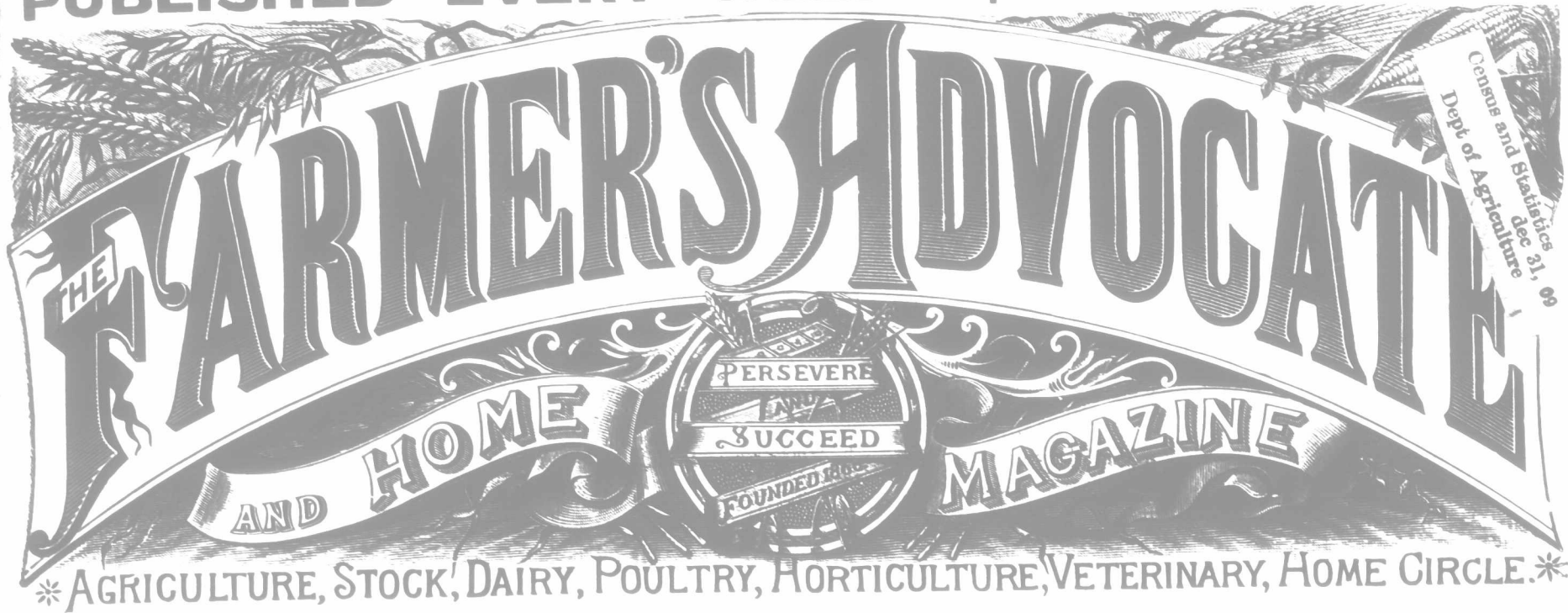


PUBLISHED EVERY WEEK. \$1.50 PER YEAR.



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

ENTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

VOL. XLV.

LONDON, ONTARIO, AUGUST 4, 1910.

No. 932



The only way to arrive at a correct conclusion as to which roofing is the best investment is to compare their cost per year of service.

Wooden shingles, of medium grade, in most parts of Ontario, cost at least \$3.50 per square—100 square feet of surface.

29½c. per Square

They may last twelve years. Chances are they will be rotted through long before then. However, let us divide \$3.50 by 12. That gives us their cost per year of service, which is 29 1/2c. per square per year.

Ready roofing is an even poorer investment. The best does not last longer than 10 years. At \$3.50 per square, the cost per year is 35c.

Slate is easily twice as good an investment as wooden shingles. A slate roof will last 50 years. At \$7.00 per square the cost per year figures out as 14c.

Better Than Slate

PRESTON Safe-Lock Galvanized Steel Shingles are an even better investment than slate. They will at least last as long as slate.

All slate roofs, you know,

have galvanized steel valleys, hips and ridges—the most exposed portions of the roof. That proves good steel roofing is as durable as slate.

9c. per Square

But PRESTON Shingles only cost \$4.50 per square. Allowing for 5 years of service their cost per year is 9c. per square, as against 14c. for slate, 29 1/2c. for wooden shingles, 35c. for ready roofing.

PRESTON Safe-Lock Shingles should last 100 years. They are the only shingles made and galvanized so as to pass the British Government's Acid Test. Shingles that will pass this test are practically everlasting. Yet PRESTON Shingles easily pass this severe test.

As PRESTON Shingles are made on improved automatic machinery and the locks are accurately formed, they fit together quickly.

Lay Them Faster

A man and a helper can lay 10 squares of PRESTON Safe-Lock Shingles in a day, whereas 5 or 6 squares would be a good average with wood shingles and other



metal shingles. If you have a large surface to roof that saving of time and labor means a good deal to you.

Remember, it takes half again as long to lay wooden shingles as PRESTON Shingles. Twice as long to lay slate.

Besides, wooden shingles and ready roofing cost something for repairing and repainting every three or four years. You save all this expense with PRESTON Shingles.

Less Insurance

Also, the insurance rate for a barn covered with wooden shingles is far higher than for PRESTON

Shingles—often as much as 50 per cent. more.

But before making any decision as to the kind of roofing you will buy, send for our new booklet, "Truth About Roofing."

Booklet Reward

This booklet contains information of real value to anyone who has a building to roof. It explains PRESTON Safe-Lock construction fully and contains a copy of our Free Lightning Guarantee. We should charge something for this booklet, but we will send it FREE as a reward to all who will cut out, fill in and mail the coupon to us.

Send for it to-day, or you'll forget it.

METAL SHINGLE AND SIDING COMPANY, Limited

HEAD OFFICE, QUEEN ST. FACTORY, PRESTON, ONT. BRANCH OFFICE AND FACTORY, MONTREAL, QUEBEC.



PRESTON SAFE-LOCK SHINGLES

Please send me your new booklet, "Truth About Roofing." I am interested in roofing, and would like complete information about PRESTON Safe-Lock Shingles.

Name.....

P. O. Address.....

County..... Prov.....

We Are Furnishing

Fine Interior Woodwork

INCLUDING DOORS, ETC., IN

PINE AND HARDWOOD

For many of Toronto's best homes. Write us for prices for anything in woodwork you may require for any class of building.

JOHN B. SMITH & SON, LIMITED.
Toronto.
 ESTABLISHED 1851.

GRAND TRUNK RAILWAY SYSTEM

Only Line Reaching All the Summer Resorts

CHARMING MUSKOKA
 BEAUTIFUL LAKE OF BAYS
 GEORGIAN BAY
 TEMAGAMI
 ALGONQUIN PARK
 MAGNETAWAN RIVER
 FRENCH RIVER
 STONEY LAKE
 KAWARTHA LAKES
 LAKE COUCHICHING, ETC.

Round Trip Tourist Tickets on Sale at Low Rates.

Sailings of passenger steamers from SARNIA to SOO, PORT ARTHUR and DULUTH, every Monday, Wednesday and Saturday at 3:30 p.m. The Wednesday and Saturday steamers going through to DULUTH. Sailings from COLLINGWOOD 1:30 p. m., and OWEN SOUND 11:45 p. m., Wednesdays and Saturdays for SOO and GEORGIAN BAY PORTS. Sailings from MIDLAND 1:30 p. m., PENETANG 3:15 p. m., to PARRY SOUND and way ports daily, except Sunday.

Full information and tickets from E. RUSE, City Agent; H. M. HAYES, Depot Agent, London, Ont.




"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

Box at all Dealers or upon receipt of price, from

THE ELECTRIC BATH CHEMICAL CO., Ltd. OTTAWA



GILSON
 PORTABLE GASOLINE ENGINE

Write for Free Sample

Box at all Dealers or upon receipt of price, from

THE ELECTRIC BATH CHEMICAL CO., Ltd. OTTAWA

"PEASE ECONOMY" BOILER

California weather in every room the cold winter months

"Economy" Boilers combine comfort with low cost. They give out nothing but pure, clean heat, making every nook and corner of the home liveable and enjoyable. "Economy" Boilers put new life into old houses, and are the heart of the most modern heating system for new buildings. Easy and safe to operate, "Economy" Boilers embody special advantages which insure the greatest volume of heat from the smallest consumption of fuel. The firepot, being corrugated, has one-third more live heating surface than ordinary firepots. This also provides a continual draft, insuring lively combustion where coals lie dead around the ordinary smooth interior—another proof of the perfection of "Economy" construction. You should know more about "Economy" Boilers before investing in any heating system. Send to-day for free booklet—"Boiler" Information.

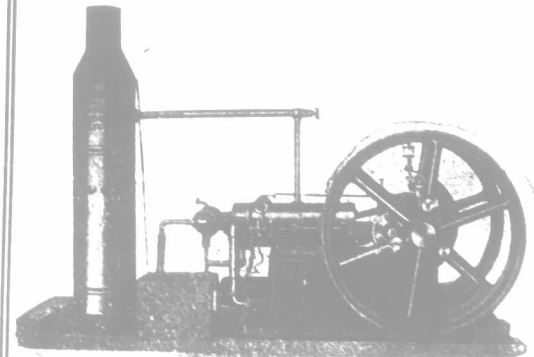
PEASE FOUNDRY COMPANY LIMITED
 Toronto - Winnipeg

NOTE—We manufacture exclusively Warm Air, Hot Water, Steam and Combination Heating Systems.



IDEAL GASOLINE ENGINES

1 1/2 TO 40 HORSE-POWER.



Windmills, Grain Grinders, Pumps, Tanks, Water Boxes, Concrete Mixers, Etc., Etc.

SEND FOR CATALOGUE.

Goold, Shapley & Muir Co., Limited
 BRANTFORD, CANADA.

POLES OF STERLING QUALITY

Michigan White Cedar

W. C. STERLING & SON COMPANY
 Oldest Cedar Pole Firm in Business
 Producers for 30 Years
 1880 MONROE, MICHIGAN 1910

Build Concrete Silos

Write for Free Sample

Box at all Dealers or upon receipt of price, from

THE ELECTRIC BATH CHEMICAL CO., Ltd. OTTAWA

Could They Be More Foolish?

The best proof that common cream separators are out-of-date is the fact that they contain 40 to 50 disks or other contraptions. They need such contraptions simply because they lack skimming force. Since they lack skimming force, they are neither modern nor properly built. In view of these facts, could any maker or agent of common cream separators be more foolish or incorrect than to claim that disks or other contraptions make, or are needed in, a modern machine?

Sharples Dairy Tubular Cream Separators



Dairy Tubular Bowl. Made right. No disks needed.

are entirely different from all others. They produce twice the skimming force of common separators. Dairy Tubulars neither use nor need disks or other contraptions. They skim faster, skim twice as clean, longer than common separators. The World's Best. The manufacture of Tubulars is one of Canada's leading industries. Sales easily exceed most, if not all, others combined. Probably replace more common separators than any one maker of such machines sells.

Write for Catalogue No. 193.

THE SHARPLES SEPARATOR CO.
 TORONTO, ONT. WINNIPEG, MAN.

Richelieu & Ontario Navigation Co.

The delightful fresh-water trip from "Niagara to the sea."

Steamers "Toronto" and "Kingston" leave Toronto at 3:00 p.m. daily for Charlotte (port of Rochester), 1,000 Islands, "Shooting the Rapids," Montreal, Quebec and Saguenay River.

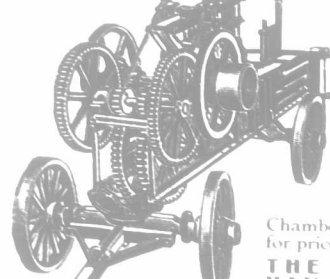
Steamer "Belleville" leaves Hamilton at 12:00 noon and Toronto 7:30 p.m. every Tuesday for Bay of Quinte, Montreal and intermediate points.

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

H. FOSTER CHAFFEE, A. G. P. A.
 Toronto, Ont.

The Columbia Hay Press

BAILED 68 TONS IN 10 HOURS.



It has the points that sell: Automatic Self Feeder, Automatic Safety Fly Wheel, Handiest Basket Dropper, Double Gear through-out, Extra Large Tying Chamber, etc. Write for prices.

THE COLUMBIA HAY PRESS CO.
 Kingsville, Ontario.

60,000 Acres

OF CHOICE FARM LAND WESTERN CANADA.

Every acre within a few miles of main lines of railway. Prices and terms very reasonable. Write for literature.

The Union Trust Co., Ltd.
 Real estate Dept.
 174-176 Bay St., Toronto, Ont.

CHURCH BELLS

CHIMES AND PEALS

MEMORIAL BELLS A SPECIALTY

FULLY WARRANTED

SHANE BELL FOUNDRY CO.
 BALTIMORE, Md., U. S. A.
 ESTABLISHED 1866

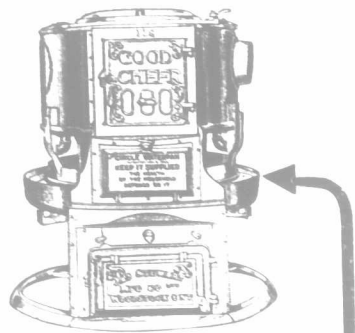
STEWART M. GRAHAM
 PORT PERRY, ONTARIO

MENTION THE FARMER'S ADVOCATE WHEN WRITING ADVERTISERS

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.

Ottawa Exhibition

SEPTEMBER 9th TO 17th, 1910.

Central Canada Fair, 1910, to surpass all predecessors. Premiums for Horses Generously Increased, and larger appropriations of prize money for cattle, swine, sheep, poultry and agricultural produce.

\$16,000.00 AND 40 GOLD MEDALS.

Buttermaking Contests, Manufacture in Progress, Parade of Prize Animals, Grand-stand for 12,000, Pyrotechnics, Mimic Warfare, Horse Races, Vaudeville. Entries close Sept. 7th. Write for prize list and other information to:

ED. McMAHON, SECRETARY, OTTAWA, ONT.

Money in Ditching



Every farmer and thresherman knows the value of a time-saving machine such as a harvester. We want YOU to know the money-making qualities of the BUCKEYE TRACTION DITCHER. It cuts 100 to 150 rods per day, and saves 25 per cent. to 30 per cent. of the cost of handwork. Are YOU interested— anxious to earn more money? Write TO-DAY for catalogue "T." Remember, the first man in your vicinity to use a BUCKEYE will make the biggest profits. Address:

Sales Department,
THE BUCKEYE TRACTION DITCHER CO.,

Findlay, Ohio, U. S. A.

MENTION THE FARMER'S ADVOCATE WHEN WRITING ADVERTISERS.

THE SPICE OF LIFE.

WANTED: LATEST AILMENT.

"Well, here I am," announced the fashionable physician in his breezy way. "And now, what do you think is the matter with you?" "Doctor, I hardly know," murmured the fashionable patient. "What is new?"

CHOPPED FEED.

A miss is good for a smile. It's a short worm that has no turning. Even a bad egg has certain striking qualities.

An idea, like a pin, should go point foremost. When a man takes life as a joke, his case is serious.

The little brown jug is best when filled with cold water. Regeneration of the heart is neither painful nor fatal.

There is a difference between sticking to and sticking your friends.

The best way to avoid life's troubles is to find something useful to do—and then do it.

The further a man's feet are from the ground, the further away is the reform he advocates.

"Working like a dog" doesn't seem to be the worst sort of a life when you stop to think how little a dog works.—Agricultural Gazette.

The Lover's Answer.

You ask me why I love you? Can you tell

Why violets purple the cool woods in May?

Or why spring-beauties carpet every dell?

Or why bright stars flash out on heaven's highway?

Ah, can you tell me why the rainbow gleams

A tinted arch against a tear-wet sky?

Or can you tell the secret of the streams

That murmur like a tender lullaby?

Ah, can you tell me why the wood-thrush sings?

Or why a golden light rests on the sea?

Or why 'mong moss and fern are living springs?

Or why sweet odors lure the honey bee?

Canst tell why lilies are as pure as snow?

Or why the rose in beauty is complete?

If you can tell me why these things are so—

Then I can tell thee why I love thee, sweet.

—Lillie Ripley, in the Independent.

A VICARIOUS SACRIFICE.

The following story of circuit-rider days was told to "The Farmer's Advocate" not long ago, by a grandson of one of the prime actors in the incident related: A good Methodist stalwart was expecting the minister on his rounds and adjured his two boys to go early to bed and be perfectly quiet, as the preacher would be tired from his long horseback ride. Now, it so happened that the lady of the house had a full bump of that feminine desire for change which transposes the sideboard and writing desk every six months. She had accordingly moved the boys' bed into the "spare room" and fitted up their room as a guest chamber. Awakening in the night, one of the young imps, inspired with the spirit of mischief, braced himself against the wall and projected his sleeping brother into space, so that he fell with a thump in the middle of the floor, making a noise that aroused the household. Spirit of righteous indignation in his heart, the father took himself upstairs to administer a "feeling" re-luke. Smack! his hand fell on a bare spot exposed by the sudden removal of bed clothes. "What's the —?" "None of that, not a word," said the father pre-emptorily, proceeding to administer a sound thrashing. "Now, where's David?" he remarked, as he finished. "Why, Mr. —?" ejaculated the astonished minister, to the still more astonished father. "Oh, no, never mind the boys," pleaded the minister, as the father started for their room. "I've been a vicarious sacrifice." The sacrifice answered, and the boys escaped.

METALLIC CEILINGS

are everything that plaster, wood and wall paper are not.

Metallic Ceilings are fire-proof, absolutely.

Metallic Ceilings don't crack or crumble—don't get damp or mouldy—don't need repairs.

Metallic Ceilings are far-and-away the most economical building material you can put in a house. You don't believe it? We can prove it. Write us for the facts.

The Metallic Roofing Co. Limited
MANUFACTURERS,
TORONTO AND WINNIPEG.
2401 (50)

BOVRIL

THE GREAT SUMMER FOOD.

In BOVRIL you get all the goodness of prime beef in a most easily assimilated form. No matter how it is taken—in soup, in gravy, or as a beverage, its benefits are immediate and lasting.

It strengthens the body without overheating.

STOCK MEN



Advertise your fancy stock by means of first-class

DRAWINGS

AND

ENGRAVINGS

Send us your photos, and our stock artist will bring out the points.

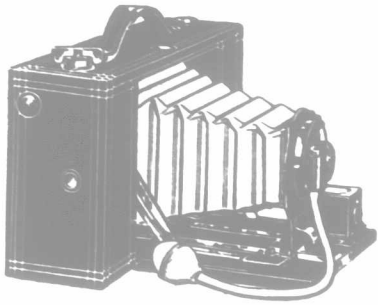
THE TORONTO ENGRAVING COMPANY LIMITED
TORONTO - - - CANADA
DESIGNERS ILLUSTRATORS ENGRAVERS

Don't Throw it Away

USE MENDETS

They mend all leaks in all utensils—tin, brass, copper, granite-ware, hot water bags, etc. No solder, cement or rivet. Anyone can use them: fit any surface, two million in use. Send for sample pkg., 10¢. COMPLETE PACKAGE ASSORTED SIZES, 25¢. POSTPAID. AGENTS WANTED. Collette Mfg. Co., Dept. K, Collingwood, Ont.

When Writing Mention This Paper.



Made by Kodak workmen in the Kodak factory—that explains the success of the Brownie Cameras—that's the reason for their absolute dependability and extreme simplicity.

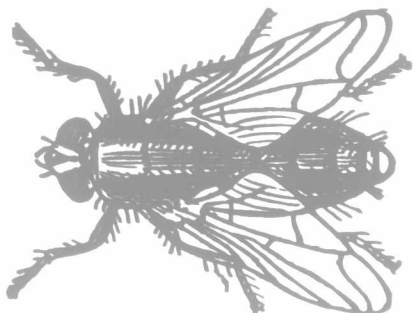
Anybody can make good pictures with a

BROWNIE

Load in daylight with genuine Kodak film cartridges. No dark-room for any part of the work—from pressing the button to the finished picture. Ask your Kodak dealer or write us for "The Book of the Brownies."

Brownie Cameras, \$1.00 to \$12.00.

CANADIAN KODAK CO., LTD.,
Toronto, Canada.

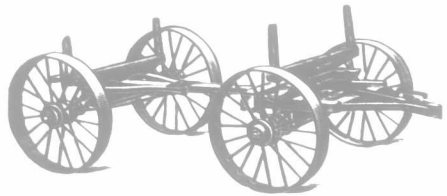


There are no dead flies lying about when

WILSON'S Fly Pads

are used as directed.

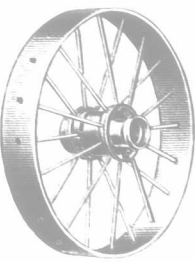
All Druggists, Grocers and General Dealers sell them.



If any of your farm wagons need new wheels, don't use wooden wheels again. Put on Dominion Low Wide-tire Steel Wheels. They are cheaper, lighter and stronger than wooden wheels. Guaranteed not to break in coldest weather, or on rockiest roads. Wide tires save roads, and make pulling easier for horses. Will last a lifetime. Made to fit any axle. Pay for yourselves first season.

The Dominion Handy Wagon saves half your labor and time in loading and unloading. Wide-tire, low wheels save roads and horses. Parts are arranged for easy draft. Saves its own cost first season. Like our Low Wide-tire Steel Wheels. Write for free booklet.

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



A. B. College

Continued at the Agricultural School will be sent to you upon request.

Forest City Business and Shorthand College
London, Ontario

W. W. WESTERVELL, PRINCIPAL

THE SPICE OF LIFE.

President McCrea, of the Pennsylvania Railroad, in his study of all classes of men who are under him, entertains a great admiration for the Irish foreman of a gang of laborers, who went to any lengths to show his men that he was the real boss. One morning this foreman found that his gang had put a hand-car on the track without his orders.

"Who put that han' car-r-r on the track?" he asked.

"We did, sor," one of the men answered respectfully.

"Well," he said, shortly, "take it off ag'in."

The laborers did so with some difficulty.

"Now," said the foreman, "put it on ag'in!"

King Edward's good nature was illustrated by a London correspondent at the Press Club in New York.

"The King," said the correspondent, "was visiting Rufford Abbey, and one morning, in company with his host, Lord Arthur Savile, he took a walk over the preserves.

"Suddenly Lord Arthur, a big, burly man, rushed forward and seized a shabby fellow with a dead pheasant protruding from the breast of his coat.

"'Sir,' said Lord Arthur to the King, 'this fellow is a bad egg. This is the second time I've caught him poaching.'

"But the King's handsome face beamed, and he laughed his gay and tolerant laugh.

"'Oh, let him go,' he said. 'If he really were a bad egg, you know, he wouldn't poach.'"

A STRAIGHT TIP.

A man who had a country place on Long Island came to New York one morning to do a little speculating. He was a great believer in tips.

On the ferry boat it came to him that he had had, somehow, a tip on oats. He couldn't remember just what it was, but somebody had told him to buy oats. So, when he reached his broker's office, he looked into oats a bit and bought some. Oats was active. He pyramided skillfully, and by the close of the market was seven thousand dollars ahead.

Of course, such luck as that had to be celebrated, and it was. As the celebration went on, the oats-buyer told the story several times, and each time took on importance in the recital as an oats-buyer, until he finally became the Oats King. He reached his railroad station somewhat late and found his stableman waiting for him with a trap.

"By the way," said the stableman, "did you remember to get that five bushels of oats I asked you to buy this morning?"

A VERY OLD TROUBLE.

Whenever the stock market is ailing—because the spring-wheat country needs rain, or because Mr. Morgan is said to have indigestion, or the Interstate Commerce Commission makes a new ruling—a gloomy chorus repeats that the bases of financial calculation have been radically changed within five years because a brand-new factor has been introduced—namely, the invasion, by the Government, of the field of private business enterprise.

Government has been invading the field of private business enterprise time out of mind. For example, Crassus was the ablest captain of industry of his day. "Observing," says Plutarch, "how hable the city was to fires, by reason of the houses standing so near together," he trained a large body of slaves until they became expert fire-fighters. When a fire broke out, Crassus promptly appeared, to buy the houses that were on fire, and those in the neighborhood which, in the danger and uncertainty, the proprietors were willing to part with for little or nothing. Having bought the houses, Crassus turned loose his fire-fighters and put out the blaze, "so that the greatest part of Rome at one time or another came into his hands." That was certainly a splendid stroke of private business enterprise. But in the course of time Augustus organized fire companies, and put out the fire for nothing. The trouble of which our friends complain is really as old as the hills. Saturday Evening Post.



The Ontario Agricultural College

GUELPH, CANADA,

Will Re-open September 20th, 1910.

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

G. C. CREELMAN, PRESIDENT.

SCAT !!

TO EVERYTHING ELSE

ONLY

DE LAVAL

Cream Separators

are worth while.



The De Laval Separator Co.

173-177 William Street
MONTREAL

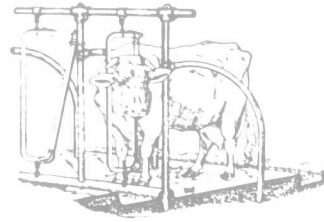
Catalogue Free.

Agents Everywhere.

WINNIPEG

VANCOUVER

"BT" Steel Stalls and Stanchions



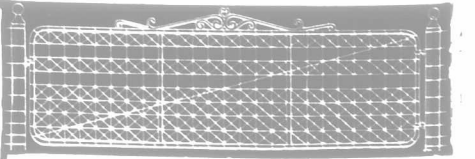
With cement floors reduce labor to a minimum, and make bright and sanitary stables. They are practically indestructible, while the out-of-date stables are constantly in need of repair, and are short-lived when compared with the latest and most up-to-date stables.

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

The electrically-welded, solid-piece frame gives strength and stiffness to

Peerless Farm and Ornamental Gates

We build Peerless Gates to last a lifetime—handy, convenient and attractive. They remain staunch and rigid through all kinds of rough usage. The frame is



made of heavy steel tubing electrically welded into one solid piece. The Peerless Gate, like the Peerless Fence, saves expense because it never needs repairs. We also make poultry, lawn and farm fences of exceptional strength. Write for free book.

THE BANWELL HOXIE WIRE FENCE CO., Ltd., Dept. B Hamilton, Ont., Winnipeg, Man.

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, AUGUST 4, 1910

No. 932

EDITORIAL.

Sixteen thousand, seven hundred and seventy boxes of strawberries from one and one-fifth acres, is the extraordinary yield reported by W. Walker, of Elgin County. Read about his methods.

Jupiter may drown, parch, freeze or (hail) stone the crops of the West, but he cannot quench the indomitable optimism of her people. Already, Western philosophers have bobbed up serenely with the assurance that this partial crop failure was just what the country needed—will almost be the making of it, in fact. It will impress needed lessons of better farming upon prairie settlers. Great is pluck. We need more of it in the East.

If Sir Wilfrid Laurier is not a free-trader when he returns from his Western tour, it will not be for the lack of aggressive tutelage at the hands of Western farmers. Their demands for lower tariff have been insistent and persistent. Let us hope they will bear some fruit. Indeed, the Premier has already confessed that his ideas have been broadened, and has declared for another tariff commission of inquiry, with a view to revision downwards.

Ireland appears to be having her trouble with the margarine vendors. This industry, like the cancer of protectionism, once established, is difficult to eradicate or control. While there is no inherent reason why oleomargarine should not be made in any given country, and sold to those who wish to buy it, the abuse comes in its surreptitious substitution for butter—a form of fraud facilitated by coloring. The dark and devious ways of the margarine manufacturers are what justify such a federal law as Canada possesses, prohibiting either manufacture or sale within the confines of the country.

American publications, officials and private citizens, anxious to stem the northward emigration of farmers, have taken advantage of the unfavorable season in parts of the Canadian West to point a moral against their good substantial farmers leaving God's country for the cheap lands of the Canadian West, under the sovereignty of an "uncongenial government." "There is a reason," they say, "for the cheapness of the lands." All of which is easy enough to see through. The remarkable fact is the convenience with which they overlook the still more severe drought and crop failure in parts of their own Northwest.

To few men has it been given to make a more radical impress upon the agriculture of a country than to the late William Rennie, who, for six years, in the capacity of Farm Superintendent at the Ontario Agricultural College, preached the gospel of clover, short rotation and humus. One of his special aims was to keep the humus in the upper layer of the soil, where it might be abundant enough to exercise a marked ameliorating effect, instead of distributing it throughout eight or ten inches of depth. For subsoiling he depended largely upon clover roots. There are, of course, many phases of the problem of deep versus shallow plowing, but Mr. Rennie's plan has worked admirably on the College farm at Guelph, and on various others throughout the country. At all events his teaching, even if extreme, has been of vast benefit, and certain it is that in this and other respects he has made a deep impression on Canadian farmers, because he stood for definite practical things, and advocated them with convincing facts, supplemented by results.

The Function of Judges.

Some might think, from the methods usually in vogue, that the special duties of judges at our township and county fairs are to appear superiorly wise, and as the classes come before them to direct the awarding of the prizes. But such is not their chief function. When it is called to mind that the function of an exhibition is educative, the duties of judges are more readily arrived at. While the fair management awards cash prizes to the best animals, it does so as an inducement to bring these animals out, and so make their fair most instructive. But the basic purpose of fairs is to accomplish an improvement in all lines represented in their prize lists. The simple judging of the stock is incidental; the real benefits arise from the clear, concise, accurate statement of the reasons why awards are so placed. Judges cannot serve their purpose in any full degree if they fail to tell why fair managers lose an opportunity to make the most of their exhibition when they do not instruct the judges to explain their placings. Not every good judge can state his reasons clearly, yet most can, and the services of these should be obtained.

Giving reasons makes for a better feeling in every quarter after it is all over. As it is now, every exhibitor in the smaller fairs thinks he has about the best in the ring, but all cannot get to the top. No reason is given why some go up and others go down, and the losers cannot understand; they too hurriedly assume a partiality on the part of the judge. Usually, a two to five minute talk will clearly show just why things went as they did. The reasons are generally patent when once pointed out; the exhibitors not only are satisfied, but have learned something. Similarly, the ringside have been taught. For everything except the largest shows, a tactful, explaining judge is the one worth while.

Reducing the Monstrosities of the Law.

About the next great reform in this country should be to reform the law—really reform it, we mean. Abolish the slavish regard for precedent and technicality, cut out technical appeals, and place the administration of the law more squarely upon a basis of equity and fact, after the principle of the Railway Commission procedure and decisions. We submit that it is time the intelligent citizens of this and other countries ceased throttling justice with monstrous legal systems. In the United States, where, even more than with us, court practice has been maintained for the profit of the lawyers, the interests of justice being a convenient football with which to play the game, there are encouraging evidences of change. Before the U. S. House Judiciary Committee last winter, it was said that, with one exception, in the proceedings of all State bar associations during the year, reform of judicial procedure held a chief place. A number of lawyers' conventions, attracting delegates from several States, have devoted themselves to procedural reform.

"What is still more hopeful," says the Journal of the American Institute of Criminal Law and Criminology, "is the changed attitude some of the courts are beginning to take toward technicality in the decision of cases." In Oklahoma, by clerical oversight, a constitutional phrase was omitted from an indictment. Refusing to annul the indictment, the Supreme Court of the State said: "We are determined to do all in our power to place our criminal jurisprudence on the sure foundations of reason and justice. If we place it upon a technical basis, it will become the luxury

of the rich, who can always hire skilled lawyers to invoke technicalities. . . . We confess to a want of respect for precedents which were found in the rubbish of Noah's Ark." The Supreme Court of Wisconsin, says the Journal, has recently taken a similar attitude, declaring that many of the technical requirements regarding framing of indictments are nothing but "rhetorical rubbish."

The rubbish heap in our jurisprudence, comments the Saturday Evening Post, is still mountain-high, and harbors many a rat, but we believe its shadow begins to grow less.

The Glory of the Corn.

We talk of mystery and magic, but there is none for one moment comparable with the legerdemain of fruitfulness and growth as seen in the corn field. The novelty-craving townsman gapes open-eyed at the tawdry imitations on the stage of the travelling wonder-worker, with his handkerchiefs, and knives, artificial flowers, ropes and cabinets; but for real, entrancing marvels, commend us to the cornfield, with its fragrant luxury of pure air and cereal production at its very best. One day in May we dropped the dry kernels under an inch of soil, mellowed and enriched, where, with damp and cold, they were like to die. In fact, it was a death of the outer shell that helped to resurrect the living germ within. A little green spike shouldered its way up through the earth to the light, and as the roots spread this way and that, a myriad of fibres drank in the water-dissolved fertility, giving the plantlet strength and substance to begin the struggle for existence with a host of predatory weed pests whose seeds were already in possession. With harrow and hoe and weeder we came to the rescue, and gave the corn a fighting chance, to which it nobly responded. In the end, the weeds were subdued and driven out, and the good triumphed, as it should. Right here reformers and educators of the youth may draw a wholesome moral. While the training seemed like a rigorous hardship, the coming crop thrived under it, even when we roughly harried the rows with the two-horse cultivator; but the stalks had a sure grip now on mother earth, and began to reach up and outward an inch a day, and the hotter the sun, the faster they grew. Great flapping bands of green waved in the wind, throwing back in the face of the sun a thousand glinting reflections. Corn, like animals, needs exercise, and nature sees that there is no lack of it, in order to opening pores, strengthening fibres and vigorous growth. Presently we see the luxuriance of plumed stalks ten and twelve feet high, tossing like the sea itself. Corn likes cleanliness, and if there are no showers by day, under the shadows of night the naked arms of green are washed down with the dews, and from air and soil it gathers in sustenance, and grows from strength to strength. The men of the corn belt will tell you that corn has growing pains, which are heard in the titanic rustle and murmur when the vast fields are stirred by the breezes of night. By and by the plant begins to flower, and the rows of auburn tassels sway like the plumes of an old-fashioned army. Then comes the mystery of the pollen which falls to fructify the silk-clad ears forming on the stalk below with a prodigality that knows no limit. In such profusion is this vitalizing dust scattered that Nature seems to design that not a single kernel shall miss the chance of reproduction. The August and early September days push along the process of maturing in leaf and ear for the shock or the crib, the silo or the corn-flake factory. The glory of the corn ends not in the field, but as food for man and beast issues into a never-ending round of new life.

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED)

JOHN WELD, MANAGER

AGENTS FOR THE FARMER'S ADVOCATE AND HOME JOURNAL,
WINNIPEG, MAN.

1. **THE FARMER'S ADVOCATE AND HOME MAGAZINE** is published every Thursday.
It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
2. **TERMS OF SUBSCRIPTION.**—In Canada, England, Ireland, Scotland, Newfoundland and New Zealand, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries 12s. in advance.
3. **ADVERTISING RATES.**—Single insertion, 25 cents per line, agate. Contract rates furnished on application.
4. **THE FARMER'S ADVOCATE** is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrearages must be made as required by law.
5. **THE LAW IS,** that all subscribers to newspapers are held responsible until all arrearages are paid and their paper ordered to be discontinued.
6. **REMITTANCES** should be made direct to us, either by Money Order or Registered Letter, which will be at our risk. When made otherwise we will not be responsible.
7. **THE DATE ON YOUR LABEL** shows to what time your subscription is paid.
8. **ANONYMOUS** communications will receive no attention. In every case the FULL NAME AND POST-OFFICE ADDRESS MUST BE GIVEN.
9. **WHEN A REPLY BY MAIL IS REQUIRED** to Urgent Veterinary or Legal Enquiries, \$1 must be enclosed.
10. **LETTERS** intended for publication should be written on one side of the paper only.
11. **CHANGE OF ADDRESS.**—Subscribers when ordering a change of address should give the old as well as the new P.O. address.
12. **WE INVITE FARMERS** to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve THE FARMER'S ADVOCATE AND HOME MAGAZINE, Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
13. **ALL COMMUNICATIONS** in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—THE FARMER'S ADVOCATE, or
THE WILLIAM WELD COMPANY (LIMITED),
LONDON, CANADA.

When Good Farming Tells.

Tests reveal the weak spots. Anyone can grow crops when all conditions are favorable. Science and skill avail most against drouth and adversity. It has proven so this year in the West. C. H. Moore, an American, returned to Spokane from a 4,000-mile tour in Northern and Western Canada, had this to say of what he saw:

North of a line that would pass from Calgary, Alta., to Saskatoon, Sask., I found that where the farmers practiced dry-farming methods the crops are in excellent condition, while to the south of the line indicated many of the growers appear to be wedded to slipshod methods, and their crops show it.

Many farmers have "studded in" their grain, and have recklessly put grain in poorly broken ground. Wherever such methods have been used, the crop prospects are poor. On the other hand, where better methods were used, the crops look fine. This is especially noticeable in the districts north of the Calgary-Saskatoon line.

There the farmers are raising wheat, oats, barley, flax, timothy, broom-grass, and large quantities of wild hay. Harvesting will begin soon, in fact, some of the farmers are already at work. This shows what can be done by the practice of dry-farming principles. There should be more of it in the drier districts in the Western part of the Dominion of Canada.

The farmers are practicing dry-farming, it is true, but not as thoroughly as they should. Many turn over the sod, and, instead of packing it and working it once, they permit it to remain for days, and thus practically lose all of its moisture. They then cut it up with discs, only to find that it has become so hard that the growing of crops is an almost hopeless proposition. Another practice that has cost the farmers much money, through the "studding in" of grain, is the "studding in" when this will be stopped.

The drier districts are one of the best I have ever seen for the practice of dry-farming. The country is a considerable rain, but the conservation of moisture is necessary. That is the secret of dry-farming, making the most of the rainfall.

His observations are not without significance for Eastern farmers.

Discrimination According to Quality.

"While there are many good points in Mr. Flavelle's letter, I think he has laid himself open to a fine retort on one score," remarked a well-informed professional man to "The Farmer's Advocate" recently. "While criticising farmers for their shortcomings, what has he done in a practical way to bring about discrimination, according to quality, in the buying of hogs? If the type and condition of hogs is as important in catering to the Wiltshire trade as we were told ten years ago, surely the buyers could find some way to insure the payment of a premium for the grade of stock they wanted. But there the managers sit, declaring it can't be done."

With this criticism we are disposed to agree. It may be that nowadays decreasing production of hogs and increasing home demand for lard have lessened the margin of value to the packers between singers and common stuff, and that the home demand has enabled packers to dispose of a considerable amount of pork from inferior types to about as good advantage as that from select-converted into Wiltshires. Probably the packers reckoned that the ratio of production as between select and culls would be maintained, and that they would still be able to secure a sufficient quota of select to supply their Old Country trade. However this may be, we maintain, as we pointed out years ago, that unless some slight advantage is accorded the man who seeks by care and enterprise to produce the right class (whether it cost him more or not), the tendency will inevitably be to relax effort, and drift back to the raising of miscellaneous lots, with a partiality toward thick fats. In their failure to realize and attempt to stem such tendency, we believe Canadian packers have been unwise. Either that, or the stress formerly placed on bacon type was grossly exaggerated. Chickens come home to roost. The man who will not pay for quality need not expect to get quality.

At the same time, we maintain there is good money in hog-raising on Canadian farms, and are convinced that it will pay to go on producing pork steadily, and especially to swim a little extra strong when the crowd get cramps and come out of the water. Whatever the packer does or does not do, is no reason why we should not make full use of our opportunities.

Cheesemaking in Brockville District.

That a cheese factory be successful, the following requirements are essential: A modern building and equipment; a capable, progressive maker, and much milk of good quality. Given these three factors (and they are interdependent), a profitable business will result. It is a rather peculiar situation, but the presence or absence of these factors is governed to quite an extent in Eastern Ontario by the ownership of the plant.

Modern building and equipment in cheese factories, among other things, demands provision for pasteurization of whey, proper disposal of sewage, and cooling rooms. Cheesemaking is not child's play, and only men with brains who have studied out, continue to study, who are ambitious, can succeed. More than an apprenticeship must be served; attendance upon the dairy schools is very desirable; sanitation, ventilation, plumbing, chemistry, bacteriology, are a few of the many branches to be mastered and practiced. Men of this type who will or can afford to pursue these studies are called forth only by factories wherein much milk is made into cheese—where more than \$20 a month is paid.

In Ontario, and especially in Eastern Ontario, most of the cheese factories are privately owned. The proprietor receives from one cent to a cent and a quarter for making, out of which he hires the maker, makes repairs, pays interest, and makes improvements. The margin is not sufficient for him to more than live, and does not justify extensive improvement. Furthermore, his patrons, having no investment in the plant, are free to come or go as they choose. Slight provocation promptly arouses a competitor to build within the same territory.

