces of cough syrup, saving about \$2, as compared with ordinary cough remedies. It stops obstinate coughs—even whooping cough—in a hurry, and is splendid for sore lungs, asthma, hoarseness, and other throat troubles.

Mix two cups of granulated sugar with one cup of warm water, and stir for 2 minutes. Put 24 ounces of Pinex (fifty cents' worth) in a 16-oz. bottle, and add the Sugar Syrup. Take a teaspoonful every one, two or three hours. Tastes good.

This takes right hold of a cough, and gives almost instant relief. It stimulates the appetite and is slightly laxative—both excellent features.

Pinex, as perhaps you know, is the most valuable concentrated compound of Norway white pine extract, rich in guaiacol and the other natural healing pine elements. No other preparation will do the work of Pinex in this recipe, although strained honey can be used instead of the sugar syrup, if desired.

Thousands of housewives in the United States and Canada now use this Pinex and Sugar Syrup recipe. The plan has often been imitated, but the old successful formula has never been equalled. Its low cost and quick results have made it immensely popular. A guarantee of absolute satisfaction, or money promptly refunded, goes with this recipe. Your druggist has Pinex or will get it for you. If not, send to The Pinex Co., Toronto, Ontario.

A REAL EDUCATION

for its students, with mental, spiritual, and physical development, in an ideal home environment—with thorough instruction, and agreeable social relations, is the purpose of Alma College. Your daughter will enjoy life here, because

ALMA COLLEGE

is attractive in situation, with ample grounds. Good food, home cooked. Rational exercise. Classics, art, music, domestic science, commercial, elocution and physical culture. Tuition low. Picked faculty. Address the president, Robt. I. Warner, M.A., D.D., St. Thomas, Ontario, for prospectus and terms. 11

GRAND TRUNK RAILWAY SYSTEM

WINTER TOURS

TO Mexico, Colorado, California and Pacific Coast Points

The Grand Trunk Railway System is the Popular Route from all points east through Canada via Chicago.

FEATURES

Double Track, Fast Service, Finest Roadbed, Modern Equipment, Unexcelled Dining-car Service. All elements of safety and comfort.

TO THE SUNNY SOUTH

No more desirable route than via Grand Trunk and connecting lines.

VERY LOW RATES

Secure tickets and full particulars from ANY GRAND TRUNK AGENT, or address:

J. D. McDONALD,
 District Passenger Agent,
 Union Station, Toronto, Ontario.

A FLOOD OF LIGHT FROM KEROSENE COAL OIL

THE ALADDIN MANTLE LAMP generates light from kerosene, a light fuel, with coal oil (Kerosene), a light fuel, far more brilliant than gas or electricity. It is simple, durable, portable, odorless and safe. Satisfaction guaranteed.

AGENTS MAKE BIG MONEY by showing the lamp, the light makes the sale. It revolutionizes rural lighting; needed in every home. The SUNBEAM burners fit all ordinary lamps. Ask for Agency proposition or how you can obtain a lamp FREE to introduce it.

The MANTLE LAMP CO. of America, Chicago, MONTREAL, Winnipeg and Dept. B.

GILL & ASKIN of Cooksville

Will have a dispersion sale of

Registered Hackneys

AT Burns & Sheppard Repository, Toronto

ON TUESDAY, NOVEMBER 22nd

Write for catalogue.

tern, while the heavier linens may be made into a variety of things, doilies, center-pieces, whisk-holders, magazine-covers, book-covers, cushion-tops—their name is legion.

Re Stencilling—Scones.

Dear Dame Durden.—Enclosed is one dollar (\$1.00) for stencilling outfit.

I have been reading every article I saw in connection with the work, and from what instructions I have gained, would like to try it.

In May 20th number, there was an article on stencilling, and it said to mix the paint with naphtha. Would you kindly tell me what it is, and if you use it in place of turpentine?

I will send some recipes, as they may help others.

Scones.—Four cups flour, 1 cup butter (but I never use that much), ½ cup currants, ½ cup sugar, 1 egg (save out a little of the white), 2 teaspoons baking powder, 1 teaspoon salt, 1 tablespoon butter, 1 small teaspoon of soda, 1 cup sour milk (or as much as required), salt. Cut in diamonds, then paint the top with the white of egg.

Potato Scones.—One cup flour, 1 cup mashed potatoes, 1 teaspoon baking powder, 1 teaspoon salt, 1 tablespoon butter, milk to make a soft dough.

Brown Biscuits.—One egg, ½ cup sugar, 2 tablespoons baking syrup, salt, a little spice, 1 cup cream, 1 cup buttermilk, 1 teaspoon soda. Use half bran and flour. Bake in muffin rings. S. N. G. Dufferin Co., Ont.

As naphtha is very inflammable, something like gasoline, we would advise you not to use it in winter when fires and lights must be about. Use turpentine. The instructions that go with the patterns say to use dye, but it appears that the turpentine and tube paint washes best. By the way, I heard yesterday of a girl who is very successfully using the tube paint alone without any medium.

A Belated "Opinion."

"How to Amuse Children on a Rainy Day."

"Blessed is the woman that hath plenty to do, for her children learn how to amuse themselves." Rainy day or sunny day, matters little to them; they have learned to rely on their own resources.

A woman with help says, "Mary, you finish this; I must take him—he is crying." Without help, she says, "I can't take the wee man—mamma must finish this," and so, from the cradle they learn to make great airy nothings out of the potato-masher, egg-beater, or pie-tins, and thus amuse themselves.

As the children grow older, they are about the busy mother. On baking days they will pare apples for the pies, knowing they are quite sure of a piece sprinkled with sugar, or maybe a bit of dough to make a pie for themselves. On cleaning days, they can do their share of the dusting, etc.

Often, we mothers grow weary with the continual round of work, but I do think that self-reliant children is one of the compensations. But rainy-day amusements was to be my excuse for writing a letter, so I had better get started.

Well, usually, himself is about the buildings somewhere, and nothing suits the wee ones better than to be bundled up and allowed to go wherever he is, and there they will stay until their hands and noses are blue. Then comes a stampede for the house, and off come their coats and hats, rubbers and boots, and away to their play room they go.

Have you a play room for the children? If not, plan to have one this winter. There is generally a room over the kitchen which is kept warm from the kitchen stove, and while they are there, you know very nearly what is going on. Here they keep their playthings, and they can cut papers or move the benches, tables and chairs around to please themselves.

Most children like playing school, or store-keeping, or going to church, and, having a room to themselves, they can call it what they please.

Cutting pictures from magazines is one of their pastimes, and it is a great treat if you allow them a bit of paste to make a scrapbook.

Instead of buying candies, try a box of crayons or water-colors. They will paint by the hour—the pictures on the advertising pages of our newspapers, and one boy I know made quite a pretty effect



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and Pet Stock. TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

AGENTS WANTED—For two new lines. Apply for particulars to The Electric Beans Chemical Co., Ltd., Dept. A., 223 Albert Street, Ottawa, Ontario.

BRITISH COLUMBIA FRUIT FARMS—\$10 cash, \$10 monthly, in "Glorious Kootenay." Fertile. No irrigating. Mild climate. Free booklet by—Investors' Trust & Mortgage Corporation, Ltd., 134 Hastings W., Vancouver, B. C.

FOR SALE—Iron, Pipe, Pulleys, Belting, Rails, Chain, Wire Fencing, Iron Posts, etc.; all sizes very cheap. Send for list, stating what you need. Agents wanted; good commission. The Imperial Waste & Metal Co., Queen St., Montreal.

FARM FOR SALE—Consisting of 370 acres of choice land, in the Township of North Dorchester, County of Middlesex. This is a splendid dairy farm, and is close to cheese factory, post office, and other conveniences. Only small payment required. Apply at once to J. Garfield Gibson, Barrister, Ingersoll, Ont.

FOR SALE—145 acres—in Oxford County. Clay and sandy loam. About 100 acres cultivated; balance in bush and pasture. Good house, stone bank barn, straw shed and drive house. Five miles to good market. Post office, store and school close by. This is a splendid chance for a renter to acquire a good homestead at a big bargain and on easy terms of payment. Apply to A. O. Jeffery, Barrister, Market Lane, London, Ont.

FOR SALE—Woodside Farm, six hundred and twelve acres, or would divide into three hundred-acre farms. One of the best farms in Ontario. Situated east of Brantford. For full particulars, write E. Todd, Caledonia, Ont.

GOOD cattleman or farm hand wants situation. Apply: G. Willis, Ore, Ontario.

VANCOUVER ISLAND offers sunshine, mild climate; good profits for ambitious men with small capital in business, professions, fruit-growing, poultry, farming, manufacturing, lands, timber, mining, railroads, navigation, fisheries, new towns; no thunder storms; no mosquitoes; no malaria. For authentic information, free booklets, write Vancouver Island Development League, Room A, 102 Broughton St., Victoria, B. C.

WANTED—Situation as herdman; life experience; good milker. H. Burbidge, care Mr. Harris, 81 Terauley St., Toronto.

WANTED TO PURCHASE—Timothy, Canadian Blue Grass, Kentucky Blue Grass, Alsike and Red Clover. Send samples and prices to Box G S, "Farmer's Advocate," London, Ont.

WANTED—A bright, capable young man (preferably a farmer's son), to take charge of delivery end of a retail milk business. Must be well recommended and have ability. Also a capable man to work in the bottling department. Apply: Box 65, Montreal West.

WANTED—Permanent position as hired help in good Protestant home. Country preferred. State wages. Ruth Mulholland, Mitchell, Ontario.

The Delhi Tannery Wanted 2,000 horse and cattle hides to tan for robes, coats, etc. All kinds of hides, skins and furs dressed soft and pliable. Deerskin for buck, or with the hair on. Send them to me and have them dressed right. B. F. Bell, Delhi, Ont.

A New Breakfast Food.

High and low he searched for the bag of confetti he had brought home on the previous evening for his son and heir, but his efforts were not rewarded with success. Where on earth had he put it? What had become of it? With every minute he became more irate, till finally he rang for Bridget. "Bridget," he exclaimed, testily, "Did you see that bag of confetti I brought home last night for Freddie?"

"Sure, an' Oi did, sorr!" brogued out Bridget. "But Oi didn't know it was only for Mhaster Fred. There's but half av it left now."

"Only half of it left?" he cried. "What on earth have you done with the rest?" "Cooked it, av course," retorted Bridget; "an' it's for yer own breakfast, with cream, ye had it this mornin'!"

"Did Tom have any luck hunting tigers in India?"

"Yes; great luck."

"How?"

"He didn't meet any tigers."

HERE'S A GRAND CHANCE TO BUY A GUARANTEED OVERCOAT at **\$13.50**

BE SURE TO
GIVE CHEST
MEASUREMENT
WHEN
ORDERING

Splendidly Tailored. WINDPROOF and
WATERPROOF. Imported Black
Beaver Cloth. MARMOT
FUR COLLAR

The Description The material is of an imported black
will interest you beaver cloth, smooth, rich finish, in
the popular double-breasted style, and closes with loops and
barrel buttons. It is interlined to the waist with rubber
sheeting, making it windproof and waterproof. The body
linings are a heavy curly cloth or imitation Persian lamb,
warm and of good appearance. There is a knitted wool
windproof cuff in the sleeve, and the fur collar is shawl shape,
made from marmot fur, a dark brown shade similar to otter.
The length of coat is 50 inches, sizes 34 to 46.

We will refund your money if overcoat
is not satisfactory

We Give You This Guarantee You take no chances when you order
this coat. Our Guarantee means all
it says, "If you are not entirely satisfied with your purchase
we will gladly refund your money and pay shipping charges
both ways." That's a fair enough offer, isn't it? What we
say we will live up to, and no one should hesitate if they
need a coat of this description. Think of the value you re-
ceive and the more than reasonable price asked; indeed, many
will buy this coat as an investment, not so much because of
a real need as the fact that it is a desirable overcoat at an
unusually good-value price. Again we say, order now, because we
anticipate a brisk selling. Remember that our
guarantee is your protection towards securing for
you the satisfaction you expect to receive.



DID
YOU
GET
THIS
BOOK

A beautifully-illustrated cloth-
ing Booklet showing the newest
Fall and Winter Styles in Men's
and Boys' Clothing. Samples of
cloth accompanying each price,
making selection easy. Don't
fail to write for this book.

"IT'S FREE FOR
THE ASKING"

We want to sell 1,200 Over-
coats, and at this price
they'll go quickly

If you appreciate good value--ORDER NOW

THE T. EATON CO. LIMITED
TORONTO CANADA

PRICE:
\$13.50



Length of overcoat, 50 ins.
Chest measurement,
34 to 46

shading the maple leaves in autumn tints at the head of this "Home Magazine."

Stringing beads is another help. You can buy a little bag of beads for a cent, and they will keep the busy fingers occupied for many an hour.

Some children like to sew. Take a piece of pasteboard and prick out the outline of any drawing, and let them follow the outline with bright-colored thread.

But I could keep on until D. D. would be tired and slip the whole thing in the w.-p. b., so I will finish by saying that, when you write to Santa Claus this Xmas, just order a box of crayons, some water-colors, a few scribblers and lead-pencils, a slate and pencil, a few bags of beads, and some picture blocks, and the children will be thankful many a long winter day.

MARGARET.

Grey Co., Ont.

Cradle Song.

(Sent by "Juanita.")

Thy heart and mine are one,
At dawn and set of sun;
When skies are bright, when days are drear,
Thy heart and mine are one, my dear,

About us move the paltry folk
Whom little things estrange;
The friends that feel their bond a yoke,
The loves that lightly change;

But thou and I, my bonny child,
Their dangers blithely shun,
Nor can by sorrow be beguiled—
For thou and I are one!

—Florence Earle Coates.

The Garden of a Com-muter's Wife.

(By Mabel Osgood Wright.)

II.

CONCERNING GARDENERS.

(In General).

October 27. In my childhood's garden of dreams there was no room for a gardener. To me that name meant a being who was the interfeerer, not the mediator between oneself and mother earth, a man who tyrannized and sulked by turns; in spring was blatant and self-confident; in autumn, owing to divers mistakes, usually indignant with the quality of the soil, the slope of the land, the amount of rain, and the date of the coming of frost; in short, made us feel as if we had combined with nature to bring about his martyrdom, which he bore with something akin to triumph, enveloping himself with a halo of failures.

A gardener is, of course, a necessity to the very rich—those unfortunates whose possessions have expanded alike beyond their personal control and out of the range of the affections—to the overbusy, the ignorant, and the irresponsible. These four classes may have a distinct yearning to grow flowers, fruits and vegetables, and yet, from the causes named are unable to assume the joyful responsibility of so doing.

On the other hand, it is not needful personally to wield the spade that turns the soil, or trundle the barrow that carries the manure. Well-directed brute force does this far more admirably, and digging and dragging make one's pen hand, or thimble finger (according to sex and employment) wretchedly stiff, besides causing a wicked extravagance in the matter of shoes and laundry work. But if one fails to pervade the planting and training with individuality, then is that garden like the proverbial egg without salt; and of such overdone, underdone, tasteless embryos there are plenty, and it is not people's fault if there are not more. It is merely because it is difficult to force nature into ungraceful attitudes or inharmonious colorings.



Look for Full-fashioned Seamless Hosiery

WHEN it bears the Pen-Angle brand, you can be absolutely sure they will wear better than any other kind costing the same price. You can be absolutely sure they will fit better than any other kind at any price. Read the Guarantee printed here. You will then be sure that the largest hosiery mill in Canada would not risk its capital on such a Guarantee unless it had the goods to make good. Reasons for this Guarantee are few and simple; chosen excellence in the cotton

and cashmere yarns, for the first reason. For the others, being knit on machines we alone may use in Canada—machines that knit the hosiery to fit truly, with reinforced strength-for-wear at the places the wear comes. And seamless! Think what foot-ease that assures! Seamless!

Remember the name and the Trade-mark next time you go shopping. You cannot afford to overlook the perfect fit, style and comfort of Pen-Angle Hosiery.

FOR LADIES

No. 1760—"Lady Fair" Black Cashmere hose. Medium weight. Made of fine, soft cashmere yarns, 2-ply leg, 5-ply foot, heel, toe and high splice, giving strength where needed. Box of 3 pairs, \$1.50; 6 pairs, \$3.00.
No. 1020—Same quality as 1760, but heavier. Black only. Box of 3 pairs \$1.50; 6 pairs, \$3.00.

No. 1150—Very fine Cashmere hose. Medium weight. 2-ply leg, 4-ply foot, heel and toe. Black, light and dark tan, leather, champagne, myrtle, pearl gray, oxblood, helio, cardinal. Box of 3 pairs, \$1.50; 6 pairs, \$3.00.

No. 1720—Fine quality Cotton Hose. Made of 2-ply Egyptian yarn, with 3-ply heels and toes. Black, light and dark tan, champagne, myrtle, pearl gray, oxblood, helio, sky, pink, bisque. Box of 4 pairs, \$1.00; 6 pairs, \$1.50.

No. 1175—Mercerized. Same colors as 1720. Box of 3 pairs, \$1.00; 6 pairs, \$2.00.

READ THIS REMARKABLE GUARANTEE

We guarantee the following lines of Pen-Angle Hosiery to fit you perfectly, not to shrink or stretch and the dyes to be absolutely fast. We guarantee them to wear longer than any other cashmere or cotton hosiery sold at the same prices. If, after wearing Pen-Angle Guaranteed Hosiery any length of time, you should ever find a pair that fails to fulfill this guarantee in any particular, return the same to us and we will replace them with TWO new pairs free of charge.

ORDER THIS WAY

Ask at the store first. If they cannot supply you, state number, size of shoe or stocking and color of hosiery desired and enclose price, and we will fill your order postpaid. Remember we will fill no order for less than one box and only one size in a box. BE SURE TO MENTION SIZE.

ADDRESS AS BELOW:

FOR MEN

No. 2404—Medium weight Cashmere. 2-ply Botany yarn with special "Everlast" heels and toes. Black, light and dark tan, leather, champagne, navy, myrtle, pearl gray, slate, oxblood, helio, cadet blue and bisque. Box of 3 pairs, \$1.50; 6 pairs, \$3.00.

No. 500—"Black Knight" winter weight black Cashmere half-hose. 6-ply body, spun from pure Australian wool. 9-ply silk splice heels and toes. Box of 3 pairs, \$1.50; 6 pairs, \$3.00.

No. 1090—Cashmere half-hose. Same quality as 500, but lighter weight. Black only. Box of 3 pairs, \$1.00; 6 pairs, \$2.00.

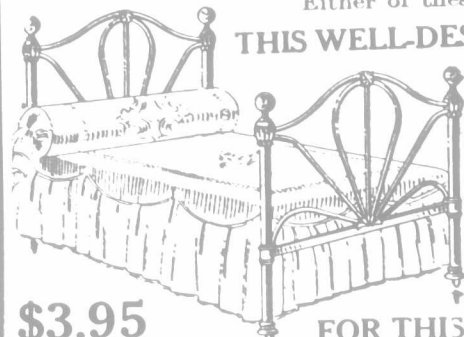
No. 330—"Everlast" Cotton socks. Medium weight. Made from four-ply long staple combed Egyptian cotton yarn, with six-ply heels and toes. Black, light and dark tan. Put up in boxes. Box of 3 pairs, \$1.00; 6 pairs, \$2.00.

Penmans, Limited, Dept. 45 Paris, Canada

Furniture to You Freight Free

Either of these pieces to any point in Ontario at Special Prices.

THIS WELL-DESIGNED DRESSER AND STAND ONLY \$10.85



\$3.95

FOR THIS HANDSOME IRON BED

A strong, well-made bed, with heavy posts and fillers and brass knobs on each post; rigid angle iron frame; all finished in best triple-coated enamel; can be had in all standard widths. Excellent value.

Write for our Furniture Catalogue

Carefully made of selected hardwood; golden oak finish; dresser top 34 inches wide; case contains three large drawers; has solid brass handles; British bevel mirror; size 24 x 14 inches, in neatly shaped and carved frame; stand contains one drawer and large cupboard and high splasher back. Price \$10.85 for two pieces complete



The Adams Furniture Co., Limited, Canada's Largest House Furnishers Toronto, Ont.

"I haven't seen anything like this for years. I've told Tompkins to plant fragrant things, but he says lemon verbena isn't used now, and mignonette makes the border lines uneven, but it doesn't do to thwart one's gardener, you know," was the plaint of Mrs. Jenks-Smith, one of the summer colony on the bluff, when, upon her going into my garden after a professional visit to father, I hesitatingly offered her a great bunch of rose, apple and nutmeg geranium, an-

nual wall flower, lemon verbena, mignonette, and lavender sprigs. When mother was here, we never had a real gardener. She came from a tranquil, old-time home of simpler days, the last child of all, and though her miniature makes her very lovely, a flower herself, father insists that to paint her expression would have been impossible. She brought with her the will and skill of garden craft as well as many plants that modern gardeners ignore, though through

their beauty, combined with their persistent permanence, their names are appearing once more in the seed catalogues.

The garden helper, in her brief time, was a cheerful man of all work who dug and delved as she guided him, and so much of herself radiated from her nook under the Mother Tree, with its vista down the long walk on either side of which the flowers were planted, and was so wrought into the soil, that it still remains, after a

It Does More Work for You

Because the feed-opening will take larger charges of hay, because the compound leverage power is greater, because the sweep is shorter, enabling the plunger to give more strokes in a given time, the DAIN PULL-POWER HAY PRESS has much greater capacity than a push-power press.

With the DAIN the horses never complain of heavy draft. There is no pitman or other high obstruction for the horses to stumble over. There is no heavy rebound, no whipping of the tongue to make the horses' necks sore, as with pitman-presses. The simplicity of the compound-leverage construction reduces the draft to the lowest degree. The DAIN is the easy hay press—easy on horses, easy on men.

You can set the DAIN PULL-POWER HAY PRESS quickly anywhere, as it does not need to be level. Because it delivers the bales towards the horses and away from the stack, it can be set at the centre, or at any part of the stack. Thus you do not have to fork the hay so many feet, as with presses you have to set at end of stack. You stand up all the time you are tying, too. Three men with the DAIN can do as much work as five with ordinary press.

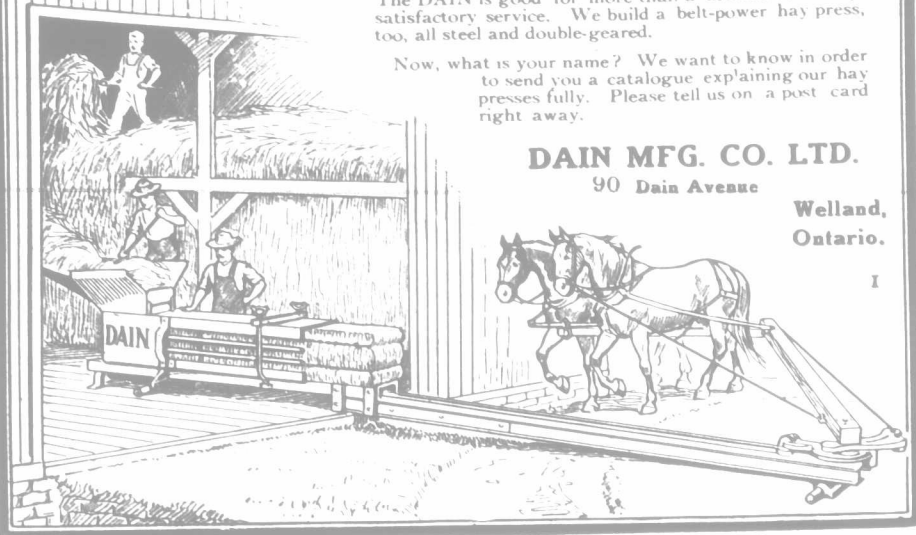
Dain Pull-Power Press

The DAIN has no delicate mechanism—no toggle joints—to get out of order. Neither will exposure to the weather cause it to warp, shrink or swell out of shape. It is practically all steel construction. The DAIN is good for more than a lifetime of steady, satisfactory service. We build a belt-power hay press, too, all steel and double-gear.

Now, what is your name? We want to know in order to send you a catalogue explaining our hay presses fully. Please tell us on a post card right away.

DAIN MFG. CO. LTD.
90 Dain Avenue

Welland,
Ontario.



A WELL LIGHTED HOME

Make the home attractive and inviting by using a Rice-Knight Lighting System. Far cheaper and better in every respect than coal-oil lamps. Fixtures are modern and up-to-date, and equal to the highest-priced electric fixtures.

A clean, odorless, brilliant light, costing only ½ cent per hour for over 250 candle power. Can be installed anywhere in the home, church or store.

No more refilling lamps, cleaning chimneys, etc. Rice-Knight System requires practically no attention, and is always ready to light. You own your own gas plant at a small cost.

Write to-day for catalogue "D" and learn more about this wonderful light. Costs nothing to inquire.

RICE-KNIGHT, Limited, TORONTO, CANADA.

EUREKA

SANITARY CHURN

There's no comparison between the ordinary wooden churn and the "EUREKA". Barrel is stoneware—top is clear glass.

Besides being absolutely sanitary, the glass top enables you to see how the churning is coming along without opening the churn. Also made with Aluminum top.

The "EUREKA" is the easiest churn on the market to operate. By tilting back the frame until the weight rests on the wheels, the churn can be quickly and easily moved—while the barrel remain upright.