There are nearly one thousand factories in the eastern part of Ontario, out of these, only about seventy are joint-stock factories. There are three factories in the Brockville section that have cooling rooms, one of the complete set on, three

in the Ottawa section, and three in the Gananoque section. Going west, more are found, going east in Ontario, none. The number of factories has been increasing. Where, a few years ago, one large factory served for a radius of four or five miles, are found now three or four factories, and yet the total amount of milk made up is practically unchanged. These smaller factories work ruin to the cheese interests. The only argument in their favor is that they are conveniently located for the few patrons sending to them. They do not furnish enough milk to pay a capable cheesemaker, nor enough profit to encourage the owner in improvements. Consequently, these little factories that have sprung up, and are springing up at every cross-road, are cheaply built, lack curing facilities, are insanitary, and frequently are run by makers who do not know the conditions demanded for successful cheesemaking. This was the great fault of the cheese situation, as seen in a recent trip of inspection through the Brockville district. And wherever the small factory was encountered, the evils indicated prevailed. There should be a law, rigidly enforced, which would prevent such unnecessary and unfortunate crowding of factories.

Unless steps are taken to prevent the further crowding of factories, and to do away with many we now have, the cheese industry, instead of advancing, must retrograde. At this point, the value of co-operation is evidenced, and wherever such factories are encountered, they typify the best that is to be found.

Farmers and Their Parasites.

Editor "The Farmer's Advocate":

I have been much interested in J. W. Flavelle's open letter to the Minister of Agriculture for Ontario, and in the consequent discussion in your columns, and, as the subject is not likely to become quickly exhausted, I beg leave to add my quota.

To a certain extent Mr. Flavelle's criticism is quite true: True that the demand for certain classes of foodstuffs has increased wonderfully during the last few years, and true, also, that Ontario farms are not producing anything like what is possible for them. The production of Danish farms is so much greater than ours that it must shame us to have the comparison made. But it is not true that, considering the undermanning of Ontario farms, and the unfavorable climatic conditions of the last few years, Ontario agriculture has absolutely declined. This point has been discussed at some length in the editorial columns of the Weekly Sun, and a very effective reply made to Mr. Flavelle's indictment along this particular line. Nor is it true that the Ontario farmer is doing little to improve his property and increase his production. Anyone who travels at all cannot help noticing the way in which farm buildings are being improved and silos erected, and the tile manufacturers can certainly give evidence as to the rapid increase in the rate of underdrainage. But, though Mr. Flavelle's indictment is overdrawn, there is a basis of soundness in it that gives just cause for serious thought. Why is it that Ontario agriculture is not advancing as rapidly as it should? In the answer to this question is the key to the remedy.

I take sharp issue with Mr. Flavelle when he says that "the farmers of this and other Provinces have been diverted from enterprise, and have been encouraged to look for returns through agitation, frequently ungenerous, and generally wrong, which has had for its bynote that farmers were being deprived by the greed of others of a legitimate share of the returns for their labor." Mr. Flavelle will find that farm journals, the press generally, and the various Departments of Agriculture, which are all doing splendid educational work along technically agricultural lines, are also pleading for economic justice, and he will find that those farmers who are identified with the agitations to which he has alluded are by no means the unprogressive, unenterprising section of the rural community. In fact, taking things on the whole, those who are doing the best work for progressive agriculture are also most prominent in demanding economic justice for the farmer. To take one example, which, as it does not touch the bacon-hog controversy, cannot be said to be a direct thrust at Mr. Flavelle, I will refer to the tariff. There is a general concurrence of opinion among farm journals and independent farm organizations throughout the whole of Canada that protectionism is a curse to our country, that its practice robs our farmers of "a legitimate share of the returns for their labor," and that it, instead of the lack of intelligence and capacity, may account in a degree for the unsatisfactory returns from agriculture. It is quite true that a community can, only in the last analysis, secure results from its own "intelligence, sound sense, and industry." But it is also true that those individuals who apply both intelligence, sound sense and industry

to their business may have their earnings transferred to some idle parasite's pocket through unjust taxation or legislation. And to a large extent this has been the case in Canada, until now it begins to effect its own cure in the relative decline of agriculture. Mr. Flavelle's business feels the pinch, and many residents of cities who have adopted "high living" are feeling the pinch; but, nevertheless, good is likely to come out of it.

Mr. Flavelle complains that "more extensive farming, instead of intensive farming, is being adopted." In some sections this is true, and, considering the great decline in our rural population, could hardly be unexpected. But why is it, and who is responsible? Is the farmer chiefly to blame, or is it the commercial magnate and his satellites? Why do our young people leave the farm for the city? Who sets those standards of high living that have been the constant allurements of city life, and have been held up as prizes in the great urban lottery? Who but the vested interests, subsidized corporations and "protected" industries overlaid the farmer in the labor market?

Seven years ago, writing in the O. A. C. Review, I said (speaking of influences militating against agriculture): "Such curtailment renders the vocation of agriculture somewhat arduous, and hence we have rural depopulation. It is true that, by improved methods, the producing power of the farmer can be greatly increased, and, if one-half of his earnings is normally swallowed up by social parasites, he may still thus maintain his position. When caught between the upper and nether millstones, he might as well 'grin and bear it.' If he can but slightly affect the price at which his commodities sell, he can, at least, considerably affect the cost of production. So far, so good. Yet one should not be blind to the fact that the general moral character and tastes of those with whom he has direct or indirect dealings (and the circle is by no means small) will determine the adequacy or inadequacy of the material reward of his toil."

"To remedy such evil conditions as I have alluded to, instruction in scientific agriculture is, in itself, powerless. It may partly offset or neutralize the evil results in two ways: First, by increasing the agriculturist's power over nature, and secondly, by developing in him a love and appreciation of his occupation, so that a strong bond of attachment may exist between him and his work. This much it may do, and, in a measure, is doing. It is, in its way, no small thing, and should be rightly valued."

Since the above was written, I have been engaged in practical agriculture, and know something of conditions from the farmer's point of view. I have done something in the way of increasing production, having practically doubled the output of the farm in seven years. I have invested every bit of savings in the farm, in improved stock, buildings, equipment and drainage. It pays me good interest. But there is another side of the whole question that needs to be drawn to Mr. Flavelle's attention. Some of my neighbors are not as ambitious as I have been, and find that they can get on passably well with much less labor. They do not bother much with cows, chickens or pigs. Why should they multiply effort for themselves and families, and make life a burden? Hired help is scarce and unreliable, and they cannot, like Mr. Flavelle, live in a mansion in Queen's Park, while their workmen are relegated to the slums. Why not go in more for grain farming, and get a little leisure and enjoyment out of life? What if the proceeds are smaller? We are not inclined to live extravagantly, and have enough as it is. We keep our straw, most of our hay, and enough stock to maintain the fertility of our farms. We keep enough chickens to supply ourselves with eggs. What need have we to cater to the city? Such is the attitude, expressed or unexpressed. Selfish, is it? Yes, in a measure; but if the farmer can do well enough without keeping many pigs, Mr. Flavelle will find it hard to argue him into the business, and, as all other industries are based on agriculture, they feel keenly the pinch of decreased production. There will have to be a gradual reinstatement of agriculture, a driving of people back to the farms, newer and better ideals in education, simpler modes of living, etc., and then conditions will become more normal. In Denmark, and the other Scandinavian countries, where agriculture stands pre-eminent, they have a real agricultural democracy: a happy, contented and educated peasantry, and few millionaires, with their consequent following of parasitic satellites. We have corrupt and extravagant standards of living, and are beginning to cry out because the shoe pinches. After all, the talk about the high cost of living is really about the "cost of high living." It is the luxuries (or what used to be luxuries) that show such decided advances in prices. Flour, oatmeal, peas, beans, and even butter, milk and cheese, have not advanced very materially in price, and if people would buy the cheaper kinds of food, there would be very little complaint of hardship. All the outcry voiced by Mr. Flavelle's letters, symptomatic or social diseases—waste, extravagance, unfair distribution of wealth, and so forth—and, if the Canadian farmer has not been reduced to the condition of ignorance and mental mediocrity of the Russian peasant, it is

not because the same evil forces have not been at work here as there.

What would Mr. Flavelle say if I were to follow the example of some of my neighbors, and curtail production along certain lines? The labor problem is acute, and cows have to be milked seven days in the week. The market for dairy products, though good, is, for me, uncertain. Why should I not let the calves run with the cows, and make things a little easier? Why should I tie myself, and have scarcely any time for reading, travelling, and the like, for the sake of more profits? Really, I am strongly tempted to curtail production, and, if I do not do so, it will be because I am somewhat influenced by patriotic motives, and, moreover, do not like to see standing idle the capital which I have invested.

If I have been personal, I hope I have made references mainly to myself, and have not transgressed the regulations laid down for this discussion. May I, in conclusion, express the wish that Mr. Flavelle invest some of his surplus capital in farming, and show us by personal example what the enterprise and fine courage of the successful business man can accomplish when applied to agriculture. Such an example would be worth a file of sermons. W. C. GOOD.

The New P. E. Island Experimental Farm.

SOME ACCOUNT OF THE PROGRESS BEING MADE.

The long-expected and much-needed experimental farm for P. E. Island has come at last and got down to business, and is already making a good showing under the management of Superintendent J. A. Clark, B. S. A. Conveniently situated just outside the city limits of Charlottetown, on the Mount Edward Road, on rising ground overlooking the city, it is fast becoming one of the most beautiful spots of the "Garden of the Gulf."

During a recent visit we noted the many improvements already made in the appearance of the place. Unightly fences, with their straggling rows of trees, have been removed, and fields and plots laid off, with paths and driveways between. Ornamental trees that were too near the house have been cut away, and the residence thoroughly remodelled, all giving such a different appearance



Residence on the Prince Edward Island Experimental Farm.

that one would hardly know it to be the place that Superintendent Clark took charge of a few months ago. The residence has been fitted with all modern conveniences, and, standing on the highest part of the farm, commands a fine view of the city and surrounding country. The P. E. Island Railway skirts the farm its entire length on the western side, affording an excellent view to the travelling public of the experimental plots. Comparative tests are being carried on in 1-100-acre plots. There are 16 varieties of wheat under test. Besides the old standard kinds, there are a number of the cross-bred kinds that are most promising.

Of oats there are 22 varieties, growing side by side in the plots. These plots contain some of the standard varieties, and the rest are newer and promising kinds. There are eleven varieties of two-rowed barley, and twelve of six-rowed, also in the comparative tests, and thirteen varieties of peas. There are a number of quarter-acre plots of leading varieties of wheat, among which is the Marquis, originated at the Central Experimental Farm, Ottawa, which promises to rival, if not surpass, the famous Red Fife both in yield and quality. A trial is also being made with alfalfa, sown with and without a nurse crop.

At the time of our visit (July 8th) the grain in the experimental plots had made a fine growth, and we noted that they were very free from weeds.

On the opposite side of the farm, and near the residence, an orchard of five acres has been set to apple, cherry, plum and pear trees, and there is a half acre in small bush fruits of many varieties, and another half acre in vegetables; also a plot in which a lot of different varieties of grapes are being tested. The lawn round the residence, the walks and borders of the driveway, are planted with ornamental shrubs of rare kinds and beautiful selections of flowers, and the driveway, from the entrance, is lined with beautiful shade trees. The residence has been remodelled, and fitted with all modern improvements. It is situated on the highest land on the farm, and commands a fine view of the city and country to the south. After a few years, when the plantings in the orchard and lawn have had time to grow, and the farm has been all brought into the highest state of cultivation, this will be one of the most beautiful spots in the "Garden of the Gulf." Nature has done much for it, and the skill of Dr. Saunders and the superintendent will do the rest. This farm will be of great advantage to P. E. Island agriculture, as the experiments conducted here are under conditions of soil and climate similar to those of the whole Province. At the time of our visit, the Superintendent had just completed the surveys for underdraining a large part of the farm, and will have the tiles laid this season. This year's experience has indicated the portions most in need of draining. This matter of underdraining will also be an object-lesson to our farmers, as there is much of our soil would be benefited by it. It now remains for farmers to watch closely these experiments, which are being carried on at the public expense for their benefit, and get all the information possible about the kinds of cereals, vegetables, roots and fruit that succeed best here, in order that the produce of the farms may be largely increased as a result of the establishment of this agricultural experiment station. Visitors will find the superintendent ever ready to give information about all matters connected with the farm. WALTER SIMPSON.

Notes from Ireland.

THE SEASON.

In pleasing contrast with the prolonged drouth, which, I regret to hear, has caused great anxiety to Western Canadian farmers, the season, up to the present, has, on the whole, been very favorable to crops in Ireland. The year opened abnormally wet, but seeds were sown under very satisfactory conditions in March and April. Subsequent harsh weather retarded growth, but a warm, rainy June encouraged rapid vegetation. The rainfall for the month was the heaviest for the past twenty-five years. The first half of July has been very bright and hot, and harvest prospects are now most promising. There has been some damage to potatoes from blight, but nothing very serious, and many misses are reported from the mangel fields, though turnips are healthy-looking. All grain crops, however, should yield well, and hay is abundant, but the earlier cuttings were difficult to save, owing to inclemency of the weather. Markets generally are satisfactory for the farmer; beef has been fetching big prices, and for many weeks mutton was also worth high values, though a tendency towards cheapness has again set in. There is still money in pork, prices being steady for the best grades at 60s. per cwt., and over.

THE MARGARINE MARAUDERS.

Just as it has been in the United States, on your side of the Atlantic, so in Ireland, producers of honest butter have suffered long from the margarine imposition, and with us the ardent wish prevails that success will crown the efforts of Mr. Kilbride, M. P., who has introduced a new bill aiming at the prohibition of the coloring of this concoction to imitate the genuine article. Last year, the combined opposition of the grocery trade and the margarine manufacturers defeated a similar measure. It is simply a scandal that any Government should leave not only the farmer, but also the unsuspecting consumer, unprotected against the frauds that are perpetrated on them by the substitution of a spurious material for butter. Several prosecutions in Dublin and elsewhere show the extent of the dishonest practice, but what means a £20 fine to a man making perhaps thousands out of the nefarious business? Mr.

Kilbride's bill goes to the root of the matter, and, though it is certain to be spiritedly contested, let it be hoped that, in the interests of fair play and commercial uprightness, it will emerge completely triumphant.

"THE TEAR"

Agriculturally speaking, the interesting problem of the political situation is the anomalous position of T. W. Russell, Vice-President of the Department of Agriculture. The ostensible reasons why Sir Horace Plunkett was removed from office a few years ago (to make room for Mr. Russell), was in order to establish for all time the principle that the occupant of the position should be a member of Parliament. At the last election, Mr. Russell was unseated, but still he has been left in office. What an interesting story could be written about the whole situation and the various underlying influences at work; what a light it would cast on Ireland's management under the party system! But I must not go out of bounds.

We are once more in the throes of a bitter controversy concerning the State subsidy of the co-operative movement, and more trouble has been precipitated by some indiscreet allegations made by Mr. Russell against Credit Banks established by the Organization Society. Another battleground is furnished (as I anticipated in my letter in the issue of "The Farmer's Advocate" for the 2nd June) by the suggestions contained in the Departmental Committee's report on Irish Dairying, as to complete inspection of creameries by officers of the Department. All over the country creameries are up in arms against the ambition of the Department in grasping for extra powers and authority over these voluntary enterprises of the farmers.

"AND THE SMILE."

To turn to something more pleasant, I am glad to say that we have been promised a further grant of one million pounds towards the provision of more laborers' cottages in Ireland. Even this will not completely dispose of the matter, but it will go a long way to help. With comfortable housing and the granting of a decent plot of ground, at a nominal rent, there will be some hope of keeping workers in the country. In some districts there are definite results along this line already observable. Another interesting movement dealing with the labor question has lately been launched in the City of Dublin, where several tracts of vacant land have been distributed to selected applicants from the poorer classes, who have promised to go in for vegetable-growing. To start with, seeds have been provided free, and tools obtained on the easiest terms, while an instructor has been engaged, and is being partly paid by the Department of Agriculture. The scheme is being watched with great interest, and it is to be worked more as a practical business matter than an attempt at charity. There is much latent agricultural ability submerged in the slums of our big cities, and all the while our farmers are crying for more workers. Many may be led by this and other agencies to return to a healthy country life. It is, at any rate, significant to find that, through the instrumentality of the Labor Exchanges, from 20 to 25 men are being sent out of Dublin each week for agricultural work in the country.

A RESEARCH STATION.

An urgent want in Ireland, as in every extensive stock-breeding country, is a research station for systematic inquiry and investigation into animal diseases. Everybody admits this need, but the authorities, though sympathetic, plead that there is no money available for the purpose. Hopes exist, however, that out of the Development Fund some help will be forthcoming. If all went to all, a bull premium could be withdrawn from each county, and this would set free nearly £500 a year towards the working of the station. Plenty of material exists for research, such as the cause of sterility in our cows, red water in cattle, and other sources of loss to stockowners. Let me briefly refer to one animal pest—the warble fly, which, by reason of the damage it causes by rattling the hide, as well as by the loss of condition in the beast, is estimated to cost the Irish farmer millions of pounds each year. Even among practical cattlemen and eminent scientists very diverse views prevail as to the true habits of this fly and the manner in which it gains access to the animal's body. Some hold that the eggs are laid on the back, and when hatched they burrow in and develop under the skin. Careful observations, on the other hand, suggest that the eggs get on the legs of the cattle, are licked into the mouth, hatched, and thence work their way in and on through the back. In proof of this, large numbers of the maggots have been found embedded in the tissues of the flaps of skin to be found in the mouth. Different writers also hold as to the object of shearing the flaps, and the general treatment frequently adopted has been to use the warble comb of the hair, and to use some ointment or grease to keep the flaps from the mouth. Some ointments are indeed used, but the results thus obtained are doubtful. A more reliable preventive could be devised if the habits of the warblers were ascertained by the farmer and breeder, who could

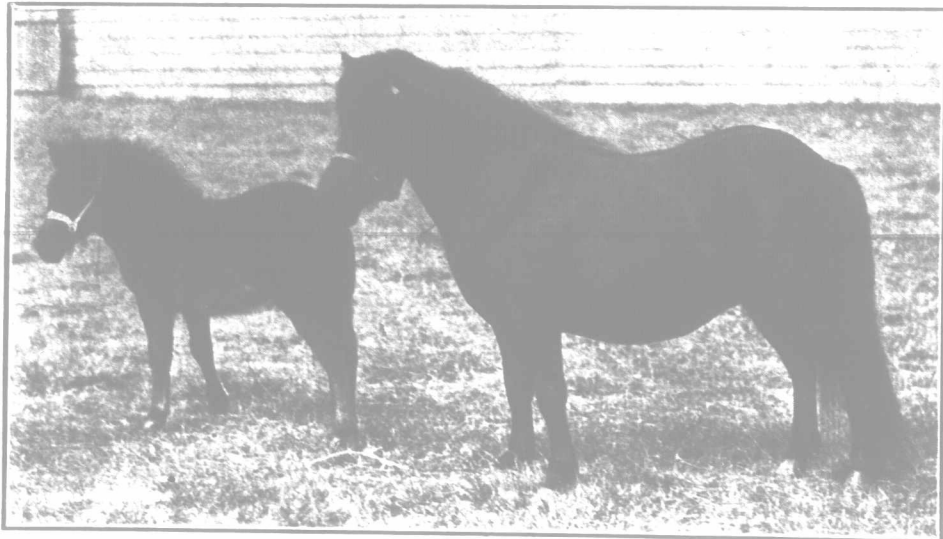
benefit greatly. Perhaps our research station will do the needful with this and other pests—when we get it.

July 14th, 1910.

HORSES.

In these busy days, the care of the horse must not be forgotten. Grooming is just as essential to a horse's comfort and health in summer as in winter. The horse sweats a great deal, comes into the stable wet and full of perspiration. In an hour or so he cools out, and the dirt forms almost a crust over the animal. Then, too, the itching annoyance of the biting flies makes a brushing most acceptable. Turning the horses out at night where they may roll, partially relieves this distress, but what they should have is a thorough grooming. A half hour with a good comb and brush in vigorous hands should be devoted to each animal every night. The comb should be used sparingly, as the use of it too freely is likely to cause more harm than good; a good brush will usually accomplish most functions of the comb, without working any injury.

Much trouble with overheated horses is likely to occur during the next few weeks of hot weather, when the press of saving the year's crops is greatest. The harvest is ready, and binding is heavy work on the teams; the days are long, the sun glaringly hot, and the ground more than warm. In his eagerness to get as much cut as possible, the driver may easily overdo his horses, especially the inside ones. Whatever the exact physiological results may be, the apparent effects of overheating are evident. The horse pants, does not sweat, becomes harsh in the coat and tight in the skin; the animal cannot perform much work in hot weather, and is slow to recover normal conditions again. Frequent watering of the animals when at hot, heavy work, is one of the best preventive measures. It may be inconvenient to take a barrel of water to the harvest field, but, as a humane and profitable preventive measure, it is to be recommended during the very busy, hot harvest days.



Shetland Mare and Foal.

The Pony's Value.

The Shetland pony is an excellent plaything for children. It is strong, hardy, intelligent, kind and patient, and affords a great deal of healthy, wholesome, outside exercise for children. But deeper than its value as a plaything is the spirit which, through its agency, is inculcated into the growing children. The children learn to love the pony, to treat it kindly, to care for it when between the shafts, under the saddle, or in the stable. They learn how to harness, to hitch, to rig, to bite, to lead, to groom, to clean, to harness, to hitch, to drive. Through the pleasure of learning to do things rightly with the pony, of having their orders look well, there becomes rooted deep in their life a love for horsemanship. When they outgrow the Shetland, they want a little larger one, probably the Welsh. Later, the Hackney pony becomes best suited to their advancing tastes, and before they ever seek a bigger one, being captivated with such excellence.

We have not cultivated the pony sufficiently. Where there are children, there should be a pony, that may grow up with and forever become a part of their life. There is no better way of broadening the demand for horses. Neither is there as good a way to overcome the evils of dirt and dust, and unclean treatment. Undoubtedly, there is a splendid opportunity for pony breeders and dealers who will make a specialty of these attractive diminutive horses. Even the regular horse importers, dealers and breeders can well carry them as a sideline whereby to create a demand of better proportions, by and by.

Horse-breeding Rules.

Mr. Robert Pratt, J. P., once laid down several rules to be observed in the breeding of horses, says our English contemporary, the Agricultural Gazette. His nine negative rules were laid down as things to be carefully avoided and guarded against. His five positive rules pointed to those things which are to be selected and chosen. The several rules are set out below:

NEGATIVE.

Unhealthy or unsound animals should never be used.

Ill-tempered animals should never be used.

Parents that are greatly dissimilar in their breed and shapes should not be mated to breed.

Great big stallions and small mares should never be mated to breed.

Half-bred stallions of any breed should not be used.

Avoid breeding in-and-in.

Do not breed from coarse, loose-made mares or horses.

Do not breed from black or gray mares or horses.

Do not breed from mares and horses which, having bred, produced bad colts.

POSITIVE.

Determine exactly in your own mind the character of the horse you wish to produce, and never lose sight of it.

Avail of any opportunity that offers to procure the finest animals and blood that will suit your purpose.

To breed half-bred horses, select a pure Thoroughbred horse and a big half-bred mare; the better breed she is, the more valuable she will be.

To breed weight-carrying hunters, select a neatly-made, large, roomy, healthy, young, well-shaped, sound, well-bred mare, with good temper and good action, or a tried mare that has been successful.

To breed weight-carrying hunters, select a pure, Thoroughbred stallion, compact, well-shaped, sound, healthy, vigorous, with good temper and good action, and one that is the sire of good running horses, and that has got good weight-carrying hunters.

Care of Army Horses.

In the United States army, the troopers' horses and transport mules all weigh from 1,000 to 1,200 pounds. The daily ration for a horse is 12 pounds oats and 14 pounds timothy hay; for a mule it is 9 pounds of oats and 14 pounds of hay. In the winter some corn is usually fed to the mules, but seldom to the horses. Bran is usually kept in supply, but seldom fed, except as a regulator when the condition of the animals demand it. Half the grain is fed in the morning, and the balance of the grain and all the hay fed at night. The animals maintain excellent health and good condition under such treatment.

After a hard, hot march, the saddles are left on the animals until they cool off, if they are tethered in the sun. If this were not done, the hot sun would blister their backs very quickly. Adding to this the precaution of clean blankets, sore backs are almost an unheard-of ailment, even under the hardest conditions.

A Five-dollar Bill for Fall-foals Experience.

Horsemen who have had experience breeding mares in the autumn should not overlook the fall-foals essay competition, announced in the Farm Bulletin Department of our July 28th issue. It is not necessary that one should have had a satisfactory experience in order to discuss this question. The prize may go to the one who reports an unfavorable experience. What we are after is to throw light on the question whether or not it may be advisable under certain circumstances, to endeavor to breed mares in the autumn. To this end, a fair and practical statement of the pros and cons, based upon actual experience, preferably with both spring and fall foals, is desired. Look up the announcement in the competition, and have a try for the five-dollar bill.

Forcing a spring foal to do just a little bit more, and a fall foal to do just a little bit less, and a fall foal to do just a little bit more, and a spring foal to do just a little bit less, is a sure way to ruin the horse and the owner's pocket.

LIVE STOCK.

Our Dumb Animals.

Editor "The Farmer's Advocate":

It is surely a noble, Christlike mission to stand up as champions for the cause of mercy, justice and righteousness to plead for mercy to the poor dumb animals, since they cannot plead themselves in words...

The Societies for the Prevention of Cruelty to Animals, although doing their best, cannot possibly reach all the guilty ones. Many cases are not reported, as an informer is often looked upon with contempt; therefore, many poor animals continue to suffer from man's inhumanity...

The evils resulting from giving vent to outbursts of bad temper are manifold. Every fit of passion a man indulges in means loss, spiritually, physically and financially. Surely the offender knows he is doing wrong when he beats or neglects his animals. Conscience tells him so.

As the mind has great power over the body, anger seriously affects the health. The animals will thrive better and give better satisfaction or larger returns when treated with kindness than when the conditions are reversed.

The Bible tells us that "He that is slow to anger is better than the mighty, and he that ruleth his spirit than he that taketh a city."

Our kind Creator gave us the animals to work for us, and surely He is much displeased if they are treated with unkindness. Parents should teach their children early in life to be kind to every living thing, and never to rob birds' nests or to tease animals. If the mother loves animals, the children will likely follow her example...

There is a truckman in our city who loves his horse almost as well as his wife. He was out of work last summer, and, although he needed money, could not be persuaded to hire his horse, for he was afraid he would be ill-used. He says that the horse is so fond of him that he will follow him all around the yard. Love begets love.

Make friends of your animals; talk to them almost as if they were human beings, and see how pleased they will look. See that they have food and water regularly, and are kept in comfortable quarters. The animals appreciate kindness, certainly. If you are kind to them, they will not be afraid of you, for "love casteth out fear."

Several years ago a farmer gave us a fine dog, because he imagined he was becoming cross. But it was the man who was cross, not the dog. He never tried to bite any person after we got him. A few months after we brought him home, his former master called to see him. He spoke to him, but the dog wouldn't go near him. He ran away from him; he hadn't forgotten the whippings, and I suppose he was afraid the former owner was going to take him back. How poor Prince used to come bounding to meet us when we returned from having a ride. What a warm welcome we always received. We loved that dog almost as well as a child, and wouldn't sell him for any money. But one night he went out, and some cruel wretch shot him.

Some boys take pleasure in teasing or tormenting animals, and pursuits become habits. Cowper aptly defines cruelty as "Detested sport that owes its pleasure to another's pain." Blair says: "We ought never to sport with pain or distress in any of our amusements, or treat even the meanest insect with wanton cruelty."

Richardson says: "That cruelty which children are permitted to show to birds and other animals will most probably exert itself on their fellow creatures when at years of maturity."

The American Humane Education Society is doing a grand work in sending thousands of copies of "Our Dumb Animals" to editors. Who can tell what amount of good may result from the distribution of literature advocating kindness to animals? It is high time that a movement was set on foot in behalf of our animals in this Province. Let us have them suffer from blows and neglect. Let us all be up and doing. Earnest effort shall win the victory.

"Lay down your whip, you cruel man."

"He is dead that mite appeal."

"You poor horse requires a rest."

"He wants a meal."

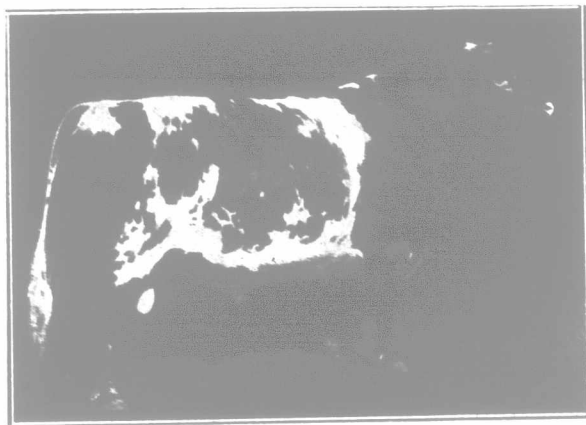
Quebec, P. E. I.

A. R.

Honor Roll of Shorthorns.—VII.

By J. C. Snell.

The World's Fair being at Chicago in 1893, the Shorthorn exhibit at Toronto was lighter than usual, a considerable consignment from Canada figuring in the International competition in the White City of the Columbian Exposition, the greatest event of its kind the world has witnessed, where an exceedingly creditable record in prize-winning was made by Canadian-bred Shorthorn and Ayrshire cattle. In the regular class of Shorthorns, by ages, at Chicago, first place in the aged-bull section was given to Young Abbotsburn, bred by the Watts, of Salem, Ont., and third to Nonpareil Chief, a splendid roan three-year-old son of Imp. Indian Chief, bred by Arthur Johnston, and purchased from R. & S. Nicholson, of Sylvan, Ont..



St. Valentine.



The Late William B. Watt.



Lord Stanley.

the second winner being Gay Monarch (imp.), shown by J. G. Robbins & Sons, of Indiana. It has been rarely, if ever, that three bulls of the breed, of equal excellence, have met in the same class in any country, and so closely matched were they that not a few of the Canadian breeders present were of the opinion that the order of their placing might have been reversed without injustice. In the writer's opinion, Nonpareil Chief was one of the very best bulls he has seen in any country. These three bulls were said to have been officially weighed at the Exposition. Young Abbotsburn weighing 2,200 pounds, Gay Monarch 2,450 pounds, and Nonpareil Chief 2,540 pounds as a three-year-old. J. & W. Russell's white Lord Stanley was first in the yearling-bull section, and later junior champion Shorthorn bull, and junior

grand champion over all beef breeds. The Russells were second in the two-year-old heifer section, and should have been first, with Centennial Isabella 25th, a massive roan, by Stanley; and they were first for heifer under one year with Centennial Isabella 30th, by the same sire. The same firm had also the first-prize junior herd, under two years old, headed by Lord Stanley (a \$600 prize), the four females being, like the bull, all by this same sire, and three out of the five were white. The first prize, of \$300, for the best four of either sex, under four years old, the get of one bull, was also won by the Russells with the progeny of Stanley. A series of grand-champion competitions was also arranged by the management, open to all beef breeds, the writer being chosen by the Shorthorn exhibitors as one of a committee of three judges, together with John G. Imboden, of Illinois, a feeder of and dealer in beef cattle, whose predictions were probably for the Aberdeen-Angus breed, though a thoroughly impartial judge; and Wm. Stocking, of Illinois, a Hereford breeder, a man of fine character. In this competition there was no question of Young Abbotsburn's place in the class for bulls two years and over, but for bulls under two years there was a very close contest between Russell's Lord Stanley and the Angus bull which had won first in his own breed. Here the writer had to do some talking in a quiet way, and succeeded in persuading his colleagues that the white should win over the black in this particular case, not, of course, because he was a Canadian, but because of his superior quality. The smile which suffused the countenance of James Russell when the first-prize ribbon was handed him grew broader and higher when later the \$600 prize for the best young herd, headed by Lord Stanley, was handed him, and again when the first award for the best four calves under a year—a \$300 prize—went his way. We regret having failed to secure a snapshot of him at this juncture of his life, as we have never since succeeded in getting him to face a camera.

A striking instance of difference of opinion of judges was seen in the placing of the graded herds in the competition open to all beef breeds, the first award—the \$1,000 prize—in this case being given to Robbins & Sons' Shorthorn herd which, by another committee, was placed third in the regular Shorthorn class. The writer claims credit for the change, having strongly advocated it when the other members of the committee were undecided as to where to begin the placing. The second and third awards went to Herefords, and fourth and fifth to Shorthorn herds.

The first-prize (graded by ages) Shorthorn herd in the original competition was headed by a leggy red Canadian-bred bull that was fourth in his class, born at Bow Park, and of which, judging from his personal make-up, it might well have been written:

"A true patriot he, for be it understood He left his country for his country's good."

The females of the herd must have been reckoned very strong, when they offset his weakness.

In the Robbins herd, to which was given the grand-championship award of \$1,000, over all beef breeds, was a roan yearling heifer named Lady Verbena, which had been purchased late in the season from her breeders, Jas. Gardhouse & Sons, Highfield, Ont., to fill a place in the Indiana herd. She had not been as highly fitted as the other members of the herd, having recently come from the pasture field, and my colleagues balked somewhat at her, but on my pointing out the fact that her lack of fitting, which was not her fault, was all that could be said against her, as she was straight, level, smooth and substantial, they became satisfied with the explanation, and agreed. That little heifer, five months later, became the mother of the multi-champion of the Western States circuit in the late nineties, St. Valentine, the doughty roan son of the Duthie-bred Guardsman, carried in utero when his mother was criticised at Chicago. St. Valentine met his Waterloo at the Trans-Mississippi Exposition, at Omaha, in 1898, where the Canadian-bred Nominee, a straight, smooth, roan bull, sold by Capt. Robson to H. F. Brown, of Minnesota, was placed ahead of him. St. Valentine's daughters, notably Ruberta and Rosy O'Grady, a very thick-fleshed pair of roans, made a fine prizewinning record in the States.

(To be continued.)

United States Live-stock Export Trade.

The export trade in live stock from the United States shows marked curtailment. During the twelve months preceding July 1st, 1910, that country exported 125,229 head of cattle, as compared with 190,557 in 1909, and 308,380 in 1908. During the month of June, 1909, six times as many were exported as in June, 1910. During the same year 3,383 hogs were sent abroad, compared to 18,053 one year ago, and 29,300 two years ago. Of sheep, 34,970 were shipped abroad last year compared to 63,200 one year ago, and 89,081 two years ago. Decline also characterized the export of meat products of all kinds. Of lard, 370,458,875 pounds, worth a total of \$1,511,004,821, the only one year ago, and 789,717,223

two years ago. The total value of meat and dairy products exported last year was \$121,716,871, compared with \$161,216,275 the year before, and \$199,692,011 of two years ago.

Reports indicate a great activity in sheep circles of many countries this year. Americans, Canadians, Argentinians and Australians have all been buying freely of England's best during the last few months. The high prices paid and the excellence of the purchases made at the Royal Show sale, at Liverpool, demonstrate a great confidence in the mutton-and-wool industries, and a determination to have the best. Oxforas, Hampshires, Shropshires and Southdowns prevailed in the purchases for North America; Romney Marsh, Lincoln and Leicesters being demanded largely in New Zealand, Australia and Argentina.

The life history of the warble fly is still a topic of keen debate among stockmen in the Old Country, just as Canadian farmers used to discuss the question whether wheat turns to chess. The respective positions of the debaters are defined this week by "Emerald Isle."

THE FARM.

The Sow-thistle Problem.

The sow-thistle problem is exciting a great deal of concern all over Ontario, and nowhere more than in those counties where the opportunity is greatest for forming an opinion as to its seriousness. It is a problem—a very real one—and not a mere exaggerated scare. I do not wish to take an alarmist attitude in regard to it, because I believe that it, like other problems which have preceded it, will find its solution, to the extent, at least, that we shall be able to help ourselves, but I do wish to express satisfaction at the interest which has been already aroused, and to say that, until such interest is shared by all concerned in the matter, there can be little hope of any substantial progress toward the solution for which we are hoping. From the nature of the case, it is evident that much will have to depend on widespread and intelligent co-operation, for, without this one man's efforts are perennially crippled by the neglect of his neighbor who allows the weed to grow and seed itself. It is, therefore, a prime essential to have the perennial sow thistle discussed wherever farmers come together, at the Farmers' Institute, in the Farmers' Club, on the farm itself, as well as in the papers, whether local or agricultural, which come into the farmer's home. Where district representatives of the Department of Agriculture are located, they can render good service in bringing the subject to the attention of those still-too-numerous individuals who are not reached by the agricultural press and meetings, if they will make frequent and judicious use of the local weekly as a medium for short articles and summaries of current information on the subject. These local sheets have a faculty for getting to all corners of the countryside, and are read omnivorously by many farmers who would not believe themselves equal to the perusal of an agricultural journal.

I have said that I believe there is hope that some kind of a solution will be found. There was a time when the Canada thistle was the occasion for much alarm and discouragement. Under the conditions prevailing, it also was a very real problem, but, thanks largely to changed methods of farming, its control has been got well in hand. More stock and less grain farming, which also involves more use of the land for hay and cultivated crops, and more or less regular and short rotation of crops, as the change which has taken place. It has reduced the proportion of the farm which is under those crops which allow the thistle to mature its seed and strengthen its root-stocks, and has increased the area under crops which can be cultivated. We shall probably always have the Canada thistle to content with, but, in proportion as we practice thorough and approved methods of farming, we may expect to keep it in check. These same farming methods will help to keep the new foe, the perennial sow thistle, in check, if they are practiced, and it must be confessed that they are still far from being as generally practiced as they should be. The sow thistle will require more energetic handling, but the methods probably will not be so very different from those recommended for the Canada thistle. At all events, the farmer who keeps stock, grows hay, corn and roots, and cultivates at every opportunity while cropping, and also while the fields are bare, will be the farmer to profit most by any additional suggestions which can be made.

To give definiteness to the above remarks, it will not be amiss to outline some system of cropping which will give the greatest amount of opportunity to fight the weed, while at the same time allowing the use of the land to the best possible advantage for the purposes of a stock farm. We may begin when a crop of hay or grain has been removed. Plow immediately, and follow for the rest of the season, cultivating frequently to prevent any growth from appearing above ground, and ridging up the last thing in the fall. Plow

again the next spring until the middle of June, and then sow pasture rape in drills, at the rate of 1½ pounds to the acre, the rape to be kept cultivated until it shades the ground. The cultivation given in the fallow should weaken the plants enough that the smother crop of rape following it will usually be effective in bringing the weed under control. If necessary, the treatment can be continued through another year by using the land for corn or roots, when the weed can be better watched for, than with other crops. This treatment can be applied in part, or with variations to suit the conditions of each case, or a complete summer-fallow may be substituted, but in every case its effectiveness will depend to a great extent on the thoroughness and timeliness of the work. It must also be remembered that no amount of thoroughness will prevent the re-introduction of sow thistle, so long as it remains in the waste places and on neighboring farms and, therefore, the above treatment must be followed up by continual watchfulness, and by the adoption of such a rotation of crops that the land comes under cultivation frequently.

While sow thistle can be extremely troublesome on almost any kind or condition of land, it seems to be a fact that it is most difficult to deal with on low or poorly-drained fields. This may be due in part to a preference for moist conditions, but I feel sure that much of the responsibility lies in the less-thrifty and vigorous growth of the crop, which gives the weed an opportunity that it is not slow to take advantage of. Obviously, drainage is the first step where these conditions prevail. Drainage alone will not eradicate sow thistle, but if it will help, it becomes the height of folly to go on indefinitely without it, especially as the profits will be reaped in so many ways besides that of easier weed control.



Perennial Sow Thistle (*Sonchus arvensis*).

(Note—The flower is yellow, but this color, when reproduced in a half-tone, appears black.)

One other suggestion seems well worthy of consideration, namely, pasturing fields that are badly overrun. Henry Glendinning has found this completely successful in cases which have come under his management, and he recommends it strongly. Sheep, especially, are useful for this purpose, and where, for any reason, it is not possible or desirable to break up a field, no better plan could be found than to keep it closely pastured.

All the foregoing suggestions, it may be argued, have already been tried with more or less thoroughness, and yet only partial success. Is there nothing more which can be done? The successful use of chemical sprays, such as iron sulphate, for the destruction of wild mustard and some other weeds, has raised the hope that it might avail for sow thistle as well, but there seems little likelihood of this being the case. Experiments have not yet demonstrated its usefulness, at any rate.

The fact that much of the problem of the sow thistle arises out of the ease with which it spreads its seeds on the wind, brings up the question as to how much relief may be expected from weed laws. Our present laws, if properly enforced, would do some good, in so far as they are insufficient or impracticable of enforcement, they ought to be improved. This is another question, however, which cannot be entered into here. We must not make the mistake of expecting too much from legislation, but the existence of a public menace like the perennial sow thistle de-

mands that something be done. The individual farmer must do his duty on his own farm, but he has a right to expect that the community will do its duty as well, and when he has the assurance that it is being done, there will be encouragement for him to do his best. HERBERT GROH, Central Exp. Farm.

Alfalfa in Central Alberta.

Editor "The Farmer's Advocate":

Many of your readers may be interested to know with what success alfalfa has been grown in Central Alberta. In 1907 a block of alfalfa was seeded on the experimental farm at Lacombe. The land on which it was sown had been under grain crops for a number of years, without rest or fertilizers. The season previous it had been under oats, and was fall plowed. It was cultivated in the spring of 1907 with disc and drag harrows until June. By this means, a number of crops of weeds were destroyed before the alfalfa seed was sown, and the moisture was conserved, so that there was no lack of moisture to effect prompt germination of alfalfa seed. The seed was sown with the grass-seed attachment commonly available, with the ordinary grain drills, seeding being at the rate of about 15 pounds per acre. The variety used was the common alfalfa. Immediately after sowing, a part of the land was inoculated by means of soil from an alfalfa field where the alfalfa had been established for a considerable period. As growth progressed during the season, the alfalfa was clipped back with a mower, the cutting bar of which was tilted high. It is a fact that, with each clipping of the young plant the crown increases in size; thus, a plant which has been clipped two or three times during the season is in a much better condition to go through the winter successfully than a plant which has not been so clipped.

In 1908 two cuttings were made from both the inoculated and the uninoculated areas of alfalfa. The inoculated area yielded at the rate of 7,200 pounds of cured hay from the two cuttings, while the uninoculated yielded only at the rate of 2,520 pounds per acre. The difference in the alfalfa is not wholly represented by the figures given. The difference in the color of the crop growing on the areas was as marked in shade as was the difference in yield in pounds. The crop growing on the inoculated land was a rich dark color, while that on the other was pale and sickly. Chemical analyses showed that the hay produced from the inoculated area contained more than 2 per cent. more protein than the hay produced on the uninoculated area. Further, the inoculated alfalfa came through the hard spring of 1909 without great loss, while the uninoculated alfalfa was completely killed out.

In speaking of the hardness of the different strains of alfalfa, the night frosts and sunny days of the spring of 1909 demonstrated that there is a great difference in the power of different strains of alfalfa to withstand trying conditions. Two areas were sown side by side in the spring of 1908, the common alfalfa being in one block, and the Turkestan strain in another. Both were given a similar treatment. The Turkestan came through, while the common alfalfa was entirely killed.

It is important, in securing seed of alfalfa, that the harder varieties be purchased, and that, in sowing it, some method of inoculation be used. The crop is of such importance that we advise every man who is interested in maintaining the fertility of his land, and in growing live stock, to try a small block of alfalfa. By beginning with an acre, and thoroughly inoculating that acre as a beginning, inoculate his entire farm, if desired.

Speaking of the comparative feeding value of alfalfa, the figures given by Prof. Hart, of Wisconsin, are of interest. He says: "If upland prairie hay has a feeding value of \$3.00 per ton, on the basis of its ability to produce milk or meat, then timothy hay would have a feeding value for the same purpose of \$2.48, while alfalfa hay would be worth \$9.08." He further makes a claim that "Five tons of well-cured alfalfa hay is equal in feeding value to four tons of bran." When we consider the market price of bran, and the fact that we can produce in Central Alberta from three to five tons alfalfa hay per acre, the enormous stock-carrying capacity of one-quarter section of land is brought into strong relief. Any land on which alfalfa can be grown successfully is upon the same basis as the corn-producing States, as far as its ability to carry stock is concerned. It is evident, therefore, that if in the central part of our Province alfalfa can be successfully grown, the land is bound to appreciate very rapidly in value.

A bulletin recently issued by the Department of Agriculture, at Washington, states that wherever alfalfa has been generally introduced into any State within three years the price of the land has doubled. With the rapid rush of settlers, and the annual restriction of the range consequent thereon, it is of almost importance that a fodder



Plot of Oats on Experimental Grounds, Morrisburg.

crop be grown. If, therefore, every effort is made now to introduce alfalfa, we will have overcome the obstacles in the way by the time the fodder from this source is most needed.

To experience difficulty in the growing of alfalfa in the beginning is not new, for in many States where alfalfa is now recognized as a safe crop, there were many discouraging years before it became established. Our land is new, and bacteria, if not present, must be introduced. The more our land becomes filled with bacteria, the better will the alfalfa flourish.

G. H. HUTTON, Supt. Lacombe Exp. Farm, Alberta.

Extension Work in Dundas, Stormont and Glengarry.

When, three years ago, the Department of Agriculture for Ontario determined to undertake the establishment of district representatives in various parts of the Province, through them to introduce the study of agriculture into the district High Schools, and to vitalize the services of the Department by bringing its agents into actual practical touch with the farming population, the United Counties of Dundas, Stormont and Glengarry were fortunate enough to have given to them one of the six original representatives. The office was opened in Morrisburg in June, 1907, under W. H. Munro, a native of Dundas, a graduate of Guelph, and now superintendent of the Dominion Experimental Farm at Rosthern, Sask. A. D. Campbell, B. S. A., a native of Middlesex County, Ont., took charge of the work in these counties in June, 1909, and is having the satisfaction of having the work progress in a gratifying manner in many directions.

United, these three counties comprise quite an extensive territory. Within their boundaries is much most productive land. In Glengarry, the northern part of Stormont, and the north half of Dundas, is found a heavy, yet mellow, friable, rich clay loam, whereon diversified farming, with a marked bent to dairying, is intensively carried on. Nearer the St. Lawrence River the soil is somewhat sharper and harder-bottomed, yet excellent; apples, especially the McIntosh Red and the Fameuse, do exceedingly well. All together, these counties are a splendid district, in which much has been done, and wherein many finishing touches are still needed.

Mr. Campbell brings to his work here the advantages of normal training, experience in teaching and in assisting as district representative elsewhere, his O. A. C. training, geniality, and six feet two inches without shoes.

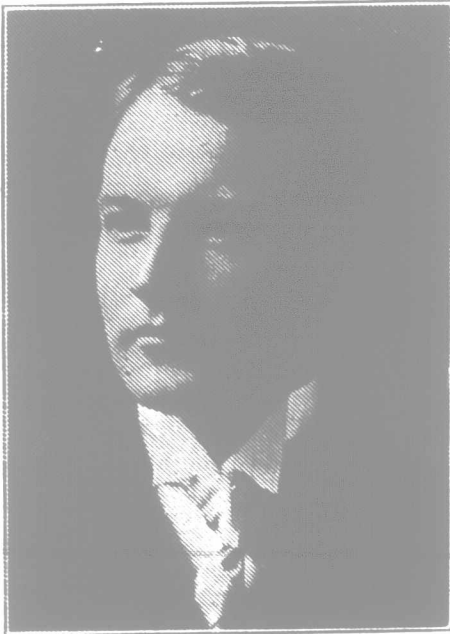
The primary idea of these district offices was to introduce agricultural courses into the High Schools. In few counties has this approximated a success, for which conditions the various representatives need not feel depressed, since the fault lies not with them, but mainly with our educational system, which, from the time the child first toddles away from the home to the district school, shapes the tastes and the processes of mind in directions away from agriculture. Mr. Campbell's experience in Dundas has been no exception. Although a course is offered in the Collegiate Institute at Morrisburg, there are very few to take the work. However, interest is being manifested, and there is hope of a growth in this department of the work. Farmers will appreciate this educational opportunity as time progresses.

But the other features of the representative's work have grown so that an assistant, in the person of P. C. Nunnick, B. S. A., has had to be added to the working force, devoting his energies to Glengarry.

Short courses, usually of three-days' duration, were held last winter throughout all the townships in which the attendance mounted up close to five hundred. At these classes the people were true to their old loves, rallying in greatest numbers to stock-judging, but the tremendous im-

portance of selecting, judging and testing their seeds and crops cannot long escape their attention. It is a safe venture that greatest good, at least cost, can be accomplished in the next three years in this territory by the judicious selection of crops and seeds.

The status and prospects of the apple crop in Dundas has led Mr. Campbell to devote thought



A. D. Campbell, B.S.A.

District Representative of Agriculture for Dundas, Stormont and Glengarry.

and energy to this much-neglected crop. There are many fair-sized, well-grown orchards throughout the district. The McIntosh Red and the Fameuse do wonderfully well when cared for, but the culture and marketing have received practically no attention. As a consequence, the orchards are unsightly, the fruit spotted, and the prices far from what they might be. Mr. Campbell has



Ernest Farlinger's Orchard, Morrisburg.

Pruned, cultivated and sprayed under the direction of the District Representative.

taken charge of four orchards this season, directing the pruning, cultivation and spraying. As a result, a normal crop of clean apples is being produced in an orchard famed as being the worst-affected with blight in the district. So much interest is being developed by this demonstration (which is being done on the places of "good" farmers) that there is every hope of forming a co-operative association for marketing purposes next season.

These counties, in most parts, have much to learn of the value of underdrainage; it is needed, too, before the full benefit of the many ward ditches will be obtained. In the experimental plots on the fair-grounds at Morrisburg, Mr. Campbell placed a complete system of tiles, with the result that, while, in the wet season of 1909, the land was too soft for working on June 1st, it was this year ready for sowing on April 15th; a bog was transformed into first-class land. Many farmers are, consequently, seeking and receiving aid in the planning of their drainage system.

Mustard is too much with these people; sow thistle is prevalent, and ox-eye daisy, quackgrass, brown-eyed Susan, and the whole retinue of weeds, are daily stealing possession of the farms. Campbell is busy preaching short rotations, and it would appear that the people need such sermonizing. If they have one fault more than another, it is that of too long a rotation; land lies too long in hay, then in pasture. He has sprayed fields of mustard with splendid success, again demonstrating a work that has interested his people.

At every district fair in the three counties, save two or three, there will be held stock-judging contests this fall. This is a splendid opportunity for the boys, and will strengthen the work of the leaders.

Experimental plot work is carried on at Morrisburg. Alfalfa, both uninoculated and inoculated, was making a splendid showing. The difference in the varieties of corn indicated that farmers must select discriminatively which to plant for silage or for the grain. The irregular stands obtained in mangels and corn showed that seed-testing must be done. Oats were a splendid crop, though varieties differed greatly. An effort, which deserves success, is being made to encourage the improvement of the potato crop.

Farmers' Clubs are not as flourishing as they will yet be. Their function should not be chiefly commercial, at least not in their earlier stages. The most crying problems are not those presented by the country merchant, who usually serves the community very reasonably. The Clubs must grow; they must form the threshing floor for the problems of weed eradication, live-stock management, stock improvement, social improvement, and improvement of market facilities.

The farmers are beginning to appreciate and use their representative; they have confidence in him, and are learning that he is there to do his very best for them. His office is as a magnet to them; their problems of drainage, weeds, feeding, insects, soils, live stock, come to his desk for his best judgment. In the fuller use of the district representative lies promise of a new life in rural communities.

Prof. Cyril G. Hopkins declares that on the best-fertilized plots at the experiment station in Urbana, Ill., corn made the prodigious growth of forty-one inches during the first seven days of July, measured by the rise from the ground of the tip of the leaf, and during three weeks, from June 23rd to July 15th, corn plants grow six feet seven inches. Such is the miracle of the corn.

Soil Moisture and its Uses.

From an address by Prof. A. M. Ten Eyck, Superintendent of the Fort Hays Branch Experiment Station, delivered before the Western Kansas Farmers' Conference, in June, 1910, we extract the following important facts:

USE OF WATER.

In the growth of plants, water is needed in the soil for the following reasons:

1. To dissolve the plant food.
2. To carry the food to the plants and through the plants.
3. It is food in itself to the plants.
4. A certain amount of water in the soil is necessary to give the proper texture favorable for the growth of the plant roots.
5. Water also acts as a regulator of the temperature of the soil, tending to raise the temperature of cold soil by reason of warm rains, and, by evaporation, to keep down the temperature of the soil during the hot summer weather.
6. The bacteria in the soil which assist in decay and in chemical changes by which the plant food in the soil is made available to the plant, thrive and multiply in the soil only with a favorable condition of soil, moisture, heat and air.

AMOUNT OF WATER REQUIRED BY CROPS.

Experiments which have been conducted show that in their growth plants require a large amount of water. Prof. F. H. King, at the Wisconsin Experiment Station, found that cultivated crops withdrew from the soil during their period of growth from 2.4 to 5.1 acre-inches of water, or 300 to 500 tons of water, for every ton of dry matter produced.

From his experiments he has determined that one acre-inch of water is required to produce three and one-third bus. of wheat, or that nine acre-inches of water are sufficient to produce a 30-bushel wheat crop, if this water could all be used by the growing wheat. In like manner, one acre-inch of water is equivalent to five bushels of barley, five bushels of oats, or six bushels of corn.

According to his figures, it would require only four and one-half acre-inches of water to produce a ton of clover hay, or a four-ton crop of clover hay could be produced by 18 acre-inches of water. Two acre-inches of water were equivalent to one ton of corn fodder, and a yield of six tons per acre would require only 12½ acre-inches of water.

Professor King's experiments were performed out of doors, but the crops were grown in cylinders and were not subject exactly to natural field conditions.

In experiments which the writer conducted at the North Dakota Experiment Station, 1898-99, it required, on an average, 15 acre-inches of water to produce a 30-bushel wheat crop, or one acre-inch of water was equivalent to two bushels of wheat. These results were secured in the field. The moisture content of the soil to a depth of six feet was determined at sowing time, and again at harvest time. The loss of water from the soil, plus the rainfall during the period of growth, was the amount of water which was charged to the crop.

At the Kansas Experiment Station a series of field experiments of this character have been conducted with different crops during the past three seasons. A summary of the data secured is given in the accompanying table.

WATER REQUIRED FOR DIFFERENT CROPS—SOIL-MOISTURE CONDITION AFTER DIFFERENT CROPS—AVERAGE FOR THREE YEARS, 1903-1905.

NAME OF CROP.	Average period of growth.		Average water used per day.		Total water used by crop.	Yield per acre.	Grain produced by one acre-inch of water.	Total dry matter produced per acre, including straw or stalks.	Pounds of dry matter produced per acre by one acre-inch of water.	Fall condition, † moisture in first six feet of soil after season's cropping.	Fall difference in moisture in first six feet of soil compared with corn plot.	Spring condition, moisture in first six feet of soil after previous season's cropping.	Spring difference in moisture in first six feet of soil compared with corn plot.
	Days.	Inches.	Inches.	Inches.									
Wheat (winter).....	*170	0.131	22.22	18	0.81	2,399	108	23.81	+0.22	24.18	-0.29		
Oats	106	0.190	20.15	32	1.58	3,530	175	23.91	+0.32	23.97	-0.50		
Barley	102	0.178	18.20	18	0.99	1,918	105	23.79	+0.20	24.55	+0.09		
Emmer	116	0.187	21.69	28	1.30	2,797	129	23.48	-0.11	24.20	-0.27		
Flax	102	0.219	22.33	8	0.36	1,954	88	23.48	-0.11	24.36	-0.11		
Millet	78	0.214	16.71	—	—	—	—	24.22	+0.63	24.97	+0.50		
Sorghum (sowed)	110	0.166	18.21	—	—	10,749	609	23.09	-0.50	24.15	-0.32		
Soy beans	105	0.152	15.91	14	0.88	1,853	116	24.40	+0.81	25.13	+0.66		
Kaffir corn	116	0.146	16.98	50	2.92	6,811	401	23.03	-0.56	23.65	-0.82		
Corn	137	0.194	26.64	40	1.50	4,421	163	23.69	—	24.47	00.0		

*Three winter months deducted. †Average for two seasons only, 1904 and 1905.

The seasons of 1903 and 1904 were very wet. Excessive rains fell, and a considerable part of the water must have been lost by surface drainage. None of the crops lacked for water. From these results, it would appear that barley and oats require less water than the other grain crops, while emmer, which is classed as a drought-resistant crop, used more water per acre than any other small-grain crop, except flax. Corn used more water per acre than any other

crop. This was due, in part, to its longer growing period. The relatively small amounts of water required to produce the crops of sorghum and Kaffir corn may be due, in part, to the fact that the crops were planted several weeks later than the corn, and had less rainfall charged to them than was charged to the corn. The fact remains, however, that the amount of dry matter produced was greater with the Kaffir corn and sorghum than with the corn, and that an acre-inch of water produced more pounds of dry Kaffir corn or sorghum than of corn.

MOISTURE IN SOIL AFTER CROPPING.

The moisture determination made in the field after the crops were harvested showed the following results: Comparing the soil in each plot to a depth of six feet, the Kaffir-corn plot contained 0.69 per cent. less water than the corn plot, while the sorghum plot contained 0.41 per cent. less water than the corn plot. Thus, the drought-resistant crops actually left the soil drier in the fall than did the corn.

The results of this experiment indicate that the drought-resistant crops may use a large amount of water, and tend to exhaust the supply of moisture stored in the soil to a greater degree than crops which are not classed as drought-resistant. Dry-land farming is therefore as much a question of soil culture or of conserving the soil moisture as of growing drought-resistant crops.

The presence of a large amount of humus in the soil increases its moisture capacity and its power to retain water, and is an important requisite to insure against the injurious effects of drought. It is true of the soil in a large part of the (American) West that it is lacking in humus, and for this reason its water-holding power is not so great as it might be, resulting often in low yields and crop failures in an unfavorable season.

Saving Distance on Hay-fork Haul

Editor "The Farmer's Advocate":

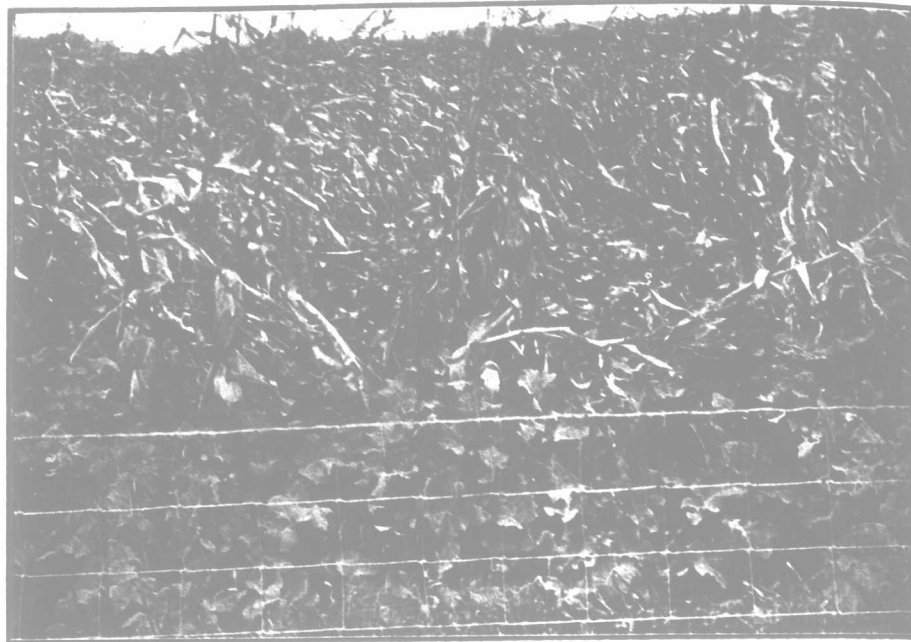
I am enclosing you herewith plan of a scheme for saving time and labor during the rush of haying and harvest. Some of your readers, no doubt, already practice the following method of shortening the haul for the horse on the hay-fork rope; but, for the benefit of those who do not, I wish to give my plan. Instead of having simply one pulley attached to the side of the barn door, and a straight away pull for the horse the full length

of the rope, the rope, after passing through the pulley at the door, is then run through a pulley attached to the whiffletree, and back to the opposite side of the barn door, where it is fastened by means of a ring or other attachment. In this way the length of the haul is considerably shortened, and the hay elevated to the top of the barn in nearly half of the time taken by the old way. The draft is slightly heavier, but not enough to be at all noticeable. In returning, pulley is de-

tached from whiffletrees, and comes back of itself when the fork is pulled down. J. E. McINTOSH, Glangarry Co., Ont.

Sowing Rape in the Corn.

Under favorable conditions of weather, rape may profitably be sown in the corn field just before the last cultivation to provide pasture for sheep and lambs in the autumn months. The seed may be sown broadcast from the saddle on a horse's back, or by simply walking between the rows with a hand-seeder, sowing at the rate of about four or five pounds to the acre. The last cultivation



Rape in a Minnesota Corn-field. Sown at Last Cultivation of Corn.

should be shallow, to avoid cutting off the fibrous roots of the corn and too deep covering of the rape seed. The sheep will eat the lower leaves of the corn without injuring the ears or stalks, and after the corn is harvested, in an average season of rainfall, the rape will grow rapidly and make fine pasturage for sheep or lambs through the late fall months. It is well to take advantage of weather conditions by sowing and covering the rape seed as soon after a rain as the land is fit for cultivation. There is no pasturage equal to rape for fattening sheep or lambs, and the seed is so cheap that there is very little expense involved in a trial of this suggestion.

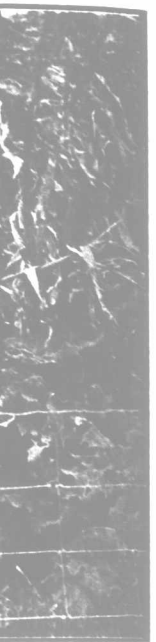
The Longevity of Seeds.

In the course of an elaborate article, officially published, on the longevity of seeds, by Dr. Alfred J. Ewart, Government Botanist and Professor of Botany in the University of Melbourne, the stories of mummy wheat and other grains coming to life and productivity are relegated to the region of exploded myths or frauds. The author has made an exhaustive inquiry into existing data on the subject, and by coming into possession of a packet of over 600 different sorts of seeds, dated over 50 years ago, was able to make valuable first-hand research and trial himself. The early complete records of de Candolle disclosed that out of 368 seeds, kept dry in air for 14 years, only 17 retained a feeble germinative power. Bequerel found that 18 out of 90 leguminous seeds, those of two species of Nelumbium, of one Labiate, and one Malvacea, remained germinable for 25 to 80 years. The oldest germinable seeds obtained by the latter were three species of Leguminosae 80 years old. The records of seeds supposed to have lain dormant in the soil are regarded as quite worthless, not more than two or three per cent. being confirmed by the two experts quoted and Prof. Ewart himself. The tabulated records given by him go to show that vitality decreases, as a rule, in proportion as age increases, and from 20 to 50 years, or over, the record stands "nil," "nil," "nil." In the case of oats ten years old, cases are cited, 93 and 84 per cent. germinating. Several cases of mustard (Nigra Koch) are cited, 2 years old, germinating 10 to 80 per cent.; carrots, 12 and 13 years old, nil; sunflowers, 1 year old, 96 and 97 per cent., 15, 50 and 51 years old, nil; barley, fresh, 100 per cent.; 2 to 7 years old, 10 to 95 per cent.; 8 to 10 years, 20 per cent.; and others, varying from 6 to 18 years old. Linseed, very variable, even with fresh seed the highest record being 98 per cent. In one lot, 12 years old, germinated 14 per cent. In others of that age and over are recorded "nil." Lucerne (alfalfa) showed very varying results, from nil to 84 per cent., in one case of seed 16 years old. Fresh peas varied from 80 per cent. to nil, and in one case two-year-old peas germinated 100 per cent.; three years old, 88 per cent. Cultivated sow thistle, 5 years old, germinated 50 per cent. Rye, fresh, 100 per cent., germinated in one case recorded; 2 years old, 87 per cent., but

back of itself
McINTOSH.

Corn.

ther, rape may
just before the
for sheep and
seed may be
horse's back,
rows with a
about four or
ist cultivation



on of Corn.

off the fibrous
covering of the
e lower leaves
ears or stalks,
an average sea-
v rapidly and
lambs through
take advantage
d covering the
the land is fit
age equal to
and the seed is
expense involved

Seeds.

article, officially
ds, by Dr. Al-
t and Professor
McLbourne, the
grains coming
d to the region
ne author has
isting data on
possession of a
of seeds, dated
make valuable
lf. The early
losed that out
14 years, only
power. Bec-
uminous seeds,
of one Labiate,
nable for 25 to
seeds obtained
Leguminose 80
opposed to have
rded as quite
three per cent.
ts quoted and
ed records given
decreases, as a
s, and from 20
stands "nil,"
s ten years old,
t, germinating-
(och) are cited,
per cent.; car-
sunflowers, 1
5, 50 and 51
cent.; 2 to 7
o 10 years, 20
from 6 to 18
even with fresh
per cent. The
per cent. but
recorded "nil."
ng results, from
f seed 16 years
per cent. to
eas germinated
per cent. Culti-
minated 50 per
minated in one
per cent., but

cases are also cited of 2-year-old rye and 50-year-old showing nil; nearly all the records over 12 years old show nil. In clovers, the highest recorded is 87 per cent. from fresh seed, 12 years and over invariably showing nil. It should be stated that different ways of treating these old seeds were tried, such as moistening them with water or acid, putting them in soils, etc.

The conditions for longevity are partly inherent in the seed itself, and partly due to external conditions. Fairly cool, dry, airy conditions preserve seeds best; while, in the soil, seeds last longer in the deeper layers than in the surface ones. Seeds with impermeable coats are also naturally most likely to last longest in the soil.

In case of all ordinary seeds, the drier they are, the longer they are likely to last, and that applies more especially to the starchy seeds. The property of longevity is an hereditary peculiarity inherent in the living protoplasm. The conditions favorable to germination are, of course, water, oxygen, and a certain temperature, the proviso being added that the two former must be able to penetrate the seed in sufficient quantity. There appears to be some diversity of view as to the effect of light upon germination, though, in practice, various small seeds must be superficially sown to germinate well, and this is due directly or indirectly to their exposure to the light. In case of grain intended for seed, the general deductions to be drawn from these researches are that it should be thoroughly matured, and so harvested and housed that it will be preserved dry, and at a moderately-low temperature.

THE DAIRY.

Dairying in Eastern Ontario.

Not often does one have so favorable an opportunity to see things as was afforded the representative of "The Farmer's Advocate" last week, when he visited the Brockville cheese section, in company with G. G. Publow, Chief Instructor for Eastern Ontario. Mr. Publow has been on the road in the interests of Ontario cheese for 23 years. He knows every factory and its conditions from Toronto to Montreal; he has faced every difficulty of cheesemaking in his section, and has solved many of them. Having so intimate a knowledge of the business, his success among the makers follows naturally. Accompanying him was the district instructor, A. H. Wilson, of Athens, whose interest in the welfare of the cheesemakers and the milk producers of the district is not surpassed. Completing the party was Senator Dan Derbyshire, born in the district, once its school teacher, later its cheese manufacturer and buyer, then its representative at Ottawa, and now its Senator. He knew every farm, every man, his wife and all the children; and, besides being always entertaining, his intimate knowledge of every factory and its supplies made him a valuable source of information for the party. The Senator has always been a great encourager of factory construction.

The first part of the current season has proved ideal for cheesemaking in Eastern Ontario. The weather was cool, and grass plentiful, making the supply of milk unusually large, while the natural conditions prevented the development of harmful bacteria. Mr. Publow declared that better cheese never went on the market than in this year, and that it was difficult to find an inferior cheese from Eastern Ontario during May and June. The total quantity of cheese for this year so far is just about up to that of last year. In some sections it is considerably less, due to an export trade. In the Eastern Townships of Quebec, and along the front of Eastern Ontario, there is developing a considerable export trade in cream and casein to the United States. From the Brockville section a refrigerator car is shipped daily, going to Morristown, N. Y. The contract with the consumers varies. One factory, which had just begun shipping, is to receive, net, nineteen dollars a ton for July and August milk, and twenty dollars a ton for the remainder of the season. The buyers pay the maker or operator, and all shipping expenses. Producers are paid every week. This is somewhat better than present prices for cheese, but may not be later in the autumn.

It is difficult to tell with assurance the degree of wisdom in the development of this trade. Instructor Publow cannot understand why, if it is a desirable proposition, the American farmers do not simply the necessary milk. It seems a pity to have a factory organization demoralized for a part of a season or more for the very little advantage apparently gained in this new trade, especially when we have a cheese trade that should never be neglected, that has been the basis of prosperity for much of the country, and that should be broadened, not curtailed.

The manufacture of whey butter is on the in-

crease. "What do you think of this phase of the industry?" Mr. Publow was asked. "If I were a maker, I would like to make whey butter; if I were a patron, I would not want it made." And the answer tells the whole story. The contract between patron and maker usually gives the maker two-thirds of the returns the first year, and a half for succeeding years. One factory of about seventy patrons made about three thousand dollars' worth of such butter in its first year. The maker got fifteen hundred dollars; the seventy patrons, if each had received an average share, would have had each about twenty-two dollars more for the season, which would have meant about four dollars more on each monthly check, an amount that would scarcely be noticed, while, without doubt, the depreciation in feeding value of the whey was felt, at least, by the pigs. In some factories whey butter has been made for four or five years; some are abandoning it. The product is sold locally or in adjacent towns, and was encountered at almost every table for a week by the writer.



Plowing for Fall Wheat.

While the quality of the cheese during the first part of the season was excellent, makers have kept the Chief Instructor going almost twenty-four hours of the day of late, on account of the difficulties which have arisen. The hot, dry weather has been favorable for the development of undesirable bacteria—and they have been developing. There has been more trouble this year than for several years past with bitter-yeast ferments; gas has not been giving a great deal of trouble, but, in combating gases, the makers have freely used the acid culture, which is a suitable media for bitter-yeast growth, and, some of their cultures becoming contaminated, they have had troubles enough.

The district inspectors are kept busy assisting the makers, and suggesting to the farmers better methods of caring for milk. A. H. Wilson, instructor for the Brockville district, reports a steady improvement in the care of milk. Aeration has been abandoned, and water-cooling is being gradually installed. Much still remains to be accomplished, however, in this respect. Ninety-five per cent. of the farmers in this section have silos, and almost all the best of them are white-washing their tables, and making them as sanitary as possible. To these advancements they must add covered milk-stands, well removed from all sources of odors, and convenient to cold water; fresh, pure water for the cattle, and clean, sterilized utensils.



The Giant Up-springing Corn.

The Profitable Dairy Cow.

Some valuable hints on the care of the cow before and after calving, and the successful rearing of the calf, are given in a sensible article contributed by F. H. Scribner, a practical dairyman of Wisconsin, and appearing in a recent issue of the Jersey Bulletin, from which the following extracts are quoted:

"Never in the history of our country was there so much encouragement from a pecuniary standpoint, to do things right in all lines of farm operations as to-day. The high prices of all farm products is going to have a tendency to bring out the best there is in us, which means more thought, more study, more care, and also unquestionably means in every case increased results. The same rule applies, also, to our live stock, as there never was such a demand for good, well-bred stock as to-day, and, with prices so remunerative that it ought to get our system so inoculated with the bacteria of progress that our thinker would work

quicker, and bring us into line with the progressive, money-making dairymen.

"The old Scotch adage, 'Trut father, trut mither, or foal can na' amble,' and about the same rule applies to animal as well as human development—hereditary characteristics, strong physical bodies, education, kindness and care, and an opportunity to bring out the best there is in us. And, in treating on this subject, I want to take it up along this line.

"In considering the topic of a physical body, I should say that a cow should have from six to eight weeks' rest before freshening time, to permit the recuperation of her body, which necessarily means that when the calf is dropped it will also have more vitality. When the cow is nicely dried off, she should have plenty of succulent, nourishing and easily-digested feeds to keep her in a laxative condition. A box stall should be part of the furniture of every well-regulated cow barn, and should be about the same temperature as the stable, or a little warmer, or it would have a tendency to congestion or a stagnation of the blood, thereby causing disorder of the functions.

"The easiest time to kill a weed is just before you can see it, and the easiest time to kill disease is to prevent it. When the little fellow arrives, the first thing to think of is to disinfect the navel cord, to prevent germs of disease entering the system. A good lesson can be learned from some of our best horsemen, who are paying a lot of attention along this line.

"Nature has provided something in the first milk that is very essential in getting the calf's digestive machinery started right, and I think the youngster should be permitted to have it. We usually leave the calf with the cow a couple of days, until it is nicely straightened up. The most important time in the life of the calf is when we take upon ourselves its feed and care, and here is where we want to exercise a lot of kindness and gentleness, for if you are impatient and rough in your treatment with them, they will distrust you

and fear you, and the chances are they never will forget those.

"When teaching the calf to drink, don't push its head into the pail, but wet your fingers in the milk and let it suck, and coax its head into the pail, and usually the second or third time it will drink of its own accord.

"There are three essentials at this time, i. e., the quantity of milk, its temperature and its quality. Calves are injured more by not observing carefully these rules for the first few weeks of their lives, than in any other way. At this age their little stomachs are not strong, and a little care at this time often means the difference between an unprofitable and a profitable animal.

The amount to be fed should not be determined by guesswork, but by actual weighing or measuring, for I find it so easy to overestimate. No artificial heating of milk is so good as the natural animal heat, which is about 100 degrees, so try to retain this temperature as nearly as possible. The mother also furnished the milk in a sanitary condition, and we should try to follow her example in this respect, and see that the pails are kept in a cleanly condition.

"The care of the pen makes quite a difference about keeping their digestion right. The calves at our place require more and take more bedding than all the rest of the stock put together. If they are permitted to lie on a cold, damp bed, they take cold, and that they are out of condition is shown by their rough, staring coat, running nose and general unhealthy appearance.

DON'T FORGET THE EXERCISE.

"I visit so many barns where calves are kept in a little 4 x 6 pen, with conditions just the reverse of what they should be—dark, gloomy, damp, ammonia-filled air to breathe; no chance for exercise. Is it any wonder that the average production is so low when they have been brought up under these conditions?

"The fall calf usually makes the best growth. Possibly one reason is because we are around the barn more, and notice their conditions, and can give them proper attention at the right time; while, in the summer, our work calls us more to the field, and the stock is apt to get neglected. One quite common trouble with the spring calf is that we want to get it out on pasture altogether too soon, and skim milk, grass, flies and hot weather make a mighty poor combination. For my part, I would rather keep them up through the summer, feeding them on good oats and clover and milk. By paying attention to the stable conditions and exercise, the calves will make a better growth than if turned out.

Cool-curing at the Quinte Cheese Factory.

An ideal site for a cheese factory is occupied by the plant of the Quinte Cheese and Butter Company, Ameliasburg, Prince Edward Co., Ont. This is a four-vat factory, about 30 x 70 feet in size, built of solid cement, with a twelve-inch wall, 13 feet high, a cement floor and 8-inch partition walls, and was first completed in 1905, at a cost of \$1,400. It stands on the south shore of the beautiful, elongated sheet of water known as the Bay of Quinte, which divides the peninsula of Prince Edward Co. from Hastings Co. on the mainland. A very good curing-room was provided, but being set down into the ground, it was found to be damp, causing some considerable trouble with mold. Four years ago the curing-room was lined up, according to Government specifications, at a cost of \$200, and an insulated ice-chamber, 20 x 20 x 13 feet, cost another \$400.

The curing-room, which is about 30 x 20 or 21 feet wide inside, with a ceiling somewhere about 13 feet high, gives a large cubic content of air. The walls and framework are painted, and the ceiling oiled, presenting a very pleasing appearance. About 25 cords of ice are required to fill the ice-chamber, and are put in at a cost of \$15.

A year ago, one of the editors of "The Farmer's Advocate" was privileged to visit this factory, and the particulars then gleaned will still be of service in keeping the advantage of cool curing before the public. Since the provision for cool-curing, the mold trouble had been practically overcome. The cheese bored particularly well, showing a very close body, fine texture, and very clean flavor. One of the July cheese on the shelves was at the time pronounced by Mr. Piddow as probably equal to anything that would be seen at Toronto Exhibition.

A feature worth remarking is a small ice-box, built into the partition between the curing room and ice room, to hold victuals and anything that it may be wished to keep cool. In a number of factories, pitchers of milk and other articles of food are often seen standing in the flues. This is not exactly the thing, as it checks the draft of cold air, and an ice-box for the purpose is not only undesirable, but very convenient.

The use of ice as a means of cool-curing, the maker, A. V. Piddow, stated that, apart from the savings and shrinkage, the satisfaction of having a cool curing room, where conditions could be controlled throughout the season, so that the cheese might be made the same right through, was such that he would "wield not care to make cheese in a factory with an ordinary curing room.

Men Who Know.

"I find the keeping of individual cow records very useful indeed, and would not go back again to the guessing method," writes a farmer who has tried both ways.

The men who just guess, and who do not know what each cow in the herd gives during the year, often guess too much on the weight of milk and fat, and too little on the cost of feed. They guess that "Polly" is the best cow in the herd, but they do not know, because they have not weighed or tested the milk on any system. Probably "Buttercup" is far ahead of "Polly" as a producer.

The Dairy Division, Ottawa, supplies record forms for milk and feed, so that men can soon know what profit each cow pays. The question is not "What does the herd average this month or next?" but "What does each cow give during the year?" Each cow should be a "long-distance" milker. C. F. W.



Harvest-field Refreshments.

POULTRY.

Economical Production of Eggs.

(From an address delivered by Prof. W. R. Graham, at Chatham, Ont., on July 16th, 1910. Reported for "The Farmer's Advocate.")

The money in poultry depends upon two things—cost of production and selling price. As I see it, the life and death of the poultry industry in Canada depends to a considerable extent upon co-operation.

There are great quantities of eggs going into cold storage to make cakes, and some of them I don't want in any shape or form. They aren't exactly rotten, but some of them are "pretty thin."

One thing I would say, if you go into this co-operative scheme, and that is, feed your hens. You cannot produce the requisite quality of eggs or poultry on grasshoppers, grass and water.

Many people think poultry are destructive. They say to me, "Don't go into the garden. Don't scratch any grain out of the fields where it has been sown, don't touch the shocked grain in the field." And to their wives, and children they say, "Don't take anything out of the granary to

feed the hens." They feed their chickens on garbage, on the scratchings from the manure heap, and on what light stuff blows out of the tail-end of the fanning mill, and then expect the hens to produce eggs.

As nearly as I can find out, it takes between three and four pounds of grain to produce a pound of live pig. We can produce a pound of chicken for that amount of grain, and we can sell our chickens for 20c. to 25c. per pound, and our old hens for 14 cents.

It used to be thought that chickens needed a grass run. We have found that they grow as well or better on cultivated land, so now we hitch a horse to our colony houses, and draw them out into the lane along the corn field. They won't bother the corn, but they will follow the cultivator, and every time it stirs up the soil they'll pick up a fresh crop of insects which make ideal meat food. Then, the cultivation germinates a great many weed seeds, and these seedlings

make ideal green food, so the chickens grow like weeds. We can grow in eight weeks out there a chicken that would take 12 weeks to attain the same weight inside. We also have colony houses scattered around the orchard.

Will chickens eat tomatoes? I guess most people will say "yes." But they won't eat tomatoes if you feed them well. At least, in these orchards where we have our colony houses there have been experimental patches of tomatoes, and I don't believe there have been two tomatoes picked by the chickens in four years. We hope

perfect those chickens, giving them all the grain they want. I admit we have fed sparrows as well as our neighbor's guinea fowl and turkeys, but withal, it has not in any year taken more than four pounds of grain to produce a pound of chicken.

If you want to make a chicken fat, feed him just a little less than he wants to eat—enough less to keep an edge on his appetite. It is like feeding a boy on pie. You can't sicken him of it as long as you are giving him less than he wants. Overfeed chickens, keeping them close to the feed, and they will lively die. Overfeed and give them a range, and they won't take more grain than is good for them. The more you study hens, the more you think about yourself.

If you use the ordinary stationary henhouses, please clean them annually. I have been in henhouses 18 inches deep with manure, and all alive. I have come to the conclusion that the only reason some farmers clean their cow stables is the fear that otherwise they would themselves get mired.

If you won't clean your henhouses, get the poultry out of doors, up in the trees, or anywhere in the fresh air. It is a fact that there is more tuberculosis among chickens on the farms of this country than among those confined in the houses of fanciers.

We trap-nest our hens, and any that doesn't lay loses her head.



Quinte Cheese and Butter Company's Factory, Prince Edward Co., Ont.

Ideally situated on south shore of the Bay of Quinte, it is a fine example of modern dairy architecture. Has excellent cool-curing facilities.

If you want to kill some hens, and don't know which to take, pick the ones that go to roost first, and are out last in the morning. A good hen goes to bed late and gets up early.

Now, as to the cost of producing eggs: We can't get a hen to eat much more than 70 pounds of grain per year. Valuing grain at \$1.60 per cwt., and buttermilk at 20 cents, and throwing in the considerable quantity of clover they eat, we have found that it cost 8½ cents a dozen to produce eggs up to the 1st of July. This was with a flock of 84 White Leghorns in an eight-months' test. The average egg-yield per bird was 101 eggs.

In a nine-months' egg-laying experiment, from October 1st to July 1st, 1910, a flock of Barred Rock pullets, hatched in April, consumed 1,111 pounds of grain and 1,651 pounds milk, and produced eggs for an average cost of 8.9 cents a dozen, the profit per bird being \$1.67.