If your dealer does not handle the "EUREKA," do not take a substitute but write us for catalogue. EUREKA PLANTER CO. LIMITED, WOODSTOCK, ONT.

10 A

Please Mention this Paper.

lapse of twenty years of more or less motiveless experiment, to give the keynote to the garden of my life.

Though I was very young, I remember the eagerness with which she watched for the seed catalogues, simple, convincing affairs lacking the gaudy color horrors from which, happily, we seem to be again emerging.

When the lists had been duly made and reconsidered—for the seed-lists of enthusiasts always have to be cut down and reconstructed—they were mailed. The second rapture was when the parcels came. Oh, the delicious smell of the manila paper bags that held the bulbs, and the damp, bog moss that wrapped growing roots, in which I remember once finding a cranberry plant with a berry, and thus learning that the red fruit did not grow upon a tree like cherries, as I had thought! These two odors are among my primary memories, not to be forgotten any more than I could forget mother's way of lingering over my name as she pronounced it, the sky light in her eyes, of the purple blue of the fringed gentian, or the expression of father's face when, on coming home from a long morning ride, he found mother among her flowers: she would bring him a welcome bit of luncheon and some cooling drink as he rested under the old apple tree, while she listened to his report of various happenings, and I absorbed scraps of food and conversation alike.

I never again saw that look in his eyes after mother went away, but one day its counterpart flashed from Evan's, and then I knew that we loved each other without a spoken word.

From that time on, father, with his increasing practice and the hospital to direct, had little time to give to outdoor details. He saw that the horses were always in good condition, for this was often a matter of life or death to some one. He fed his dogs, and clung to them for their silent friendship, as he sat in his study with his books, or, with his gun, strode off through the stubble fields, of an October morning; and he always liked to have a posy on his mantel-shelf or writing-table.

Yes, one thing more: he told Aunt Lot to plan and plant as she pleased, but to make no change in the beds that followed the long walk, and spring and fall he watched the thinning out and resetting that insures the long lives of hardy plants, and letting only the most perfect blossoms mature their seed, until, year by year, new colors, fanciful hybrids, appeared in the borders, now a thickly-matted flower jungle.

Poor Aunt Lot and the man of all work soon disagreed, however; he was accustomed to have his day's toil planned for him by one who understood, and then do it in a methodical manner. Aunt Lot had never before cultivated anything more than a city "dooryard," or controlled any service but that of a broken-spirited maid of the poor relation variety, consequently she was incoherent and unreasonable in her directions, expecting him to sow and reap, so to speak, on the same day. I became fully impressed with this by the time I was six years old, and at this time, father, tired of settling differences, engaged a "gardener," thinking it would be easier to hold a man responsible than his elder half-sister, who always retreated behind a sort of concrete breastwork composed of reminiscences of his boyish shortcomings, relationship, and—tears.

Father and Aunt Lot looked upon the gardener from different points of view. Aunt Lot used him alternately as a weapon or a patent of superiority to be worn at village teas; father apologetically, as a housewife accustomed to New England thrift would refer to a housekeeper that she had been forced to employ, through her own incompetence; while I hated the gardener with the uncompromising honest hatred of childhood, because, whether he was called John, Pat, or Peter, he invariably regarded my efforts as things of little account, trod on the shells that I brought from the shops with infinite labor to

edge my bit of flower patchwork, and in spring always dug up my bulbs and hardy roots because it was easier than to dig between them—a stern fact that sent me outside garden limits to the wild field beyond the strawberry bed, where I coaxed an intimate friend of mine, an up-country boy named Dan'l, who brought berries to sell, and did odd errands for father, to dig up two long strips, one on either side of a grassy cart-track that had once led to a hay field, now reached by another road. Little I then thought that I was locating my garden of dreams.

The boy dug sturdily, the soil was black on top and mellow loam beneath—a happy combination, and my flowers thrived far better than in the half-shady, badly-tilled garden bed.

I paid Dan'l with a jew's harp, two old but well-preserved valentines, and a purplish-red necktie which Aunt Lot had bought father, but which he had immediately concealed under some papers in his little room beyond his office where he kept his instruments, and then gave me for a doll's sash. The valentines must have signified more to Dan'l than they did to me, for he instantly began to lavish tokens upon me, hickory-nut beads, willow whistles, a homemade fishing rod, and a wreath of thistle puffs for my hat. This ornament I wore for several weeks until one fell day I left the hat hanging in the Mother Tree, and the yellow birds pulled the puffs apart to eat the seeds.

But the most-treasured gifts were the roots of the old-fashioned flowers that grew in unkempt wealth about his grandmother's garden. I had often been there when father visited the patient old soul, who was lame, and had admired the syringa, snowball and lilac bushes that almost hid the house from the road, while the cinnamon roses crept out between the palings, and straggled up and down the lonely cross-road as if hungering for news, while in August the white phlox escaping in the grass made a snowbank between the gate and the porch.

As I remember those valentines, which, by the way, had been given me by our cook, they were quite startling, and most unsuitable in their gender. One was surmounted by two paper-mache hearts, and bore the query, "Will you be my wife?" and the other had a scrap of looking-glass in the center, framed with the words, "In this you see the girl I love."

But such a mere detail did not dash Dan'l's ardour, for was he not ten years old, both romantic and chivalrous, and determined to be a soldier? While I, being eight at the time, and much interested even then in hospital talk, seriously thought of going to battle with him as a nurse.

Circumstances, however, prevented, the chief among them being that there was no war at the time; father, to whom as a matter of course I confided my plans, declined to go with us as surgeon, and what was the use of a soldier to shoot people and a nurse with bandages, if there was no one there to cut off legs?—an amputation being then my idea of the treatment to be given all soldiers, while, lastly, at this juncture Dan'l left home to work for a grocer at another village. I saw him yesterday in town, delivering goods at the hospital from a neat, shiny wagon of his own. Alas for intentions, chivalry, and the darling soldier life! The flowers of our childhood's friendship have been more enduring, however. His last gift was a small rosebush planted in a lard pail, to which he had given ventilation by perforating it with small holes.

"Granddad brought the bush this came off of from Boston before I was born, and it's just bust itself growing, and we've given away lots of cuttings; but this isn't any cutting, it's a regular year-old plant," he said, as he thrust the pail at me. The plant proved to be a fragrant, clear white rose, with handsome dark

foliage, the lovely Madame Plantier that was brought over in the thirties, and has never been surpassed as a healthy, willing bloomer. Now, even in its leafless state, it is a giant shrub in my tangled-up child border, and will hold its place in the garden that is to be as well as mother's beds of hardy flowers. But of the perfunctory, skin-deep work combined of Aunt Lot and the four gardeners that separates mother's reign from mine, not a trace remains, save a few scars on the grassy slope beneath the study windows, that mark the location of some fantastic foliage beds, which, as for beauty or fragrance, might as well have been made of gay carpet or spotted calico.

The ingredients of this class of bed are always the same, though the beds themselves may vary in shape and compounding—colours in vars, red geraniums, alternanthera, dusty miller, hen and chickens, with salvia or cannas for centerpieces—all worthy and innocent plants individually, but so hot and stiff when combined, affecting the color-sensitive like the sight of a stout, short-necked woman walking in the sun with a tight gown and high collar.

"You are straying from gardens," murmur the leaves of my "Garden Boko," through which the breeze is rustling and conveniently drying the ink without aid from a blotter.

Ah, yes, but the subject is so broad, and the by-paths so many, that straying is inevitable. Besides, I am not exploiting the genuine skilled gardener of the main line, the developer of Nature's resources, to whom all honor is due. The gardener to whom I take exception should always have his title enclosed in "marks," and is of the tribe that seems to launch itself at the ever-busy and guileless American of moderate means and good taste, who, desiring a garden, and having little knowledge of the necessary detail and still less time to learn, hires a "gardener," pays liberally for seed and manure, and from the combination of the three entertains Great Expectations. If the man so hired were really what he pretends to be, all would be well. But the procession marching under the Sign of the Spade is a motley crowd, indeed, especially in this land, where a knowledge of country life and its varied processes, its pitfalls, as well as its potency for good, though increasing daily, has not yet become a part of our national inheritance. As I look out over the hills, and think of the people I have known during the past ten years, who, for various reasons, have tried the glorious outdoor existence and failed to live it, and judge the cause, it seems to me that one and all they approached it wrongly.

The first difficulty is that people often think that by living in the country they can do without the comforts and necessities, lacking which city life would be doubly unbearable. Also, they begin with no sort of preparation, either hereditary or acquired. Nature simply despises people who come to her as a last resort and try to squeeze a living from her, and otherwise harry her. She must be wooed understandingly, like any high-spirited woman, not bullied, for she has a capricious temper, and is at once a spendthrift and an economist.

Why, then, should anyone expect, by a mere "declaration of intention" and a railway journey to conquer the country and learn the secrets of the life it offers, in perhaps a single season? And why should one expect to lead a satisfactory country life upon a cheap basis that would not maintain life elsewhere?

"But," again hints my "Boko of the Garden," "what has this tirade to do with gardeners?" Everything, dear, patient, unresisting confidant—everything. It is these experimentalists that cause bad service both in and out of doors, and, by putting up with incompetence, encourage it.

(To be continued.)

All we ask is for you to let us buy a 50-cent bottle of Psychine (pronounced Si-keen) from your druggist and give it to you free to try.

It has only been within recent years that we have come to really know about the white corpuscles of the blood or the phagocytes and what their function is.

That they are the policemen or scavengers of the body.

Devouring every disease germ that enters the body when they are strong enough or in sufficient numbers.

Or being devoured in turn by these disease germs when inferior in strength.

It has only been within the last few years that scientists have found out that certain herbs strengthen and increase these white corpuscles, or bodily scavengers.

And these herbs largely compose Psychine.

For thirty years Psychine has been strengthening and increasing the white corpuscles of the blood.

For thirty years Psychine has been building up run-down vitality, curing many of apparently hopeless diseases.

We have sold millions of bottles of Psychine in that time.

We have cured hundreds of thousands.

And we have received hundreds of thousands of unsolicited testimonials.

All due to this marvellous power of strengthening and increasing the white corpuscles of the blood.

Here are the diseases in the treatment of which Psychine is indicated.

Here are the diseases of which Psychine has cured many thousand cases:

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| La Grippe | Bronchial Coughs |
| Bronchitis | Weak Lungs |
| Hemorrhages | Weak Voice |
| Sore Throat | Spring Weakness |
| Anaemia | Early Decline |
| Female Weakness | Catarrhal Affections |
| Indigestion | Catarh of Stomach |
| Poor Appetite | Night Sweats |
| Chills and Fevers | Obstinate Coughs |
| Sleeplessness and | Laryngitis and |
| Nervous Troubles | Dyspepsia |
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Now, we don't ask you to take our word for the tremendously beneficial effect of Psychine. Fill out the coupon below, mail it to us and we'll give your druggist an order (for which we pay him the regular retail price) for a 50-cent bottle of Psychine to be given you free of cost.

We will undoubtedly buy and distribute in this manner hundreds of thousands of these 50-cent bottles of Psychine.

And we do that to show our entire confidence in this wonderful preparation.

A confidence that has been based on our 30 years' experience with this splendid preparation, with a full knowledge of the hundreds of thousands of cures it has made.

My Name.....
Town.....
Street and Number.....
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Street and Number.....

COUPON No. 34

To the Dr. T. A. SLOCUM, Ltd.
193-195 Spadina Ave., Toronto.

I accept your offer to try a 50c. bottle of Psychine (pronounced Si-keen) at your expense. I have not had a 50c. bottle of Psychine under this plan. Kindly advise my druggist to deliver this bottle to me.

This coupon is not good for a 50c. bottle of Psychine if presented to the druggist—it must be sent us—we will then buy the 50c. bottle of Psychine from your druggist and direct him to deliver it to you. This offer may be withdrawn at any time without notice. Send coupon to-day.



The first pound you use will win your lasting favor

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The money you invest in a Sherlock-Manning Piano will be well spent. For you will then own an instrument which has permanent tonal beauty; which will satisfy your musical taste fully; and which will represent much more than common value for its moderate cost. This is the piano that is *not* merely "show-room good." It will retain its rare quality. Examine one. There is a dealer near you. If you do not know him, ask us his name.

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This is the greatest washer the world has ever known. So easy to run that it's almost fun to work it. Makes clothes spot-



lessly clean in double quick time. Six minutes finishes a tubful. Any woman can have a 1900 GRAVITY WASHER On 30 days' free trial.

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

SPECIAL PRICES THIS MONTH

LISTEN!
Wilson Pays the Freight.



WRITE TO-DAY.

100 STYLES OF SCALES

C. Wilson & Son, 79 Esplanade St. E., Toronto, Can.

ENTERPRISE.