I also took a flock of 50 May-hatched pullets, and divided them into two lots of 25 each, putting what I considered the stronger birds on one side of the house, and the rest on the other side. The stronger ones produced eggs at a cost of 11.1 cents a dozen, the latter at a cost of 17.2 cents. The vitality was also much stronger from the former lot, as we hatched 75 chicks out of 109 eggs, while the others hatched only 25 out of 100. Moreover, out of these we lost three times as many chicks as from those hatched from eggs laid by the more vigorous flock.

Chicken Lice and Mites.

Editor "The Farmer's Advocate":

This is the season of the year when the poultry-keeper must be on the alert to detect the presence of lice on his fowls, or in the houses. Lice are of two kinds: the large body lice that stay on the fowls, and the mites that infest the perches and feed on the hens during the night. Both will work destruction to the flock if not checked, not only loss of eggs being the result, but often lice are the cause of death. Some cases of disease in flocks that came under my direct notice were plainly attributable to the presence of lice. Examine the fowls for body-lice. Under the wings and around the vent are favorite haunts of the large body lice, and they can plainly be seen running for cover when the feathers are opened. If the hens are laying, some good insect powder dusted in the nests will prove effective. In extreme cases, when the weather is warm, I have dipped the hens lodily in a solution of creolin. This is very effective, but is hard on the hens, and will shut off all egg production for several days. The weather must be warm, or the hens will die from the cold, as the creolin solution dries off very slowly. This measure should only be resorted to in cases where the flock has become badly infested. But it does the work, and does it thoroughly. This spring, my flock of Leghorns became infested, and I dipped them in the creolin solution. The weather turned cold, and I was forced to carry the hens down to the furnace room to dry. But they have not been troubled with lice since.

For the mites in the house, nothing is equal to thorough fumigation with sulphur. Do not spare the sulphur; use about 12 pounds to a house 15 x 20. Close all cracks and openings. Old tin pails, pots or other vessels that are tight enough to hold water will do. Vessels with holes would be dangerous, as the burning sulphur liquefies, and might run out and set fire to the house. Place the pot or pail containing the sulphur in a vessel holding ashes, earth or sand, and there is no danger from fire. Light the sulphur with a match or with living coals, but do not throw sulphur on live coals, as the flames leap up in a dangerous manner. Close all doors and windows tightly, and leave them closed for eight or ten hours. By that time the mites will be dead. Repeat the fumigation in ten days, and you will positively be rid of all mites. I have been using this remedy, and find it very effective. The sulphur fumes are also a splendid disinfectant, and kill the germs, as well as the mites. Sulphur may be purchased in 100-pound sacks for 2 cents per pound.

A coat of whitewash, applied with a spray pump, improves the looks of a henhouse, fills the cracks where the mites harbor, and makes the dark corners light and presentable.

From a flock of 150 hens, we have already sold, since January, 1910, \$135 worth of eggs. Ordinary market prices were obtained, the highest being 30 cents, and the lowest 17. A large number of eggs were used for setting, and a still larger number were retained for domestic use. I have two flocks of hens, one of Buff Orpingtons, and one of White Leghorns. I find the Orpingtons the most satisfactory, as they are winter layers, and the chicks are hardy and easily raised. Have used the hen up to the present for hatching, and have had fair success. Have a "hatchery" 15 feet long, 4 feet from front to back, and 2 feet deep. It is divided into ten cells by partitions. There is a floor in the top at the back of each cell to give access to the nest, which is situated immediately beneath. The rest of the cell is occupied with sand, water and gravel. When a hen becomes infertile, she is removed to a nest in one

of the cells of the hatchery, and given two or three eggs. If she sits quietly, she is given a clutch in two or three days. Very little attention is now necessary, except to furnish clean water and grain. The eggs are examined every few days, and if fouled or daubed by a broken egg, they are washed. The hatchery is covered with wire net, the partitions are of rough lumber, as this is necessary to prevent family quarrels among the hens. A little insect powder dusted in the nest when the clutch is given helps to keep the hens free from lice. W. E. WILLIAMS, Middlesex Co., Ont.

Success with Turkeys.

Editor "The Farmer's Advocate":

How many a time have I thought that I would write to "The Farmer's Advocate" to let the readers know how I manage to raise turkeys, ducks and chickens quite easily, hoping that by my experience others may profit. To begin with, I had two turkeys this spring; they both laid 33 eggs, when one turkey went to hatch. I put 18 eggs under her. They laid and hatched in the barn. I say this because many people's turkeys wander over the fields and bush to find places to lay. The other turkey I "broke up," and in a week's time she was laying again, and laid 17 more eggs. The rest of the eggs I put under hens. Out of 33 eggs I had 29 little turks, and I put them all with the old turkey. They arrived the 15th of May—rather early for such a cold, miserable spring—but I had a large box placed in the kitchen, near the stove, and here is where I kept my turkeys night and day. Only on sunny days (and they were scarce) I let them out in the yard to pick gravel. I fed them nothing until they were 48 hours old; then they knew enough to eat, for they were hungry.

And what did I feed them on? you will ask. Just hard-boiled eggs and onion-tops cut up fine. Fed as often as they were hungry, for two weeks, and, my! how they grew, and so strong—no sickly or mopy ones at all. For the lice, I put Zenoieum powder on all of them when they were a week old, and had no trouble since. I cleaned their box out every day; it was quite a lot of trouble, but you certainly have got to work if you wish to accomplish anything in the line of poultry. The other turkey hatched 14 from 17 eggs, and they did fine, also. I have certainly a beautiful flock of turkeys.

Do the readers know that a little open bell, tied on the old turkey's neck, will keep away foxes, on account of its continual ringing. My turkeys go away in the morning after I feed them, and I never see them again till evening, when I feed them again—corn meal and wheat mouille, mixed.

Now, about the ducks: I have 51 little ducks, but have poor luck with these, as some of them took sore legs and died; some more had a stiffness of the body, some of which got better. I feed them corn meal and bread.

About the chickens: I have no bother at all. I have 94 chickens, all hatched by old hens. One time this spring I had 25 hens hatching at once, but five of them died on the nest; I never could find out the reason they died; they generally moped, when taken off the nest would not eat, and their heads would turn black, and finally they would die. Now, I do wish some of the readers would give their experience, especially in turkey-raising, for I know that every person who had poor luck would try again on somebody else's plan. Wishing "The Farmer's Advocate" every success. A FARMER'S DAUGHTER, Leeds Co., Ont.

GARDEN & ORCHARD.

A Bumper Crop of Strawberries.

Editor "The Farmer's Advocate":

I have grown strawberries for the last twenty-five years. During this time I have tried many different varieties, viz., Wilson, Clyde, Bubach, Warfield, Nich Omer, Wolverton, William Belt, Splendid, Glengarry, Fountain, Parson's Beauty, Ruby, and many others, but for the last ten years I have depended chiefly upon the Williams' Improved for my crop. This variety, with me, will far out-yield any other, and, besides, it is a good shipper. When I began growing Williams, I marked the plants that gave the best results. I kept doing this year after year, always selecting the plants I set out in a new patch from the best. In this way I have greatly increased the yield. Last year I set out one and one-fifth acres with Williams' Improved on land that had the previous year a good crop of corn. I plowed under fifteen loads of manure to the acre, and worked in on top about 40 bushels of wood ashes. About May 20th I selected strong plants, and set them in rows four feet apart, and three feet apart in the row. I cultivated and hoed these as often as necessary until September 1st. In July, when each plant had six or eight runners, I distributed them about the original plant, setting in carefully any young plant that had roots formed, and fastening runners down with earth. By the end of

August I had a matted row two feet wide. I think it very important to treat runners in this way. Some growers crowd the runners closely in the centre of the row to avoid extra hoeing. This method gives small plants in center of row, and small berries.

I use a twelve-tooth strawberry cultivator. I take out the two hind teeth and attach two disks which rotate and cut off runners given off late in the season. This prevents the bunching of small plants along the sides of the rows.

I covered the patch with straw in December. This mulch I raked into the paths and added more, in order to hold moisture.

This patch yielded 16,770 boxes berries. The heaviest picking we had gave 5,760 boxes. On July 4th Mrs. Geo. Hoshal picked 300 boxes in seven hours, and during the season she picked 1,600 boxes. The average price received was 6 cents a box; cost of picking, boxes and crates, 2 cents. This leaves 4 cents a box for labor. Elgin Co., Ont. W. WALKER.

Poor Fruit Crop in Nova Scotia.

We have had a peculiar season so far, for fruit, at least. Frost, and cold east winds and rain at blossoming time combined to prevent good fertilization. As a result, we will probably have the lightest crop of apples, comparatively speaking, in the history of orcharding in Nova Scotia. By this I mean we will have an average of fewer barrels per acre than in any other year since we really began to raise apples for export. Up to the present (July 20th) we have had an abundance of rain, and some very hot, close weather, and, as a result, most orchardists are looking for spotted fruit of poor quality, as well as few in numbers. In thinning some varieties this week, the writer found that Baldwins were not spotting much, though the Gravensteins and Greenings had some spot developing. Some of our orchardists have humorously expressed the opinion that the few old barrels left from last year will contain their crop this year.

One orchard in the writer's knowledge, which produced almost 500 barrels in 1909, will not put up a barrel of any one variety.

A meeting of representative orchardists from Annapolis and King's Counties, on July 4th, placed the crop below 25 per cent., taking Nova Scotia as a whole.

The only move made on the recently-purchased Fruit Experiment Station, at Kentville, was the sale of the grass on the farm to local parties. The local Government was to purchase the site for this Station, and the Dominion Government was to run it, but they have taken no action yet.

The policy of the Government since the last elections is supposed to be one of retrenchment and lessened expenditure. This policy is working well, as far as agriculture is concerned. Graft, pet salaries, and overpaid figureheads, are still flourishing. We have not had a fruit conference at Ottawa for some four years, though we were promised it every two years. We are very glad to report the spirit of co-operative packing and marketing on the increase.

A meeting of the fruit companies of the Valley was held at Berwick on July 4th, for the formation of a central association. Ten of these co-operative companies were represented, and there is good promise that farmers will, in the near future, do their own business, and stop fattening the middlemen. Verily, there is no class of men in the world so easy to "do" as the ordinary farmer, and there is no calling under the sun so imposed upon, or so much at the mercy of the unscrupulous money-grabbers and politicians as that of agriculture. R. J. MESSENGER, Annapolis Co., N. S.

American Apple Crop Uneven.

Judging by latest reports to hand, the Pacific Coast is the only extensive region in America that will have a good crop of apples this year. The New England States also seem likely to produce a fair, though not a bumper crop. Elsewhere, conditions are uneven, some varieties being promising in one locality, but scarce in others, and vice versa. For instance, the five big counties in New York State, running from Buffalo, throughout the territory of Rochester, are reported to have a good crop of Baldwins, while Greenings and all fall fruit but Kings are said to be light. In the Hudson River district the crop of both Baldwins and Greenings is light, with all the winter varieties in that district promising an average of not over fifteen to twenty-five per cent. of last year. Michigan is uneven, with probability of about half last year's yield. In Canada, a light crop is expected in Nova Scotia. In Eastern Ontario, prospects were fair at receipt of latest advices. In South-western Ontario the winter apples are extremely poor, summer and fall varieties making the only show worth mentioning, though in a few localities we hear that this condition is reversed, the winter trees having a fair load, with nothing to speak of on the early sorts. British Columbia has been counting on a large output. All things considered, while a good deal depends upon the European crop, there is reason to expect that apples will be worth something this fall.

Plant-breeding at Jordan Harbor.

The Horticultural Experiment Station at Jordan Harbor, Ontario, is situated on the shore of Lake Ontario, and in one of the finest peach-growing localities of the renowned Niagara Fruit Belt.

The farm comprises some 97 acres, only a small portion of which consists of the deep, sandy loam so highly prized for peach-growing, the greater portion being of a heavy clay.

A large portion of the farm is planted with orchards of a few acres each of apple, pear, peach, plum and cherry trees, plots of currants, raspberries and gooseberries, and a further portion is devoted to the testing of varieties of vegetables.

In 1907-08 the whole farm was thoroughly underdrained, under the supervision of Prof. W. H. Day, of Guelph, and the beneficial results derived from such a system are now fully apparent.

An important line of work recently started at the Experiment Station is that of plant-breeding. The object of the plant-breeder is to originate new varieties which will combine to a greater degree than the varieties now grown the qualities most sought by the grower, the shipper and the consumer. Let us take, for an example, the Elberta peach, grown more extensively than any other variety, yet by no means an ideal peach. The Elberta tree crops heavily with large fruit of excellent shipping quality, but it is surpassed by some varieties in flavor, such as St. John and Mountain Rose; by others in immunity from disease and in time of ripening. It ripens in the middle of the peach season, when a glut is most probable, and prices are generally low. It seems, therefore, that a seedling of Elberta, which would ripen earlier, a fruit equally firm, but of better quality than the parent, would be a most profitable fruit for both grower, shipper and consumer.

On the Experiment Station there are at present some six thousand seedling strawberries, several thousand seedling tomatoes, seedling peaches, pears and apples; at the close of the present season these will be considerably added to.

The seedlings that have fruited or are fruiting this season are being carefully noted and compared with the parent plants from which they were originated.

Not only is it the work of the plant-breeder to improve the size, quality or appearance of the fruit, the vigor or size of the tree, but also to keep a watchful eye that the selected progeny show less susceptibility to the many insect and fungus attacks that destroy such numbers of our fruit trees and bushes to-day.

ARTHUR J. LOGSDAIL,
Lincoln Co., Ont. Expert in Plant-breeding.

Milking the Aphides.

Man is not the only being that utilizes inferior animals for his profit. A curious analogy, familiar to all entomologists, is furnished by the ant, which is very fond of the "honey dew" secreted by plant lice which suck the juices from plant tissue, and where these swarm, ants are liable to abound. The intelligent insect, whose industry and thrift are proverbial, has discovered that, by touching the lice upon the two little knobs that grow outward and upward from the body, the aphids or plant lice can be induced to give up some of their honey dew. Some kinds of ants actually colonize plant lice, harboring them in their ant burrows, where they suck the juices from tree rootlets. Prof. S. A. Forbes, of Illinois, who has made an exhaustive study of the corn-root aphid, declares that certain species of ants collect the eggs of the corn-root aphid in the fall in their underground nests, and in the spring they place the young hatching from these eggs on the roots of suitable food plants. As these grow and multiply, the ants transfer them from one plant to another, as necessity may arise. During nearly the whole season the ants are dependent on their helpless charges for food, which they find in the abundant fluids given off by the plant lice as they suck the sap from the growing plant. Thus, by harboring these aphides, the ants work an indirect injury to the corn crop.

Plant lice are, therefore, the ants' domesticated cows, which they know how to milk as effectively in their way as man milks the bovine.

Peaches for Great Britain.

From time to time reports come to Canada encouraging the expansion of our fruit shipments to the Old Country market. There seems to be an especially good market for the more perishable varieties of orchard produce, the only difficulty of our reaping handsome profits from such a trade being the danger of loss due to the length of time in transit. Since peach production is so steadily increasing in Ontario, the Department of Agriculture at Ottawa is this year going to make trial shipments of this fruit to Britain. Single layer cases will be used entirely in these experimental shipments, three being strapped together for convenience. There will be, in all, about 1,000 cases shipped, going from the vicinity of St. Catharines. The fruit will be pre-cooled, packed in refrigerator car, and shipped in cold storage. The Department is very hopeful of success by careful handling of this shipment. Fruit-growers generally will watch eagerly for the results.

THE FARM BULLETIN.**South Ontario Notes.**

Editor "The Farmer's Advocate":

Haying is finished, with the exception of the stragglers, and grain harvest is once more in full swing. The hay was about an average crop.

A larger acreage than usual was sown to winter wheat last fall, and is now looking splendid. Barley is scarcely an average, as it ripened too quickly, but oats, on the whole, look well. Alsike is now being threshed, some high yields being spoken of, as well as fancy prices obtained, but we have nothing reliable enough at hand to state what prices are being paid.

Corn is growing nicely. A great deal had to be resown on account of poor germinating of seed, also because of a cold wet spell that came shortly after much of the corn was sown, and on low, undrained land suffered severely. More care is being taken in the selection of seed corn than formerly, many buying on the cob; in this way one may see the sort of corn one is getting.

Mangels are looking fairly well, but turnips will probably fall away below the average. Much of the Swedes did not grow, and the flies played havoc with some. The potato beetle is giving much trouble; it seems able to stand good doses of Paris green. One of our progressive farmers sent some of his hard-earned cash to the States to find out a sure way of killing the potato bug. The reply came, and was simple: "Take the bug, lay him on a flat stone, and hit a sharp crack with another stone." When will the people cease to be fooled?

Apples, on the whole, will scarcely reach an average yield, but what lacks in yield may be made up in quality. More spraying was done last spring than formerly. The prepared lime-sulphur was mostly used, with arsenate of lead mixed for second spraying. Spraying is so much less trouble this way than when the mixing and boiling was done at home we may look for more in future.

A higher standard of farming may be observed on all sides; this is quite noticeable in the increased interest taken in the short rotation of crops, alfalfa, draining, ensiling corn, standing field-crop competition, etc. The true farmer of to-day must be an agriculturist—one who studies from books and agricultural papers, and finds out what he must do for the well-being of his farm.

The perennial sow thistle is scarcely so conspicuous as it has been the last few years. The season, we believe, has not been so favorable for it.

There are few apiarists in this district, but, from reports, the quality and quantity was quite satisfactory, with a keen market for all that could be produced. A great many colonies die annually, mostly through ignorance or neglect.

Ontario Co., Ont. F. H.

The Cost of Living.

The Massachusetts Commission on the advance in the price of foodstuffs reports that the tariff has been one active element favoring the upward trend, and suggests at the next revision consideration should be given the expediency of removing duties on all food products. It is claimed that the tariff was never seriously intended to apply to the foods of the people, save for the development of such industries as fruit in Florida, as sugar beets in the West.—(Why there alone is not explained.) The design is simply to create and preserve manufacturing industries. This bald statement of the situation rules out completely any pretence of making the farmer a beneficiary of the protective tariff system, which will hardly commend itself to a large element in the United States. Contrasting points, like Windsor and Detroit, Montreal and Boston, St. John, N.B., and Bangor, Me., it is reported that groceries are higher in Canada; meats, provisions, including dairy products, less. Some half dozen sorts of common vegetables were 17 per cent. dearer in Windsor than in Detroit. It is pointed out that a tariff on foods prevents each country from mitigating the damage of a short crop when the other is plentifully supplied. Also, it prevents getting the full benefit of seasonal advantages. Green vegetables and small fruits mature later in Canada, of course. The tariff prevents Canada from profiting by our early crops, and prevents us from profiting by Canada's late crops. The Commission found that men's clothing could be bought cheaper in Canada than in the States, the material in the former being better, but the workmanship not so good or fancy. This was reported to be true of many lines of manufacture. The report assumes that extension of reciprocity in manufactures will not now be acceptable to Canada, but urges that amicable relations be maintained, so that mutual concessions may from time to time be made. The retailer is charged with being responsible for much of the discrepancy between wholesale prices and those paid by the consumer.

The Canadian Department of Labor, Ottawa, has also issued in report form the results of an exhaustive enquiry on the same subject in Canada. From 1890 to 1897 prices in Canada followed a downward trend. This was succeeded during the ensuing decade by a more rapid upward movement, which culminated in 1907. Prices in the last-mentioned year were by a considerable margin the highest in the twenty-year period. Prices fell in 1908, but were upward again last year and this year.

Comparing the high year 1907 with the low year 1897, the advance amounted to approximately 37 per cent. Comparing the year 1909 with the low year 1897, the increase shown is approximately 31½ per cent. The advance in products, such as grains, fodder, meat-producing animals, milk, eggs, wool, fruits, vegetables, are reported to have increased in price only 37 per cent., while meats, bran, flour, hides, leather, etc., increased by over 34 per cent., comparing the 1909 decade with that of 1899. Fish products did not advance quite as high as those of the farm. Lumber advanced about 50 per cent., but manufactures generally showed only about 10 per cent. advance.

Poultrymen See Minister of Agriculture.

A representative delegation of poultrymen of the Dominion on Wednesday, July 27th, interviewed the Hon. Sidney Fisher, Minister of Agriculture. The delegation presented five important recommendations to the Minister for his earnest consideration. These recommendations, placed in the form of requests, were, tersely stated, as follows: We ask (1) that a Poultry Commission be appointed to study the question of poultry products from a national standpoint; (2) that in the Department of Agriculture and under the direction of the Poultry Commissioner there be established a department of scientific research along lines of poultry diseases, etc. (3) Since the standardization of poultry products has already been introduced, that the Department of Agriculture assume the expense of this work. (4) Since the present poultry plant at the Experimental Farm, Ottawa, is inadequate and out of date, that the interests of the poultry industry would best be served by its discontinuance as a local station, and the equipment be given to the use of the Poultry Commissioner. (5) That in consideration of the noble work done by Prof. A. G. Gilbert during the past twenty-five years, he be relieved of the personal supervision and management of the poultry plant at the Central Experiment Farm, and his services retained, by appointing him Chief Lecturer in Poultry for the Dominion.

To all of these requests of the poultrymen the Minister showed consideration, and to some at least a favorable disposition, expressing a willingness to do whatever is needed for the best interests of the industry. That the poultry industry needs constructive management and the services of an efficient poultry commissioner, and that the industry is of such magnitude as to warrant considerable expenditure, ought to be patent to every reading man. Poultry producers throughout the entire land will do well to put forth their best efforts in support of their delegation in the attainment of their requests.

Renewing Alfalfa and Pasture.

In semi-arid sections old alfalfa fields which have begun to yield poorly are frequently rejuvenated by disking. This harrow, besides pulverizing the land surface and improving moisture conditions, cuts the crown of the alfalfa plant and many of the roots near the surface. It is found that the parts of the injured crown each become as productive as the old whole crown, giving a much thicker stand. This practice has been followed quite largely in the alfalfa-growing sections of America. This same method has been tried very satisfactorily by a good many men in renewing pasture lands that are old yet cannot be conveniently broken up. The harrow requires to be set so as to do most cutting and well loaded. It appears to be doing much damage, but in reality does much good, allowing for aeration and improving moisture conditions.

Enquiries frequently come to us bearing the signature "Old Subscriber," or similar appellation. We do not publish the name of an inquirer at any time; neither can we give any attention to queries or correspondence unless the writer signs his or her name. Subscribers will please conform to this rule.

There is on foot a plan to form an organization of three million members in the United States to protect the public and political interests of farmers. If it be intelligently directed it will give but a short life to the protective system.

A Canadian Embargo.

The reported outbreak of foot-and-mouth disease in Yorkshire, England, having been corroborated by the British Board of Agriculture, the Dominion Department of Agriculture has, on July 23rd, suspended permits for the importation into Canada of cattle, sheep and swine from the Old Country. The suspension will affect only those who have already made their purchases, but have not yet shipped. It was, of course, impossible to impose the restriction upon animals already on the water, so arrangements are being made for the veterinary inspection of these in mid stream. As far as reports have been received there have been no further outbreaks of the disease, and all the infected animals, totalling 124 in number, have been slaughtered. There is good hope that the British Department has the outbreak so well in hand that in a very short time it will be entirely stamped out.

A similar embargo has been enforced by the United States upon the cattle trade with Britain, and will be rigidly enforced, until the extent of the infection is made clear.

Foot-and-mouth disease is, like the more deadly rinderpest, of Asiatic origin, and Europe will never be safe against infection until better methods of sanitation became known and practiced in the localities where it is constantly lurking. It is a germ disease, but its pathogenic organism has never been isolated. In the course of its progress it produces eruptions, and thus provides the means by which it may easily be conveyed from one animal to another. It consequently spreads rapidly whenever it obtains a foothold, and the resulting mortality is always considerable and often serious. Human beings may become infected by the use of the milk of diseased animals, or of the butter or cheese made from such milk.

It is a curious irony on Great Britain that Canadian live cattle are not allowed to be imported except for slaughter within a few days at the place of landing, while the importation of British cattle from this infected district into Canada must absolutely be prohibited. The disease supposed to endanger British herds by the free importation of Canadian cattle is pleuro-pneumonia, from which Canadian herds are free. This is what leads to the suspicion that the embargo on the importation of Canadian cattle is a pick-wickian outcome of economic protectionism.

Highland and Agricultural Society Show.

This show, one of the best ever held under the auspices of the H. & A. S., opened Tuesday, July 19th, and was held at Dumfries. There was a grand show of female Galloways, a highly uniform show of Shorthorns, an unusually large show of Ayrshires, a very creditable show of Highland cattle and ponies, a splendid show of Blackface sheep, an exceptionally strong show of Border Leicesters, and an exceptionally good show of Clydesdales. The arrangements were excellent, and everything moved off satisfactorily.

CATTLE.

Shorthorns.—In the aged bull class, six animals were forward. First prize went to the well-known Alwick Favorite, now rising five years, the property of J. Deane Willis. He is heavily and deeply fleshed, yet keeps his shape perfectly. Mintmaster, by Royal Violet, out of a Bapton Diamond cow, the property of George Harrison, Darlington, stood second. He is a strong, level animal, showing quality in all points. Third went to F. Miller, Clifton Road, Birkenhead, on Good Friday. There were four two-year-old bulls, of average stamp, in that class, George Harrison winning first on Prince Olaf II., second going to Viscount Tredegar, on Pretender. The yearling bulls were a quality class. First and second were bred at Collynie, the former being Collynie Cruickshank, a roan; the latter, Primrose Star, a white, both by Golden Primrose, and of the choicest breeding; Duncan Stewart, of Crieff, owned the first, Wm. Scott, Stow-on-the-wold, the second.

Cows were a very good class. First went to F. Miller, on Daisy Queen, true in type, quality and style. Lord Polwarth, St. Boswell's, was second, with Butter Scotch. Geo. Harrison's fourth-prize winner, Elvetham Ruth, showed scale and quality enough to have moved her higher, with much argument. Two-year-old heifers were an attractive lot. J. Deane Willis was first with the broad-backed, level, straight, well-sprung Fairy Princess, by Prince of the Blood. W. T. Malcolm had a tasty second in Dunmore Garland, by March Past. She is a heifer hard to beat for breediness. G. Harrison's Ruth of Gainford was third. There were thirteen yearling heifers out, making a promising and interesting lot. F. Miller received first on Augusta CXXV., a sensation, and one of the greatest yearlings ever seen. She is by Golden Flush. James McMillan's Rosebud was second, and R. Cornelius third with the blocky white, Eastham Belle. Best female of the breed went to F. Miller's Daisy Queen, with Augusta CXXV. reserve. Champion male was awarded

Alwick Favorite, with Collynie Cruickshank reserve.

Aberdeen-Angus.—Much interest centered about this ring. The judges, in awarding the championship for the best breeding animal, did what we are not aware has ever been done at any show, and to this extent they were certainly original. When Metaphor won the President's medal as the best of the breed, one naturally thought he would get the breed society's prize for the best breeding animal, but the judges decided otherwise, and if they thought the cow was the best breeding animal, they placed reserve to her the two-year-old heifer, which it can be safely said has not bred yet. The decision at a show of breeding stock appears very contradictory, but there it stands. It should be stated that the umpire, Mr. James Whyte, Hayston, Glamis, judged several of the classes, Mr. McLaren being the breeder of animals entered. One of the old bulls was in enforced retirement. The quality of the stock is up to the average on the whole, but there is nothing sensational in evidence. The aged bull Metaphor, fresh from his victories at the Royal and Aberdeen, was placed first; Eagle of Dalmony, belonging to Andrew Brools, Tranent, was second; while third went to George Cran, Morlich, on Just Jeshurun, a level, strong bull. In two-year-olds, R. W. Hill received first on Erino, a blocky, well-covered, smooth chap; T. H. Bainbridge received second on Gerace of Ballindalloch, that has good winnings to his credit, and is an argumentative competitor. The yearling class was small, and was headed by Lord Allendale's blocky Elmhor, a very breezy, strong, meaty youngster; second was Lord Emerald, the property of the Earl of Strathmore. The cow class was short, but of high merit. J. E. Kerr's Juanita Erica took first. She is a splendid animal. Next to her stood Eramosa, the property of Jas. Kennedy. The two-year-old class also had few competitors, though good ones. The yearling heifers, perhaps, were the best class of the breed. Jas. Kennedy got first on Elmyra, a beautifully-built Erica, short, thick and stylish. T. H. Bainbridge was second with Belinda of Clury, and J. E. Kerr third with Enlogia, by Prince of Wassal. The cup for best cow went to the owner of Juanita Erica, the medal for best of the breed to Metaphor, as also award for best male.

Galloways.—The display of Galloway cattle is much better than at former shows, although there is a slight decrease, compared with the last show at Dumfries, in 1903, when there was an exceptionally fine turnout. The decrease, however, is mainly due to the large number of dispersion sales which have taken place during the interval. The quality of the exhibits to-day, and more especially of the females, is particularly good. In old bulls, T. & R. Graham took first on the 14-year-old Marchfield Despised, a very fine, quality bull. Javelin, that beat him last year, stood second. He is a bull of immense scale and ruggedness. Three two-year-olds appeared, while seven yearlings came out; these last were a good class. W. & D. Wilson took first on Mascot, a promising young bull; J. M. Kennedy took second on Niel Gow. Male championship fell to the old bull. The female classes were especially good. Ten cows entered the ring. First went to Lady Primrose of Castlemilk, a ten-year-old cow belonging to Mr. Fox, Brockbank. Good ones stood all down the line. John Cunningham stood second with Nettie XXX. of Culmain, an exceptionally fine, breezy cow; third went to Biggar & Sons on Lizzie of Chapelton, a first-prize winner two years ago. A particularly large entry of meritorious animals entered the two-year-old heifer class. First went to Robt. Graham on Kitty of Auchengassel. The yearlings were numerous, but not sensational, save for one or two at the top. W. A. McTuit's Brownie IV. stood first, and later champion female; J. M. Kennedy's Gladys II. stood second.

Ayrshires.—In the aged-bull class was keen competition amongst an unusually large number of entries. Andrew Mitchell's well-known Peter Pan came to the head of the list. He is four years old, massive and stylish. Robert Osborne took second on Valmont, a half-brother of the winner. Two-year-olds were a strong class. James Howie had first on Sir William; Andrew Mitchell second on Silver Crest, a handsome, big bull; while Howie's Andrew Likely stood third. The yearlings were a very large and difficult class. Eventually, James Howie's Full Bloom landed first, a splendid, thick, growthy bull. H. B. Wilson received second on Lord Darnley, and third went to Howie's Ayr Review, after a keen competition. Peter Pan was awarded male championship. Cows were a splendid class. However, James Lawrie's Bloomer VIII. was an easy winner, being in every way a first-class cow. Andrew Mitchell was second with Favorite. Three-year-olds in milk were numerous, and of good quality. Charles Douglas had a clear winner in Janet, a stylish cow, of scale and milking capacity. Second honors fell to Alex. Hunter on Polly II. Two-year-olds did not form a large class, but had good ones forward, while the yearlings were numerous and difficult. Best female award went to Lady Mary Stewart, John Murray's first-prize winner in the class cows any age in milk, Bloomer VIII. being reserve.

CLYDESDALES.

Clydesdales have rarely made a stronger show than on this occasion. The aged-male class was well filled with a grand collection of big stallions. The three-year-olds were still better. Two-year-olds had a long string of grand big colts. In the aged class were eighteen entries, nearly all forward. The judges placed the awards thus: 1, Scotland Yet (14839); 2, Gartly Bonus (13491); 3, British Time (14610); 4, Sir Spencer (13211). Scotland Yet for feet, pasterns, flatness of bone, cleanness of joints and size takes a lot of beating. Montgomery's Gartly Bonus is a son of Everlasting. He is a big horse with good feet, good bone, and a good walker. British Time (also Montgomery's) is a massive son of Up to Time, and a great mover. Needless to say grand horses stood beyond the ribbons. In three-year-olds were twenty-one entries, mostly all out. The awards were: 1, Baron Ashvale (14579); 2, Memo (15313); 3, Black Douglas (14599); 4, The Right Honorable (14879); 5, Baron Ideal (14585). Baron Ashvale, belonging to A. & W. Montgomery, is a big, upstanding bay, by Rozelle (10638), out of a Hiawatha mare. He is altogether an uncommonly good horse, that fills the eye standing or going. Memo is a promising colt, belonging to Matthew Marshall, lacking some in the top of his superior, but well grounded. The Right Honorable belongs to Wm. Dunlop; he has plenty of size, good feet and flat bone. The two-year-old class numbered twenty-nine, and took a lot of judging. Substance and weight were much in evidence among the winners. Messrs. Montgomery's Royal Guest stood first, and the same owner's Title Deeds second, both being by Everlasting. Mr. Taylor's Sir Rudolph was third. Over twenty colts were entered in the yearling class, and mostly all appeared. First went to a powerful Everlasting colt, owned by James Kilpatrick; second to Montgomery's Royal Edward colt; third to Wm. Dunlop's Dunure Index. Baron Ashvale was made champion stallion, Scotland Yet being reserve.

Brood mares were quality ones throughout. Mr. Stephen Mitchell, of Boquhan, received a large share of the honors in the mare classes. His Blossom of Newhouse won first in brood mares; Wm. Neilson taking second on Daisy Primrose, a very close runner-up, of excellent type. Boquhan Lady Leggy easily won first in yeld mares for Mr. Mitchell, having been unbeaten this season. Nerissa, her closest competitor, belonging to J. E. Kerr, came second. Third went to J. P. Sleigh's five-year-old Everlasting mare, Lucilla. A small class of three-year-olds was forward, Mr. Mitchell taking first and second on Thelma II. and Boquhan Beatrice, respectively. A very large class of two-year-old fillies lined up, and most of them had claims to distinction. J. P. Sleigh's black filly, Moira, by Baron's Pride, and own sister to Thelma II., was first; R. Chapman came second with Heather Gem, a beautiful Revelanta filly; Richard Dunn was third with a chestnut filly by Revelanta. The yearlings also come forward in great strength. Wm. Dunlop got first and third on Dunure Myrene and Dunure Sympathy, respectively, both by Baron of Buchlyvie; J. P. Sleigh got second on a black filly, Elaine, own sister to Moira.

The President's medal and Cawdor cup went to Stephen Mitchell for Boquhan Lady Peggy; the reserve was Moira, the winner of the Cawdor cup last year.

HACKNEYS.

These made an average show; the numbers were not great and the excellence not sensational. The best stallion in the show probably was Flash Mathias, full brother to the celebrated Grand Vulcan, and perhaps his superior as a harness horse, and sprightly Danogelt, Mr. Enoch Glen's two-year-old. This is a beautiful mover and a promising colt.

The sheep show was a grand one, Cheviots and Border Leicesters being out in great numbers and unsurpassed excellence. Blackfaces maintained their standard in numbers and excellence. Throughout it has been a very excellent show.

Coming Show Dates.

Saskatoon, August 9th to 12th.
Edmonton, August 23rd to 26th.
Sherbrooke, Que., Aug. 27th to Sept. 3rd.
Canadian National Exhibition, Toronto, August 27th to September 12th.
St. John, N. B., Dominion Exhibition, Sept. 5th to 15th.
London, September 9th to 17th.
Ottawa, September 9th to 17th.
Charlottetown, P. E. I., Sept. 20th to 24th.
Victoria, B. C., Sept. 26th to October 1st.
Halifax, N. S., Sept. 28th to Oct. 6th.
New Westminster, B. C., Oct. 4th to 8th.
Maritime Winter Fair, Amherst, N. S., December 5th to 8th.
Smithfield Club Show, London, Eng., Dec. 5th to 9th.
Ontario Winter Fair, Guelph, Dec. 5th to 9th.
Toronto Fat-stock Show, Union Yards, December 12th and 13th.

Winnipeg Exhibition.

The Winnipeg Exhibition, held on the dates July 13th to 23rd, despite excessively hot weather, was a decided success, both in the number and quality of the exhibits and the attendance of visitors, the gate receipts being unusually satisfactory.

THE CATTLE.

The cattle exhibit at Winnipeg this year was acknowledged to be the strongest yet seen in Western Canada. The judges were: Shorthorns, F. W. Harding, Waukesha, Wis.; Herefords, Angus, Galloways—Prof. Andrew Ross, of Minnesota State Agricultural College; Red Polled—Prof. W. J. Rutherford, Regina, Sask.; Holsteins, Ayrshires, Jerseys—H. G. Clarke, of Georgetown, Ont.

The principal exhibitors were: A. S. White and Leslie Smith, of St. Cloud, Minn.; Sir Wm. Vanhorne, East Selkirk, Man.; J. G. Barron, of Carberry, Man.; H. L. Emmert, East Selkirk, a new exhibitor; P. M. Brett & Sons, Edenwold, Sask.; W. H. English, Harding, Man.; R. W. Caswell, Saskatoon, and R. L. Lang, of Oak Lake, Man.

Shorthorns.—In a strong class of bulls three years and over, Barron was first with the white Mistletoe Eclipse; the Van Horne herd second, with the roan Huntlywood; W. H. English third with Mikado. The rating in the two-year-old section was: First, White & Smith's roan Ringmaster, the senior and grand champion bull of the breed, second in the class being Emmert's roan Oakland Star, and third Van Horne's His Majesty. English won in the senior yearling class with the red Lancaster Lad, White & Smith being second with Primrose Knight, and Lang third with Fairfax. R. W. Caswell was first for senior bull calf with Golden Star, and first in junior section was the Van Horne entry. The junior champion was Van Horne's Imp. Boquhan Hero, the first-prize junior yearling, purchased at the Perth sale in February last. In the class for cows, the first and second awards went to Van Horne's red Mna Princess 4th and Spicy's Lady, white, the grand champion at Toronto last year; third was the roan Dorothea 2nd, an international champion of former years. In two-year-old heifers, Emmert was first with Susan Cumberland, in a class of eleven; Van Horne's Spicy's Rose was second. In the senior yearling section, White & Smith won with Gloster Queen; second was Van Horne's Flower Girl, and third Emmert's Spring Grove Butterfly. Junior yearlings were seven, the first being White & Smith's Sparkling Gem; second, Barron's Blossom; third, Brett & Sons' White Rose. White & Smith were first for senior heifer calf, and R. W. Caswell first for junior. The senior and grand champion female was Emmert's first-prize two-year-old, Susan Cumberland, and the junior champion was White & Smith's first-prize senior yearling, Gloster Queen. The herd prizes for bull and four females in the open class went first to Van Horne, second to White & Smith, third to Emmert. For young herd, under two years, the placing was: First, Van Horne; second, White & Smith; third, Emmert.

Herefords.—The competition in the Hereford classes was confined to the herds of William Shields, of Brandon, and Geo. H. Gray, Austin, Manitoba. Mr. Shields was successful in winning fourteen bests and five second prizes, and the grand championship in bulls and females, the first with Happy Christmas, and the second with Princess of Island Park, both noted winners in Hereford circles. Mr. Gray secured first and second for junior yearling bull, and first for heifer two years old, in addition to a number of second prizes. Shields won the herd prizes, both junior and senior.

Aberdeen-Angus.—The competition in Aberdeen-Angus was also confined to two herds, both of them with long records of successes. One was the J. D. McGregor herd, from Brandon, and the other the James Bowman herd, of Guelph, Ontario. In the aged bull class, McGregor's Golden Gleam secured first money, although Bowman's herd header, Magnificent, gave him a good run for his money. Magnificent is but three years old, and with a little more development he may easily defeat his competitor. As it was, he had a number of favorites, although the judge favored Golden Gleam. Again, in the cow class, three years and over, McGregor's Violet 3rd of Congash made a decided hit. This animal was champion at the Royal Show last year. She possesses that smoothness and quality so characteristic of the Angus breed. The McGregor herd cleaned up twelve bests and four seconds, and the Bowman herd three bests and nine second prizes. McGregor won the championship, and also the herd prizes.

Galloways.—The Galloway competition was confined to one herd, owned by Colonel McCrae, of Guelph, Ontario. Mr. McCrae had an entry of sixteen animals of merit, but, owing to lack of competition, there was little interest manifested during the time the awards were being made.

DAIRY CATTLE.

A splendid representation of Holsteins, Ayrshires and Jerseys entered the lists this year,

demonstrating their increasing popularity and usefulness in the West. Many animals of the best breeding and performance were on hand. The Holsteins were especially strong, having twenty competitors in the aged cow class. There were nine exhibitors of this breed. A. B. Potter, of Langbank, won first in aged bulls on the well-known Sarcastic Lad. In the two-year-olds, Gibson & Scott led with Josephine Tea's Sir De Kol; J. Herriott won second on Sir Midale Sir Hengerfeld, and C. E. Smith, of Scotland, Ont., third on Lakeside Model Wayne. In yearling bulls, Homer Smith was first. In that excellent ring of aged cows, H. Smith, of Winnipeg, won first, second, third and fifth, his first being Faforit 10th's Beauty. In two-year-old heifers, A. B. Potter took first and second. In herd of one bull and three females, H. Hancox, of Dominion City, was first, and C. E. Smith second.

With Ayrshires, five exhibitors were out. J. M. Bruce, of Lashburn, Sask., and A. H. Trimble, of Red Deer, Alta., being the chief competitors. Bruce took first in the three-year-old, and again in the two-year-old bull class, and second in the yearling. Trimble took second in the aged bull, and first and third in the yearling bull class. Bruce took the majority of firsts and seconds in the cow classes, Trimble contesting it closely. The first prize for herd fell to Bruce, with Trimble's second, and Hazelwood's third.

Two herds contested for the Jersey honors, being those of R. H. Bull & Son, Brampton, Ont., and Joseph Harter & Sons, Kinley, Sask. Six others had entries, but were largely outdistanced. The honors were fairly evenly divided. Bull & Son won first in aged bulls, in two-year-olds, second in yearlings, first in bull calves, and champion bull (Brampton King Edward). In cows, Bull & Son got second in aged class, first in two-year-old heifers, first and second in yearling heifers, and in both junior and senior heifer calves. Bull & Son's Rochette's Golden Beauty, the first-prize two-year-old heifer, was made champion female. All together, the dairy show was a decided success.

THE HORSES.

Clydesdales.—Clydesdale entries were far in excess of a year ago, recent importations increasing the list of competitors in nearly all sections. Quality was of high order, and much size was presented, so that, all in all, this was the best Clydesdale show ever seen in Winnipeg. Exhibitors were present from both Ontario and Saskatchewan to contest the honors with the Manitobans.

Wm. Carter, Stillwater, Okla., placed the rings, ever sticking to the deep, thick-bodied, massive draft type, and, since quality was plentiful, the winners were splendid types. Aged stallions—Nine stallions entered, the most of them being horses of reputation. In their final ranking, Royal Choice, belonging to Traynor Bros., Condie, Sask., stood at the top. He is a horse of magnificent proportions, weighing over a ton, showing splendid bloom, despite a hard season on the road, and having a full share of bone of the right kind. Next to him stood Polar Star, the property of Colquhan & Beattie, Brandon, another horse of size, strong bone, shapely feet, and desirable action. A six-year-old imported horse stood third, with a good display of style, action and substance. Trojan, the property of P. M. Brett & Sons, Edenwold, Sask., took the fourth ribbon. Three-year-old stallions—Again nine horses contested for the honors, bringing a pleasing style, action, quality and size into the fray. Ontario representatives carried the day in this class, Graham Bros., of Charenton, Ont., taking first on The Bruce, a very flash Reveanta colt of good size and masculinity. They also took second on The Ivy, a Baron's Pride colt, that, for massiveness, combined with quality, is very engaging. Third went to T. H. Hassard on Royal Oak, and fourth to R. H. Taber, Condie, Sask., on Lumloch Laird. Two-year-old stallions—Ten good ones met in this ring. First fell to Graham Bros. on Baron Chapman, a thickly-built colt, with a pleasing finish and strong bone of good quality. Next to him stood D. McLaren's Baron Headlight, an impressive-looking colt, while Brett took third with Baron of Edenwold, and Graham Bros' Solway King ranked fourth. Yeld mares. This class contained nine competitors, and was headed by Mayoress, the well-known property of Traynor Bros. She is a mare of grand size and nice proportions, and pleasing quality. Sir Wm. Van Horne's Princess Royal, with her neat, beautiful build, style, and striking quality, claimed second place, while Mrs. Polly Wilson, much after the same pattern, came next, with Brett's excellent Irene ranked fourth, keenly contesting the ground with those above her. Two-year-old fillies. This class contained some choice ones. Graham Bros. took first on Sea Breeze, an imported filly, sired by Lord Alton; second went to Van Horne on Miss Molly, an Everlasting filly; while third went to Brett & Sons, and fourth to M. Gibb. Yearling fillies—In numbers, type, quality and individual excellence, this was a very pleasing class. May Morning, a beautifully-balanced, strong, clean-boned filly, with good feet and action, belonging to Graham Bros., clearly went first. Brett & Sons had a stylish one in Pirene for second, while J. Burnett captured third, and J. C. M. Johns fourth. The championship for stallion was awarded

to Graham Bros. on the first-prize three-year-old, The Bruce. The championship mare proved to be the massive Mayoress, belonging to Traynor Bros.

While the classes provided for Canadian-bred Clydesdales or Shires were not as full as one might desire, they contained good ones. The champion stallion in this section was Baron's Headlight, the property of D. McLaren, a two-year-old of splendid draft type, plenty of size and nice quality. The champion mare was Royal Gem, by Baron's Gem, belonged to Traynor Bros., and is a very typical, attractive three-year-old.

Percherons.—The Percheron exhibit was in every way creditable. Deputy Minister Rutherford, from Saskatchewan, judged them, and in some classes had plenty to do. Ellison, from North Dakota; Colquhan & Beattie, from Brandon; and H. O. Hutchins, of Keller, Sask., were the exhibitors. The Brandon consignment was especially strong in stallions, among the lot being Blondin, well known in Western Canada, while Ellison won the majority of the female classes. Hutchins took a fair share of the honors on some very pleasing animals.

Shires and Belgians.—The exhibits in these classes were light, the Belgians having one exhibitor, the Shires three. The animals were of very good type and quality, however. J. Stott, Brandon, carried off most of the Shire honors.

Light Horses.—Space does not permit of a complete review of the light horses. The exhibit was strong in nearly all sections, and the entries came from many widely-scattered points in the West, East and South, although the City of Winnipeg contributed the largest part of the display. Hackneys were strong in the aged stallion and mare classes; roadsters and Standard-breds showed in good numbers, while the sections for carriage horses, coaches, jumpers, saddlers, special harness classes and ponies were well filled, and received their due attention.

The heavy-harness classes, saddle horses and ponies were judged by G. B. Hulme, New York. Dr. G. A. Routledge, Lambeth, Ont., placed the awards in the light-harness classes. In the class for aged Hackneys, first place went to T. H. Hassard's Marion Cassius; second went to Robt. Taber, on Copmanthorpe Swell, and third to P. B. Ross, Grenfell, on V-lyet. This section was the most keenly-contested in the Hackney class.

SHEEP.

Prof. W. J. Rutherford, of Regina, judged the sheep.

The Leicester class was the largest represented, and contained some of the best animals on the ground. Alex. MacKay, of Macdonald, Man., was the principal winner, capturing the championship prizes, and the special for the best four lambs of any breed bred and owned by the exhibitor. Other exhibitors were A. B. Potter, Langbank; J. Jasper, Harding, and T. A. Cox, Brantford, Ont.

Cotswolds were shown by T. A. Cox and F. Orchard, who divided the prizes, the first named securing the best of it.

Shropshires were shown by T. A. Cox, W. L. Tram, and F. T. Skinner, the majority of first prizes going to Cox, who won the champion and flock awards.

Oxford Downs were well shown by Peter Arkell & Sons, of Ontario, who practically cleaned up the prize list.

Southdowns were exhibited by T. A. Cox and Wm. Smith, of Ontario, among whom the prizes were divided.

SWINE.

Competition was good in most of the swine classes. H. G. Clarke, of Georgetown, Ont., made the awards.

Yorkshires were well shown from the Van Horne Farm at East Selkirk, and by A. B. Potter, J. J. Stewart, W. L. Mortson, and W. H. English, the male and female championships going to Potter, and the herd prize to the Van Horne entry.

Berkshires were shown in goodly number and of fine type by T. A. Cox, Ontario, D. A. Fraser, R. L. Lang, W. V. Edwards, and R. Lungair. Cox won most first awards on sows, and the first herd prize. Lang had the champion boar, and Cox the champion sow.

Tamworths were forward from the herds of F. Orchard and M. H. Hicks, who divided the prizes, Orchard winning the male championship, and Hicks the female championship.

Wheat Crops of 1910.

The International Agricultural Institute, Rome, gives the world's yield of wheat, estimated July 1st, as follows: Italy, 185,495,530 bushels, compared with 155,711,230 bushels last year; Hungary, 202,096,455 bushels, compared with 125,363,287 last year; British India, 358,151,465 bushels, compared with 284,314,778 last year; Roumania, 131,091,750 bushels, compared with 79,012,045 last year; Japan winter wheat, 20,779,745 bushels, compared with total winter and spring crop of 23,581,000 bushels last year. Canadian spring wheat, 128, compared with last year's crop of 101, compared with ten-year average.

East York Observations.

Harvest is well in hand. The hay crop has been good. The fall wheat is above the average both in yield and in quality. The oats and barley are somewhat short in the straw in many cases, though it is significant that farmers who feed extensively for the beef market, or who pay considerable attention to dairying, have an abundance of both grain and straw. The persistent drouth of June, and of the early weeks of July were hard on the pastures, and those men who had not provided against this contingency by having ready a succulent fodder crop, found that the milk yield fell off considerably. The practice in vogue on some dairy farms, of sowing a seeder width of peas and oats for fodder purposes around the grain fields, has proven beneficial. It means succulent food when the pasture fails, to say nothing of preventing waste by providing a clean path for the binder. At any rate, it is found expedient to provide fodder crop for the drouth that seems to be a feature of every summer.

The fruit crop promises to be light. The fruit set nicely, but the long drouth precipitated the young fruit to the ground most universally.

The root and corn crop are both looking well. The fine rain of the last week in July did both these crops a world of good. Nearly every farm has its silo, and every barn has its cellar, hence the welcome given to the rain.

Arrangements are being made for the holding of a short course in judging live stock and farm seeds. The meeting is expected to take place in Markham in January, 1911, and will be under the direction of the Provincial Government. Every effort will be put forth to make this two-day course interesting, because instructive. It is to be hoped that farmers and their sons will take an active interest in this matter, and so justify the labor and money expended.

The directors of Scarboro' Agricultural Fair are offering fifty dollars in prizes for the three schools presenting the most complete collection of farm weeds. Last year a similar competition brought out some really fine collections of weeds. Some farmers in this locality are alive to the seriousness of the weed menace, and this is one way in which the children and others are encouraged to familiarize themselves with these robber pests. It is a pity that farmers generally were not more alert in the matter of detecting the advent of new weeds, having them identified at Guelph or Ottawa, and apprising their fellow agriculturists of their danger.

Athletics in Rural Communities.

Editor "The Farmer's Advocate":

To-day we read a great deal in magazines and farmers' papers about the young men of the country becoming discontented with the farm, and choosing occupations in the city. All writers do not agree as to why, or as to a remedy. That such is the case, is not only a fact, but it is a most lamentable fact. That the farm offers a more profitable and independent occupation than most work found in cities, is, I think, one thing that all writers agree upon. The thing is, therefore, how best to keep the young men interested in the farm. The introduction of athletics into a neighborhood in the country, I believe, would be a step in the right direction. Farmers of the old school will, no doubt, ridicule this idea. They will claim that, after a boy has performed his day's work, he would not be fit for work on the coming day if he indulged in athletics; that he gets plenty of exercise on the farm. That farmers, as a rule, do get lots of exercise, is a fact which I would not attempt to dispute, but does this satisfy the farmer's son? Boys between the age of seventeen and twenty-four must have some kind of recreation, and if they can't get the good healthful kind, they will have some kind. In these days, young boys are too apt to drift up town in the evenings, and spend their time in questionable places. In the locality where I was raised, some of the older men encouraged the boys to organize a football club; they gave it their support, and encouraged the boys in every way. Apart from it being a most successful club—in fact, it won on a number of occasions the championship of Western Ontario—the boys who played in the club, and those who were members, are to-day model young farmers. Out of some twenty-five boys who graduated from the club, not one of them, as far as I know, knows the taste of whiskey. This only goes to show that boys do not naturally turn away from the farm. It is only when the farm and the farming community cease to be attractive and interesting that they look elsewhere.

Farmers, since the commencement, have always been considered slow. Many a splendid business transaction has been lost to him because of his inability to come to a quick decision. Boys playing football, baseball, and such games, simply have to think fast. In time they become so accustomed to it that, instead of "waiting," which is a favorite method employed when something of importance turns up, they give their decision quickly, clearly and intelligently, and thereby get the start of the fellow who is only thinking. In

playing games in the country and surrounding towns, the young farmer gets the rough, rustic edge worn off; he meets all kinds and conditions of men; he makes acquaintances in a great many different places, which in after-life may prove of untold value.

In comparing the farms where the father did everything in his power to discourage sport, and would not allow his boy time to indulge, with those where he gave his boy a day off once in a while to play, and contributed to the expenses of the club, the difference in favor of the latter is apparent to even the most conservative.

Farmers would do well to look further ahead than to-morrow; encourage the boys in anything that will keep them interested in the farm and the community. As the saying is, you will not miss the day he loses when you are eating next Christmas turkey.

R. H. ABRAHAM.

Kent Co., Ont.

An Economic Reaction.

I am loath to attempt to answer through the press Mr. Flavelle's letter, as some things which must be said in answer might be misconstrued. I believe Mr. Flavelle wrote the said letter with the honest intention of doing good, of helping our farmers, in the doing of which he would be helping the country in general. But, as I see it, he has not got at the true cause of the high prices of food products, at least not at all that goes to make up the cause. The letter asks, "Why are food products at extreme prices in Canada?" and then discusses the reasons. Among other things he says: "Congested Europe is being supplied, or is supplying itself, with many lines of food products at prices below present values in Canada," and then proceeds to give the reasons why. He also says: "No serious consideration has been given to the added demand occasioned by the extended markets which have been opened to the producers of Canada through the enterprise of manufacturers and distributing merchants, who have brought to the problem fine courage and high intelligence."

I can assure you, Mr. Editor, and Mr. Flavelle, as well, that the farmers of Ontario have given much thought to the question discussed in the letter referred to, but, through scarcity of help, they find their hands tied, and, instead of showing themselves lacking in thought and vision and business enterprise, they have, by the very things Mr. Flavelle complains of, shown they can and have adapted themselves to a condition forced upon them. It has not been of their own seeking. There was a cause, and now we have the effect, which could not help but follow. The tariff conditions enabled the manufacturer to pay a higher wage for labor than the farmer could afford to pay. We lost our young men from the country who should have been producers and helped with the intensive farming and a greater production, but they became consumers, instead. In conversation with a farmer, a few days ago, he said: "There are more good plowmen in the city of Toronto than in the County of Durham. We could not afford to pay the wages, so we lost them." The labor question has assumed serious proportions in Ontario. No wonder congested Europe could produce cheaper food products. Labor, not land, is what did it. The greatest problem facing the statesmen of the future is how to keep enough men on the land to make it produce the food required, cheap enough for the consuming masses. (I speak of the statesmen, not the politicians. The latter care not about such problems, so long as they get into office. We have too many politicians in Parliament.) We will never do it by high tariffs. Canada is getting to-day just what she has asked for, and what some of us knew must surely come as a result of the conditions forced upon us by the different organizations of manufacturers. Farmers saw they could not prevent such conditions, so made the best of them. It is not so easy for them to organize as it is for the manufacturers, hence the conditions. I was talking to a farmer a couple of days ago about Mr. Flavelle's letter. He said: "I was keeping quite a number of cows, and sending milk to Toronto, and it paid, but I had to quit it because I could not get help." Another said: "I am ashamed of the weeds on my farm, but I cannot help it; I can get no help; I am about discouraged." Another said: "I am working 200 acres, and I cannot get a man; what am I to do?" Yet another said: "My wife and I are slaves because we cannot get help." There is a cause for all this, and it is not as Mr. Flavelle says, "because farm help is not treated well." He simply does not know the conditions, or he never would have made such a statement, and should, in all honesty, apologize to the farmers of Ontario for saying so. The hired man eats at the same table as the farmer and his family; he gets

better food than any man in the city who has to buy his food second-hand; he has as good sleeping accommodation as the average hotel gives; he does not work as hard as the farmer does, and not anything like as hard as the mechanic; neither does he work as long hours as the mechanic, take it the year round, and he gets the purest air that heaven affords to breathe. What more would Mr. Flavelle give him?

The conditions in Ontario are forced conditions, and the farmers have shown, by adopting a mode of farming calling for less labor, though it may not give the greatest returns, that they are not so lacking in vision and business enterprise as painted. They have suited themselves to the forced conditions, and the country is reaping what it sowed. Instead of having dear machinery, we should have it as cheap as possible. We cannot get manual labor, and that should be offset by cheap machinery to enable us to do the work. Everyone who keeps cows should have a cream separator; but look at the price at which they are sold. No one pretends to defend the price at which the cream separator is sold by the cost of production; and what is true of the cream separator is true of a great many other lines of machinery. Tariff regulations enable the manufacturer to take away our laborers to build machinery to sell to us at high prices. Every farmer should have a hay-tedder, but every farmer can't afford it, however much he might like one. We also should all be able to buy a small gasoline engine for the purpose of assisting in the work of the house—to turn the high-priced cream separator, the churn, the washing machine, the wringer, and also furnish light, perhaps not as much as one horse-power, but light convenient and cheap.

Mr. Flavelle says the orchard acreage has been reduced. That may be true of Western Ontario, where the San Jose Scale and other pests have compelled farmers to abandon apple culture, but the Lake Ontario district has doubled its acreage in the last ten years.

Then, the hog question. That is what Mr. Flavelle is more interested in than any other. I have known several times that farmers did produce an oversupply of hogs, and did get a price less than the cost of production. "A burnt child dreads the fire." The farmer has to be careful, lest the same conditions prevail again. If farmers were assured of a fair profit on the hogs after they had fed them, the supply would increase; but that kind of thing works its own cure. A steady price will go a long way to securing a constant supply.

I have just returned home from a three-weeks' drive among the farmers of Durham County. I have been talking to them about how to grow clean clover seed, and how to have less weeds on the farm, and I should know something of how difficult it is for farmers to get the necessary help to do their work.

SEC. WEST DURHAM FARMERS' INSTITUTE.

July Crop Report for P. E. I.

The weather has been ideal for crop growth in Prince Edward Island this year. As a consequence, most crops are reported very favorably. Hay in both quantity and quality has been excellent. The outlook for wheat is good; oats have seldom looked better at this time. There is a considerable increase in barley, and, except on low lands, it is excellent. Corn is much below the average, but is improving. The potato crop has been quite a miss this year, and the beetles are much more in evidence than is usual, so that this crop will be shorter than usual. Root crops promise an abundant yield. The fruit crop is not promising. There will be few early apples, and about half a crop of fall and winter varieties. Better methods are being practiced in orcharding, more trees are being set out, and more strawberries are being planted. The pastures have been splendid all season. There has been an increase of about twenty-three per cent. in the amount of milk received this year over last year, up to July 15th, while the increase in cows has been but five per cent.

Manitoba Elevators.

Splendid progress is being made by the Manitoba Elevator Commission. Up to date, there are nine elevators owned and operated by them, with deals for several more pending. There are nine new elevators in course of erection, and new sites are being selected for still others. The Commission estimates that over 200 petitions have been presented to them, and they are coming in at the rate of from three to six per day now. Fully half of the privately-owned elevators have been offered to the Commission. Every offer receives consideration, but the price is the chief obstacle in the way of transactions.

I like to follow in the wake of the gang-plows, that I may drink in the odor of the newly-turned land. It is the most strangely subtle odor in the world. It is the concentrated essence of the four seasons.—[Extract from James Canack in the West.

FARMERS

The Savings Department of this Bank has proved to be a great convenience to thousands of our farmer friends and others for the safe-keeping of their spare money.

We are pleased to offer these facilities for your use.

Loans made to responsible people on reasonable terms.

Banking business of every description conducted.

Bank of Toronto

Head Office: Toronto, Canada.

INCORPORATED 1855.

MARKETS.

Toronto.

LIVE STOCK.

At Toronto, on Monday, August 1st, receipts were 72 cars, comprising 1,368 cattle, 274 hogs, 364 sheep, 79 calves. Quality of cattle medium to good; trade quiet. Exporters, steady, at \$6 to \$6.75; and one load, \$6.80; bulls, \$5 to \$5.75; prime butchers', picked, \$6.25 to \$6.50; loads of good, \$5.75 to \$6; medium, \$5.25 to \$5.50; common, \$4.75 to \$5; cows, \$3 to \$4.75; milkers, \$45 to \$80, and one registered Holstein, \$100, calves, \$3 to \$3.75 per cwt. Sheep, \$4 to \$4.25; lambs, \$6 to \$6.75 per cwt. Hogs, \$9.35 to \$9.40, fed and watered, \$9 to \$9.10, f. o. b. cars at country points.

REVIEW OF LAST WEEK'S MARKETS
Receipts of live stock at the City and Union Stock-yards for the past week were as follows:

	City.	Union.	Total.
Cars	206	233	439
Cattle	3,151	4,137	7,288
Hogs	3,631	2,365	5,996
Sheep	3,627	1,140	4,767
Calves	642	235	877
Horses	2	144	146

The total receipts at the two yards for the corresponding week of 1909 were as follows:

	City.	Union.	Total.
Cars	183	219	402
Cattle	2,247	3,787	6,034
Hogs	3,296	1,094	4,390
Sheep	4,608	1,511	6,119
Calves	609	218	827
Horses		120	120

The above figures show a total increase of the combined receipts of live stock at the City and Union Stock-yards of 37 carloads, 1,251 cattle, 1,606 hogs, 51 calves, and 26 horses, but a decrease of 1,352 sheep, as compared with the corresponding week for 1909.

At the Union yards on Monday, the receipts were the second largest in the history of the market, and all handled by the C. P. R. There was an active trade, over 3,100 cattle being sold before the close of the market, although prices declined from 10c. to 15c. for butchers', and 15c. to 25c. on exporters. At the City market on Tuesday and Thursday, the receipts were heavier than usual, nearly all being brought in by the C. P. R., in fact, only a few cars came in over the G. T. R. during the week. Notwithstanding the strike on the G. T. R. there were more cattle than was needed to supply the demand. As usual, the quality of cattle at the City yards generally was medium to common, few good being offered. On Wednesday and Thursday, a big dose of common to medium butcher cattle reached the City market, larger than was anticipated, and decidedly more than was required to supply the demand.

After the large run at the Union yards on Monday, buyers had a poor appetite for such large offerings at the tail-end of the week. The consequence was that even the few good cattle on sale sold from 25c. to 40c. per cwt. lower than at the Union yards on Monday, and the common to medium declined from 25c. to 50c. per cwt., and should heavy deliveries continue, prices are certain to go still lower. At the Union yards on Monday, prices were as follows:

Exporters.—Export steers sold from \$6 to \$6.85; bulls, \$5.25 to \$5.60; heifers, \$6 to \$6.40. Some cattle for the Manchester market sold as low as \$5.85.

Butchers'.—Prime picked lots, \$6.25 to \$6.50; loads of good, \$5.75 to \$6; medium, \$5.25 to \$5.70; common, \$4.50 to \$5; cows, \$3.50 to \$5 per cwt.

At the City market there were no exporters, and the butcher cattle sold at the following quotations: Picked lots of one, two, and three head, sold at \$6 to \$6.20; loads of good, \$5.75 to \$6; medium, \$5 to \$5.50; common, \$4.50 to \$4.90; cows, \$2.50 to \$4.75; but few cows sold at the latter quotation.

Stockers and Feeders.—During the week, prices for stockers and feeders ranged as follows: Steers, 850 to 1,000 lbs., at \$5 to \$5.50; steers, 700 to 800, at \$4.50 to \$4.75; stockers, at \$3.75 to \$4.25.

Milkers and Springers.—There was a strong market for good to choice milkers and springers all week, at both markets, the principal buyers being from Montreal. Prices ranged from \$40 to \$65, a few brought a little more, and one extra-quality Holstein springer brought \$95.

Veal Calves.—Calves never sold at higher prices at this season of the year. Prices ranged from \$3 to \$7.50, and as high as \$8 per cwt.

Sheep and Lambs.—Ewes sold at \$4 to \$4.25; rams, \$3 to \$3.50; lambs, early in the week, sold up to \$8 and over, but at the close of the week they sold at \$6 to \$7.25 per cwt., or a drop of about \$1 per cwt.

Hogs.—Receipts of hogs were light, owing to the strike. Selects, fed and watered, at \$9.70 to \$9.75, and \$9.40 to drovers, f. o. b. cars at country points.

Horses.—J. H. Smith, manager of the Union Horse Exchange, reports a quiet, but steady, trade for horses. The railway strike has militated to a certain extent against getting a certain number of horses that was expected this week, although about 100 arrived at the stables. Several sales and shipments were made to Eastern and North-western Provinces, as well as to local points in Ontario. The city trade was fairly good. Prices ruled as follows: Drafters, \$200 to \$230, with a few toppers at \$250; general-purpose, \$180 to \$225; expressers, \$150 to \$220; drivers, \$100 to \$200; serviceably sound, \$85 to \$90.

BREADSTUFFS.

Wheat.—Old No. 2 winter, \$1.09 to \$1.10, nominal; Manitoba—No. 1 northern, \$1.18; No. 2 northern, \$1.15, track lake ports. Rye—No. 2, 68c. Peas—No. 2, 70c. to 71c., outside. Buckwheat—No. 2, 51c., outside. Barley—No. 2, 52c. to 53c.; No. 3X, 50c. to 51c.; No. 3, 45c. to 47c., outside. Oats—Canadian Western, No. 2, 45c.; No. 3, 43c. lake ports; Ontario, No. 2, 39c. to 40c. outside. Corn—No. 2 yellow, 73c.; No. 3, 72c., Toronto freights. Flour—Ontario 90 per cent. winter wheat patents, for export, \$1.30 to \$1.50, in buyers' bags, outside. Manitoba flour—Toronto prices: First patents, \$6.20; second patents, \$5.70; strong bakers', \$5.50.

HAY AND MILLFEED.

Hay.—Baled, in car lots, old is scarce at \$16 for No. 1; No. 2 old, \$11 to \$13.50; new, \$12.50 to \$13.50, all on track, Toronto.

Straw.—Baled, in car lots, on track, Toronto, \$7 to \$8.

Bran.—Manitoba bran, \$20 per ton; shorts, \$22, track, Toronto; Ontario bran, \$20 in bags. Shorts, 50c. to \$1 per ton more.

COUNTRY PRODUCE.

Butter.—Receipts are still large, and prices firm for good quality, as follows: Creamery pound rolls, 24c. to 25c.; creamery solids, 23c. to 24c.; separator dairy, 21c. to 22c.; store lots, 19c. to 20c.

Eggs.—Receipts not quite as large. Prices steady, at 20c.

Cheese.—New cheese quoted at 11c. to

12c. for twins; old, 12c. for large, and 12c. for twins.

Beans.—Market steady, but firm. Hand-picked, \$2.15 to \$2.25; primes, \$2 to \$2.10.

Potatoes.—Old potatoes, in car lots, are about done. New potatoes, American, \$2.25 to \$2.50 per barrel; new, Ontario potatoes, are scarce, and worth about \$1 per bushel.

Poultry.—Spring chickens alive, wholesale, were fairly plentiful, at 16c. per lb.; spring ducks, plentiful and cheap, at 11c. per lb. alive; hens, 13c. per lb.; turkeys, 15c. per lb. alive; pigeons, \$1.25 per dozen.

HIDES AND WOOL.

E. T. Carter & Co., 85 East Front street, have been paying the following prices: No. 1 inspected steers and cows, 9c.; No. 2 inspected steers and cows, 8c.; No. 3 inspected steers, cows and bulls, 7c.; country hides, 8c. to 8c.; calf skins, 11c. to 13c.; horse hides, No. 1, \$2.75; horse hair, per lb., 30c.; tallow, per lb., 5c. to 6c.; lamb skins, 25c. to 30c.; wool, unwashed, 13c. to 14c.; wool, washed, 18c. to 20c.; wool, rejections, 15c.

FRUITS AND VEGETABLES.

Receipts of the seasonable Canadian fruits and vegetables have been fair, and prices ranged as follows: Blueberries, \$1 to \$1.25 per basket; cherries, basket, \$1 to \$1.25; currants, black, basket, \$1.25; currants, red, basket, 50c. to 65c.; gooseberries, per crate, 75c.; Lawton berries per quart box, 11c. to 15c.; raspberries, 9c. to 11c. per quart; water-melons, 30c. to 40c. each; beans, basket, 35c. to 40c.; beets, per dozen, 20c. to 25c.; cabbage, home grown, \$1.50 to \$1.75 per crate; celery, bunch, 50c.; cucumbers, basket, 65c. to 75c.; eggplant, basket, \$1.25; green peas, basket, 35c. to 40c.; onions, Spanish, per crate, \$2.75; green peppers, basket, 60c.; squash, crate, \$1.25.

Montreal.

Live Stock.—Shipments of cattle from the port of Montreal for the week ending July 23, amounted to 2,618, against 2,875 the previous week, 305 sheep also having been shipped. Notwithstanding the Grand Trunk strike, the price of live stock held fairly steady on the local market last week. Outside buyers bought quite a quantity, but, on the whole, the hot weather was against trade. Choice steers sold as high as 6c. per lb., fine at 6c., good at 5c. to 6c., medium at 5c. to 5c., and common at 4c. to 5c. Calves were about steady, selling at \$3 to \$12 and \$13 each. Yearling sheep were in good demand at 3c. to 3c. per lb., while spring lambs ranged from \$3.50 to \$5.50 each, according to quality. The strike on the G. T. R. seemed to affect the price of hogs somewhat. At any rate, prices advanced considerably and demand was good, sales taking place at 10c. to 10c. per lb.

The demand for horses continued fair, and the trouble of getting them throughout the country is just as great as ever. Some think that the result will yet be that prices will have to advance. Buyers, however, seem to entertain another view, and are not prepared to grant advances. Prices are as follows: Heavy draft horses, weighing from 1,500 to 1,700 lbs., \$275 to \$350 each; light draft, weighing from 1,400 to 1,500 lbs., \$225 to \$275 each; light horses, 1,000 to 1,100 lbs., \$100 to \$175; inferior animals, \$50 to \$100 each, and fine saddle and carriage animals, \$350 to \$500 each.

Dressed Hogs and Provisions.—The market for dressed hogs advanced in sympathy with that for live. Sales took place at 14c. to 14c., but buyers were unwilling to grant the advance, and trade resumed 14c. level. Otherwise, the market for provisions was about steady. Large hams, weighing from 25 lbs. upwards, sold at 17c. per lb.; 18 to 25 lbs., 18c.; medium sizes, 13 to 18 lbs., 17c.; extra small hams, 10 to 13 lbs., 20c. per lb.

Potatoes.—The crop in Quebec Province is doing nicely, and quality is fine. New potatoes are offering in limited quantity, at \$1.25 to \$1.40 per barrel usually, although early in the week some stock was picked up at a great deal less. Bag weights are 80 lbs. American stocks are \$2.75 per barrel. Some old Grand Marais are selling at 80c. to 85c. per 90 lbs.

The Canadian Bank of Commerce

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

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

SALES NOTES will be cashed or taken for collection.

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

Eggs.—It is claimed that the G. T. R. strike has had the effect of putting prices up. Buyers are now reported to be paying 16c. in the country for straight-gathered, these being sold here at 19c., selects selling at 23c., and No. 1 candled at 20c. New-laid eggs are quoted at 26c. per dozen.

Butter.—It seems that the market had gone a little above export level, and that prices are now a fraction lower, being about 22c. for best Quebecs, and 22c. to 23c. for finest Townships, other grades being fractionally lower.

Shipments from Montreal are 5,200 boxes, since the first of the season, as against 7,600 for the corresponding period of last year.

Cheese.—The market for cheese shows a firmer tendency and prices are a shade higher, Quebecs and Townships being 10c. to 11c. per lb., and Ontarios being 11c. to 11c. per lb.

Shipments to date from the port of Montreal are 675,000 boxes, against 710,000 a year ago.

Grain.—The market for oats showed little change as compared with a week ago, being 45c. to 46c. per bushel, carloads, ex store, for No. 2 Canadian Western, and 44c. to 45c. for No. 3, No. 1 barley being 54c., and No. 4 being 50c.

Flour.—Prices of flour steady and firm, being \$6.30 per barrel for Manitoba patents, firsts; \$5.80 for seconds, and \$5.60 for strong bakers, Ontario winter wheat patents being \$5.50, and straight rollers being \$5.25.

Feed.—Good Demand for bran at the recent advance, being \$20.50 to \$21 per ton, in bags, for Ontarios; middlings being \$22; pure grain mouille being \$33 to \$34, and mixed being \$26 to \$29. Manitoba bran, \$20, and shorts, \$22. Cottonseed meal, \$27.

Hay.—No change in the market for hay, prices being \$14.50 to \$15 per ton for No. 1; \$13.50 to \$14 for No. 2 extra, and \$12 to \$12.50 for No. 2; clover mixed being \$10.50 to \$11, and clover being \$9 to \$10 per ton.

Hides.—As predicted a week ago, the price of hides went lower. Uninspected hides, 8c. per lb.; No. 3, 8c. per lb.; No. 2, 9c., and No. 1, 10c. Calf skins, steady, at 12c. for No. 2 and 11c. for No. 1. Lamb skins, 25c. each, and horse hides, \$1.75 for No. 2 and \$2.50 for No. 1. Tallow, 14c. to 5c. per lb. for rough, and 5c. to 6c. for rendered.

Cheese Markets.

Brockville, 1,710 colored and 1,440 white offered, at 10 11-16c; none sold. Vankleek Hill, 1,630 boxes boarded; price for white, 10 13-16c.; for colored, 10c., and at those prices all were sold. Kingston, 1,367 boxes registered; the sales were at 10c. for white and 10 13-16c. for colored. Belleville, 2,455 white cheese offered, sales were 1,050 at 11c., and 180 at 10 15-16c. Winchester, 988 boxes registered, of which 288 were colored, and the balance white; four factories holding, white sold at 10c. on board. Russell, 500 cheese boarded; all sold at 10c. London, 2,015 boxes offered; 310 sold at 10c., and 10 13-16c. Cornwall, 931 white, all sold at 10 13-16c.; 808 colored, which sold at 10 15-16c. St. Hyacinthe, 1,100 boxes cheese, at 10c., and

600 packages butter, at 21c. Napanee, Ont., 10c. Picton, Ont., 10 13-16c. and 11c. Ottawa, Ont., 10c. and 10 13-16c. Perth, Ont., 10c. and 10 13-16c. Kemptonville, Ont., white, 10c.; colored, 11c. Alexandria, Ont., 10c. Stirling, Ont., 10 13-16c. and 10c. Madoc, Ont., 10c. Woodstock, Ont., 10c. bid.

Chicago.

Cattle.—Beeves, \$4.70 to \$5.25; Texas steers, \$3.50 to \$3.50; Western steers, \$4.75 to \$6.60; stockers and feeders, \$4 to \$6.25; cows and heifers, \$2.50 to \$6.40.
Hogs.—Light, \$8.55 to \$8.95; mixed, \$8.25 to \$8.80; heavy, \$7.90 to \$8.70; rough, \$7.90 to \$8.20; good to choice heavy, \$8.20 to \$8.70; pigs, \$8.55 to \$9; bulk of sales, \$8.50 to \$8.70.
Sheep and Lambs.—Market strong; native shippers, \$2.75 to \$4.50; Western, \$2.60 to \$4.50; yearlings, \$1.50 to \$3.75; native lambs, \$4.50 to \$7.50; Western, \$4.57 to \$7.00.

Buffalo.

Cattle.—Prices unchanged.
Hogs.—Heavy, \$9.05 to \$9.10; mixed, \$9.05 to \$9.15; Yorkers, \$9.20 to \$9.65; pigs, \$9.65 to \$9.80; roughs, \$7.50 to \$7.65; dairies, \$8.75 to \$9.40.
Sheep and Lambs.—Lambs, \$5.50 to \$7.75; yearlings, \$5.75 to \$6.25; wethers, \$4.75 to \$5.40; ewes, \$4 to \$4.60; sheep, mixed, \$3 to \$4.75.

British Cattle Markets.

Prices were well maintained, with the exception of rough Canadians, which are a trifle lower, full quotations being: United States steers, from 14c. to 15c. per pound; Canadians, from 14c. to 15c., and ranch cattle, from 13c. to 14c.

BOOK REVIEW.

CANADIAN WHO'S WHO.

From "The Times" Publishing House, London, Eng., comes a copy of "The Canadian Who's Who" (1910), a useful 250-page book of biographical reference, that journalists and public libraries will appreciate, edited by Fred. Cook, House of Commons, Ottawa. It is a model in compactness, but a future edition should contain sketches of a few more representative agricultural men. Such biographies are omitted as those of Dr. Wm. Saunders, Prof. C. C. James, President G. C. Creelman (O. A. C., Guelph); Prof. M. Cumming, of the Agricultural College, Truro, N. S., and others; and among literary women of eminence, that of Sarah Jeanette Duncan (Mrs. Cote).

TRADE TOPIC.

THE LUNGS OF AN ENGINE.—The mixer on a gasoline engine, the carburetor on an automobile, and the lungs on a man, are equally important, and in each instance fills the same office. That is they supply the vital power necessary. The human being, of course, requires more air, and the lungs are called upon for more active service when working than in repose, and this supply is so automatically regulated that we seldom give it a thought. The same requirements exist with an engine. As the load is increased, means must be provided for increasing quantity of fuel and air fed to it. J. B. Seager, General Manager of the Seager Engine Works, has hit the nail right square on the head with the mixer which he is using on the Olds engines. This mixer supplies the proper proportions of gasoline and air to the engine without the use of a gasoline pump, and without employing a single moving part. Once set, it remains in adjustment, and the suction of the engine piston draws in its charge for each working stroke, so that the more numerous the strokes the greater the supply. If interested in engines, look up their advertisement in this issue.

"Let's see, we sometimes call a man a Jonah, don't we?"
"Yes, when he brings disaster."
"That's the funny part about it. The original Jonah was a prophet, while the modern Jonah is a loss."

GOSSIP.

George Johnston, of Lonsdale, in Huron County, Ont., the elder of the two veteran herdsmen whose portraits appeared in the June 16th issue of "The Farmer's Advocate," died at his home, on Wednesday, July 27th, after an illness of several months, in the 85th year of his age. He was a faithful and conscientious man, who made an exceedingly creditable record as a feeder and fitter of show stock for several prominent Ontario breeders in his day, carrying off many important prizes, his first engagement in Canada being with the father of the senior editor of this paper, with whom he remained for twelve years. It were well that there were many more men like him in this country, who would make a specialty of caring for stock as a life work.

AFTER MORE CLYDESDALES.

There is every evidence of an active trade in Clydesdales this year. The West may not absorb as many as might have been expected, but the farmers of Ontario and Quebec are introducing on their farms the pure-bred mares in place of the grades, and so laying the basis for a splendid breeding industry. This is as it should be. To meet this trade, George G. Stewart, of Rosebank Farm, Howick, Que., has again sailed for Scotland, by the S.S. Cassandra, in quest of another shipment of pedigreed horses and fillies of the right sorts. He will be in Scotland until about the 20th of August, and may be addressed there, "Care of Thos. R. McLagan, Madderty, by Creiff, Scotland."

AMERICAN AYRSHIRE SPECIALS FOR THE FAIRS OF 1910.

The committee appointed at the last annual meeting, in charge of the special premiums for Ayrshires shown at the fairs for the season of 1910, have reported as follows:

They have instructed the Ayrshire Breeders' Association to offer a silver cup valued at \$25, at each of the following fairs. To be eligible to compete, the animals must be registered in the Ayrshire Record, and must stand on the books of the Association as owned by the exhibitor, who must be a member of the Ayrshire Breeders' Association.

- Hartford, Conn., best female of any age.
- Brookton, Mass., best bull of any age.
- Syracuse, N. Y., best bull of any age.
- Trenton, N. J., best cow of any age.
- Springfield, Ill., best dairy record, test to conform to the rules of the fair.
- National Dairy Show, three best cows in milk, owned by exhibitor.
- Minnesota State Fair, best female of any age.
- Iowa State Fair, best bull of any age.
- Wheeling, West Va., best female of any age.
- Ohio State Fair, best bull of any age.
- New England Fair, Worcester, Mass., best female of any age.

CENTRAL CANADA EXHIBITION AT OTTAWA.

The prize list of the Central Canada Exhibition, to be held Sept. 9th to 17th, 1910, is now ready for mailing. It is pleasing to note the steady, strong growth which this Fair shows each year. Located centrally, with ample space and good accommodations, with the large, thickly-settled territory of Quebec and Ontario in juxtaposition, the managers of this show are building it into one of magnificent proportions, and of greatest value. The prize list includes all the leading breeds of live stock; in the horse department it includes substantial awards for five animals in Clydesdales, three for Percherons, Belgians and Canadiennes, and four for the other draft breeds. For cattle likewise the awards run out to the third, fourth and fifth place, depending upon the importance of the breeds. There are 273 classes provided in all, covering almost every branch of industry related to the farm and home. In all there are 119 special prizes and gold medals awarded, thus materially enhancing the value of many of the first prizes. The President of the Association is T. C. Bate, and the Secretary, E. McMahon. Their office is at 26 Sparks street, Russell House Block, Ottawa, Canada. Catalogues will be sent gladly to any interested party who applies for one.

BOLLERT'S HOLSTEINS.