It happened in Topeka. Three clothing stores are on the same block. One morning, the middle proprietor saw to the right of him a big sign—"Bankrupt Sale," and to the left—"Closing Out at Cost." Twenty minutes later there appeared over his own door, in large letters—"Main Entrance."

HE FOUND THEM NO FAITH CURE

But Dodd's Kidney Pills Cleaned out W. F. Black's Sciatica.

He was in agony when a friend gave him a box. Now he recommends them to Everybody.

Newcastle, N. B., Nov. 11—(Special).—In these cold, fall days, when the chill winds crystallize the uric acid in the blood and cause the pangs of Rheumatism and Sciatica to bring sleepless nights to many a home, a man's best friend is he who can tell his neighbor of a sure cure for his tortures. Such a friend is Wm. F. Black, of this place. He suffered from Sciatica and lame back. He was so bad that he could not lace his boots or turn in bed. Dodd's Kidney Pills cured him, and he wants all his neighbors to know of the cure.

"Yes," Mr. Black says, in an interview, "I was so bad with Sciatica and Lame Back that I couldn't lace my shoes or turn in bed, when a friend gave me about a third of a box of Dodd's Kidney Pills. I started taking them without much faith in their curative powers, and found them all they were recommended."

"Now I can recommend Dodd's Kidney Pills to all sufferers from Kidney Disease."

Dodd's Kidney Pills are no faith cure. They're a simple but sure cure for diseased kidneys.

GOSSIP.

At the second consignment sale of Holstein cattle at Lake Mills, Wisconsin, October 25th and 26th, 178 head sold for an average price of \$184. The highest price was \$500, for Gervina Lilly Canary.

Official records of 109 Holstein-Friesian cows were accepted by the American Holstein Association, from August 12th to October 13th, 1910. This herd of 109 animals, of which two-thirds were heifers with first or second calves, produced in seven consecutive days, 39,398.2 lbs. of milk, containing 1,341.235 lbs. of butter-fat; thus showing an average of 3.40 per cent. fat. The average production for each animal was 361.5 lbs. of milk, containing 12.305 lbs. butter-fat; equivalent to 51.6 lbs. or over 25 quarts of milk per day, and over 14½ lbs. of the best commercial butter per week.

A BIG EGG-RECORD.

An extraordinary egg-record of a hen is given in the Poultry World. The hen, owned by G. N. Willings, was hatched in March, 1909. An egg she laid on May 9 was perfectly shelled, and weighed 6 ounces 2 drams, being 4½ inches in length, and 7¼ inches in circumference. When the egg was opened, it was found to contain two quite distinct yolks, and, in addition, another egg with perfect shell weighing 2 ounces 7 drams. Another was laid on May 10th weighing 2 ounces 9 drams, and on May 11th another large egg was laid. This one, however, was only partially shelled, but also contained a perfectly-shelled egg weighing 2 ounces 9 drams, in addition to two other quite distinct yolks.

Another normal egg weighing 2½ ounces was laid the following day, and on May 19th another large egg was laid exactly similar to that laid on May 9th, but 4 drams less in weight. The hen in question commenced laying in November, 1909, and laid regularly until the end of February, when she went broody, and after the usual twenty-one days' incubation, reared a brood of fifteen chickens, and again commenced laying on May 1st, and laid daily until the 28th; she then took a well-earned rest of seven days, and again commenced to lay on June 5th.

CANADIAN HOLSTEIN-FRIESIAN OFFICIAL SEVEN-DAY RECORDS FOR OCTOBER, 1910.

Lily De Kol Pietertje (5916): at 5 years 5 months 17 days of age, 20.64 lbs. fat, equivalent to 25.80 lbs. butter; 426.24 lbs. milk. Owned by B. E. Hagerman, Minto, Ont.

Jane Josee De Kol (12164): at 8 years 14 days of age, 15.03 lbs. fat, equivalent to 18.79 lbs. butter; 413.3 lbs. milk. Owned by Geo. Rice, Tillsonburg, Ont.

Senora Queen De Kol (11683): at 6 years 9 months 30 days of age, 13.30 lbs. fat, equivalent to 16.62 lbs. butter; 338.0 lbs. milk. Owned by A. C. Hardy, Brockville, Ont.

Griselda A. De Kol (7058): at 4 years 11 months 16 days of age, 16.05 lbs. fat, equivalent to 20.06 lbs. butter; 502.0 lbs. milk. Owned by A. C. Hardy.

De Kol Mantel 3rd (10262): at 4 years 7 months 8 days of age, 13.32 lbs. fat, equivalent to 16.65 lbs. butter; 417.6 lbs. milk. Owned by Lakeview Farm, Toronto, Ont.

Batoness Indoga Veeman (13165): at 3 years 6 months 7 days of age, 14.16 lbs. fat, equivalent to 17.70 lbs. butter; 404.1 lbs. milk. Owned by George Rice, Topeka, Ind.

Prudence (11314): at 4 years 9 months 15 days of age, 12.29 lbs. fat, equivalent to 15.36 lbs. butter; 390.1 lbs. milk. Owned by B. E. Hagerman.

Lakeview Betty (10071): at 2 years 6 months 6 days of age, 9.21 lbs. fat, equivalent to 11.51 lbs. butter; 276.0 lbs. milk. Owned by Lakeview Farm.

Special test made on the above seven cows.

Lakeview Rattie (11364): at 2 years 1 month 2 days of age, 8.28 lbs. fat, equivalent to 10.38 lbs. butter; 238.8 lbs. milk. Owned by Lakeview Farm. G. W. Clemons, Secretary.

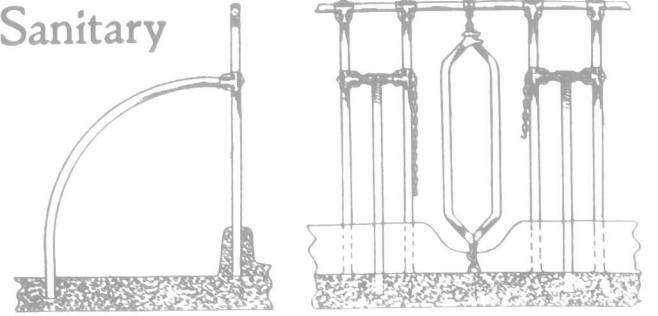
"Then," said the reporter, "I'll say your pretty ones were selected by Mrs. P. et al." "Oh, gracious, not," replied the hostess, "you mustn't say that." "You see, her father had all his money in birds."

There is Money in It!

Cleanliness and comfort in the stable mean more milk from the cow.

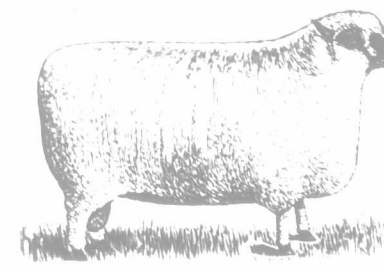
Louden's Sanitary Stalls

are the cleanest and the most comfortable style of stall made, and as they will last as long as the barn, whilst wooden ones have to be renewed every few years, they are the cheapest in the long run. Write for particulars, etc., to:



Louden Machinery Co., Guelph, Ont.
Manufacturers of Hay Tools. Litter Carriers. Cow Stalls. Barn-door Hangers, etc.

Belmont Farm Shropshire Sale
BRANTFORD, ONT., NOVEMBER 22nd, 1910



125 head: 65 young bred ewes, 35 ewe lambs, 25 rams, including the champion flock at the Canadian National, Toronto, Sept., 1910. Also winners of many first prizes at Detroit, Michigan State Fair, N. Y. State Fair (Syracuse), White River Junction, Vermont State Fair, and at Trenton, N. J. State Fair. Ewes bred to an excellent ram, sired by our champion ram in pink of condition, 1907. All the above sheep in pink of condition. An important event. Sale at 2 o'clock p. m. **Belmont Stock Farm** 4 miles west of city.

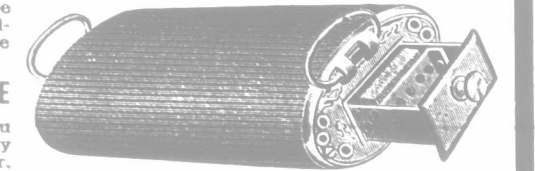
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It is neat, compact, attractive and unbreakable; supplies the heat without flame, smoke or smell. We make 20 styles of these heaters from 90c each to \$10. Most of them have attractive carpet covers with asbestos lining. They have been on the market ten years and please every purchaser. We guarantee that you will be pleased or money refunded. They fit in at the feet, occupy little space and are just the thing.

DON'T SHIVER AND BE UNCOMFORTABLE

when one of these heaters will keep you warm and cozy and comfortable on every business or pleasure trip in cold weather.



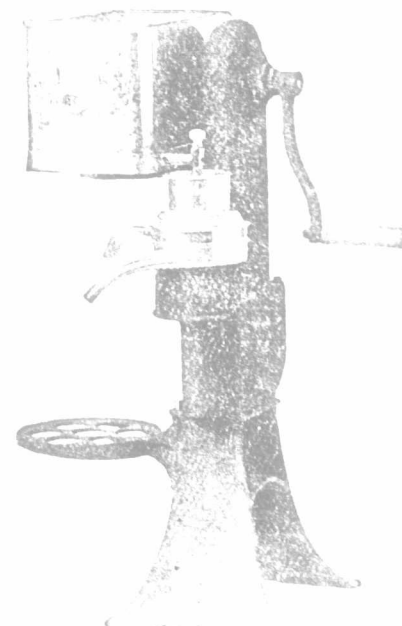
Ask your dealer for a CLARK HEATER—the only kind that will last indefinitely, never get out of order, and heat as much or as little as you want. Insist on the CLARK. Write for complete catalog—a postal brings it. **WRITE NOW.** CHICAGO FLEXIBLE SHAFT COMPANY, 110 La Salle Avenue, CHICAGO

World's Greatest Separator

Standard

BUY IT IN NOVEMBER

WINS



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the heart of every farmer who tries it, every dairy expert who tests its skimming, and every agent who sells it.

Efficiency Accounts for It.

Good material, good machinery, good mechanics, care in making and assembling, is your best guarantee of satisfaction with the "STANDARD." The gearing and every bearing runs in oil. There are no glass lubricators, and no oil cans. The bowl is built to SKIM PERFECTLY and DRAIN IT. The machine turns easily, is easy to clean, and has a low supply can. All running parts are enclosed. Write for our catalogue; it explains all about it, and will be sent free.

We will also send you information about our "STANDARD" MANURE LOADERS, for loading manure on a wagon or spreader. Write for details for particulars of these machines.

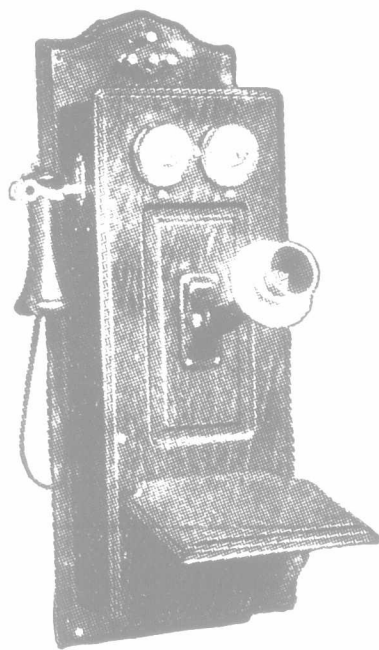
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GIVES NEW LIFE AND COURAGE.

BOVRIL is very quickly assimilated; that is, it at once becomes rich, red blood. Therefore, its sustaining and nourishing qualities are lasting.

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Organize and build an Independent Telephone Line in your locality. Buy your telephones and materials outright. Then you can enjoy rural telephone service at cost. You are free from the exorbitant yearly rentals of trust-controlled telephones.

Write for our No. 2 Bulletin. It was prepared especially for those who desire to have an independent rural telephone service in their locality. It explains everything in connection with the building and equipping of a rural telephone system.

We supply you with telephones and all necessary materials at exceptionally reasonable prices. Every telephone is guaranteed for ten years against defective material or workmanship. We will send two or three of our 'phones, free of charge, for a comparison test with others, so that you may satisfy yourself as to values. Write for particulars.

If you haven't a copy of our handsome book, "Canada and the Telephone," send for one by next mail. It

has thirty-two pictures, by a leading artist, showing the benefit a telephone is to the farmer.

CONSTRUCTION SUPPLIES. We carry a large stock of wires, insulators, etc., in stock, and can make prompt shipment and quote interesting prices. If you require anything just you write us.

CANADIAN INDEPENDENT TELEPHONE CO., LIMITED
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The Machine the Farmer Needs



AND THE BEST VALUE FOR THE MONEY OF THEM ALL IS TOLTON'S
NO. 1 DOUBLE ROOT CUTTER

POINTS OF MERIT:

1. To change from pulping to slicing is but the work of a moment.
2. There are two separate wheels, one for pulping and the other for slicing.
3. The united force of both wheels is always used in doing the work in either capacity.
4. The hopper is between the wheels, and does not choke.

THE ONLY DOUBLE ROOT CUTTER MANUFACTURED. Fitted with Roller Bearings, Steel Shafting, and all that is latest and best in principle, material and construction. SEND FOR DESCRIPTIVE CIRCULAR AND PRICES.

TOLTON BROS., Ltd., Guelph, Ont.

Send Your Poultry to the Largest Poultry Buyers

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FLAVELLE-SILVERWOOD, LIMITED
London, Ontario.

QUESTIONS AND ANSWERS. Miscellaneous.

SILAGE FOR STEERS TO BE FINISHED ON GRASS.

Is it advisable to build silos to feed steers through the winter, prior to being finished on grass, or had they better be fed on corn without husking it?

Note.—As this is a question concerning which there has been a great deal of private discussion, with a wide variety of opinions expressed, we have concluded to throw it open to contributors. Experience of cattle feeders, large and small, is invited. Comparison of the thrift of and returns from cattle fed silage in the winter before finishing, with the thrift of and returns from similarly bred and similarly conditioned cattle run through during the same winter and in the same yard, shed or stable, is desired. Contributors are requested to give full details.

PECULIAR EXPERIENCE WITH SEED CORN.

I had an experience with sowing corn this summer which I do not understand. I broadcasted a field on June 17th, the ground being in fine condition. This field grew beautifully and made a heavy crop. I broadcasted another with exactly the same seed on July 27th. The ground was dry at the time of sowing. It rained a week after very heavily. I covered and treated in exactly the same way, and practically the whole of the seed rotted in the ground; not more than one per cent came up, and that was weak. What was the cause of this failure?

C. P. N.

Ans.—The condition described by your correspondent sometimes obtains when bulk seed corn has been shelled and left stored in a box or bag where there is not a free circulation of air. For this reason, it is always advisable to leave seed corn on the ear until near planting time. A prolonged wet spell, followed by hot weather, is particularly injurious to the vitality of seed corn improperly stored. Weather and soil conditions described would be very unfavorable to quick germination, and this, coupled with seed the vigor of which had probably been impaired through improper storage, seems the most probable explanation for the failure to obtain a stand.

L. S. KLINCK,

Professor Cereal Husbandry,
Macdonald College, Que.

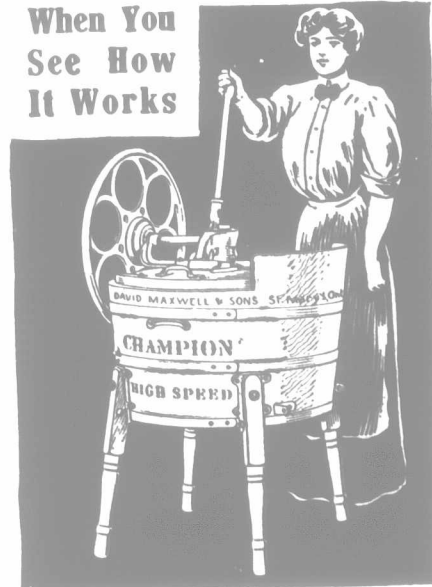
LYMPHANGITIS.

We have a mare twelve years old that swells in the hind legs when she stands in the stable. During the summer when she runs in the field they never swell, but in the fall when we start to stable her, she swells in the legs. They go down during the day when working, but swell at night. She seems to be in good health, able to do a good day's work, and never goes lame. Her front legs are swelled a little at the knees. Do not know whether this has anything to do with the hind ones swelling, or whether she had struck them on something.

S. S.

Ans. This swelling of the hind legs when the mare has been idle for a day or so, is lymphangitis, or Monday-morning disease. Horses of sluggish temperament are predisposed to the affection, which is brought on by high feeding and a sudden suspension of accustomed exercise. Treatment of a case bad enough to require it, consists in giving a purgative of 8 drams aloes and 2 drams ginger. Follow up with two-dram or three-dram doses of nitrate of potash, three times daily. Local treatment consists in long and repeated bathing with warm water, applying camphorated ointment, or other liniment after bathing, and excluding drafts. Keep comfortable. Do not exercise until soreness and lameness have disappeared. When lymphangitis is neglected, there is a tendency to a chronically enlarged leg. To prevent the disease in horses disposed to it, it is necessary to either give exercise every day, or to materially reduce the grain ration, or both. Substitute bran in part, at least, for grain, whenever the mare has to rest a day or more.

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Keep Your Stock in Fine Shape All Winter On Less Feed

You can add many dollars to their value by adding to their daily ration the guaranteed conditioner Pratts Animal Regulator. There is nothing so good to keep horses and cattle in good health and prevent their falling off through the winter.

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Pratts Healing Ointment cures galls.

As they sometimes are. As "Save-the-Horse" can make them.



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Huntingdon, Que., May 3, 1910.—It is a year since I used your "Save-the-Horse" on a very severe case of bone spavin, and although the horse was nine years old, and the leg had been distended several times and other so-called spavin cures applied without success, yet half a bottle of your remedy completely cured him, while he worked as usual. I have watched him carefully ever since without seeing any return of the old lameness. I am thoroughly convinced that the cure is permanent. I have persuaded my brother to give your remedy a trial for bog spavin, and enclosed you will find his check for one bottle. Very truly, E. D. Shearer.

\$5.00 a Bottle With Signed GUARANTEE

A binding CONTRACT to protect purchaser absolutely in treating and curing any case of **Bone and Bog Spavin, Thoroughpin, Ringbone, Swart low, Curb, Splint, Gapped Hock, Windpuff, Shoebit, Injured Tendons** and all **Lameness**. No scar or loss of hair. Horse works as usual. Send for copy of contract, booklet on all lameness and letters on every kind of case. At all druggists and dealers, or express paid.

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Gerald Powell, Commission Agent and Interpreter, **Nogent Le Rotrou, 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.

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Court Lodge, Egerton, Kent, England. EXPORTERS OF PEDIGREE LIVE STOCK OF EVERY DESCRIPTION.

During the fall months the export of heavy horses will be a specialty. A trial order will convince you that it is to your advantage to do business with us. Write for full particulars, stating what you require.

The trainer was explaining his system. "In training," he said, "the strictest obedience is required. Whenever I think of the theory of training, I think of Dash, who, after eighteen years of married life, is one of the best and happiest husbands in the world. 'Dash,' I once said to him, 'Dash, old man, how do you take married life?' 'According to directions,' he replied."

QUESTIONS AND ANSWERS. Miscellaneous.

PAYMENT FOR BULL SERVICE.

A bought a cow (supposed to be in calf) from B, and paid him for it; B, shortly after that, moved away, and did not pay C the service of the bull. Can C collect the fee from A, or look to B for it, there being nothing mentioned about it when the cow was bought.

SUBSCRIBER.

Ans.—C must look to B for payment.

SPEEDWELL.

Is the enclosed a bad weed? It is spreading rapidly in the garden. I have not seen it in the fields yet. J. M.

Ans.—The specimen, known as Buxbaum's Speedwell (Veronica Buxbaumii), is a spreading annual with pale blue flowers, and inversely heart-shaped seed-pods. Like most of our garden weeds, it is an introduction from Europe. There are several low-growing, spreading annuals, such as this Veronica, the common chickweed, and purslane, which may become troublesome in gardens that pass almost unnoticed in the fields. They disappear before the more aggressive weeds and cereals, but in the garden and among imperfectly hoed root-crops, get the opportunity to show their best, or, one might say, their worst effects.

J. D.

OIL CAKE.

1. What is oil cake?
2. Is it valuable as a food?
3. How much should be fed at a time?
4. What is the usual price?

NOVICE.

Ans.—1. The residue of the flaxseed, after the most of the oil has been pressed out of the ground seed.

2. Yes; it is a highly concentrated, very valuable nitrogenous feed, good in reasonable quantity for all classes of domestic animals, though horses should not be fed very much.

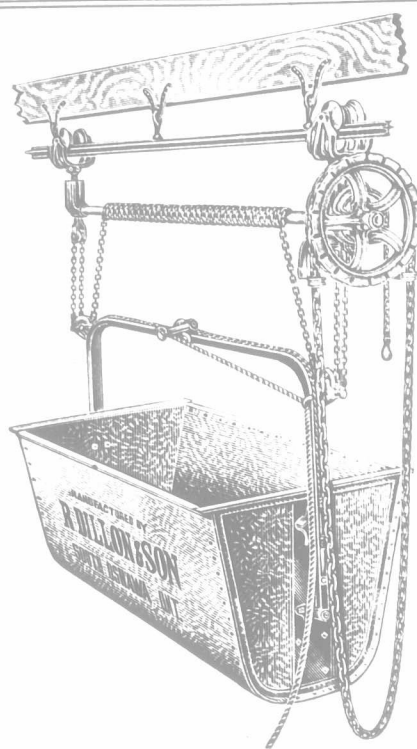
3. It should be fed in conjunction with other meals, usually at the rate of a pound to two pounds per cow per day. As high as three or four pounds may be used by a skilled feeder, for a high-producing cow.

4. Of late years, the demand has increased the price to \$35 or \$36 per ton in quantity. Retail, it is usually higher.

FEEDING A CALF.

What should be given a calf (grade or Shorthorn), from the time it is born till it is six months old? What quantity of milk should be given at a feed? Would you advise putting whole oats in the milk or drink of calves six months old? FARMER'S WIFE.

Ans.—Something depends upon the purpose for which it is to be raised. If for dairy purposes, or for a stocker, feed somewhat as follows: First week, whole milk, a little less than it will take three times a day. Second week, gradually introduce sweet skim milk, until, by the end of the third week, it may be getting skim milk altogether, and by the end of the third or fourth week, the noon feed of milk may very well be discontinued. By this time, it should be taking three or four quarts of skim milk twice a day. A good thing to take the place of the cream, as the skim milk is substituted for whole milk, is flaxseed jelly, made by soaking the whole seed for twelve hours in water, one part seed to six of water by volume, then boiling slowly and simmering to a jelly, feeding of this about a third of a teaspoonful in warm milk, gradually increasing to a cupful as the whole milk is withdrawn. This jelly need not be continued very long, as the calf will soon learn to eat dry meal. In fact, it is often found that it will eat whole oats sooner than almost any other grain. An excellent meal mixture is composed of one part pure ground flaxseed, two parts finely ground corn meal sifted, and two parts finely ground oats sifted, the whole well mixed. Keep before the calf choice well-cured, early-cut clover or alfalfa hay, allow it a few sheaf roots and a little silage, with a moderate amount of almost any roughage that will afford palatable variety. Do not put whole oats or any meal mixture in the milk. Put it in a separate box, and clean this out from time to time.



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Lime Sulphur Solution has absolutely proved its efficiency as a fungicide and destroyer of parasites on trees and vegetables.

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"VANCO" has more sulphur in solution, gallon for gallon, than any other preparation, and is consequently more effective.

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"VANCO" Lime Sulphur Solution contains no sediment. Every ounce is active material, and there is no sludge to clog the nozzles.

One barrel makes 12 for spring, or 50 for summer spray. \$8.00 per bbl. f. o. b. Toronto.

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is the surest and safest spray for all leaf-eating insects. It kills more certainly than Paris Green, sprays easier, sticks better, and never burns the foliage. Contains 15% to 16% Arsenic Oxide.

10c. to 13c. per lb. according to quantity.

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OUR NEW IMPORTATION OF Clydesdale Stallions and Mares



Landed May 20th, consisting of three 4-year-old mares, four 3-year-olds, and two 2-year-olds, by such sires as Baron's Best, Baron Miller, Baron Cedric, Dryden, Benedict, and Dumre Blend, and a few stallions by such sires as Baron's Pride, Everlasting, Ruby Pride, and Majestic Baron. These are the best collection of stallions and mares we have ever had, full of quality and size. Phone connection. **R. NESS & SON, HOWICK, QUEBEC.**

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Just landed, per S. S. Athona, from Glasgow. Some of the best we ever imported, including several prizewinners, and all up to big size. Good colors; one choice grey, which has proved himself a good stock horse. Ages two to seven years. Come and see this consignment.