The name of H. Bollert, Cassel, Ont., is a well-known one through the Dominion of Canada wherever Holsteins are raised, and the quality, excellence and breeding of his herd is as well known as its owner. Buyers and breeders may always investigate to their advantage whatever Mr. Bollert offers, and their attention is directed to his advertisement elsewhere in this issue.

SHORTHORNS AT PRIVATE SALE.

Good animals sell themselves. W. D. Robertson, of Oakville, Ont., is finding this very true. He advertised thirteen Shorthorns for private sale last week, and already seven of them have been taken. He has six equally good ones left, which he is ready to sell at reasonable prices. They are nice young steers of attractive breeding, and should give a good account of themselves. There is one two-year-old bull, two yearling bulls, two yearling heifers and one two-year-old heifer in the lot. Prospective purchasers should get in touch with Mr. Robertson.

At the auction sale, on July 7th, of Shorthorns and Lincoln sheep, from the Riby herd and flock of Henry Dudding, of Lincolnshire, the ten bulls sold made an average of \$435, and the 47 head catalogued brought an average of \$230. The highest price for a bull was 315 guineas (\$1,650), for Riby Swell, purchased by Mr. Shields, for Argentina. The same buyer gave 200 guineas for Allerton Nugget. The winning Lincoln shearing ram at the Royal Show at Liverpool, sold to Mr. Sidey for 240 guineas (\$1,250), and another, a commended shearing ram at Liverpool, brought 205 guineas. The 49 sheep sold made an average of \$205.

LARD SUBSTITUTE UNDER U. S. INSPECTION.

Secretary Wilson's meat inspectors will continue to inspect lard substitute, and not a pound of that article can go into interstate or foreign commerce unless it bears the mark, "U. S. Inspected and Passed." This is the gist of an opinion rendered July 25th, by Judge Fowler, who is acting as Attorney-General during the absence in Alaska of Mr. Wickersham. Judge Fowler, in his opinion, holds that lard substitute, which is a cooking compound made up of one-fifth animal fat and four-fifths cotton-seed oil, is fairly within the definition of a meat-food product, and must be inspected under the meat inspection law.

Acting Secretary of Agriculture Hays said to-day: "The opinion of the Attorney-General confirms the construction placed upon the law by Secretary Wilson. We have inspected lard substitute ever since the meat inspection law was passed. We never had any doubt about the matter, but some of the manufacturers of lard substitute thought inspection of their product was not required."

THE AUTOMOBILE CRAZE.

The following, from the Financial World, on the subject of excessive buying of automobiles, show how the men of finance look upon this form of extravagance:

The spectacle was witnessed recently of one of the largest and best-known automobile manufacturing companies in the country going from bank to bank in New York City and asking in vain for a loan of \$650,000 on \$750,000 real-estate mortgages as collateral. The mortgages represented property valued at \$1,000,000 or more. The would-be borrower was turned down on the ground that the craze to buy automobiles had been at the danger stage for some time, and that the banks did not care to encourage it.

"This sort of thing is going to end in trouble if it is not checked," said a well-known banker, in discussing the automobile craze among people who cannot afford to buy cars. "The developments of the automobile craze among people who cannot afford to buy cars. The developments of the automobile craze among people who cannot afford to buy cars. The developments of the automobile craze among people who cannot afford to buy cars."

Fortunately, these excesses are greater in the United States than in Canada. Reliable statistics show that 80 per cent of the machines bought are purely for pleasure.

QUESTIONS AND ANSWERS.

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

Veterinary.

PARTIAL DISLOCATION OF THE PATELLA.

Colt, three months old, has been running at pasture with its dam until recently, when I put it in a roomy box stall. There is a soft swelling just beneath the cap of the stifle joint. It is not lame.

J. J. C.

Ans.—This soft tumor is called a porcellaneous deposit, and appears in cases where the patella (the small bone on the front of the joint) slips partially out and in again. This condition is frequently seen, especially in colts that have been on rough or uneven pasture. It is more frequently noticed in heavy than in light colts. A perfect recovery seldom takes place, but the animal usually makes a useful animal for slow work. All that can be done is to keep as quiet as possible, and repeatedly blister the front and inside of the stifle joint. Blister with 1 1/2 drams each of biniodide of mercury and cantharides, mixed with 2 ounces vaseline. Rub blister well in; put on a cover, or tie so that it cannot bite the parts. In 24 hours, rub well again, and in 24 hours longer, apply sweet oil. Let loose now, or remove the cover and oil every day. Repeat the blistering every month. It is not probable the lump will disappear, but the joint will become stronger.

V.

Miscellaneous.

SELF-SUCKING COW.

Can you give a good remedy to prevent a cow from sucking herself? J. V. S.

Ans.—A simple remedy, which is said to answer the purpose, is to use a common horse halter, with either a straight or a pointed bridle bit. Swing the bit in the mouth loosely. This, it is claimed, will prevent and finally break the cow from sucking, and will not prevent her from eating grass or drinking water with convenience.

CHESS.

What is chess? Is it a degenerated wheat plant? G. F. C.

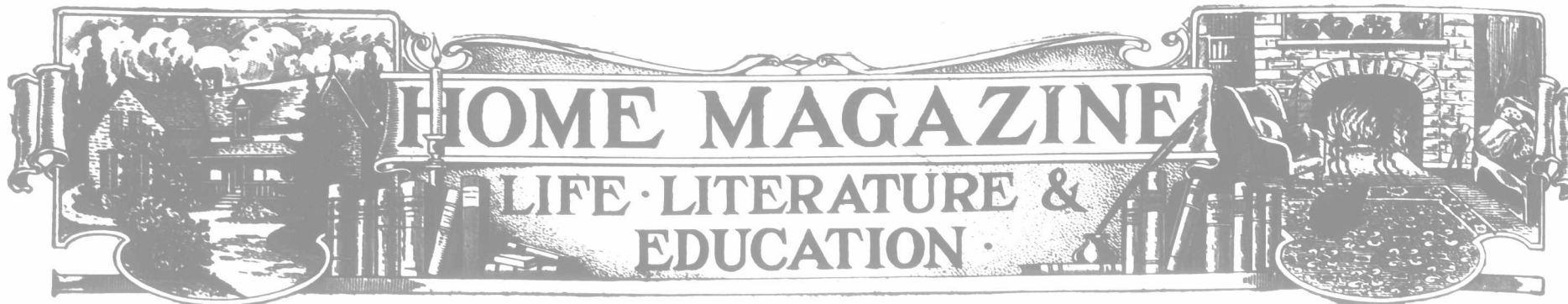
Ans.—Chess (*Bromus secalinus* L.), also known as cheat or wheat thief, is a winter annual, common in winter wheat. Where conditions are favorable to the wheat crop, the chess will scarcely appear, but if conditions prevent the growth of wheat, the chess will make a marked growth, almost claiming the land. For this reason, there is a common idea that wheat degenerates into chess, an idea that has many adherents, nevertheless is fallacious. Good cultivation and the use of clean seed will eradicate it.

FITS IN DOG.

1. I have a dog that takes fits; he shivers and gets helpless; in about half an hour he is all right again. Could you please tell me, through your valuable paper, the cause, and also a cure, if any?
2. I planted a lot of spruce trees three years ago; they are growing nicely. Some of them have limbs down close to the ground. I would like to know what time of the year to cut those lower limbs off close to the trunk without injuring the trees? G. L.

Ans.—1. The dog evidently is suffering from epilepsy. These fits are usually brought on in dogs from intestinal derangement, such as worms. After the attack passes off, give a purgative. Vomiting may ensue, worms being brought up. It is possible for abscesses or tumors affecting the nervous system to produce the condition, in which case treatment is more difficult.

2. Early spring is generally considered the best time for trimming spruce trees.



Some Practical Aspects of the Teaching of Botany.

[A paper prepared by Mr. S. B. McCready, Professor of Botany, O.A.C., Guelph, for the annual meeting of the National Education Association, Boston, Mass.]

With Special Reference to the Introduction of Materials from Agriculture, Etc.

A New Viewpoint.—For this branch of science-teaching, the great requirement is a general readjustment of viewpoint. There must be a new definition for the intention and scope of the work. It must not be so much botany as plants, and not so much plants as pupils; not so much the logical development of a science as a preparation for a life. The teaching is not for the sake of a subject, but for the sake of a boy or girl who is "to live a life and make a living." It is not a thing for to-day's recitation, to-morrow's examination, and next year's college course, but it is a thing for to-day's, to-morrow's and every day's living needs and interests. It is not an optional subject of a school programme; it is a necessary preparation for an intelligent citizenship and industrial service. It is not for a few; it is for the all. It is to bring compensation to city and town dwellers for the artificialities of urban life, and to give back to human experience something of the working knowledge of plants that the human family has worked out for itself in its progress from the primitive conditions of living to the complicated modern conditions.

The goal reached will not be a body of select pupils, with a scientific conception of the plant world at large, but a large body of pupils with a wide interest in the common living plants that touch them closely in their human interests. There will be a practical, and not merely a sentimental, fondness for flowers; there will be desires engendered for working with plants, to study them more, and to produce better ones. The study will not cease when the text-book is finished and the laboratory exercises are completed and recorded. The study will go on in post-graduate work, in the factory and on the farm, in the garden or the park, for the rest of the pupil's life.

The Teacher and the Subject. In this readjustment of viewpoint, the teacher must realize that plants are not in the world for botanists, for botanizing, or for school studies, but as living things, which in a very large measure affect the well-being of mankind at large in his food, his clothing, his protection, his comforts and his pleasures.

With the teacher's viewpoint adjusted, the practical aspect of introducing material from agriculture, etc., is simplified. There is no scarcity of material. Instead of adhering to the formalities of the text-book, and following the academic lines of instruction in which the colleges instruct, he now goes to the farm or the grain elevator, the garden or the grocery store, the orchard or the market, the forest or the sawmill and lumber yard. Instead of consulting the interest of botany first, he consults the interests of the community; he may study the common weeds and wild seeds, examine seed grain for its impurities, make germination tests, and examine geranium flowers, apple blossoms, and wheat heads; instead of the old-time botanical specimens. When his material is not

readily available from the pupils' homes or near-by gardens, he grows his own in his school plots. There in a school arboretum, and seed-beds and nursery lines for tree seedlings; there are observation plots of the different kinds of clovers and grains. The botanical garden produces cultivated and wild plants, grouped in their families, to be used for class studies.

The course will not follow text-books so much as nature; it will accord with the season; seeds in seed time, blossoms in blossom time, fruits in harvest.

The Teacher and the Agricultural College.—This new line of work does not call for new teachers. The old, experienced teachers will serve best if they can readjust themselves, and the agricultural colleges can best help them in this. It may be urged that these overemphasize the practical and economic in their plant studies. The experienced teacher will know what to select and how to adjust between the old course of study and the newer topics that insist on a place. His natural conservatism will tend to slow and safe changing.

One special summer course will suffice in some cases; by two such courses for science teachers, science-teaching in our secondary schools could be brought to bear in all branches on the needs and interests of the people. In a few years it could be revolutionized.

If the change is desirable, there is a call for closer co-operation between departments of education and the agricultural colleges.

who, when a subject is started, is willing or able to follow it out into its ramifications, to play with it, to embroider it with pathos or with wit; to penetrate to its roots. Question and answer, anecdote and jest, are the staple of American conversation; and, above all, information. They have a hunger for positive facts. And you may hear them hour after hour rehearsing to one another their travels, their business transactions, their experiences in trains, in hotels, on steamers. . . . An American, broadly speaking, never detaches himself from experience. His mind is embedded in it; it moves wedged in fact. His only escape is into humor, and even his humor is but a formula of exaggeration. It implies no imagination. It does not illuminate a subject, it extinguishes it, clamping upon every topic the same grotesque mould."

For these sweeping assertions, Mr. Dickinson is taken to task by a number of eminent Americans. "We read more than we used to," says Mr. Howells, "and I have an idea that the more we read, the less time we have for conversation. But lack of conversation doesn't necessarily imply lack of culture. Many cultured men are silent men. . . . I really think that in certain circles, where educated people congregate, our conversation is quite as good as in corresponding circles anywhere else. But I do not find in conversation that the cultured people are the most interesting. Dr. Johnson was a brilliant talker, and he was a man of culture, but his talk was all one-

There is, perhaps, a little to be said on both sides. Mr. Dickinson has, no doubt, spoken too sweepingly. On the other hand, the least observant who has the opportunity of meeting with all classes of the people, or overhearing their talk, "in hotels, on trains, in steamboats," and elsewhere, must confess that people, as a rule, do not converse; they merely talk. Happenings supply the bulk of the material for this talk; the expression of thought, of ideas, the evidence of originality, are all but absent. Wit and humor—graces that must be, like the spirit of the poet, "born, not made"—cannot, perhaps, be generally expected; but it seems a matter of regret that popular conversation should be confined so largely to "what I did," "what he did," "what I saw," "what happened today or yesterday." It is to be hoped that lack of evidence of thought in conversation does not presuppose paucity of thought itself.

The art of conversation, however, embraces more than expression of ideas. It includes, also, the power to make "the other fellow" talk, leading him to conversational flights which surprise, as well as please, even himself. He enjoys himself all the more, perhaps, that he does not recognize that his own expansiveness has been directly induced by the drawing power of the master conversationalist. No wonder that the latter is welcomed, where the mere talker is regarded as a bore. Life is the more pleasant because of him; mental action is stimulated. He is neither egotistic nor dogmatic (should he become so, he at once loses his right to be called a good conversationalist), and, if his attractiveness is backed by the other sterling qualities, situations and opportunities in plenty respond to his "open sesame." Moreover, he has an additional power added to him, if he will, to do good to others. Not a small proportion of great results have been due to the power of the promoters to explain, to impress, to call views upon all sides of the questions involved, by readiness to conversation.

Conversation is an art that may be cultivated; thought first, then expression, then the tact that comes of genuine interest and respect for the opinions of others. It may be cultivated, but few there be, perhaps, who will take the trouble.

Our English Letter.

A TRANSPLANTED VILLAGE.

Upon the occasion of my first visit to the Japan-British Exhibition, I had asked one of the messenger-boys, who, as human sign-posts, were every here and there, provided to afford information to all who might require it, how far away in the grounds was Ballymacintion, the model Irish village which I had very especially wished to see. "Why, nearly two miles, on the other side," was in polite tones and becoming gravity, the reply, which I found out later on, in spite of my very natural suspicion that he was "poking fun" at me, was by no means an exaggeration, if one counted in the many meanderings of the picturesque paths leading to it.

So you did not get to our dear little Irish village yesterday, after all," said Her Excellency Lady Aberdeen, who had honored me, as an old-time worker in our Canadian National Council of Women, by a personal invitation to attend with her the meeting of the Health Association, held under the auspices of the Wo-



Ballymacintion.

The Windrow.

CONVERSATION.

Mr. G. Lowes Dickinson, in Cambridge Review (Eng.), takes Americans to task for their lack of conversational powers. "For, in America," he says, "there is, broadly speaking, no culture. There is instruction, there is research, there is technical and professional training, there is specialism in science and industry, there is every possible application of life to purposes and ends, but there is no life for its own sake. . . . You will find, if you travel long in America, that you are suffering from a kind of atrophy. . . . You will not, at first, realize what it means. But suddenly it will flash upon you that you are suffering from lack of conversation. . . . You do not converse; you cannot; you can only talk. It is the rarest thing to meet a man

sided. He couldn't brook contradiction or controversy. He wanted it all his own way. . . . And that's what kills conversation." Mr. Howells evidently overlooks the fact that the arraignment which Mr. Dickinson has made is not directed against the lack of talk, but the lack of "conversation" in America. There is a difference between the two.

Dr. Henry Van Dyke laughs at the English writer's failure to find humor on this side of the water, and hazards that he is too serious to be amused by Mark Twain and Mr. Dooley. Prof. Brander Matthews regrets that Mr. Dickinson, during a lecturing tour, missed the opportunity of meeting with the right people and his sizing-up has been based on the common mistake of seeing only those who are apt to disagree with his conclusions too quickly.

AUGUST 4, 1910

men's Congress, to be held at the White City on the following day. "After the Conference we will go there, for not only are the proceeds of it to be devoted to our great crusade against consumption in Ireland, but what you will see there will give you a very clear idea of the several industries which are being encouraged throughout the land in the interests of its people." And thus it came about that my visit to Ballymacclinton was paid under the most delightful auspices, not only under the wing of the principal promoter of these industries, but in the goodly company of others who were working with Her Excellency as co-partners in one or other of her many efforts on behalf of the people of Ireland.

Amongst the industries represented in actual operation were homespuns, linen and damask weaving, soap, perfume, rug, carpet, poplin and lace-making, whilst curios made from Connemara marble, and specimens of decorative art in wood and china, were being made in the Market Hall. There were, in addition to these, other exhibits, not actually in process, but as clear indications of the varied avenues opened out for an intelligent people who preferred to be their own breadwinners, rather than to be dependent upon the benefactions of others, the best of benefactions being always that of opportunity afforded for self-help, which is the keynote to the grand work of the Irish Industries Association.

I am sending our editor a few pictures of this most interesting village, some of which, I hope, may be made room for in our Home Magazine. I should like you to see the "Ballymacclinton" post office, where His Majesty's mails are dealt with in the usual routine of a postal business. It is, as is usual in Ireland (and in many other places, too), a general store, where cards, books, stationery, ironmongery, groceries, etc., are sold; but in this particular post office a special feature is made of Irish books by Irish authors, printed on Irish paper in Ireland. At the door are gathered, on foot, on their donkeys, or in the "two-wheeled jaunting-car," the pretty "Colleens," and Dan, "the boy," with whom they are exchanging repartees and a running stream of fun and blarney.

These Colleens are much admired by visitors to the model village, for they are modest and natural in manner, as well as pretty and witty of tongue. Their songs and dances, which are given partly out of doors, on the village green, and partly on a stage which represents the interior of a typical Irish cottage, attract a crowd, and let us hope, also, some coins worth counting for the good cause for which their occasional entertainments are given.

In one picture we have a Colleen on her way to the bog to fetch turf; on another a jaunting-car, in which a good-natured driver is giving them a turn round the village. Another shows us a group who, dressed in garments of Irish make, while one of them plays a merry jig, are waiting their turn to "supple their joints" before returning to their work at bench, loom, laundry, or model sanitarium, all of which are visited in turn by the visitors to Ballymacclinton.

To not think that at work or at play there are girls only to be found after you have passed under the imposing gateway which opens to welcome you as the guest of the village, and which certainly looks somewhat grim, as, of course, it must, being modelled upon one "dating from the 15th or 16th century, suggestive of the iron days of the O'Neills and O'Donnells." No, there are men and lads in plenty, or the story of the beneficent work of the Irish Industries Association would only be half-told.

THE VILLAGE FORGE.

The Village Forge is in charge of a local blacksmith. Here "lucky" horse-shoes are made and sold, and four-legged customers duly shod. There is a model cow-shed; a necessary collection apparatus, with chemical methods for the lavage of dust; and electrical appliances, all

needing a man's hand and training. A shoemaker, a wool-carder and spinner, and a hand-loom weaver, share a cottage together, while a herd of Kerry cows, a litter of pigs, several donkeys, geese and fowls, as well as jaunting-cars, plying for hire to and from "Blarney Castle," afford occupation and regular wages for the men-folk of the bonnie green isle which is so closely akin to us in Canada.

I was particularly struck by the contrast in things old and new, as shown by the fisherman's one-roomed cabin, and the model cottage representing those built on sanitary prin-

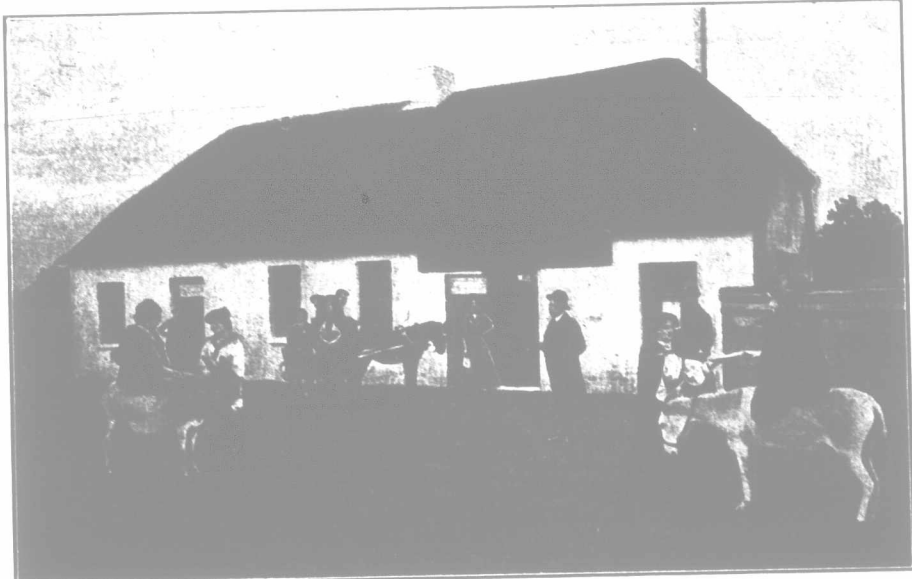
Irish soil, as well as outlets for their industries through the markets of other lands. H. A. B.

Hope's Quiet Hour.

That Thou Mayest Be Rich

I counsel thee to buy of the gold tried in the fire, that thou mayest be rich.—Rev. iii: 18.

"It is not blessedness to know that thou thyself art blessed;



Village Post Office.

ciples and with every consideration for the comfort of their occupants, by the Messrs. McClintons for their employees at the soap works. In the former the family had to sleep, eat, work and live as best they could, their nets on the shelves under the thatched roof, with only the ventilation afforded by one small window and an occasionally opened door; whilst the latter provided four rooms, a pantry, and about half an acre of land, at the low rental of 2s. (i. e., 50 cents) a week.

I am promising myself another visit to this most charming little Irish village, should I return to London before the closing of the Exhibition at the end of its season. If I do, I

True joy was never yet by one, nor yet by two possessed. Nor to the many is it given, but only to the all; The joy that leaves one heart unblessed, would be for mine too small."

When we look at a life impartially, we can easily see that it is rich if it has given much. Who could dare to say that a woman like Florence Nightingale, or a man like Dr. Grenfell, lived a poor life? We all want to live richly, and the opportunity lies at every door, for we all have much to give. As Mrs. Browning reminds us: "The least flower, with a brimming cup, may stand, and share its dewdrop with another near." It is hard to realize that the "mite"



Donegal Carpet and Lace Makers.

may have a little more to tell you about it, for much remains well worth the telling. I will just add, by way of a postscript, that there are over 50 schools in Ireland where teachers give instruction to the girls of the district, who are paid according to their work, over 1,000 pupils being so employed, with a remuneration, in 1906-1907, of £23,120, and this exclusive of all sales made by the pupils themselves. Again, in Donegal, between 700 and 800 girls are employed in carpetmaking, each separate thread being tied in by hand, with an almost bewildering speed and astonishing accuracy. But enough has been told to show how much is being done to provide opportunity for the development of Irish ability upon

patients in the hospital with personal gifts to cheer them. Another "meets the girl strange to the city at the station, and starts her out in safety."

Now, we can't all give millions, but we can all do the far greater thing—give love. The millions will follow the love, if God should trust us with the stewardship of great wealth. But don't let us join the people who say, "I wish I were rich, then I could do a lot of good with the money." That is to imply that only those who have the command of great wealth can do great good. Could our Lord and His Apostles have helped the world more if they had been rich in silver and gold? I am sure it was quite the other way, and that God made no mistake when He chose, not only poor men, but men who had little education or worldly influence, to be the strong foundations of His Church. Character is so tremendous in its power and influence, that the power of wealth and education shrink in comparison. All through the ages we see that God has chosen things which are despised of men, to conquer the things which seem to be mighty—"that no flesh should glory in His presence."

"Whatever may lie beyond us,
The lesson this earth doth give,
Is, learn how to love divinely,
And then you have learned to live."

And, if we love not the brother whom we have seen, how can we love the brother we have not seen? In our eagerness to do great things for the world, let us never push aside, as of little consequence, the duties God has put into our hands. In a modern novel, a character is described as one of those who "work mechanically on fixed lines, and seem, as a rule, to miss the pith of life." She was kind when she remembered the people who lived with her, but her heart was "in her escritoire, with her list of Bible classes, and servants' choral unions, and the long roll of contributors to the guild of work which she had started."

We all have to be on our guard lest our own pet philanthropic work should crowd into a corner the special duty which God gives us each day. Charity "begins" at home, and yet it must overflow the limits of home, if it is like the love of God. To shut all our sympathies within our own home, is to grow hard and cold and selfish. It certainly is not a true following in the steps of Him who had compassion on the multitude—a practical compassion—which soon resulted in an orderly supplying of their needs through an organized band of helpers.

Phillips Brooks declares that any man seeking to be holy, who does not set himself in close, live contact with the life about him, stands in great danger of growing pious or punctilious, instead of holy.

Most people in the world are working. Some are working only for pay, caring nothing for the one served, making their work just satisfactory enough to secure their own interests. When such a man passes through the gate of death he will be desperately poor. All the money he has worked so hard to gain must be left behind. Others are working to please themselves. But the glory of life is worn as a crown by those who are eager to Give because they Love. They know it is a privilege to serve. They feel that they have gained much when they have given much. Given what? What God has put into their hands to give.

A stranger once spent a few weeks in a small town, and one day he recognized in a store-clerk the usher who had looked after him each Sunday in church. He thanked the young man for his kind services, and was told that no one had ever before expressed a word of appreciation, though he had "ushered" in that church for years. A word of appreciation is something we can often give. Do we let a father or mother work for us for years without expressing any gratitude? Do we accept services from servants or "salesladies" as if they were machines, and cared nothing for a sign of human interest? A gentleman told me not long ago, that he had often given his seat in the street-car to a woman, but he had never yet heard one say "thank you." A lady, who has been in charge of the biggest Fresh Air Mission in Boston for 25 years, told me that hardly

FOUNDED 1866



little to be said Dickinson has, sweepingly. On east observant city of meeting people, or over in hotels, on and elsewhere, ple, as a rule, y merely talk, e bulk of the e expression e evidence of t absent. Wit t must be, like t, "born, not ps, be general- eems a matter r conversation so largely to hat he did," t happened to is to be hoped of thought in ot, presuppose eif. tion, however, e expression of also, the power fellow" talk, ational flights as please, even himself all the e does not a expansiveness ed by the draw- ster conversa- that the latter e mere talker e life is the of him; mental e He is neither e (should he be es his right to ersationalist), e ssess be backed ualities, situa- s in plenty re- esame." More- ditional power ll, to do good all proportion e due to the s to explain. eys upon all involved, by on. t that may be e first, then ex- t that comes of e spect for the e may be culti- e, perhaps, who

Letter.

VILLAGE. my first visit Exhibition, I messenger-boys, sts, were every ed to afford in- ight require e grounds was del Irish vil- y, especially e, nearly two e," was in po- g gravity, the at later on, in rural suspicion fun" at me. aggeration, if y meanderings s leading to

t to our dear tday, after y Lady Aber- me, as an old anadian Na- en, by a pre- ond with her ealth Associa- es of the Wo-

any of the settlement workers, or other officials who came to make arrangements with her for sending parties of children to the country, returned in the fall to thank her for doing her best for the children's holiday. They paid the necessary money and that was all. Our Lord felt the behaviour of the nine lepers who forgot to thank Him for their healing to be a very great sin of omission.

There is a "Crutch and Kindness League" in England. Each member has a crippled child to show interest in, and is expected to write to this child at least once a month. Think how many lives are brightened and strengthened by the members of this Society. It is stated that there are over 9,000 cripples among the children of London. "Give, and it shall be given to you," says our Master. "good measure, pressed down, and shaken together, and running over, shall men give into your bosom." Those who minister to God's poor and sick, receive riches and health in overflowing measure. God's crippled children may exert mighty influence for good by their cheery courage and trustful patience.

"Upon a crutch—her girlish face
Alight with love and tender grace—
Laughing, she limps from place to place,
Upon a crutch.
And you and I, who journey through
A rose-leaf world of dawn and dew,
We cry to Heaven overmuch.
We rail and frown at fate, while she
And many more in agony
Are brave and patient, strong and true,
Upon a crutch."

Those lines were written by Robert Loveman. His name is inspiring, as well as his words. God's riches are free, and yet our Lord counsels us to "buy" from Him that we may be rich. The pearl of great price is a gift, and yet the man who found it "sold all that he had" in order to "buy" it. We must scatter the grain broadcast to gain a bountiful harvest. We must give ourselves, with all that we have, to God's service before He can give us gold that will stand the fire. "He that grasps loses," say the Chinese.
DORA FARNCOMB.

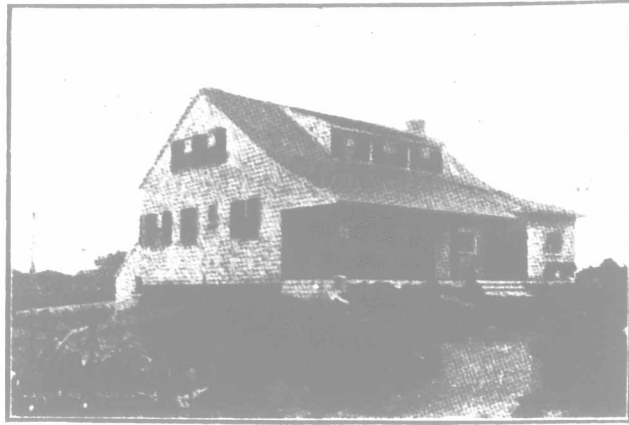
The Danger of Excess.

Things can be carried to an extreme. The athletically-built pastor of a prosperous congregation in a summer-resort town, besides being extremely bald, wore a beard too much of the "hygosh" style, and carried the marks of the caresses of worry and middle age in his increasing wrinkles. Some of his most ardent admirers persuaded him to abandon the beard, which had a wonderful rejuvenating effect upon his appearance, but made his baldness the more incongruous, so that he listened to the wifely women, who argued with him regarding the beauty and naturalness of wigs. The adoption of a handsome brown one, almost made a young man of him once more—if only the crow's-feet were not so evident. These the tonsorial artist delightfully massaged into oblivion, and the pastor strutted forth as handsome and as youthful as when he entered college. But, alas, for the process of rejuvenation! The next August he took cholera infantum and died.

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.]

The following is one of the gardening articles held over from last spring. It is published now for two reasons: (1) Because it makes reference to plantings which may be made in August. (2) Because fall is really the time when a vegetable garden should be started. Every garden, whether vegetable or flower, should be planned, plowed and manured in fall; then the work for spring will be just so much easier and



These roof-windows are more picturesque than the old-style "pediment," but the roof slope must suit.

the plants ready for use so much the earlier. Fall plowing also lessens the number of both weed and insect pests, the latter by breaking up and exposing numerous pupae which may be in the ground.

My Vegetable Garden.

A vegetable garden is an absolute necessity, as it supplies the family table the year round with a variety of fresh vegetables, which are valuable for their refreshing qualities, the medicinal value they possess, the salts they yield, and the variety they give to our diet.

As every family will have specially-preferred vegetables, so individual taste will have to decide the different kinds and the space allotted for each variety.

In choosing a site, a south or south-east location is desirable, sheltered from winds and exposed to the sun. Have well-rotted manure scattered over the surface before plowing or spading. Spade and respade, and rake or plow and harrow over and over again until the fine manure and the fine soil are thoroughly mixed. Thorough preparation of the soil is half the battle. Have your land well drained, so that water will not stand about roots and rot them. Land should never be plowed or dug when it is too wet or it will bake and crust all summer. It is preferable that the ground be plowed in the fall. This renders the soil deep and mellow and easily worked up, and little energy is required in preparing the garden in the spring.

Purchase your seeds early from a reliable firm. Send for their catalogue and make a judicious selection. It is wise to follow the directions on the packages or in the catalogue; of course using one's own judgment as to soil and local conditions.

If possible have a hotbed. If that is out of the question, a good substitute is found in sowing seeds in pots or boxes in the house. When transplanted from the seed pot or box, put them in a "make-shift" cold frame, which is a box set on the ground covered with a window sash. The glass may be lifted or removed in the heat of the day and covered at night. Excessive heat on the glass from the sun will burn the leaves of the plants. Then transplant in the garden. Or if labor and time is a consideration, tomatoes, cauliflowers, cabbages, peppers and celery plants ready for transplanting in the garden can be purchased at a reasonable cost. Spinach, lettuce and onions may be had for early spring use by sowing seed in the fall, or sow in August. In that case the plants are sometimes protected through the winter by a thick covering of straw. Onion sets planted the previous autumn will be ready for use in March, if the season is early. By the last method one saves much labor and time, and unless one has plenty of time and the conveniences, it is preferable to strain every energy to procure early vegetables by either of the other methods. We have tried all three methods and met with excellent success in every method. So every individual will have to use her

own judgment as to the methods she will adopt. Another method used by some with good results is a seed-bed, which is a good substitute for a hotbed.

As soon as the weather permits and the ground is free from frost, prepare the soil for early vegetable seeds. Have your soil well pulverized. Make long lines running north and south so all may have the sun, and none will be shaded. Use a line and two stakes for marking, and with a pointed stick [Or patent marker.—Ed.] draw a shallow drill in which to scatter the seeds, following the directions on the seed packages. If you have plenty of room and a horse, make the rows at least two and one-half or three feet apart, and for the larger plants not less than four feet; but, of course, in many instances hand labor must be employed for lack of space and also the necessary conveniences. All things have to be taken into consideration when planning a garden.

As soon as the weather will permit, sow hardy vegetable seeds. One may sow beet, carrot, lettuce, onion, parsley, parsnip, salsify, radish, spinach, turnip. Sow radish, spinach and lettuce seeds every two or three weeks, so as to have a succession. A quick and rapid growth makes tender vegetables. About the middle of May sow outdoor seeds of tender vegetables, cucumbers, beans, sweet corn, peas, melons, pumpkin and squash. None of these can stand a frost. A few radish or turnip seeds planted in the hill with the melon seeds will save the leaves of the melon from the black flies. The seeds germinate before the melon, and the flies attack them in preference.

Cultivation must be continual, frequent enough to destroy embryo weeds. Ten minutes' work before weeds develop will save hours of hard labor. Cultivation is not only to destroy weeds, but to supply air and conserve moisture.

Tomatoes, cabbage, peppers, cauliflower, eggplant and celery may be transplanted out as soon as all danger of frost is gone—taking a dull or wet day in preference, or in the evening. Give them a copious watering, and if possible provide some protection until the plants are established. To protect cabbage from the cutworm, buy "cabbage collars," or wrap the stem loosely with stout paper, or sprinkle bran mixed with Paris green with the soil around the roots. Slug shot is often used for the cabbage worm, also the squash in its early stages of growth.

Some people nip out the two heart leaves of tomato plants. Checking top growth makes the plant branch and form a stocky bush that will bear the weight of fruit when it comes. To promote root growth in cabbage and cauliflower, cut off half the length of the outer leaves with a pair of sharp scissors. I have never tried this plan myself. Thyme, sage and mint are indispensable to every garden, and a small bed may be kept for years with little attention. Another indispensable addition to the garden is an asparagus bed. To start a new bed, purchase roots two years old, thus saving a year or two's time. In the fall give it a covering of manure. To your old bed spade under a liberal quantity of good manure, then work in half-rotted manure, which can be moved in the spring. Another essential is a rhubarb bed. In starting a new bed, a saving of from two to three years

is made by planting the roots. In the fall give a liberal dressing of manure. We have had for years both rhubarb and asparagus beds, and the supply is as great for quality and quantity as it was years ago, and they have never been renewed by new roots.

Parsnips, salsify and horse-radish may be taken up in the fall or left in the ground all winter. Carrots, turnips, beets and onions can be successfully stored in the cellar. They may be covered with sand or earth, or left uncovered. Ventilate the cellar well, and look them over every now and then, removing any decaying matter. Pumpkin, squash and cabbage can be stored for some time, so that if we choose we may have vegetables the year round.

A GARDEN LOVER,
Middlesex Co., Ont.

Harmony in the Home.

[A paper by Miss Nina M. Jamieson, read at the convention of the Women's Institute, held at Millgrove, Ont.]

Here we have a subject which, to us, as homemakers, should be of surpassing interest. How it suggests that peace and contentment, that love and cheerfulness, to be found nowhere outside of a true home. Surely if we are able to establish a home where harmony dwells, we need not think enviously of the woman with a career, of the great singer or actress on the stage, of the woman of wealth and title; for our little lullaby sounds very sweet to the baby at slumber time, and the proud name of "mother" has no superior among the titles of the earth.

You have been told again and again that home is woman's kingdom. So it is. Then let us, like sovereigns, consult together as to the best methods of ruling our kingdoms, and of administering justice and maintaining peace. It is no simple task. It will require tact, common sense, courtesy, firmness, candor, and above all and through all, limitless, dauntless patience.

You will observe that I have said not one word about tidiness, economy, good cooking, careful washing and ironing, thorough sweeping—oh no. These are attributes of the housewife, and important as it may be to be an excellent housewife, it is far, far more to be a true homemaker. You know there are some homes where you can go in and sit down and be at home at any time. Home! We might make it mean so much more than it does. When a bright light is brought into a jeweller's store, how the gems sparkle and glitter, sending back a thousand flashes of brilliance! How the gold gleams and glows! Even the dull ink bottle reflects a sombre light. So should a woman in the home bring the best that is to be found in others, even in the dullest and least congenial of them all.

For it is our task to blend the dissimilar characteristics and dispositions in our family circle until it is a true circle indeed.

Now, I do think that of all places in the world the home is the place for courtesy and consideration. The ones we love best are the ones to whom we should be most kind. Our manner at home shows whether we accept the Golden Rule as our guide, and the behavior of our children, indicates the example we set for them. Grapes don't grow on thorn trees. If we wish our children to be rannerly and truthful, we must set the example ourselves. Truthful, I say, for in many homes the fine art of deceit is taught systematically, although perhaps unintentionally. "Tell him you don't know," a child is advised, when the child does know. "Now don't tell your father," and the child and mother are partners in deceiving the father. And there is another dreadful way in which the child is deceived. He comes to the mother with some query, perhaps, about the baby which has arrived at the neighbor's house. "Mother, did the doctor bring the baby? Was it found in the stump fence or under a rhubarb leaf?" Now is the mother's golden opportunity. Let her take her child in her arms and lovingly tell him the story of his origin. He has a right to know it, and a right to know it from one person only—his mother. God pity the mothers who do not make it their business to know what good or evil

THE HOUSE-KEEPERS SUMMER HARVEST



EATON'S JULY AND AUGUST SALE

NO ONE CAN AFFORD TO MISS THE OPPORTUNITIES FOR CHEAP BUYING IN THIS CATALOGUE

EVERY ITEM WAS BOUGHT IN LARGE QUANTITIES

We were convinced that the demand would be enormous, for the goods listed in our July and August Sale Catalogue, consequently we bought in larger quantities than ever before. By doing so we have been able to obtain from the manufacturers unusual price concessions—savings which we pass on to you.

EVERY ITEM WAS SPECIALLY SELECTED

Every article is a necessity—a household need—something used in every part of the country—and all were specially purchased for this Great Sale. Furthermore our selection is most varied as it contains items of interest to men, women, and children.

EVERY ITEM IS A SPECIAL VALUE

This is an opportunity which you should take advantage of at once, as such values are not of daily occurrence. Every article is a genuine EATON bargain—let us prove it to you by means of a trial order.

**ORDER NOW
WHILE OUR
STOCK IS COMPLETE**

THE T. EATON CO
LIMITED
TORONTO CANADA

**SATISFACTION
GUARANTEED OR
YOUR MONEY BACK**

knowledge lies behind the little faces that cluster round the table. God pity them—for some day their punishment will be greater than they can bear.

We read of the white-slave trade, and speak of it with horror. Don't you realize that the place to combat this insidious evil is in the home, and our weapons are Truth and Purity? If men were pure and self-controlled, if girls were aware of their power and of their weakness, and knew how terrible a thing it is to rouse the wild beast that slumbers in almost every man, don't you think things would be a little different? And the home is the best place to teach that self-knowledge, self-reverence, self-control which lead life to sovereign power. It is not to be neglected. Your child may go from you in the morning pure-souled and clean, and come home at night contaminated by the evil words of some playmate—perhaps a child of highly-respected people. Then something will be lost which will be well-nigh impossible to regain—a child's confidence in his mother. I speak at some length on this point, for I feel that it is of vital importance to the harmony of the home, which is based on mutual confidence and love.

Now, when we realize the difficulty of maintaining harmony in our own homes, let us have regard to the sanctity of our neighbor's home. There is often a great temptation to gossip a little—to pass on the little story that someone told us—to hazard a theory that may grow into an opinion and finally become an accepted statement of fact. People sometimes say, "You might as well say it as think it." But no. Your thoughts are your own—the spoken word cannot be recalled.

Let us turn now to the subject of allowances. In spite of the airing which this subject has received of late, the fact remains that few women have a certain stated sum of money to spend as they wish. Perhaps it is because men seldom read the woman's page in magazine or daily paper. Perhaps it is because they do not consider a woman capable of handling money, although strangely enough, they generally insist that she shall take charge of the children (showing the relative importance attached to each). But I think the trouble lies mostly with the women, for we generally get what we want if we only go about it in the right way and keep at it long enough. On the farm it is hard to fix a certain sum, but when we have the disposal of the butter and eggs it amounts to practically the same thing. I cannot imagine a truly happy home where the man carries every cent away down in his pocket, even when he goes out to plow. It isn't that women want the money particularly. They simply want to be trusted. Temper has a lot to do with domestic infelicity—the interference of relatives does a lot of harm. But I do think that the money question, here as elsewhere, lies at the root of most of the trouble.

Now, in conclusion, just a word about the children. I do not pretend to be an authority on this, except by the old-fashioned method of watching other people's mistakes. Do you know that this has been called the age of obedient parents? Did you ever refuse your child anything and then allow yourself to be wheedled into a consent? I do not say that a parent should be adamant, for I think it is right to listen to a child's reasons and explanations, but pouts, tears, silks, are generally means to an end, and should be suppressed, firmly and consistently. Let your child see that you have always a reason back of your "Yes" or "No," and teach him to have confidence in your judgment. When he goes to school, his first lesson is obedience to the teacher; when he goes into a store or factory, it is obedience to the manager or foreman; when he takes his place as a citizen of the country, it is obedience to the laws of the nation, the law of nature, and the law of God. The place, in all these things, the necessary habit is in the home, in the habitually obedient child. The reason when he has been disobedient, and his reasons are detected, is not to punish, but to teach. That is the character which should be not to have a sympathy for his misanthropic tendencies, but to have sympathy and all sorts of helpful suggestions.

Our Scrap Bag.

A stationary ironing board is a great convenience. Fasten the broad end to the wall with three stout hinges at the right height for an ironing table, and near a window. At about two-thirds of the distance to the other end of the board is a stout leg, attached with a hinge. When not in use the board folds up against the wall, the leg falls down the length of the board, and the whole is secured by a large button on the edge of the window casing.

A writer in a popular household magazine tells of a "legless" kitchen. All the furniture either sits squarely on the floor, without legs, or is built in or fixed to the wall with brackets. The room is easy to sweep and easy to keep clean.

Bacon can be most thinly sliced by using a hot knife.

To Clean a Food Chopper.—Take a piece of raw potato and put through the chopper after using. The chopper may now be washed very easily.

To Launder Prints, Ginghams and Muslins.—Make a gallon of flour starch, straining it as usual. Pour half of it into 2 parts soft water and wash the cottons in it until clean. Put the rest of the starch in the rinsing water. Dry in the shade and iron on the wrong side. It is said that this method will prevent fading.

To Set Color in Wash Materials.—To 1/2 gallon cold soft water add 1 teaspoon spirits turpentine. Wet the goods in this thoroughly, wring them dry, and hang up in the shade. When perfectly dry they may be laundered as usual. This is good for delicate pinks, blues, etc.

When canning, see that you are provided with a new ring for every sealer. Have on hand, also, a cake of paraffine to pour over jellies and marmalades to prevent mould. If metal sealer tops have become rusted inside, coat them with paraffine. Paraffine taken from the top of fruit should never be wasted, but washed at once and saved for remelting.

A Homemade Hammock.—Make of strong canvas or duck, with a hem at each end. Through the hems run pieces of old broom handles. In each end of the wood screw strong thumb-screws, and suspend by small rope.

Rips in Kid Gloves.—Work each edge of the rip or tear with a very fine buttonhole stitch in cotton of the same shade, and draw the edges together.

A writer in Harper's says that the best portions of old sheets may be very satisfactorily colored blue or brown and made into pinafores and rompers for the children. Worn-out raincoats may be made into very good kitchen aprons.

If string beans are washed and par-boiled before stringing the work is much more quickly and easily done than by the ordinary way.

Removers of Tan.—(1) Wash the face well with fine soap and hot water; rinse well, and apply buttermilk. Do this at frequent intervals. (2) Cleanse face as above and apply a mixture of grated horse-radish and sour milk, a tablespoonful of radish to a cup of milk. (3) Rub the cleansed face very frequently with slices of cucumber. Cucumber juice is one of the best bleaches known.

To remove peach stains from linen, put cream of tartar on the water-soaked stains and place in the sun. Afterwards wash as usual.

A split in a silk dress may be mended to make it wearable by pasting court plaster on the wrong side. In case of a large rent a piece of the silk or of ribbon applied with a little good murexage will be of use.

About the Bread Mixer. A writer in Boston Cooking School Magazine says:

"I experimented with my bread mixer several times before I got the proportions exactly to suit us, for we had the prescribed rule of three times as much flour as wetting makes the bread dry too quickly. I use now one quart of liquid (including dripping, yeast and water) plusing this first in the mixer with a little salt and sugar. Then I add one scant quart of flour, another scant quart of flour, and 1/2 of a quart of flour, and proceed to turn the handle."

A SERVEED MENT

Crushed Oats, Mashed Potatoes, Whipped Cream.



A valuable catalogue sent free

IT is valuable to you because it tells facts about gasoline engines you should know.

We have proved to thousands that an

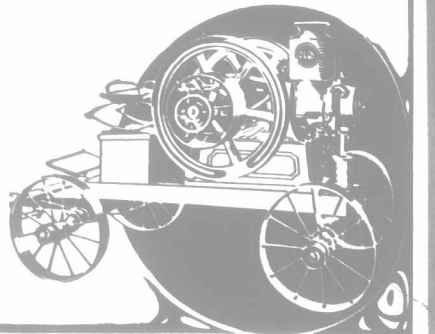
Olds Gasoline Engine

is the best engine investment they could make. The catalogue was the first step—the engine always makes good. Write for it today. You are guaranteed against all repairs for one year.

Investigate what the removable water jacket, the wonderful Seager mixer, and the absence of a gasoline pump, means to you.

Seager Engine Works

1050 Seager St., Lansing, Michigan
Boston Philadelphia Binghamton Omaha
Kansas City Minneapolis Los Angeles



Recipes.

Canning Young Beets.—Scrub the young beets without bruising the skin. The leaves should be cut off, but about an inch of stem left. Boil until tender enough for the table; drain and cover with cold water, push off the skin from the beets and put them into jars. Set the jars on a rack in a kettle or boiler, and add a teaspoon salt and 2 table-spoons sugar to each jar. Pour in lukewarm water to fill the jars; also water to come up half way to the top of the jars in the boiler. Put the covers in the water beside the jars, cover the boiler and let boil an hour. Adjust the rubbers and covers.

Cucumber Salad.—Peel 3 medium-sized cucumbers, cut into halves lengthwise, taking out the seeds. Place in cold water for an hour. When ready to serve, peel 3 small tomatoes and chop coarsely. Chop also 1 pint cress and mix with the tomatoes. Add a few drops onion juice, a little salt and dash of Cayenne pepper. Dry the cucumbers, fill with the mixture and lay on lettuce leaves. Squeeze over the filling the juice of 1 lemon and a tablespoon of olive oil, and serve at once. Ordinary salad dressing may be used instead of the oil if preferred.

Cantaloupe Dessert.—Cut cantaloupes or musk melons in two, remove seeds, and fill with ice cream, and serve.

Blackberry Cobbler.—Line a deep yellow pudding dish with pastry. Fill with blackberries, sprinkle with sugar and put on a top crust. Serve with cream and sugar. An old cup inverted in the dish will keep the top pastry from falling. This hint is useful when making meat pies.

Baked Berry Roll.—1 pint flour sifted with 1 heaping teaspoon baking powder and 1/2 teaspoon salt. Rub into this 1 tablespoon butter or lard, then cut in with a knife 1/2 cup sweet milk. Roll out 1/4 inch thick, spread thickly with berries, sprinkle with sugar, and roll. Bake 1/2 hour and serve cold with cream, or hot with fruit sauce.

Fruit Sauce.—Cream together 1/2 cup sugar and 1 tablespoon butter. Add 1 beaten egg, 1 cup mashed berries, and 1 cup boiling milk. Wet 1 teaspoon cornstarch in enough milk to dissolve it and stir in slowly. Let all boil together 3 minutes, and serve.

A reputable citizen had left four umbrellas to be repaired. At noon he had luncheon in a restaurant, and as he was departing he absently started to take an umbrella from a hook near his seat.

"That's mine, sir," said a woman at the next table.

He apologized and went out. When he was going home in a street car with his four repaired umbrellas, the woman had seen in the restaurant a gentleman dressed from top to toe in black, and said:

"I see you had a good day."

The "Farmer's Advocate" Fashions.



6501 Girls School Suit, 8 to 14 years.



6702 Plain Blouse or Gumpie, 34 to 44 bust.



6711 Tucked Over Blouse, 34 to 42 bust.



6703 Boy's Suit, 2, 4 and 6 years.

Please order by number, giving age or measurements, as required. Price, ten cents per pattern.

Away.

I cannot say, and I will not say
That he is dead. He is just away!

With a cheery smile and a wave of the
hand,
He has wandered into an unknown land,
And left us dreaming how very fair
It needs must be, since he lingers there.

And you—oh, you, who the wildest yearn
For the old-time stop and the glad return—
Think of him going on, as dear
In the love of There as the love of Here;

And loyal still, as he gave the blows
Of his warrior strength to his country's
foes—

Mild and gentle, as he was brave,
When the sweetest love of his life he gave

To simple things, where the violets grew
Pure as the eyes they were likened to,
The touches of his hands have strayed
As reverently as his lips have prayed,
When the little brown thrush that harshly
chirred
Was dear to him as the mocking-bird,
And he pitied as much as a man in pain
A writhing honey-bee wet with rain.

Think of him still as the same, I say,
He is not dead—he is just—away!

—James Whitcomb Riley.

Summer Tramping Song.

We fare us forth at dawn of day,
We foot the road together,
The long road, the brown road,
In sunny summer weather—
Oh, who has kinder fate than we,
Who tread the road down to the sea?

The sky is over us fair blue,
And blue the blue flags growing,
The tall flags, the kind flags,
That sway in the wind's blowing—
Think you the marshes are not gay,
To gladden us tramping to-day?

The grey bird flits by the grey fence,
Little grey bird and ditty,
The sweet bird, the kind bird,
To lure us from the city;

We thank thee, little blue bird there,
To sing to us as forth we fare,
The air is sweet and clean at morn,
And sweet the misty sea there,
The grey sea, the wide sea,
Glimps'd glancing past the tree there,
Oh, we are tramping of happy part,
The calling sea breath our one chart.

Then who would not come join with us,
Fall in with no regretting?
On our road, the brown road,
There's never any fretting—
We tread the road down to the sea,
And blithe and free of heart are we.

—Arthur L. Phelps.

The Gentling of Red McWha.

It was heavy sledding on the Upper Ottawaensis trail.

The two lumbermen were nearing the close of the third day of the hard four days' haul, in from the settlements to the camp. At the head of the first team, his broad jaw set and his small gray eyes angry with fatigue, trudged the big figure of Red McWha. With his fiery red head and his large red face, he was the only one of his coloring in a large family so dark that they were known as the "Black McWhas," and his temper seemed to have been chronically soured by the singularity of his type. He was a good woodsman, however, and a good teamster, and his horses followed confidently at his heels like dogs. The second team was led by a tall, gaunt-jawed, one-eyed lumberman named Jim Johnson, invariably known as "Walley." From the fact that his blind eye was of a peculiar blankness, like whitish porcelain, he had been nicknamed "Wall-Eye," but owing to his general popularity, combined with the emphatic vows he held on that particular subject, the name had been mitigated to Walley.

The two were hauling in supplies for Conroy's Camp, on Little Ottawaensis Lake, presently, but for the clank and creak of the harness, and the soft thud, that on the sudden snow, the little pro-

cession toiled on through the soundless desolation. Presently the teams rounded a turn of the trail, and began to descend the steep slope which led down to Joe Godding's solitary cabin on the edge of Burnt Brook Meadows.

But there was no light in the window. No homely pungency of wood-smoke breathed welcome on the bitter air. The cabin looked startlingly deserted.

"When?" commanded McWha sharply, and glanced around at Johnson with an angry misgiving in his eyes. The teams came to a stop with a shiver of all their bells.

Then, upon the sudden stillness, arose the faint sound of a child's voice, crying hopelessly.

"Somebody wrong down yonder?" growled McWha.

As he spoke, Walley Johnson sprang past him, and went loping down the hill.

Red McWha followed very deliberately with the teams. He resented anything emotional. And he was prepared to feel himself aggrieved.

When he reached the cabin door the sound of weeping had stopped. Inside he found Walley Johnson on his knees before the stove, hurriedly lighting a fire. Wrapped in his coat, and clutching his arm as if afraid he might leave her, stood a tiny, flaxen-haired child, perhaps five years old. The cabin was cold, almost as cold as the snapping night outside. Along the middle of the floor, with bed-clothes from the bunk heaped awkwardly upon it in the little one's efforts to warm it back to responsive life, sprawled rigidly the lank body of Joe Godding.

Red McWha stared for a moment in silence, then stooped, examined the dead man's face, and felt his breast.

"Deader'n a herring!" he muttered. Johnson made no reply till the flame caught the kindling and rushed in from the open draft with a cordial roar. Then he stood up.

"He's been dead these hours and hours!" he said. "An' the fire out! an' the kid most froze! A sick man like he was, to've kept the kid alone here with him that-a-way!" And he glanced down at the dead figure with severe reprobation.

"Never was much good, that Joe Godding!" muttered McWha, always critical.

As the two woodsmen discussed the situation, the child, a delicate-featured, blue-eyed girl, was gazing up from under her mop of bright hair, first at one, then at the other. Walley Johnson was the one who had come in answer to her long wailing, who had hugged her close, and wrapped her up, and crooned over her in his pity, and driven away the terrors. But she did not like to look at him, though his gaunt, sallow face was strong and kind.

People are apt to talk easy generalities about the intuition of children! As a matter of fact, the little ones are not above judging quite as superficially and falsely as their elders. The child looked at her protector's sightless eye, then turned away and sidled over to McWha, with one hand coaxingly outstretched. McWha's mouth twisted sourly. Without appearing to see the tiny hand he deftly evaded it. Stooping over the dead man, he picked him up, straightened him out decently on his bunk, and covered him away from sight with the blankets.

"Ye needn't be so crusty to the kid, when she wants to make up to ye!" protested Walley, as the little one turned back to him with a puzzled look in her tearful blue eyes.

"It's all alike to be, six, or sixteen, or sixty-six!" remarked McWha sarcastically, stepping to the door. "I don't want none of 'em! Ye kin look out for 'er! I'm for the horses."

"Don't talk out so loud!" admonished the little one. "You'll wake daddy. Poor daddy's sick!"

"Poor lamb!" murmured Johnson, folding her to his great breast with a pang of pity. "No, we won't wake daddy. Now, tell me, what's yer name?"

"Daddy called me Rosy-Lilly!" answered the child, playing with a button on Johnson's vest. "Is he gettin' warmer now? He was so cold, an' he wouldn't speak to Rosy-Lilly!"

"Rosy-Lilly it be!" agreed Johnson. "Now, we jest won't bother daddy, him bein' so sick! You an' me'll git supper."

The cabin was warm now, and on tip-toe Johnson and Rosy-Lilly went about their work, setting the table, "binin'" the tea, and fixing the bacon. When

Red McWha came in from the barn, and stamped the snow from his feet, Rosy-Lilly said "Hush!" laid her finger on her lips and glanced meaningly at the motionless shape in the bunk.

"We mus' let 'im sleep, Rosy-Lilly says!" decreed Johnson, with an emphasis which penetrated McWha's unsympathetic consciousness, and elicited a non-committal grunt.

When supper was ready, Rosy-Lilly hung around McWha for a minute or two before dragging her chair up to the table. She evidently purposed paying him the compliment of sitting close beside him and letting him cut her bacon for her. But finding that he would not even glance at her, she took her place beside Johnson. When the meal was over and the dishes had been washed up, she let Johnson put her to bed in her little bunk behind the stove. She wanted to kiss her father good-night, as usual; but when Johnson insisted that to do so might wake him up, and he had for her, she yielded tearfully, and they heard her sobbing herself to sleep.

For nearly an hour the two men smoked in silence, their steaming feet under the stove, their backs turned toward the long, unstimulating shape in the big bunk. At last Johnson stood up and shook himself.

"Well!" he drawled, "I s'pose we mus' be doin' the best we kin fer poor old Joe. We can't leave him here in the house!"

"No, we can't," answered McWha. "He'd ha'n't it, an' us too, ever after, like as not! We got to give 'im lumberman's shift, till the boss kin send an' take 'im back to the settlement for the parson to do 'im up right an' proper."

So they buried poor Joe Godding deep in the snow under the big elm behind the cabin, and piled a monument of cordwood above him, so that the foxes and wild cats could not disturb his lonely sleep; and surmounted the pile with a rude cross to signify its character. Then, with lighter hearts, they went back to the cabin fire, which seemed to burn more freely now that the grim presence of its former master had been removed.

"Now, what's to be done with the kid—with Rosy-Lilly? They do say in the settlements as how Joe Godding hain't kith nor kin in the world, savin' an' exceptin' only the kid," began Johnson.

McWha nodded indifferently.

"Well," went on Johnson, "we can't do nawthin' but take her on to the camp, now! Mebbe the boss'll let the hands keep her, to kinder chipper up the camp when things gits dull. I reckon when the boys sees her sweet face they'll all be wantin' to be gardeens to her!"

McWha spat accurately into the crack of the grate. "I ain't got no fancy for young 'uns in camp, but ye kin do ez ye like, Walley Johnson," he answered grudgingly. "Only I want it understood, right now, I ain't no gardeen, an' won't be to nawthin' that walks in petticoats!"

"We'll tell the kid," Johnson went on, "as how her daddy had to be took away in the night because he was so sick, an' couldn't speak to nobody, an' we was goin' to take keer o' her till he gits back!—an' that's the truth!" he added, with a sudden passion of tenderness and pity in his tone.

At this hint of emotion McWha laughed sarcastically. Then knocking out his pipe he proceeded to fill the stove for the night, and spread his blanket on the floor beside it. "If ye want to make the camp a baby farm," he growled, "don't mind me!"

CHAPTER II.

Conroy's Camp fell under the dominion of Rosy-Lilly at sight, capitulating to the first appeal of her tearful blue eyes. Dave Logan, the boss, happened to know just how utterly alone the death of her father had left the child, and he was the first to propose that the camp should adopt her. Then Jimmy Brackett, the cook, on whom would necessarily devolve the chief care of this new member of his family, jumped to the proposal of the boss with enthusiastic support.

"We'll every mother's son o' us be gardeens to her!" he declared. Every man in camp assented noisily, saving only Red McWha. He, as was expected of him, sat back and grinned.

From the first, Rosy-Lilly made herself at home in the camp. For a few days

she fretted after her father, but Jimmy Brackett was ever on hand to divert her mind with astounding fairy-tales, during the hours when the rest of the hands were away chopping and hauling. Happily, a baby's sorrow is shorter than its remembrance, and Rosy-Lilly soon learned to repeat her phrase—"Poor daddy had to go 'way off," without the quivering lip and wistful look which made the big woodsmen's hearts tighten so painfully beneath their homespun shirts.

Conroy's Camp was a spacious, oblong cabin of "chinked" logs, with a big stove in the middle. The bunks were arranged in a double tier along one wall, and a plank table, rude but massive, along the other. At the inner end of the main room a corner was boarded off to make a tiny bedroom, no bigger than a closet. This was the boss's private apartment. It contained two narrow bunks, one for the boss himself, and one for the devoted missionary priest, who on his snowshoes was wont to make the round of the widely-scattered camps once or twice in a winter. This guest-bunk the boss at once allotted to Rosy-Lilly, but on the strict condition that Johnson should continue to superintend Rosy-Lilly's nightly toilet.

Rosy-Lilly had not been in the camp a week before McWha's "ugliness" to her had aroused even the boss's resentment, and the boss was a just man. Of course, it was generally recognized that McWha was not bound, by any known law or obligation, to take any notice of the child, still less to "make a fuss over her" with the rest of the camp. There was absolutely nothing to be done about it; for Red McWha was utterly within his rights.

The adulation of the rest of the camp, poured out at her tiny feet, Rosy-Lilly took graciously enough, but rather as a matter of course. It was all her due. But what she wanted was that the big, ugly, red-headed man, with the cross gray eyes and loud voice, should be nice to her. She wanted him to pick her up and set her on his knee, and whistle wonderful wooden dogs and dolls and boats and boxes for her with his jack-knife, as Walley Johnson and the others did. With Walley she would hardly condescend to coquet. She merely consented to make him useful, much as she might a convenient and altogether doting but uninteresting grandmother. To all the other members of the camp—except the boss, whom she regarded with some awe—she would make baby love impartially and carelessly. But it was Red McWha whose notice she craved.

The evening meal, "supper," in Conroy's Camp was the time of relaxation, with only pipe and bunk to come after. As the rough banter bounded boisterously this way and that above the heaped tin plates and steaming tin cups, Rosy-Lilly's big blue eyes would roam gravely from one face to another as if trying to understand what it was all about. But at last her eyes would come always to the face of Red McWha, and rest there in wistful admiration.

When supper was over, and pipes filled and lighted, someone would strike up a "chantey,"—one of those interminable, monotonous ballad-songs which are peculiar to the lumber camps.

These chanteys are always sung in a plaintive minor; some are sentimental or religious to the last degree, while others are amazingly vulgar. But from the hour of Rosy-Lilly's arrival in camp, all the vulgar chanteys were dropped, without a word said by anyone, from the woodsmen's repertoire.

During the songs, the smoking, and the lazy fun, Rosy-Lilly would slip from one big woodsman to another, an inconspicuous little figure in the smoke-gloomed light of the oil lamps. Man after man would snatch her up to his knee, lay by his pipe, twist her silky yellow curls about his great blunt fingers, and whisper wood-folk tales or baby nonsense into her pink little ear. She would listen solemnly for a minute or two, then wriggle down and move on to another of her admirers. But before long she would be standing by the bench on which sat Red McWha with one big knee usually hooked high above the other, and his broad back reclined against the edge of a bunk. For a few moments the child would stand there smiling with a perennial confidence, waiting to be noticed. Then she would come closer and look up coaxingly into his face. If McWha were not engrossed

ent free

use it tells
ines you

ake. The
ays makes



dvocate"



Tucked Over
Blouse,
to 42 bust.

iving age or
Price, ten



One Barrel of Flour Instead of Two

YES, in the old way there was one kind of flour for bread and another for pastry.

Now, OGILVIE'S ROYAL HOUSEHOLD FLOUR is an all around flour. It makes not only the very best bread but also the very best cakes, pies, biscuits, rolls, muffins, pop-overs, pancakes, dumplings, anything that you want to make or bake from flour.

"ROYAL HOUSEHOLD" saves money and trouble. Instead of having two barrels of flour in the house you can get along much better with one. And you can be certain that it is always uniform—will always come out right whether for Bread or Pastry.

ROYAL HOUSEHOLD is made from the finest grade of wheat in the

world, Manitoba Red Fyfe wheat, and milled by the very finest machinery, in mills that are a model of cleanliness.

"ROYAL HOUSEHOLD" costs a trifle more by the barrel than ordinary flour but this trifle extra proves real economy when the loaves are counted. For "ROYAL HOUSEHOLD" goes farther than ordinary flour—farther in actual quantity of baked product.

Even if "ROYAL HOUSEHOLD" cost a great deal more than ordinary flour it would be well worth it for it is more nourishing.

You can't afford to buy impoverished flour at any price. You can't afford to skimp on health when you buy flour just because it costs less than "ROYAL HOUSEHOLD".



Why Have Grey Hair?



Princess Hair Rejuvenator

Why have grey hair when will restore it to its natural color in a few days, at the same time making it glossy and beautiful? This harmless, clear as water preparation, which contains no poisonous sugar-of-lead, and is not sticky or greasy like lead and sulphur preparations, has been used successfully for years. It has our personal reputation, and that of the other PRINCESS TOILET PREPARATIONS behind it. It is easy to apply does not rub off has no odor cannot be detected best for brown or black hair not more than half grey keeps the hair fluffy and natural use it and the hair will not have a dyed appearance always safe to use PRICE, \$1.00, delivered, if your druggist doesn't keep it

Superfluous Hair

MOLDS, WAKES, POWDER MARKS, REDACTIONS, SCOWL LICKS, ETC. positively no other treatment or preparation that will permanently remove hair from the face

Hiscott Dermatological Institute, 61 College St., Toronto. Established 1892 Tel. M831

in song, it would soon become impossible for him to ignore her. He would suddenly look down at her with his fierce eyes, knit his shaggy red brows, and demand harshly, "Well, Yaller-Top, an' what d'you want?"

From this rough greeting, the loud voice and angry eye, the child would retreat in haste, and usually seek Jimmy Brackett, who would console her with some sticky sweetmeat, and strive to wather McWha with envenomed glances.

If Rosy-Lilly left rebuffed for the moment by McWha's rudeness she seemed always to forget it the next time she saw him. But on one occasion the discrimination was McWha's. She had elicited the customary rough demand, "Well, Yaller-Top, what d'you want?" But this time she held her ground, though with quivering lip.

"Yaller-Top, what d'you want?" she explained, in the most demure manner. "Rosy-Lilly, she's a'right, she might want me to skip on health, but I'm twenty years old."

McWha's head, McWha's mind about the town, with a splash of 25. Then he flung his hand up as he felt the demand of the child's scheme. "You're long down, an' what d'you want?"

McWha's head, McWha's mind about the town, with a splash of 25. Then he flung his hand up as he felt the demand of the child's scheme. "You're long down, an' what d'you want?"

"Ain't he ugly," murmured "Bird" Pidgeon to Walley Johnson, spitting indignantly on the stove-leg. "He'd 'a' cuffed the kid ef he dast, he glared at her that ugly!"

"Like to see 'im try it!" responded Johnson through his teeth.

After this for some days the pathetic little comedy halted. McWha would climb into the safe retreat of his bunk right after supper, and smoke there beyond danger of surprise or escalation. And Rosy-Lilly, for the moment, appeared to have dismissed him from her thoughts. Only the single piercing eye of Walley Johnson noted that she allowed herself, now and then, a swift but wistful glance toward McWha's bunk, where his big form lounged in a gloom of smoke.

The time soon came, however, when McWha resumed his old seat on the bench. Rosy-Lilly avoided him for two evenings, but on the third the old fascination got the better of her pique. McWha saw her coming, and, growing self-conscious, he hurriedly started up a song with the full strength of his big voice. The song was a well-known one, and nothing in it to redder the ear of a maid, but it was profane. Had it been any one but McWha who started it, nothing would have been said; but as it was, Walley Johnson took alarm on the instant. To his supersensitive watchfulness McWha was singing that song "jest a purpose to be ugly to the kid." The fact that "the kid" would hardly understand a word of it did not occur to him. Rising up from his bench behind the stove he shouted across the smoky room—"You shet up that, Red!"

The song stopped. Every one looked inquiringly at Johnson. For several moments there was silence, broken only by an uneasy shuffling of feet. Then McWha got up slowly, his eyebrows bristling, his angry eyes little pin-points. First he addressed himself to Johnson.

"What business is't o' yours, what I sing?" he demanded, opening and shutting his big fingers.

"I'll show ye what—" began Johnson in a tense voice. But the boss interrupted. Dave Logan was a quiet man, but he ruled his camp. Moreover, he was a just man, and Johnson had begun the dispute.

"Chuck that, Walley!" he snapped, sharp as a whip. "If there's to be any row in this here camp, I'll make it myself, an' don't none o' you boys forget it!"

McWha turned upon him in angry appeal.

"You're boss, Dave Logan, an' what you sez goes, fer's I'm concerned," said he, "but I ax you, as boss, be this here camp a camp, or a camp-meetin'?" "Ef you sez we ain't to sing nawthin' but hymns, why, o' course, it's hymns fer me till I kin get away to a camp where the hands is men an' not wet nurses."

"That's all right, Red," said the boss. "I kin make allowances fer yer gettin' riled, considerin' the jolt Walley's rule interruption gave ye." He hadn't no right to interrupt nor no call to. "This ain't no camp-meetin'." An' the boys can't be expected to go a-top of and talk prunes an' prisms all along o' a little yeller-haired kid what's come to brighten up the old camp fer us. That wouldn't be sense. But all we've got to mind is just this, no 'low-down talk! That's all boys."

For a time, now, Rosy-Lilly left McWha alone so markedly that it looked as if Walley Johnson or Jimmy Brackett had punished her on the subject. She ran round and out, cast at him eyes of pleading reproach, then a wary, cunning, devious, and such appeals looked at McWha, as if she were making a bargain with the devil. He had nothing to say, but he would not let her go, and he would not let her go.

Next day, a cold, overcast day, McWha saw an' spoke to Rosy-Lilly. "You're long down, an' what d'you want?" she asked, in the most demure manner. "Rosy-Lilly, she's a'right, she might want me to skip on health, but I'm twenty years old."

honor fell, as a matter of course, to Jimmy Brackett. Rosy-Lilly went with him willingly enough, but not till after a moment of hesitation, in which her eyes wandered involuntarily to the broad red face of McWha behind its cloud of smoke.

As a nurse-maid, Jimmy Brackett flattered himself that he was a success, till the moment came when Rosy-Lilly was to be tucked into her bunk. Then she stood and eyed him with solemn question. "What's wrong, me Honey-bug?" asked Brackett anxiously.

"You hain't heard me my prayers," replied Rosy-Lilly, with a touch of severity in her voice.

"Eh? What's that?" stammered Brackett, startled quite out of his wonted composure.

"Don't you know little girls has to say their prayers afore they goes to bed?" she demanded.

"No!" admitted Brackett truthfully, wondering how he was going to get out of the unexpected situation.

"Walley Johnson hears me mine!" continued the child, her eyes very wide open as she weighed Brackett's qualifications in her merciless little balance.

Here Brackett was misguided enough to grin, bethinking him that now he "had the laugh" on the boss and Walley. That grin settled it.

"I duss you don't know how to hear me say 'em, Jimmy," she announced inexorably. And picking up the skirt of her blue homespun "nightie," so that she showed her little red woollen socks and white deer-hide moccasins, she tripped forth into the big, noisy room.

At the bright picture she made, her flax-gold hair tied in a knob on top of her head, that it might not get tangled, the room fell silent instantly, and every eye was turned upon her. Unabashed by the scrutiny, she made her way sedately down the room and across to McWha's bench. Unable to ignore her, and angry at the consciousness that he was embarrassed, McWha eyed her with a grim stare. But Rosy-Lilly put out her hands to him confidently.

"I'm goin' to let you hear me my prayers," she said, her clear, baby voice carrying every syllable to the furthest corner of the room.

An ugly light flamed into McWha's eyes, and he sprang to his feet, brushing the child rudely aside.

"That's some o' Jimmy Brackett's work!" he shouted. "It's him put 'er up to it!" The whole room burst into a roar of laughter at the sight of his wrath. Snatching his cap from its peg he strode furiously out to the stable, slamming the door behind him.

CHAPTER III.

One day, however, Fate concluded to range herself on Rosy-Lilly's side. A dead branch, hurled through the air by the impact of a falling tree, struck Red McWha on the head, and he was carried home to the cabin unconscious, bleeding from a long gash in the scalp. The boss, something of a surgeon in his rough-and-ready way, as bosses need to be, washed the wound and sewed it up. Then he handed over his own bunk to the wounded man, declaring optimistically that McWha would come round all right.

It was hours later when McWha began to recover consciousness, and just then, as it happened, there was no one near him but Rosy-Lilly. Smitten with pity, the child was standing beside the bunk, murmuring, "Poor! Poor! I so sorry!" and slowly shaking her head and lightly patting the big, limp hand where it lay beside the blanket. McWha half opened his eyes, and their faint glances fell on the top of Rosy-Lilly's head as it bent over his hand. With a very subtle he had been caught. But to his surprise he had been caught. At last he opened his eyes, with a gasp, and he saw the child's face, his bandaged head, and the top of his head of water. To his surprise, he was answered by Rosy-Lilly, so that it seemed as if she had been waiting for him. She came forward, and she had some water in her little red cup, and she was saying, "You're long down, an' what d'you want?"

"Ye got off mighty easy, Red," said the boss cheerfully, "considerin' the heft o' the knot 'at hit ye. But you McWhas was always hard to kill."

McWha's hand was drooping loosely over the edge of the bunk. He felt the child's tiny fingers brushing it again, softly and tenderly. And the sensation was so novel that he quite forgot to reply to the boss's pleasantry.

During the two days McWha was kept a prisoner he had nothing to do but smoke and whittle. He whittled diligently, but let no one see what he was making. Then, borrowing a small tin cup from the cook, he fussed over the stove with some dark, smelly decoction of tobacco juice and ink. Rosy-Lilly was consumed with curiosity, especially when she saw him apparently digging beads off an Indian tobacco-pouch which he always carried. But Jimmy Brackett did not let her go near enough to get enlightened as to this mysterious occupation.

On the following day McWha went to work again, but not till after breakfast, when the others had long departed. Rosy-Lilly, with one hand twisted in her little apron, was standing in the doorway as he passed out. She glanced up at him with a coaxing smile. McWha would not look at her, and his face was as sullenly harsh as ever; but as he passed he slipped something into her hand. To her speechless delight it proved to be a little dark-brown wooden doll, daintily carved, and with two white beads, with black centers, cunningly set into its face for eyes.

Rosy-Lilly hugged the treasure to her breast. Her first proud impulse was to run to Jimmy Brackett with it. But a subtler instinct withheld her. Somehow, from the way the gift had been bestowed, she felt it was meant to be a kind of secret. She carried it away and hid it in her bunk, where she would go and look at it from time to time throughout the day. That night she brought it forth, but with several other treasures, so that it quite escaped comment. She said nothing about it to McWha, but she played with it when he could not help seeing it. And thereafter her "nigger-baby" was always in her arms.

This compliment, however, was apparently all lost on McWha, who had again grown unconscious of her existence. And Rosy-Lilly, on her part, no longer strove to win his attention. She was content either with the victory she had won, or with the secret understanding which, perforce, now existed between them. And things went on smoothly in the camp, with every one now too occupied to do more than mind his own business.

It chanced this year that the spring thaws were early and unusually swift, and from every brookside "landing" the logs came down in black, tumbling swarms. Just below Conroy's camp the river wallowed round a narrow bend tangled with slate ledges.

And here, now, in spite of the frantic efforts of Dave Logan and his crew, the logs suddenly began to jam. Pitching downward as if propelled by a pile-driver, certain great timbers drove their ends between the upstanding strata of the slate, and held against the torrent till others came and wedged them securely. The jam began between two ledges in midstream, where no one could get near it. In a few minutes the interlocked mass stretched from bank to bank, with the torrent spurting and spouting through it in furious gill-white jets. In a short time the river was packed solid from shore to shore for several hundred yards above the brow of the jam, and above that again the waters were rising at a rate which threatened in a few hours to flood the valley and sweep away the camp itself.

At this stage of affairs the boss, ax in hand, picked his way across the monstrous tangle of the face of the jam between the great white jets till he gained the center of the structure. Here his practiced eye presently located the timbers which held the structure firm, the key logs, as the men called them. These he picked with his ax. Then, returning to the shore he called for two volunteers to take the task of cutting these key logs away.

Such a task was the most perilous that a lumberman could perform. Dave Logan was the first to perform. Dave Logan was the first to perform. Dave Logan was the first to perform.

breaking to his credit, from the days before he was made a boss; and now, when he called for volunteers, every unmarried man in camp responded, with the exception, of course, of Walley Johnson, whose limited vision unfitted him for such a venture. The boss chose "Bird" Pigeon and Andy White, because they were not only "smart" ax-men, but also adepts in the rivermen's game of "running logs."

With a jaunty air the two young men spat on their hands, gripped their axes, sprang out along the base of the jam and plied their heavy blades. It was heroic, the work of these two, chopping coolly out there under that colossal front of death. Their duty was nothing less than to bring the toppling brow of the jam down upon them, yet cheat fate at the last instant, if possible, by leaping to shore before the chaos quite overwhelmed them.

Suddenly, while the two key logs were not yet half cut through, the trained eye of the boss detected a settling near the top of the jam. His yell of warning tore through the clamor of the waters. At the instant came a vast grumbling,—not loud, apparently, yet dulling all other sounds. The two choppers sprang wildly for shore, as the whole face of the jam seemed to crumble in a breath.

At this moment a scream of terror was heard, and every heart stopped. Some thirty yards or so up-stream, and a dozen, perhaps, from shore, stood Rosy-Lilly on a log. While none were observing her she had gleefully clambered out over the solid mass, looking for spruce gums. But now, when the logs moved, she was so terror-stricken that she could not even try to get ashore. She just fell down upon her log and clung to it screaming.

A groan of horror went up. The awful grinding of the break-up was already under way. Walley Johnson leaped wildly out upon the nearest logs, fell head foremost, and was dragged back, fighting furiously.

Just as Johnson went down, there arose a great bellowing cry of rage and anguish; then Red McWha's big form shot past, leaping far out upon the logs. Over the sickening upheaval he bounded this way and that, with miraculous sure-footedness. He reached the pitching log whereon Rosy-Lilly still clung. He clutched her by the frock. He tucked her under one arm like a rag-baby. Then he turned, balancing himself for an instant, and came leaping back toward shore.

A great shout of wonder and joy went up,—to be hushed in a second as a log reared high in McWha's path and hurled him backwards. Right down into the whirl of the dreadful grist he sank. But with a strength that seemed more than human he recovered himself, climbed forth dripping, and came on again with those great unerring leaps. This time there was no shout. The men waited with dry throats. Within two feet of shore a log toward which he had jumped was jerked aside just before he reached it; and turning in the air as he fell, so as to save the child, he came down across it on his side with stunning violence. As he fell, the boss, and Brackett, and two of the others, sprang out to meet him. They reached him somehow, and, covered with bruises which they did not feel, succeeded in dragging him, with his precious burden, up to safety. When his feet touched solid ground he sank unconscious, but with his arm so securely gripped about the child that they had difficulty in losing his hold.

Rosy-Lilly, when they picked her up, was quivering with terror, but unharmed. When she saw McWha stretched out upon the bank, motionless, with his eyes shut and his white lips half open, she fought savagely to be put down. She ran and flung herself down beside her rescuer, caught his big white face between her tiny hands, and fell to kissing him. Presently McWha opened his eyes, and with a mighty effort passed upon one elbow. A look of embarrassment passed over his face, as he glanced at the man standing about him. Then he looked down at Rosy-Lilly, grinned with a shamefaced tenderness, and pulled her gently toward him.

"I'm right — glad — you're — safe," said Rosy-Lilly, "he said faintly, drawing her face down to his. "Boss, get the doc to patch me up—I've got so I've got to go for Rosy-Lilly's sake!"—By Chas. H. Roberts, in Delineator.

Gourlay Pianos

THE PRIDE OF OWNERSHIP

To own a Gourlay Piano is to be proud of your piano. If you are a musician, the sympathetic bond between you will be strong indeed, for a Gourlay piano responds to every mood of the player. There is a crispness and delicacy of tone for the daintiest improvisation and a richness and volume for the most exacting bravura passages.

If you are not a player, but a lover of music, the pleasure of your friends' enthusiasm will more than repay you for the amount of your investment, to say nothing of the extra years of service over an ordinary piano.

Write for Catalogue and prices.

GOURLAY, WINTER & LEEMING,
188 Yonge Street, Toronto, Canada.

World's Greatest Separator

Standard

SKIMS CLOSEST.

It has become common talk that any cream separator will skim close enough.

That's all Wrong.

It is possible for one separator to skim enough closer than another to pay for itself in extra profits in 2½ years with eight cows, or, in other words, the poor-skimming separator, while getting more cream than pans or cans, loses the price of itself every 2½ years.

The "STANDARD" has reached a skimming standard, "with milk under all conditions," far above all others. The best way for you to prove this is with the machine itself. Try a "STANDARD." If it don't stand up and prove its superiority to you in results, don't buy it, that's all. Write for free catalogue. It explains all. Good agents wanted in unrepresented districts.

THE RENFREW MACHINERY COMPANY, LIMITED,
RENFREW, ONTARIO.

STANDARD.
Sizes: No. 4, No. 6, No. 8.
Capacities: 400, 550 and 750 Lbs.
Prices and terms on application.

The ONTARIO LOAN DEBENTURE Co

The Value of Money

If you would know the value of a dollar, try to borrow one.

Recollections? Then you should by all means build a barrier against the necessity of borrowing by opening an account here if only with a dollar as a start. 3½% interest paid.

LONDON, ONTARIO

MENTION THE FARMER'S ADVOCATE WHEN WRITING ADVERTISERS

Cowan's "Perfection" Cocoa

Let the children drink all they want. Healthful, nutritious, delightful.

Absolutely pure. That rich chocolate flavor. Very economical.

The Cowan Co. Limited, Toronto.

Send your remittances by DOMINION EXPRESS MONEY ORDERS AND FOREIGN DRAFTS

Payable everywhere.