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My 1910 importation are in my stables at Bolton, Ont. There never was a better bred lot landed, nor a better lot of big, typical draft horses, full of quality and with perfect underpinning. Clydesdale stallions and fillies, and Percheron stallions. I will not be undersold. **T. D. Elliott, Bolton, Ontario.**

NEW IMPORTATION ARRIVED
Our 1910 importation of **Clydesdale Stallions and Fillies** are now at our stables. We can show some of the best individuals and best breeding sires imported. Our prices are right, and terms to suit. Phone connection. **JOHN A. BOAG & SON, Queensville, Ont.**

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Superior breeding and quality, selected for the requirements of the Canadian trade—9 stallions, 6 fillies, 3 colts, including prizewinners and champions. This consignment will bear close inspection, and will be sold at moderate profit. Phone connection. **GEORGE G. STEWART, Howick, Que.**

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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.**

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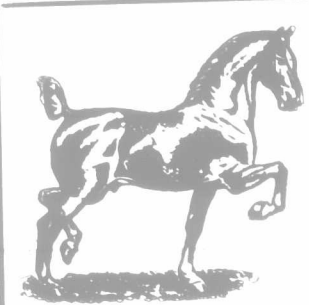
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Imp. Clydesdale Stallions and Fillies

For Sale Gentlemen, don't miss this opportunity. I am out for business now that my Toronto and London prizewinners are in my stables at Milverton. I am open to compare prices and quality with any man in the trade. Don't be without a good stallion or mare when I will either buy, sell or exchange for Canadian-bred stallions or workable, sound horses. Write me or call, and you will have every attention.

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Stations, G. T. R. and C. P. R. Phone connection, long-distance.

CLYDESDALES COMING!

T. H. Hassard, Markham, Ont., sailed for Scotland Sept. 28th, to select another consignment of Clydesdale stallions, mares and fillies, the best that money will buy. Intending purchasers will do well to wait for this new importation.

T. H. Hassard, Markham, Ontario.

THE HOME OF THE CHOICE CLYDESDALE Smith & Richardson, Columbus, Ont.,

are now offering a dozen imported fillies at very low prices. These fillies are sired by some of the best horses in Scotland, and their quality throughout is extra good. Visitors always welcome, and will be met at any train station.

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Duncan McEachran, LL. D., F. R. C. V. S., Etc., Importer and Breeder. The demand for the special selections, and satisfaction so far given by them, has been such that I will hold annual auction sales, the first on the 26th Oct. Special importations on order will in the intervals be made at lowest cost, by buying from the breeders and paying cash.

My new importation of Clydesdale stallions for 1910 have arrived. They were selected to comply with the Canadian standard, combining size, style, quality and faultless underpinning with Scotland's richest blood. They will be priced right, and on terms to suit. **BARBER BROS., GATINEAU PT., QUEBEC.**

Imp. Clydesdale Stallions and Fillies

My 1910 importation of Clyde stallions and mares are in my stables at Mitchell. They are ideal in draft character, big in size, toppy, and have perfect underpinning, and bred from the best blood of the breed. Prices right. **Wm. Colquhoun, Mitchell, Ont.** Phone connection.

Mount Victoria Stock Farm, Hudson Heights, Quebec.

Champion Clydesdales and Hackneys. We have for sale 2 imp. Clydesdale stallions, by **Pride of Blacon** and **British Chief**; 2 imp. Hackney stallions, by **Copper King** and **Terlington Temple-bar**. Prizewinners. Prices right. Long-distance phone. **E. Watson, Manager.**

T. B. Macaulay, Proprietor.

QUESTIONS AND ANSWERS. Veterinary.

RESPIRATORY TROUBLE.

Yearling heifer wheezes and breathes heavily, and occasionally discharges frothy from nostrils. A calf born September 1st, has the same symptoms, except the heavy breathing. I am keeping them comfortable and blanketed, and rubbing throats and breasts with a liniment made of 1 ounce each of ammonia, turpentine and methylated spirits, with water to make a pint. J. Y.

Ans.—This trouble is either catarrh or tuberculosis. If the former, a continuation of your treatment and the administration of 1 dram chloride of potassium and 15 grains quinine to the yearling, and quarter of the dose to the calf, three times daily, should cure. If the latter, no treatment will cure. I would advise you to call your veterinarian in. V.

OEDEMA—WORMS.

1. Mare worked all summer and fall, until about a week ago. Now her hind quarters and along her back are swollen. 2. Mare supposed to be in foal has worms. W. BROS.

Ans.—1. This is oedema. Purge her with 8 drams aloes and 2 drams ginger, and follow up with 4 drams hyposulphite of soda three times daily. Feed lightly, and give daily exercise.

2. Take 3 ounces each of sulphate of copper, sulphate of iron and tartar emetic. Mix, and make into 24 powders. Give a powder in damp food every night and morning, and, after the last one has been taken, give a pint of raw linseed oil. V.

PARTIAL PARALYSIS.

A month after castration a yearling colt did not have the proper use of his hind legs. He has difficulty in rising. He has been pasturing near a river, and used to stand in the water. J. T. T.

Ans.—I do not think that either castration or the water caused the trouble. It is an affection of the spine, and appears without appreciable cause. Keep him quiet in a comfortable box stall. Purge him with 12 ounces raw linseed oil, and follow up with 40 grains nux vomica, twice daily. Continue the nux vomica for three weeks. Recovery will probably be slow, but it is probable he will have recovered by the time he will be turned out to pasture next spring if you treat as above. Give the nux vomica as above every alternate three weeks. V.

FEEDING IODIDE OF POTASSIUM.

In the issue of October 6th, you recommended me to give my horse (for chronic swelling of lip) 1 dram iodide of potassium three times daily for a month. I have given him 50 drams, and his legs are improved a great deal, but there is a discharge from his eyes, and some lumps on the skin of shoulders and neck, and he is quite weak. W. K.

Ans.—The symptoms mentioned are due to the administration of the drug. It is called iodism. If you read the instructions given in the issue of October 6th, you noticed that I said, "if this affects the appetite, reduce the dose to 40 grains." Now, his appetite must have been affected for some time to cause the weakness you mention. Cease giving the drug, and he will soon regain his normal condition. If necessary, repeat the iodide-of-potassium treatment in two months, but, as he cannot stand dram doses, give him 40-grain doses, and watch closely for symptoms of iodism, which are loss of appetite and thirst, discharge from eyes and mouth, and scurfiness of the skin. When any of these are shown, cease giving the drug. V.

In an English town, a gentleman and a countryman approached a cage in the travelling zoo from opposite directions. The cage contained a very fierce-looking kangaroo. The countryman gazed at the wild animal for a few minutes with mouth and eyes both open, and then, turning to the gentleman, he asked, "What kind of an animal is that?" "Oh," replied the gentleman, "that is a native of Australia." The countryman covered his eyes with his hands as he exclaimed in horror, "Well, well, my sister married one of them!"

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A Safe, Speedy, and Positive Cure
The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for use. Send for descriptive circulars.
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For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle, and to remove all unnatural enlargements. This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents:

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—even bad old cases that all other doctors have abandoned. Easy and simple, no cutting, just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in
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Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated.
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KENDALL'S SPAVIN CURE

Took Off Bog Spavin
Edison, Alberta
"I have been using Kendall's Spavin Cure on a colt that had a bad Bog Spavin and it took it clean off. Kendall's is the best liniment I ever used." Yours truly, F. H. Smith.
Kendall's is the best for Spavin, Curbs, Ringbone, Splint, Swellings, Sprains and all Lameness. 40 years use prove it.
\$1. a bottle—6 for \$5. Be sure it is Kendall's you get and ask for free book "A Treatise On The Horse"—or write us.
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THICK, SWOLLEN GLANDS

that make a horse Wheeze, Roar, have Thick Wind, or Choke-down, can be removed with
ABSORBINE
or any Bunch or Swelling. No blister, no hair gone, and horse kept at work. \$2.00 per bottle, delivered. Book 3 E. free.
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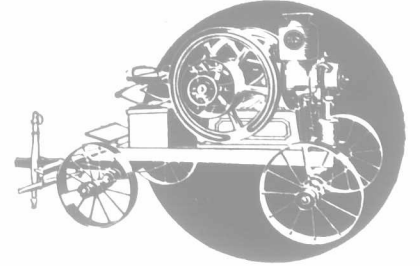
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The Greatest Milk - producer KnownThe highest protein dairy feed. Recommended by every agricultural
college and experimental station in the United States.Averages from 40 to 44 per cent. protein. Send for samples and prices.
Warehouse at Windsor, Canada, for ton-lot shipments.**The Dominion Feed Co., Windsor, Ont.****WORK AND WORRY SAVING WHEELS AND WAGONS**Get a **DOMINION** utmost strength, least draft, low-down for handy
loading, buy themselves every year, last a lifetime.**COST LITTLE LAST LONG**
Put on wide-tire, take apart,
never wear out wheels on all the
wagons you now own. Won't
die on the roughest roads.
Stand any strain, proof against
rust and breakage. Save you
work and horse-power. Priced
low. WRITE US TODAY.**TUDHOPE-KNOX CO., LTD.,** Successors to **Dominion Wrought Iron Wheel Co., Ltd.**
ORILLIA, ONTARIO.

GOSSIP.

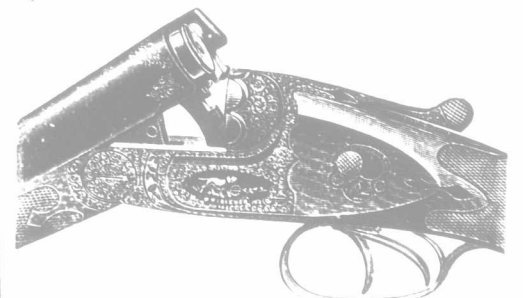
CANADIAN EXHIBITS AT CHICAGO.

Following are the names of Canadians
having made entries for the International
Livestock Exposition, Chicago, Ill., Nov.
26th to Dec. 3rd:Clydesdales—Graham Bros., Claremont,
Ont., 24; Graham & Renfrew, Bedford
Park, Toronto, 18.Shorthorns—James Leask, Greenbank,
1 fat.Aberdeen-Angus—James Bowman, Guelph,
3; Jas. D. McGregor, Brandon, Man., 12.Sheep—Shropshires—J. & D. J. Camp-
bell, Woodville, 18 breeding, 8 fat; Ham-
mer & Hodgson, Brantford, 20 breeding,
J. Lloyd Jones, Burford, 20 breeding, 7
fat. Hampshire—Geo. Allen, Burford, 1
fat.Southdowns—Huntlywood Farm, Bea-
consfield, Que., 12 fat; J. Lloyd Jones,
Burford, 10 breeding, 8 fat. Oxford
Downs—J. W. Lee & Sons, Simcoe, Ont.,
8 fat. Lincolns—J. W. Lee & Sons, 8
fat. Cotswolds—Geo. Allen, Burford, 9
breeding, 6 fat; J. W. Lee & Sons, 2 fat.Leicesters—A. & W. Whitelaw, Guelph, 7
breeding, 7 fat; L. Parkinson, Guelph, 1
breeding, 5 fat. Dorsets—R. H. Hard-
ing, Thorndale, Ont., 6 breeding, 7 fat.
Grade and Cross—Fat: J. & D. J.
Campbell, 5; J. Lloyd Jones, 12; John
Lee & Sons, Highgate, 10; J. W. Lee &
Sons, Simcoe, 5; L. Parkinson, 10; A. &
W. Whitelaw, Guelph, 6; John Goswell
& Sons, Ridgetown, 1.

TRADE TOPICS.

**HIGH HONORS FOR A CANADIAN
FIRM**—It is to be expected that good
goods should win recognition from time
to time in our agricultural exhibitions.
It is seldom that in one year honors
come as generously to any firm as they
have this year to the Loudon Machinery
Company, of Guelph, Ont. At the Do-
minion Exhibition, St. John, N. B., they
were awarded a gold medal for the ex-
cellence of their exhibit in open competi-
tion. At Halifax, N. S., the judges also
awarded the gold medal to this firm, and
the great interest manifested by Maritime
farmers at both exhibitions, fully testified
to the propriety of each award. More
to be prized than either of these medals,
is a medal awarded them by the Royal
Agricultural Society of England. This
society, it seems, awards one medal a
year for agricultural implements, etc., and
that only after the most careful examina-
tion. It is therefore not only an honor
to the Loudon Machinery Co., but also to
Canadian factories in general, that the
medal this year should come to the
Guelph firm."The Dominion Feed Company has
established an office and warehouse at
Windsor, Ont., for the purpose of intro-
ducing to Canadian trade, cotton-seed
meal. This meal is the by-product of
cotton seed grown in the Southern
States, and has a guaranteed analysis of
from 32 to 43 per cent. protein, the aver-
age protein content being claimed as 40
per cent. Feeders in the United States
for several years past have been feeding
cotton-seed meal with wonderful results,
the experiment stations and agricultural
colleges having made exhaustive study
and record of results. Statistics show
that over a thousand car lots of cotton-
seed meal will be used in the State of
Michigan alone this year." It has been
used extensively in the Maritime Pro-
vinces, where it gives excellent results as
a cattle feed. It is a great milkmaker,
and could be used with profit in connec-
tion with many farm-grown rations.
Write for sample to the Dominion Feed
Co. at Windsor, mentioning this paper.A clergyman had been for some time
displeased with the quality of the milk
served him. At length he determined to
remonstrate with his milkman for supply-
ing such unworthy stuff. He began
mildly: "I've been wanting to see you
with regard to the quality of the milk
with which you are serving me." "Yes,
sir," modestly answered the milkman.
"I only wanted to say," continued the
minister, "that I use the milk for all my
purposes, exclusively, and I don't see
the objection!"**Get our new catalogue**Thousands of farmers have written to us
for a catalogue.**Olds Gasoline Engines**have been selected in most instances by
those who most carefully investigated the
engine question.There is just one possible combination that
could account for the steady growth in 30
years of our sales of engines to these unpre-
judiced farmers and that is high quality and
right prices.Our catalogue tells things that you should
know about engines.*Read it through carefully—you
won't regret the little time it takes.***Seager Engine Works**1050 Seager Street, Lansing, Michigan
Boston Philadelphia Binghamton Omaha
Kansas City Minneapolis Los Angeles*"A thing of beauty is a joy forever."*

THE

GREENER GUNIs not only the hardest and most regular
shooting gun, but it is also the most beau-
tifully finished gun in the world.**THE JUDGES OF 27 INTERNATIONAL
EXHIBITIONS HAVE CONFIRMED THIS.**
and Greener guns have been awarded High-
est Honors wherever shown, from the first
Exhibition of all Nations, 1871, to the Grand
Prix at St. Louis, 1904.You cannot do better than buy the best
gun a **GREENER**.Catalogue 12 free.
W. W. GREENER,
63 and 65 Beaver Hall Hill, Montreal.
Greener Guns are stocked by:
A. Fenn & Co., King Street, Toronto.
Rice, Lewis & Co., Toronto.**THE FISH BRAND SLICKER**is famous for its sureness
of doing its day's work
and that day's work is
to keep you dry and
comfortable when it
rains.

SOLD EVERYWHERE

BE SURE THE GARMENT YOU BUY
BEARS
THE SIGN
OF THE
FISH**TOWER CANADIAN CO., LTD.**
TORONTO, CANADA.CABLES: BIRD, BOROUGHS, LONDON, ENG.
A. B. C. code 8th edition and Scattergood's code used.**JOHN BIRD, FRUIT BROKER**
Borough Market, London, S. E., England.

To fruit-growers, farmers and others:

SHIP YOUR APPLES DIRECT TO ME
Highest prices and prompt settlements guaranteed.
Correspondence invited. Market reports by letter
or cable."What's the meaning of all these recent
"soxay" pokeys?" inquires an old lady.
"It's the effect of the damp summer,"
replies her son.

CONSTIPATION CURED BY THE USE OF MILBURN'S LAXA-LIVER PILLS

Constipation is one of the most frequent, and at the same time, one of the most serious of the minor ailments to which mankind is subject, and should never be allowed to continue.

A free motion of the bowels daily should be the rule with every one who aspires to perfect health.

Mrs. Fred. Hall, 299 Hibernia Road, Montreal, Que., writes:—"Having been troubled for years with constipation and trying everything I knew of, a friend advised me to use Milburn's Laxa-Liver Pills. I used four and a half vials and I am completely cured. I can gladly recommend them to all who suffer from constipation."

Milburn's Laxa-Liver Pills are 25 cents per vial, or 5 vials for \$1.00, at all dealers, or mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

STOCK MEN

When you are wanting any cuts of Poultry, Live Stock, or for Advertising, try our specially deep-etched plates.

PRINT CLEAN
WEAR LONGER
PRICE REASONABLE

Write us your wants.

ROBERTS ENGRAVING COMPANY LONDON-CANADA

ELM PARK STOCK

We have a few good bargains to offer in Aberdeen-Angus females and bulls, also in Clyde mares or Suffolk sheep, if buyers come now before we put them into winter quarters.

Jas. Bowman, Elm Park, Guelph, Ont.

FOREST VIEW HEREFORDS! I have lately purchased the Gowlock herd of Herefords, and have for sale sons and daughters of Toronto winners and g. champions; also Galloways of both sexes. A. E. Caulfield, Mount Forest, Ont. P. O. and Station.

ABERDEEN - ANGUS CATTLE
5 choice yearling bulls for sale at reasonable prices. Also females any age. Parties requiring such will get good value. Correspondence invited.
GEO. DAVIS & SONS, ALTON, ONT.

ABERDEEN - ANGUS
Will sell both sexes; fair prices. Come and see them before buying. Drumbo station.
WALTER HALL, Washington, Ont.

Willow Bank Stock Farm
SHORTHORNS AND LEICESTERS.
Herd established 1855; flock 1848. The great Dutch-bred bull, Imp. Joy of Morning = 32070, and the Missie bull, Royal Star = 72502, heads my herd. Choice selections to offer at all times in both bulls and females.
JAMES DOUGLAS, CALEDONIA, ONTARIO.

SHORTHORN FEMALES
OF ALL AGES FOR SALE.
Prices to suit all kinds of customers. Have one red eleven-months-old bull left; a Clipper; price \$100.
J. T. GIBSON, ENFIELD, ONTARIO.

Glenburn Stock Farm
SHORTHORN calves of both sexes. SHROPSHIRE ewes, ram and ewe lambs, and one 2-year-old ram.
JOHN RACEY, Lennoxville, Quebec.

Shorthorns and Yorkshires—A choice lot of young bulls and heifers at reasonable prices, from such noted families as Miss Ramsden, Crimson Flower, Lady Sarah, Imp. Clementina, Ladyouss and Mina. A fine litter of the Improved Yorkshires ready to wean, of prizewinning stock.
ISRAEL GROFF, Elmira, Ont.

GOSSIP.

At Truman's Pioneer Stud Farm, Bushnell, Ill., on October 27th, 39 head of Shire mares and fillies sold by auction for an average of \$580, the highest price being \$925, for the black four-year-old, Moulton Valetta.

Volume 28, of the British Shropshire Flockbook, has been received at this office, thanks to the Secretaries, Alfred Mansell & Co., Shrewsbury. This volume contains entries of rams numbering from 13333 to 13566, a list of sires used in many flocks, a register and index of exported Shropshires from Sept. 29th, 1908, to Sept. 29th, 1909, a list of members, together with a list of prizewinnings, and fine illustrations of pure-bred and grade or cross-breds, showing the propinquity of Shropshire sires.

EDUCATIONAL VALUE OF THE CHICAGO STOCK SHOW.

The International Live-stock Exposition (which will run from November 26th to December 3rd, at the Union Stock-yards, Chicago), from a comparatively small beginning, eleven years ago, has assumed such importance in the live-stock world as to render its annual occurrence a necessity, not only on account of its being the high court of appeal, the court of last resort to stockmen, but because it sets the stamp of approval upon those of our domesticated animals that are most in demand, and establishes a standard among stock which, if adhered to, is believed to realize for the breeder, feeder and farmer the highest price for his produce.

The ordinary observer has little idea of what this Exposition is, what it teaches, and what it means. It must be seen to be appreciated, it must be studied to be understood.

At this show, he sees the best of every breed, his field for comparison is immense, and his opportunities for practical instruction almost limitless. By attending this show, he combines business with pleasure, knowledge with practice, and education with example. It is the school of rapid learning for the stockman, a free education that remains in his head, and carries with it the methods whereby the best live stock is produced and the most money made.

MAPLE LEAF SHORTHORNS.

The Maple Leaf herd of Scotch Shorthorn cattle, the property of Israel Groff, of Elmira, Ont., are going into winter quarters in prime condition. The high-class quality of this herd is well known, they have stood the test of criticism for a great many years, and have found favor with the exacting buying public, amply demonstrated by the ready way in which the surplus stock is picked up year by year as herd-headers. Mr. Groff has lately purchased the grandly-fleshed bull, Julia's Jilt, sired by the renowned Imp. Golden Drop Victor, dam Imp. Julia, of the popular Jilt tribe. He is a massive, red four-year-old, of show type, thick-fleshed and model lines. His predecessor was the white Valley Farm Argonaut, a Duchess of Gloster-bred son of Scottish Fashion. He was sold at the Guelph sale last June, which was the biggest mistake Mr. Groff ever made in his career as a Shorthorn breeder, as every one of his get are put up on show lines. Before him was Chancellor's Model, a son of Imp. Bipton Chancellor, and out of Imp. Marchioness 4th. He did a world of good for the herd, and left it better than he found it. In young bulls, there is a red yearling, Miss Ramsden-bred son of his, and a roan seven-months-old Rosemary-bred son of Valley Farm Argonaut, which is one of the best young bulls we have seen this year. He is a topper all over. His dam is by the Golden Drop bull, Springhurst, and grandam by Imp. Joy of Morning. The females are of the Cruickshank Lady Fanny, Jealousy, Clementine, Rosemary, Crimson Flower, and Miss Ramsden tribes, imported and Canadian-bred, among which are a number of extra well-fleshed heifers, fashionably bred, that are for sale. Mr. Groff has also for sale a limited number of choice young Berkshire sows, from four to six months of age.

Granite Harvester Oil

For Reapers, Threshers, Plows, Harrows



Insures better work from the new machine and lengthens the life of the old. Wherever bearings are loose or boxes worn it takes up the play and acts like a cushion.

Changes of weather do not affect it.

Gasolene and Kerosene Engines

Standard Gas Engine Oil

is the only oil you need. It provides perfect lubrication under high temperatures without appreciable carbon deposits on rings or cylinders, and is equally good for the external bearings.

Steam Traction Engines and Steam Plants

Capitol Cylinder Oil

delivers more power, and makes the engine run better and longer with less wear and tear, because its friction-reducing properties are exactly fitted to the requirements of steam traction engines and steam plants.

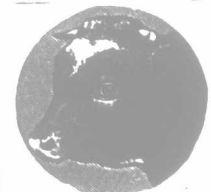
Traction Engines, Wagons, Etc.

Mica Axle Grease

makes the wheel as nearly frictionless as possible and reduces the wear on axle and box. It ends axle troubles, saves energy in the horse, and when used on axles of traction engines economizes fuel and power.

Every dealer everywhere. If not at yours, write for descriptive circulars to

The Imperial Oil Company, Limited
Ontario Agents: **The Queen City Oil Co., Ltd.**



H. CARGILL & SON

have to offer at the present moment an exceptionally good lot of young bulls, which combine all the requisites necessary for the making of superior stock sires, viz.: Quality, Size, Conformation and Breeding. If interested, come and make your selection early. Catalogue on application.
John Clancy, Manager, Cargill, Ontario.

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. Farms close to Burlington Junction, G. T. R.
W. G. PETTIT & SONS, Freeman, Ont.

Maple Hall Shorthorns
Are bred on most fashionable Scotch lines, and are of high-class individuality. For sale are 6 young bulls from 6 to 10 months of age. A low, thick, sappy lot. Also 10 yearlings and 10 two-year-old heifers. Show material in this lot. Telephone connection.
DAVID BIRRELL & SON, GREENWOOD P. O., ONT., CLAREMONT STATION.

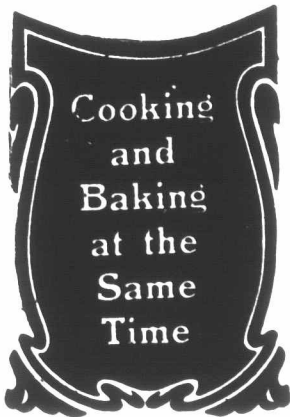
Maple Leaf Shorthorns and Hampshire Hogs
Offering for sale Shorthorn bulls and heifers and young Hampshire pigs.
PORTER BROS., APPLEBY P. O., BURLINGTON STA. Phone.

SUNNY SLOPE SHORTHORNS
I breed Scotch Shorthorns exclusively. I have some choice young females safe in calf and some good young bulls for sale at present at prices you can pay. Long-distance phone.
A. EDWARD MEYER, BOX 378, GUELPH, ONT.

ORCHARD GROVE HEREFORDS
Young bulls and one- and two-year-old heifers, of show-ring quality and most fashionable breeding; thick-fleshed, smooth and even.
L. O. CLIFFORD, Oshawa, Ont.

Please Mention The Farmer's Advocate

Two Minute Talks About PANDORA RANGE for Coal or Wood



BRAINY stove experts designed the Pandora Range. They introduced a new system of flue construction so that the draft for cooking would also be the draft for baking. With the Pandora you can have the kettles boiling over every pot hole at the same time the oven is baking pies and roasting beef.

Just think of the time that this perfect system of flue construction will save for you when you're hurrying to get a big dinner ready. Just think how much fuel the Pandora will save for you by doing the baking and cooking at the same time. And remember, no other range has this perfect system of flue-construction. Send for the Pandora booklet. It tells of other conveniences designed by our brainy stove experts.

McClary's

Stands for Guaranteed Quality

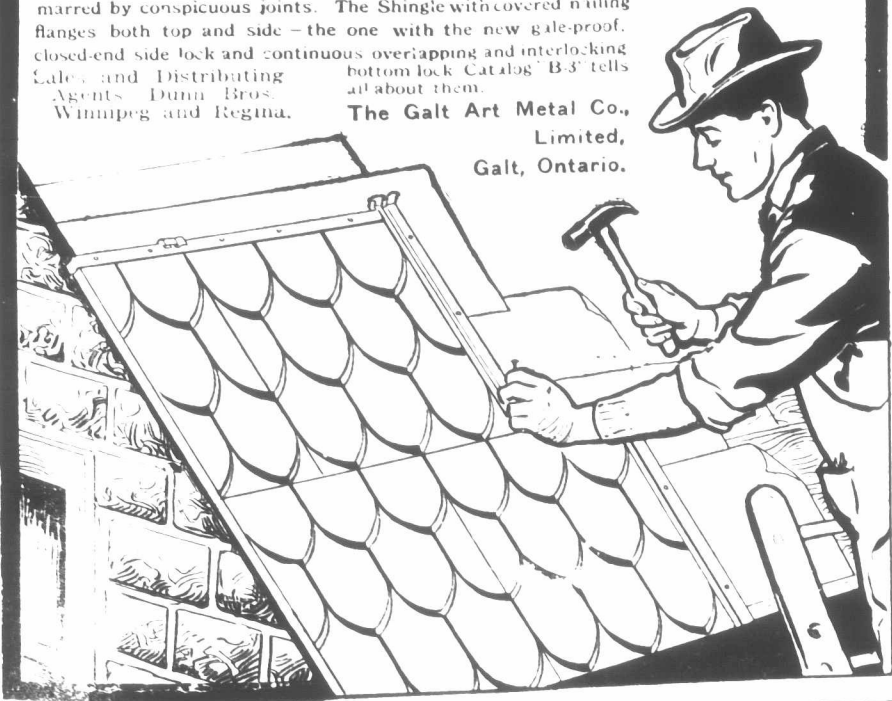
London, Toronto, Montreal, Winnipeg
Vancouver, St. John, N.R., Hamilton, Calgary

"Galt" Shingles

Simplest and Quickest to apply yet invented. Perfectly Square, True and Easy-fitting. The bold Gothic Tile pattern presents a handsome and architectural appearance—unmarred by conspicuous joints. The Shingle with covered nailing flanges both top and side—the one with the new gale-proof, closed-end side lock and continuous overlapping and interlocking bottom lock. Catalog "B-3" tells all about them.

Sole and Distributing Agents—Dunn Bros. Winnipeg and Regina.

The Galt Art Metal Co., Limited, Galt, Ontario.



Teach Your Boy to Save

Open a bank account for your boy. Let him form the savings habit while young, and there is little likelihood he will turn out a thriftless later on. We pay 3% interest, according to agreement, and offer you \$2,000,000 assets as security.

1/2% Agricultural Savings & Loan Co.
109 Dundas Street LONDON ONTARIO

PERMANENT FRIENDSHIP

It is a well-known fact that the United States and the United Kingdom have been the best of friends since the signing of the Treaty of Commerce between the two nations. The one striking example before the world of the way to form permanent international agreements is the Rush-Bagot Treaty of 1817, under which the United States and Canada have lived for all these years in mutual peace and security. In the September Nineteenth Century, however, Capt. Cecil Battine, in an article entitled "Canada Growing Up," apparently thinks the time has come to revise this mollicoddle policy. Says he:

"The British navy will guarantee that the coasts of Canada are secure, but it is a sound instinct on her part to prepare thus early to be self-supporting even in the matter of naval construction. Should Canada be threatened with war on her southern frontier, the military command of the great lakes would be of the most vital importance. An arsenal and dockyard must therefore be prepared to construct suitable craft for a struggle on the inland waters, as remote as possible from a possible raid, and having access to the lakes by the waterway of the St. Lawrence. It is a striking example of the permanent principles of strategy that the valley of the St. Lawrence is the key to military supremacy in Canada now, as it was when Wolfe so gallantly won Quebec for England, and the valley of the Hudson still leads the way to the vitals of the United States, if a northern invader should be bold enough to take the initiative."

"We think the Captain's ideas are sound, but he does not go far enough. Let the Rush-Bagot Treaty be denounced. Then Canada and the United States could make one continuous fortification along the shores of the St. Lawrence, and establish opposing army posts every five miles from Vancouver to Winnipeg. A thousand super-Dreadnoughts could also be built by each nation on the Great Lakes, so that no overt acts could take place there. Toronto and Chicago would, of course, have to be guarded by three lines of submarine mines. Montreal and Buffalo would need at least \$20,000,000 for modern coast defenses, while it would be absolutely necessary for Quebec to double the height of the cliffs on which she is situated, so as to prevent their being scaled a second time. Seattle and Vancouver might each keep balloons anchored a few miles up in the air to watch the war preparations of the other. In the meantime, the Atlantic and Pacific squadrons of the British and American navies should have their decks cleared for action, and 10,000 aeroplanes in either country be put in commission to repel those mutual attacks in hot air. As probably all this would not be enough to preserve the peace, we might reasonably demand compulsory rifle practice in the public schools of England and the United States, and universal military service from all male citizens between twenty-one and forty-five, and all enrolled suffragettes of whatever age. Thus, and thus only, according to our Captain Battine, can be guaranteed that certain and perpetual peace, that blessed millennial peace, the peace that passeth all understanding."—New York Independent.

In this keen vein of satire does the Independent dispose of the idea that navies on the Great Lakes could be other than mischievous, tending not to security of peace, but to probability of war, not to speak of the crushing cost. For the United States to commence building ships and forts along our international boundary would be arrogant and brutal; for Canada to begin, it would be little short of suicide. Leave well enough alone.

J. B. Hogate, Weston, Ont., has recently sold the following Percherons: To Richard Roseburgh, Chatham, Ont., the big black two-year-old stallion Ineste (81949), sire Cambrai (62159), and to Jacob Swalm, Nottawa, Ont., another, the good, black two-year-old Imola 1697, sire Pirus (59613), the first named weighing when shipped, 1,785 lbs., and the second 1,700 lbs., certainly good weights for two-year-olds, and neither of them fat. Mr. Hogate's horses are all doing well, and prospects for business were never better.

CORRUGATED IRON

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

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

Low Prices—Prompt Shipment

Metallic Roofing Co.,
Manufacturers
TORONTO AND WINNIPEG
2402 (47)



"ELECTRO BALM"

CURES ECZEMA.

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

Gentlemen use it after shaving. This Balm is handled by the best firms, and is highly recommended by those who have used it.

Write for Free Sample
ENCLOSE 2c STAMP FOR POSTAGE

50c. a Box at all dealers or upon receipt of price from

THE ELECTRIC BEAN CHEMICAL CO.,
Ltd., OTTAWA.

Cows Would Be Ticked



If they heard you were getting
Champion Cow Stanchions
They appreciate a good thing.
They can move head around.
No weight.
No blisters.

NOW IS THE TIME TO ORDER.
Ontario Wind Engine & Pump Co.
Winnipeg TORONTO, ONT. Calgary



Every Farmer's Wife in Canada Ought to Read this Advertisement



IF you, Madam, are a farmer's wife, you should use your influence to get your husband to roof the house and barn with Oshawa Galvanized Steel Shingles. For these practical reasons:—

Safe Against Lightning

Every thunderstorm that passes over your place endangers his life and your own, and threatens damage or destruction to the property. But there would be no such danger if the farm buildings were roofed with Oshawa shingles. They protect any building against lightning—far better than any lightning-rod system possibly can.

Safe Against Fire

And, at certain times in the year, the house you live in and the barn nearby is in danger from fire—flying sparks from the threshing machine; sparks from the kitchen chimney; sparks from passing locomotives; sparks from forest fires, perhaps. Farmer's roofs catch fire in many ways—and you are different from most farmer's wives if you do not dread this ever-present danger. You need not dread it at all when the buildings are covered with a seamless steel fireproof Oshawa shingled roof.

Improves Cistern Supply

Probably you depend a good deal on cistern water. An Oshawa-shingled roof keeps your cistern fuller, and the water is cleaner, tasteless, without odor. It never can be from a wood-shingled roof. It always is from an Oshawa-shingled roof.

Costs Very Little

When you speak to your husband about this, ask him to send for the instructive and handsomely-illustrated free book called Roofing Right. He will see, when he reads that, that the actual cost of an Oshawa-shingled roof is less than five cents per year for a hundred square feet of roof surface. He will see that this roofing is guaranteed to satisfy in every sense for twenty-five years, or he gets a new roof for nothing. He will see that it will pay him well to cover his house and barn with a roof that is guaranteed wet-proof, wind-proof, fireproof and lightning-proof for a quarter century, and that will be a good roof in every sense for fully 100 years.

Use Your Influence

Interest yourself in this vital matter. It directly concerns you. Get your husband to inquire into it. Get him to send for the free book—now—to-day. Or send for it in your own name. Do that, anyway. You will be interested in what the book tells you; and it is important that you, as well as himself, should know all about roofing, and about Roofing Right in particular. Send now for the book, please.

OSHAWA STEEL SHINGLES are made of 28 gauge steel, specially toughened and heavily galvanized to make them rust-proof. Thus they weigh about SEVENTY-EIGHT



pounds to the square. With the box about 88 pounds to the square.

When considering metal shingles always learn THE WEIGHT OF METAL per square offered and be sure that the weight is of the METAL ONLY.

Make the weight test yourself. First be sure the scales are accurate. Then unbox a square of Oshawa Shingles and weigh them. Note that the weight averages 78 pounds WITHOUT THE BOX.

Don't go by the box weight. Some boxes weigh fourteen pounds or more.

G. A. Pedlar

DON'T stop when you have Oshawa-shingled your roofs. That is only the first step towards making a house modern, or a barn what a barn should be. Go on and plate your house inside and out with steel. Cover the surface of your barn with steel. In a word, "Pedlarize" every building on your farm. This way:

Make Your House Fireproof

Finish the interior of every room in your house with Pedlar Art Steel Ceilings and Side-Walls. These are made in more than two thousand beautiful designs, the patterns stamped accurately and deeply into the heavy and imperishable metal. They cost less than plaster in the first place; and they will be like new when a plaster ceiling or wall is cracked to the danger point—which doesn't take long as a rule. They are easily put in place. They can easily be painted and decorated.

Make Your House Sanitary

Then, if you surface the exterior of the house with Pedlar Steel Siding—it is made to simulate brick, rough stone, cut stone—these Ceilings and Side-Walls and an Oshawa-shingled roof gives you a residence that is more nearly fireproof than the "skyscrapers" of the great cities. Also, such a house will be much warmer in winter than if it were built of solid brick—and so it will save its cost in fuel-savings. It will be cooler in summer. It will be sanitary inside—you can wash the ceilings and walls clean with soap and water. It will be a handsome, substantial, and enduring proof of your judgment in choosing the modern building material—steel—Pedlar-made Steel.

Make Your Barns Safe

With Pedlar Steel Siding you can finish the outside of your barn most economically, and your cattle will thrive better in bitter weather than if they were housed in a solid concrete barn. This heavy-gauge seamless steel finish, keeps out the wind and keeps in the animal heat. It saves in lessened feed-bills enough to pay its cost over and over. It costs but little; it is simple to put on; and it will outlast the building's very timbers. Most important of all, it—with Oshawa Steel Shingles for the roof—makes barns practically proof against fire, entirely free from every kind of dampness, and proof against lightning.

Learn About Pedlarizing

At the same time you send for your free copy of Roofing Right Booklet No. 16, ask us for particulars about these other Pedlar specialties. We will send you samples of any of them you choose; illustrations; and samples of the Oshawa Steel Shingle as well—all put to the test.

**GET SEVENTY-EIGHT POUNDS OF STEEL TO THE SQUARE
GET A TWENTY-FIVE YEAR GUARANTEE**



THE PEDLAR PEOPLE OF OSHAWA



THE PEDLAR PEOPLE OF OSHAWA, OSHAWA, ONT.
 QUEBEC, P.Q. MONTRÉAL, QUE. OTTAWA, ONT. TORONTO, ONT. LONDON
 127 Rue de Port 323 3rd Ave. S. W. 423 Sussex St. 111-113 B. St. S. 86 K1
 VICTORIA, B.C. CALGARY, ALTA. EDMONTON, ALTA. VANCOUVER,
 124 Railway St. S. 1009 7th Cross St. 633 Fifth Ave. N. of Jasper 319 Pe. St.
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