Rates for Money Orders :

\$ 5.00 and under	3c.
Over 5.00 to \$10.00	6c.
10.00 to 30.00	10c.
30.00 to 50.00	15c.

Money sent by

TELEGRAPH AND CABLE.

Issued in all stations of the Canadian Pacific Railway Co.

WANTS

Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and Pet Stock, from the 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—Smart, active ladies to take orders in country districts for our famous Made-to-order Corsets and Skirts. Good commission. Apply: Robinson Corset & Costume Co., London, Ont.

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

THE Canadian Apple-growers' Guide (just published).—A complete and up-to-date guide for success in apple-growing, from the planting of the tree to the sale of the fruit. By Linus Woolverton, M.A., Grimsby, Ontario. Published by Wm. Briggs, Toronto. Price \$2.25, postpaid.

VANCOUVER ISLAND offers sunshiny, 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—Married man for general farm work. Yearly engagement. Must be good plowman; experienced with horses and cattle. State wages expected. MacVaneil Bros., St. Mary's, Ontario.

POULTRY AND EGGS

ANGONA Cockerels, Single-comb White Leg horn hens and cocks, yearlings. Cheap to clear. Write your wants. E. C. Apps, Box 224, Vice-President, International Angona Club, Brantford, Ontario.

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

Registered Seed Wheat

11 bushels, 1000 Golden Chaff, selected for 11 years, according to the rules of the Canadian Seed Growers' Association. Scored 95 points out of 100.

C. R. Gies, Heidelberg, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

WILD RADISH.

What variety of mustard is this?
T. D. B.

Ans.—The mustard submitted is wild radish. It propagates from seeds, and is a coarse, vigorous grower, producing an abundance of seeds. It is very objectionable. Hand-pull, if possible, summer-fallow, with thorough cultivation, at short intervals. Hood crops, with clean cultivation, followed by a fodder crop, cut green before the seed flowers, with early clover for pasture or hay the third year, and a grass crop for hay the fourth year, is a rotation that will ultimately suppress this weed.

BINDWEED.

This is a plant that came up in a field of grain that was newly tilled. We never saw it before, and ask whether it is injurious or not? It is similar to a morning-glory, with a very small flower, and it twines up the grain.
J. B.

Ans.—The weed presented is small bindweed, field bindweed, or wild morning-glory, and is an exceedingly persistent grower. It propagates both from its seeds and its roots, any portion of which will grow when broken by the plow. A short rotation, including Titessown roots, is useful in eradication. Frequent use of a broad-sheared cultivator will destroy new growth and exhaust the vitality of the plants. Men have worked years in eradicating this weed, and you may as well make up your mind to thoroughly cultivate the infested area every five days for an entire season, and thus weaken the vitality of this weed. You will have to keep constantly fighting this weed if, as it appears from the sample received by us, it is the bindweed.

STALLION'S SERVICES.

A takes a mare to B's home for service, and bred her, on the 23rd of March, stating to B that he wanted the mare to foal early or not at all. B stated his fee was \$15 if he moved his horse, but at his home it would be less. B sold his horse to C. C brings his horse to A's home and wants to try A's mare on the 7th of June. A told C that, as it was too late, he would not breed his mare at all, or not till fall. A asked C his price. C stated \$15.

1. If A's mare does not foal the spring of 1911, is A responsible to C for the fee, when nothing was stated except the fee?

2. If A's mare is bred to another horse, and foals in July or August, 1911, can C claim his fee?

3. If A's mare foals in October or November, 1911, by a different horse, can C claim his fee?
FOXY.

Ontario

Ans.—We would answer No, to all three questions.

DAIRY COW RATION.

What mixture of the following foods would be most advisable to feed to milk cows, on grass? I can buy shorts, \$1.20 cwt.; bran, \$1.10 cwt.; low-grade flour, \$1.60 cwt.; oil cake, \$2 cwt. Or are there other foods that would produce milk more economically?
W. S. S.

Ans.—The problem of most economical, yet most advantageously, compounding a meal ration for your cows, is affected somewhat from the nature of the pasture. Protein is the most expensive constituent of our animal foods; it is also the chief essential for milk cows, in the feeding of which narrow rations are used, i. e., the proportion of proteids to the non-proteids is high. In the feeds you indicate, the oil cake is the cheapest source of protein, but in itself is too rich in that matter, having a ratio of 1:1.5; it is probably best that the ratio be widened to at least 1:4.5 for your cows. For this purpose, the low-grade flour contains a slightly higher content of carbohydrates and fats, but costs considerably more; on the other hand, the shorts, while not containing quite as much of the non-proteid matter, contains about one-half more proteid matter, and is cheaper. The ratio of shorts alone is about 1:5. Consequently, if you would feed shorts and oil meal, mixed in the proportion of four of the former and one of the latter, you will probably have the most economic

and satisfactory meal ration, providing they are both of good quality. The addition of a little bran will lighten the ration, probably increasing its digestibility. This ration is quite narrow as here outlined. If you wish to widen it, increase the proportion of shorts, or substitute bran for part of the oil meal. This, however, will increase the cost. If you have ordinary mixed grain chop, this, with a little oil cake, will answer admirably.

CANADIAN EXPORTS

I would like to know the proportion and quantity of cattle, hogs, poultry, wheat, oats, etc., sent to England, by Canada, during recent years.

STATISTICIAN.

Ans.—In 1909, Canada exported to Britain: Cattle, 143,661; hogs, none; live poultry, \$1,075 worth; sheep, 19,793; bacon, 70,356,985 pounds; hams, 3,268,815 pounds; pork, 310,199 pounds; horses, 174; oats, 2,558,995 bushels; wheat, 48,891,218 bushels. For further information see Canada Year Book, or Trade and Navigation Report.

GRAFTING CHESTNUTS ON HORSE-CHESTNUTS.

I have some horse-chestnut trees, and would like to know whether it would do to graft the eating chestnuts on it. If so, where could I get the scions?
H. P.

Ans.—The sweet chestnut is not closely enough related to the horse-chestnut to make grafting of one upon the other possible. Unless there is a strong affinity between stock and scion, it is useless to attempt grafting. This, of course, can be determined only by testing, but the botanical relationship is usually a fairly reliable index to such affinity. Although we have never heard of the attempt being made, we feel quite safe in saying that the sweet chestnut and horse-chestnut have too remote a relationship to possess any such affinity.
H. L. HUTT.

GOSSIP.

T. B. Macaulay, Hudson Heights, Que., importer and breeder of high class Clydesdales and Hackneys, in his advertisement in this paper, offers for sale two imported Clyde-dale and two imported Hackney stallions of superior quality and breeding.

An autopsy performed on a valuable Holstein cow, which died suddenly at German Valley, N. J., reveals that the cow had swallowed a corset stay. In spite of his grief and chagrin over the loss, the late owner has dropped into poetry, and erected a tombstone over the cow's grave, with this epitaph:

This faithful cow we loved so much,
Has gone and passed away;
A corset steel cut short her life—
It was not hers to stay.

The steel was ten inches long, and pierced the cow's heart.

CENSUS OF FOREST PRODUCTS.

The census of the forest products of Canada, to be taken on 1st June, 1911, will embrace square, waney or flat timber, logs for lumber, and miscellaneous products.

In the first class are included ash, birch, elm, maple, oak, pine, and all other timber cut as square, waney or flat, and in the enumeration will be reported for cubic feet and value.

Logs for lumber, which are included in the second class, are in such woods as elm, hickory, hemlock, oak, pine and spruce. They will be enumerated in the census by quantities of 1,000 feet board measure, with value in the same unit.

Miscellaneous products of the forest include bark for tanning, fence posts, fire-wood, hoop and hop poles, masts, and spars, piling, post and pearl ashes, railroad ties, staves, stave-beds and heading, telegraph poles including telephone and other poles for electric wires, wood for pulp, and the furs and skins of forest animals undressed, and they will be enumerated by number or quantity and value.

The census of forest products will be taken chiefly from farmers, and the issuing of timber limits.



The tone, touch and magnificent wearing qualities of the New Scale Williams Piano are the logical results of the faultless materials and superb workmanship which enter into its construction.

The Harmonic Tone Prolonging Bridge—Acoustic Rim and Special Method of Ribbing—Grand Piano Scale and Construction—and many other exclusive features add musical excellence and durability to New Scale Williams

When you buy a piano, you want the best. May we send you our richly illustrated booklets, in which we give some of the reasons why the New Scale Williams is the universal choice of discriminating musicians and artists? We also invite your investigation of our easy payment plan, full particulars of which will be sent on request.

The Williams Piano Co. Limited, OSHAWA, Ont.

BRANCH OFFICES:

Winnipeg, Man., 325 Portage Ave.
Montreal, Que., 733 St. Catherine St. W.
London, Ont., 261 Dundas St. 112A



Bog Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

Fleming's Spavin Cure (Liquid) is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser

describes and illustrates all kinds of blemishes and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

FLEMING BROS., Chemists
75 Church St., Toronto, Ontario

HIGHLY-BRED CLYDESDALES FOR SALE

Always on hand, stallions, colts, mares and fillies. The champion stallion, "Baron Howes" (13847), was purchased from this stud. Apply:

JOHN R. BEATTIE, Annan, Scotland

AGENTS 200% PROFIT

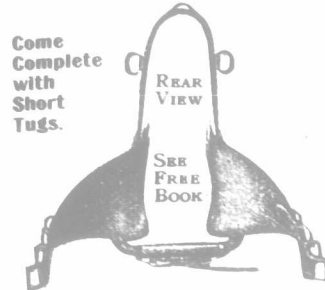
Handy, Automatic HAME FASTENER
Do away with old harnesses. Horse owners and harnessers wild about them. No Patent not satisfactory. Write today for confidential terms to agents.
F. Thomas Mfg. Co., 744 Wayne St., Dayton, Ohio

PLEASE MENTION THIS PAPER.

All Horse-Collar Troubles Now Prevented or Quickly Cured

Every horse-owner who will now consider the practical in valuable time and horseflesh by using a set of HUMANE HORSE COLLARS to prevent all collar troubles, will certainly buy a set with his spring harness. Or get a set to cure your sore horses while they work. The success of the HUMANE HORSE COLLARS for the past three years proves this. Investigate.

HUMANE HORSE COLLARS



It is a fact that only one set of HUMANE HORSE COLLARS on a farm will cure up and keep cured of collar troubles all your horses. Don't use "sweat pads" - it's cruel - especially in hot weather - injures your horses; and besides, the sweat pads cost you more than most collars before you get through. You don't need them with these collars. Every set comes complete with short tugs and ready to use - less trouble to put on and take off - and fit any horse perfectly all the time by simple adjustment. Built to last for years by expert workmen, and durable materials.

Don't think of buying your spring harness until you write or fully investigate THE HUMANE HORSE COLLARS. Get our book first.

WHIPPLE HORSE COLLAR COMPANY, LIMITED
Hamilton, Ontario.



UNION STOCK - YARDS Horse Exchange WEST TORONTO, CANADA.

The Greatest Wholesale and Retail Horse Commission Market.

Auction sales of Horses, Carriages, Harness, etc., every Monday and Wednesday. Horses and harness on hand for private sale every day. The largest, best equipped and most sanitary stables in Canada. Half-mile of railway loading chutes at stable door. Quarter-mile open track for showing horses. Northwest trade a specialty. HERBERT SMITH, Manager. (Late Grand's Repository.)

T. H. HASSARD'S NEW IMPORTATION!



Clydesdale Stallions and Mares I have still some extra good Clydesdale stallions and fifteen imported and registered mares. The mares have all been bred, are all up to a big size, 2 and 3 years old, and are of choice Clydesdale breeding. C. P. R. and phone connection.

T. H. Hassard, Markham, Ontario

ONTARIO VETERINARY COLLEGE

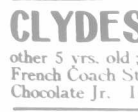
Affiliated with the University of Toronto, and under the control of the Department of Agriculture of Ontario. Infirmary for sick animals at the College. Calendar on application.

College Re-opens September 30th, 1910

E. A. A. GRANGE, V.S., M.S., PRINCIPAL, 40-46 TEMPERANCE ST., TORONTO, ONT.



CLYDESDALES AND HACKNEYS We have still for sale several good Clydesdale Stallions; also our prizewinning Hackney stallion, Blanch Surprise, and a few good Clydesdale and Hackney mares. All of which will be sold on reasonable terms. Phone connection. JOHN A. BOAG & SON, Bayview Farm, Queensville, Ont.



CLYDESDALES, Imported and Canadian-bred. I have on hand 2 Imported Clydesdale Stallions, one 4, the other 5 yrs. old; 2 Canadian-bred Clydesdale Stallions, one 2, the other 3 yrs. old; one French Coach Stallion, 4 yrs. old; one Shire Stallion, and the noted Hackney Stallion, Chocolate Jr. I will sell these horses cheap for quick sale. T. D. Elliott, Bolton, Ont.



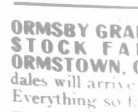
WAVERLY CLYDESDALES AND HACKNEYS My 1910 importation of Clydesdale stallions and fillies, and Hackney stallions and fillies, are now in my barns. One and two-year-old Clyde fillies of a character and quality never before excelled. My Hackney stud was never so strong in high-class animals. All are for sale and prices right. ROBT. BEITH, BOWMANVILLE, ONT.



IMPORTED CLYDESDALES AND HACKNEYS In my stables at Ingersoll, Ont., I have always on hand Clydesdale stallions and fillies, and Hackney stallions, personally selected in Scotland for their high-class type, quality and breeding. Let me know your wants. W. E. BUTLER, INGERSOLL, ONT.



IMPORTED CLYDESDALE FILLIES I have still on hand six Clydesdale fillies. They are big, smooth fillies, exceptionally well bred, and their underpinning is the kind Canadians like. I have only one stallion left, a right good one. My prices are as low as any man's in the business. Phone connection. GEO. G. STEWART, HOWICK, QUEBEC.



ORMSBY GRANGE Duncan McEachran, F.R.C.V.S., LL.D., Etc., Proprietor. STOCK FARM. The June importation being immediately disposed of, to fill numerous ORMSBURY, QUE. orders a large consignment of yearling and two-year-old Clydesdales will arrive at the end of September. Special orders will be executed at minimum cost. Everything so far imported by us has given unqualified satisfaction as to quality and price.



Imported Clydesdales 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. C. W. BARBER, GATINEAU PT., QUEBEC.



SMITH & RICHARDSON are in Scotland at present purchasing more Clydesdales. Watch this space for further announcement. Myrtle, C. P. R., Brooklin, G. T. R. Phone.



SMITH & RICHARDSON, COLUMBUS, ONTARIO.



CLYDESDALE FILLIES OF QUALITY Our new importation of 12 fillies, 1, 2 and 3 years of age. Superior type, character, breeding and action, coupled with the flashiest kind of quality, are their outstanding merits. All are for sale. HODGKINSON & TISDALE, BEAVERTON, ONTARIO.



Mount Victoria Stock Farm, Hudson Heights, Quebec. Champion Clydesdales and Hackneys. We have for sale 2 imp. Clydesdale stallions, by Pride of Britain and British Chief; 2 imp. Hackney stallions, by Copper King and Terrington. Also 1 prizewinner. Prices right. Long-distance phone. T. B. Macdonald, Proprietor. E. Watson, Manager.

QUESTIONS AND ANSWERS. Veterinary.

CATARACT—LUMPS ON ABDOMEN.

1. Last year horse had scum over eye. I got some lotion for it and it got better. Now the eye is becoming white in the center.

2. Pig has lumps the size of goose egg on its stomach.

Ans.—1. I am afraid a cataract is forming, and, if so, nothing can be done. If the white spot be near the surface, it is due to a deposit of lymph between the layers of the external coat of the eye, and you may cause absorption by putting a few drops of the following lotion into the eye, twice daily, viz.: Nitrate of silver, 10 grains; distilled water, 2 ounces.

2. If these are soft, lance, and allow the escape of pus, and flush the cavities out twice daily, until healed, with a 5-per-cent. solution of carbolic acid. If they are hard, leave them alone, or get your veterinarian to dissect them out.

FATALITY IN COLT.

Mare foaled July 12th. On the 17th I noticed a soft swelling on right side of breast. This soon extended to left side, and down between the fore legs. Diarrhea set in, and it died on the 19th. A post-mortem revealed yellowish fluid in the abdominal cavity and parts of the peritoneum decomposed and fetid, and decomposition was present under swelling on breast.

Ans.—The colt died of inflammation of the bowels complicating diarrhea. This is evidenced by the condition of the bowels and peritoneum, accompanied by serum in the cavity. It is possible that repeated doses of opium, say 2 drams laudanum in a little of the dam's milk, every three hours, for a few doses, might have saved it, but it is doubtful if any treatment would have been successful. The swelling on the breast was erysipelas, and it is quite probable this predisposed the colt to diarrhea. Treatment for this should have been bathing with hot water and rubbing with camphorated liniment, and giving 20 grains hyposulphate of soda, three times daily. I do not think the colt could have been saved.

ERUPTIVE TROUBLE IN COLT.

Colt is now six weeks old. When born, one knee was weak and swollen. In a week, both hocks became swollen and discharged matter. It bled from the navel for two or three days, then a veterinarian ligatured it, said the colt had joint ill, and left medicine for it. He got worse, and a sore broke out on his breast. The navel again broke out. We treated with hot water and the sores healed. There is now a soft lump the size of a goose egg on one stifle. The lump becomes hard when he walks. He has a good appetite.

Ans.—The symptoms indicate joint ill, and you should give your veterinarian credit for saving the colt's life. Certainly, your treatment (simply hot water) cannot be credited with a cure. The lump on the stifle, or, more properly speaking, just below the stifle, is what is called a porcelaneous deposit, and appears in cases where there is partial dislocation of the patella (the stifle bone). All that can be done is to keep the colt as quiet as possible, and blister the front and inside of the joint once monthly. A mixture of 1 1/2 drams each of biniodide of mercury and cantharides, with 2 ounces vaseline, makes a good blister. It is probable the lump will remain.

Miscellaneous.

WHITE COCKLE.

Would you kindly answer, through your columns, what this weed is? A. H. A.

Ans.—The specimen submitted is white cockle, a biennial, or short-lived perennial. It grows about two feet high, has white flowers, on long, branching, flowering stems; flowers in June, seeds ripen in July. Occurs in grain crops and meadows. It is persistent and difficult of eradication. A bare summer-fallow, with thorough cultivation, will suppress it. A short rotation of crops will keep it in check.

HORSE OWNERS! USE GOMBAULT'S CAUSTIC BALSAM.



A safe, speedy and positive cure. The safest, Best ELISTER ever used. Removes all bunches from Horses. Impossible to produce scar or bluish. Send for circulars. Special advice free.

THE LAWRENCE-WILLIAMS CO., Toronto, Canada.

Kendall's Spavin Cure



The cure that saves horsemen and farmers millions of dollars every year.

It is known the world over as the one certain, reliable remedy for Spavin, Curb, Splint, Ringbone, Bony Growths and any Lameness.

Cases just developing and old, stubborn sores and swellings readily yield to the wonderful curative powers of this famous remedy.

Orangeville, Ont., Dec. 21, '05
"We had a horse which was getting very lame on account of a Spavin. I was anxious about him as we could not work the beast when we most needed him.

Our teamster saw Kendall's Spavin Cure in the store and tried it.

I am pleased to say he had success as the horse has stopped limping and is doing his day's work."

W. A. NICHOLSON.

Don't worry about Spavins, Growths, Swellings or Lameness, but use Kendall's Spavin Cure. It cures every time. The world's best liniment for man and beast.

\$1. a bottle—6 for \$5. Get our book "A Treatise On The Horse," free at dealers or from us.

Dr. B. J. KENDALL CO.
Ecosburg Falls, Vt. 52

Send your name to-day for copy of this great HORSE BOOK FREE

You want to know all about your horse. The book will tell you. Tells of breeds, breeding, development, marketing, handling, treatment of diseases and ailments. A practical book that every farmer and horse owner should have. We want to send you a copy. Simply write and ask for it. We pay the postage. You will find it worth many dollars to you. In telling you how the old reliable stable remedy, Bickmore's Gull Cure, enables you to cure galls, cuts, sores, scratches and all ordinary horse wounds and ailments while you continue to work the horse. Never necessary to lay the horse off.

BICKMORE'S GULL CURE

Is guaranteed to cure while horse is under harness or saddle. The great army of dealers who sell it are authorized to return your money if it fails. Buy it and have it on your stable shelf ready for emergencies. It is the standard remedy of leading horsemen, trainers, large stable owners and veterinarians. Sample Bickmore's Gull Cure sent for 50 postage. Address WINGATE CHEMICAL CO., Ltd., Canadian Distributors, 880 Notre Dame St. W., Montreal, Canada.

NOTICE TO HORSE IMPORTERS
Gerald Powell, Commission Agent and Interpreter, **Ngent 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.

Peachblow Clydesdales and Ayrshires!

CLYDES—2 four-year registered stallions, one imported, AYRSHIRES—3 very choice bull calves, all registered. All good colors, and from good milking dams. Prices right.

R. T. BROWNLEE, HEMMINGFORD, QUE. Imported and Canadian-bred Clydesdale mares and fillies and young stallions, of most fashionable breeding, up to a big size, with character and quality. Phone connection. **ALEX. F. MCNIVEN, St. Thomas, Ont.**

Troubled with Heart

NERVES WERE ALL UNSTRUNG

Mrs. Oscar Hamilton, Forest Glen, N.S., writes:—"I can truthfully say that Milburn's Heart and Nerve Pills have been a great friend to me. A few years ago I was very much troubled with my heart and my nerves were all unstrung, I had terrible pains all through my body. I was weak and had frequent and severe dizzy spells, and was continuously having to consult doctors. I had Milburn's Heart and Nerve Pills recommended to me and after having taken a box they appeared to help me so much I continued to take them, and was soon able to do my work again. For this I am very grateful and would advise all people with weak heart or unstrung nerves to give them a thorough trial."

Milburn's Heart and Nerve Pills are the original heart and nerve cure and are sold at all dealers for 50c per box, or 3 boxes for \$1.25, or will be mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

Shoe Boils, Capped Hock, Bursitts ARE HARD TO CURE, yet

ABSORBINE will remove them and leave no blisters. Does not blister or remove the hair. Cures any puff or swelling. Horse can be worked. \$2.00 per bottle. **Book 6 B.E. Free.** ABSORBINE, JR., (man-kind, \$1 and \$2 per bottle). For Boils, Bruises, Old Sores, Swellings, Gout, Varicose Veins, Yaws, etc. Always Pain. Your druggist can supply and give references. Will tell you more if you write. Manufactured only by **W. F. YOUNG, P. O. F. 258 Temple St., Springfield, Mass.** Canadian Agents: **Lymans' Ltd., Montreal.**

MESSRS. HICKMAN & SCRUBY

Court Lodge, Egerton, Kent, England. Exporters of pedigree live stock of every description. Draft horses a specialty. During the summer months we shall export large numbers of cattle and sheep for breeding and show purposes. We attend all the leading fairs and sales, and can buy cheaper and ship cheaper than can anyone not living on this side. Correspondence invited.

ABERDEEN - ANGUS

Will sell both sexes; fair prices. Come and see them before buying. Drumbo station.

WALTER HALL, Washington, Ont.

Balmedie Polled Angus and Oxford Down sheep—Offering several exceptionally nice heifers, and a few young bulls. Discriminating buyers will be pleased with my herd. Anything in the herd will be priced. Also ram and ewe lambs. **T. B. Broadfoot, Fergus P. O. and Station.**

Aberdeen-Angus Cattle Stock all ages, and both sexes, good strains, at reasonable prices. Apply to **ANDREW DINSMORE, "Grape Grange" Farm, Clarksburg, Ont.**

SHORTHORNS, COTSWOLDS, BERKSHIRES

50 Shorthorns on hand, including 1 yearling bull, 3 bull calves, 12 heifer calves from imp. and home-bred cows, 7 yearling heifers, 7 two-year-old heifers, and the balance cows, from 3 years up. No Berkshires to offer. In Cotswolds, about 24 lambs for fall trade. **CHAS. E. BONNYCASTLE, Station and P. O., CAMPBELLFORD, ONT.**

OAK LANE FARM

Clydesdales, Shorthorns and Cotswolds Young stock for sale—most fashionably bred. **GOODFELLOW BROS., MACVILLE P. O., ONT.** Bolton Station, C. P. R., Caledon East, G. T. R. Local and long-distance telephone.

CLOVER DELL SHORTHORNS

Always have for sale, young stock of both sexes. Milking strains a specialty. Moderate prices. **L. A. Wakely, Bolton, Ont.** Bolton Junction, Ont. C. P. R., within half mile of farm.

For Sale or Exchange Shorthorn Bull, Imp. Scottish Prince (1908), in good breeding condition. I will sell reasonable exchange for an imported bull for breeding purposes of a good family and stock pedigree. **F. A. GARNHAM, Stratfordville P. O., C. P. R.**

Shorthorns, Down Sheep and Oxford Clydesdales and Oxford Down Sheep. Scotch Shorthorns, some with imported dams, heifers, 2 and 3 years up. Also Cotswolds and Berkshires. Lincoln and Oxford sheep. All at reasonable prices. Phone **McFarlane & Ford, Dutton, Ont.**

PLEASE MENTION THIS PAPER.

GOSSIP.

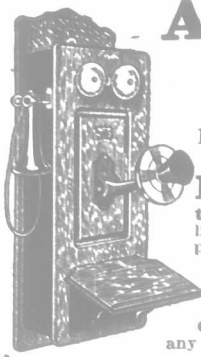
Dr. T. S. Sproule, M. P., of Markdale, Ont., has lately sold the following Shorthorns from his Cedardale herd: To John Williamson, of Cylon, Ont., a choice red yearling bull, sired by the stock bull, Imp. Lord Fyvie, a Minerva-bred son of the great bull, Primrose Fancy, his dam being the Miss Ramsden cow, Martha 7th, a daughter of the Toronto grand champion, Imp. Prime Favorite. Mr. Williamson is to be congratulated on securing so richly bred a bull to head his herd. The Doctor has also sold to James McFadden, of Glenelg, a red-roan yearling bull, got by the same sire, and out of one of the best milkers in the Cedardale herd, tracing to Beauty, by Snowball, on her dam's side, and sired by a bull bred on the same lines. This bull should do a power of good for Mr. McFadden, along the lines of milk-production.

John Miller, Brougham, Ont., in ordering change in his advertisement, says: I am all sold out of young Shorthorn bulls fit for service. I have sold nearly twenty since the first of last December. To John Sirrs, Pine Orchard, Ont., I sold a choice red calf, sired by the good imported bull, Benholm Butterfly; he also bought six of my best Shropshire ewe lambs, to start a flock with. E. B. Toie, of Blenheim, got a good fifteen-months-old calf; he bought him on order, and was well satisfied. Mr. Sirett, of Rosseau, Ont., also bought a red sixteen-months-old bull, on order, and wrote that he was just what he wanted. Chas. P. McLennan, of Lefroy, took the red calf, Prince Brilliant, and to Heron Bros., Ashburn, I sold one of my best bred calves. These were all sold through my advertisement in "The Farmer's Advocate," and quite a number of others. If any of your readers are in want of a choice ram to show and use, I have some of the best I ever raised, large and well covered; also a few yearling ewes fitted for showing.

ORCHARD GROVE HEREFORDS.

Orchard Grove Stock Farm lies about one and a half miles south-east of the town of Oshawa, and is the home of one of the choicest herds of Hereford cattle in Canada. The owner, L. O. Clifford, is a young man that is rapidly making a name for himself as a breeder and fitter of high-class stock. The white-faced beefers are his particular fancy, and, on launching out as a breeder, his ambition and determination was to own the best herd in Ontario. That he is rapidly reaching the pinnacle of his ambition can be gleaned from the fact that last year, at Toronto, in his maiden effort to wrest the honors from the old stalwarts, he won first and championship on cow, second on herd, first on yearling, and several individual seconds. This year, with the herd considerably strengthened, we look for premier honors to go to this herd. The stock bull in service is the Toronto, London and Ottawa several times champion, Bourton of Ingleside, a bull of wonderful flesh and form, and a sire with few equals in the breed. Among the brooding cows are such cracks as Any 1th, who has to her credit several championships at Toronto and Ottawa, Laura 13th, a Toronto first-prize winner, and her two-year-old daughter, winner of first prize at Toronto for two years; Jessie, a second-prize winner at Toronto, and several others, winners of more or less note; big, thick cows, from 1,600 to 1,900 lbs. in weight. Among the younger things in the herd just now are several that have won honors in the world's strongest competition at Chicago that will certainly add honors for the herd this year at Toronto. Parties interested should look up the exhibit at Toronto. For sale are a number of heifers one and two years of age, as well as a few truck, straight, sappy young bulls, most desirable as herd leaders. The farm is connected with long-distance phone.

The specimen item appeared in a French newspaper. There was found on the river this morning the body of a soldier cut to pieces and sewed up in a sack. The circumstances seem to preclude any suspicion of suicide.



Anti-Trust Prices Freight Prepaid To You—No Duty on FARM and TOWN

Telephones and Switchboards
Poles, Wire, Brackets, Insulators, Lightning Arresters, Ground Rods, Batteries, Insulated Wire, and everything necessary.

NO CHARGE for our experts' letters of advice, drawings, explanations, technical instructions, telling you in any language, how to install lines in a good but economical way and at a profit, thereby getting your own telephone free.

We are the largest, exclusive and the only bona-fide Independent Telephone and Switchboard makers in Canada or Great Britain. Our Telephones are extensively used in Canada, England, France and by the U. S. Government.

Our great illustrated book on the Telephone sent Free to anyone writing us about any new Telephone lines or systems being talked of or organized.

We have a splendid money-making proposition for good agents.

The Dominion Telephone Mfg. Co., Ltd. Dept. C, Waterford, Ont., Canada.

275 BURLINGTON SHORTHORNS 275

3 Choice Imported Scotch Shorthorn Bulls—yearlings.
1 Imported 2-year-old Bull, red—an extra sire.
10 Bulls, 9 to 16 months old—all by imported sire.
30 Choice Young Cows and Heifers—mostly bred or have Calves at foot. Long-distance telephone. Farm 1/2 mile from Burlington Jct. Sta., G. T. R. **J. F. Mitchell, Burlington, Ont.**

SCOTCH SHORTHORNS—Eight extra good young bulls, from 10 to 15 months old; 20 choice cows and heifers, forward in calf or with calves at foot. Prices reasonable. Inspection invited. **W. G. PETTIT & SONS, Freeman, Ont.**

Farms close to Burlington Jct., G. T. R.
INVERNESS SHORTHORNS I can supply Shorthorns of all ages, with richest Scotch breeding and high-class individuality. **W. H. BASTERBROOK, Freeman, Ont.**

Maple Leaf Shires, Shorthorns, Hampshire Hogs 1- and 2-yr. old Shire stallions, females from yearling fillies up; Shorthorns, both bulls and heifers; a choice lot of young Hampshire pigs, both sexes, beautifully belted. **PORTER BROS., APPLEBY P. O., BURLINGTON STA. Phone.**

PLEASANT VALLEY SHORTHORNS

For sale: 1 red, 1 roan, 2-year-old show bulls. Several good bull calves, also some yearling heifers. Some show propositions among them. If interested, write or call and see us before buying.

GEO. AMOS & SONS, MOFFAT, ONTARIO. Farm 11 miles east City of Guelph on C. P. R., 1/2-mile from farm.

A. Edward Meyer

P. O. Box 378, Guelph, Ont., Breeds **SCOTCH SHORTHORNS** Exclusively. Twelve of the most noted Scotch tribes have representatives in my herd. Herd bulls: Scottish Hero (imp.) = 5302 = (90K5) 29575; A. H. B.; Gloster King = 68703 = 28304 A. H. B. Young stock for sale. Long-distance phone in house.

Shorthorns (Scotch)

Cows imported and home-bred, either in calf or with calf at foot. Royally bred and right quality. Catalogue.

John Clancy, Manager. H. CARGILL & SON, Cargill, Ont.

GLENGOW Shorthorns

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

Wm. Smith, Columbus, Ont.

Maple Grange Shorthorns

An offering of an extra choice lot of 1-2- and 3-year-old heifers, Scotch and Scotch-topped, Clarets, Nonpareils, etc., sired by Royal Bruce, Imp., and among them are daughters and granddaughters of imp. cows. Young bulls also for sale.

R. J. DOYLE, Owen Sound, Ont.
Phone connection.

The Show Time for All Live Stock and the Breeding Time for Sheep is Coming I can furnish young Shorthorn bulls, females all ages, and Shropshire and Cotswold sheep that will be a credit to you in the show-ring, and will breed well for you also. I also have some beautiful children's ponies. Write and say what you want. **Robert Miller, Stouffville, Ontario.**

GEORGE D. FLETCHER, BINKHAM P. O., ONT., Always have for sale a number of first-class **Shorthorns, Shires and Lincolns**, of both sexes. Drop us a line, or better, come and see for yourself. Weston Sta., G. T. R. & C. P. R. Long-distance phone in house.

JOHN GARDHOUSE & SONS, HIGHFIELD P. O., ONTARIO.

CHOICE SCOTCH BULLS FOR SALE. HERD-HEADING QUALITY. **H. SMITH R. R. 3, Hay, Huron Co., Ont.** Farm adjoins Exeter, on G. T. R.

HIGH-CLASS SHORTHORNS I have on hand young bulls and heifers of high-class show type, pure Scotch and Scotch-topped, sired by that sire of champions, Mildred's Royal. If you want a show bull or heifer, write me.

GEO. GIER, Grand Valley P. O. and station, also Waldemar station.

Spring Valley SHORTHORNS We have for sale Newton Ringleader (imp.) = 57385. A good bull, with first-class breeding. Also a Canadian-bred 18-months-old bull of the choicest quality. Phone connection. **Kyle Bros., Ayr, Ont.**


SALEM SHORTHORNS I have generally what you want in choice Shorthorns. **Elora Station, G. T. R. and C. P. R.** **J. A. WATT, SALEM.**

SHORTHORNS AND LEICESTERS I have for sale eight heavy-bred yearling bulls, and several old heifers, also bull calves. Choice young cows and ram and ewe lambs. Show quality. Write to: **W. A. Douglas, Tuscarora, Ont. Caledonia Station.**

Shorthorns and Oxford Down Sheep Young bulls and heifers of richest Scotch breeding and highest quality. Twelve ewe lambs, two aged rams and two ram lambs. None better. Phone connection. **Duncan Brown, Iona P. O., Ont.**

CRUICKSHANK NONPAREILS By private sale, I have for sale 10th month young bulls, sires; 2 yearling and 2 1/2-year-old heifers; 1 bull calf; 1 yearling cow; 1 yearling ewe; and 1 yearling ram. All in good condition, and choice animals. The best quality ever offered. Write to: **W. D. Robertson, Oakville, Ont.**

Lump Jaw



The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy. FLEMING BROS., Chemists, 75 Church St., Toronto, Ontario

QUESTIONS AND ANSWERS.
Miscellaneous.

CABBAGE LICE.

Could you tell me, through "The Farmer's Advocate," or by return mail this week, what is good to clean the lice off of cabbage leaves? W. O.

Ans.—See article on cabbage lice and worms, under Garden and Orchard, page 1213, in "F. A." of July 28, 1910.

ECZEMA.

I have a horse that keeps rubbing himself when he gets out, or any place; has no hair rubbed off. Kindly send me recipe for mange, if you think that is what it is. J. W. C.

Ans.—Horse has eczema. If the hair is long enough, clip him. Give a thorough washing with warm, strong, soft-soap suds, applied with a scrubbing brush, and rub with cloths till dry. Then dress well, twice daily, with a solution of corrosive sublimate twenty-five grains to a quart of water. Give internally one ounce of Fowler's Solution of Arsenic, twice daily, every alternate week, as long as necessary.

LUMP JAW.

Have a yearling steer on which there is a bad swelling on one side of neck. On this swelling there are two other lumps nearly as large as a hen's egg, which continue to discharge to a small extent. I lanced it, but there was no more discharge. The steer is in good condition, and seems to be perfectly hearty. Kindly advise as to the contagiousness of the disease, and treatment. C. S.

Ans.—This is, in all probability, a case of lump jaw. It is not scheduled as a contagious disease. The "iodide-of-potassium treatment" is the most practical method of checking and curing this trouble, though surgery may be exercised successfully in the early stages. Give a dram of potassium iodide, three times daily, gradually increasing the dose until the appetite fails, the animal refuses to drink, saliva runs from the mouth, and tears from the eyes. When any of these symptoms begin to appear, stop the treatment, or the animal will die. In three or four weeks repeat, if necessary.

DEHORNING—FOUL IN FEET.

1. Cow took a lameness in her foot; cleaned it out, found the hoof slightly decayed, with a bealing on the sole; applied blister, and poulticed it with linseed. Later, it began to heal all around her foot; it then broke out in three places. What would you advise me to do?
2. When is the proper time to dehorn cattle, or is it injurious to dehorn them when giving a flow of milk, or has the age anything to do with it? Would it be likely to bring on any other disease? T. J. M.

Ans.—1. This is probably foul in the feet, caused by walking or standing in irritating substances such as rushes, or liquid manure. Put the animal in a clean, dry place; clean the foot well, and apply hot poultices, removed every three or four hours, for two or three days. When the acute soreness subsides, apply, three times, daily, a solution of carbolic acid one part, sweet oil twenty parts. If proud flesh has formed, apply a caustic two or three times, such as equal parts of butter of antimony and tincture of myrrh; apply with a feather. If it does not yield readily, call in your veterinarian.

2. Probably the best time of all to dehorn stock is when they are calves, by the use of caustic. With mature stock, however, as the shock is somewhat severe, it is not advisable to perform the operation during the milk flow; neither is the summer the best time, since the maggot fly is more likely to infest the open wound and cause trouble. In the winter, or late autumn, when the cattle are dry, or nearly so, would be the preferable time. There is no liability of bringing on any serious disease by the careful performance of dehorning.

Earnest but Prosy Street-corner Orator—"I want land reform; I want housing reform; I want educational reform; I want—"
Bored Voice—"Chloroform"

NEXT TIME you are in need of a Tub or a Pail or a Fire Bucket, see that your dealer shows you the ones made of

EDDY'S INDURATED FIBREWARE

and buy no other. EDDY'S Fibreware is perfect in every detail; it is light, tight and durable.

POSITIVELY WILL NOT TAINT LIQUIDS.

Makes an A1 Pail for carrying milk.

THIS MODERN CANNER MAKES MONEY GROW



In the savings bank, because it makes profit out of waste. Makes a market for fruits and vegetables that you've been losing every year. Makes your kitchen or store a canning factory. Easily worked, easily cleaned. Product the best. Three sizes: \$30, \$60, \$90; capacities: 100, 200, 400 tins an hour. Write for booklet No. 4C, Free, postpaid. A postal will do.

THE MODERN CANNER CO.,
CANADIAN BRANCH: ST. JACOB'S, ONTARIO.

Holstein - Friesians

FAIRVIEW FARM offers young bulls, sired by Pontiac Korndyke and Rag Apple Korndyke, without question the two greatest Korndyke bulls in the world, and out of cows with large A. R. O. records and testing 4 1/2 fat. Come and see them or write.
E. H. DOLLAR, Heuvelton, N. Y. Near Prescott.

WOODBINE FARM HOLSTEINS

Offers a number of fine bulls and bull calves, sired by Sir Creamelle, who is a direct descendant in two different lines of the great cow, Duchess Ormsby, 24.44 lbs. butter in 7 days, dam of five daughters with records that average 20 lbs. of butter in 7 days, the greatest producing family of the breed. Write for prices. Telephone connection. Shipping stations: Ayr, C. P. R.; Paris, G. T. R.
A. KENNEDY, AYR, ONTARIO.

LAKEVIEW HOLSTEINS!

Bull calves sired by Count Hengerveld Fayne de Kol, whose sire is the sire of the world's champion milk cow, and whose dam is the dam of the world's champion butter cow. These calves are from A. R. O. cows with records up to 24 lbs. butter in 7 days. Also a few females for sale.
E. F. OSLER, Bronte, Ont.

World's Champion-Bred Bull

Grace Fayne 2nd Sir Colantha. His dam, sire's dam and two sisters average 31.80 lbs. butter in 7 days. For further particulars send for catalogue. Address M. L. HALEY or M. H. HALEY, Springfield, Ontario.

High-class Holsteins

Head of herd, Pietje Korndyke Lad. Two nearest dams average 26.09 lbs. butter in 7 days. His sire's dam, Pietje 22nd, has a record of 31.62 lbs. butter in 7 days. Present offering: now booking orders for bull calves sired by above sire and out of A. R. O. dams.
WM. C. STEVENS, PHILLIPPSVILLE, ONT.

High-class Holsteins and Tamworths.

I am now offering a number of two and three year old heifers, with official records from 11 to 20 pounds butter in 7 days; also bull calves with rich backing. Tamworth boars from 6 weeks to 1 year old—imp. sire and dam. A. C. HALLMAN, BRESLAU, ONT.

Elmwood Holsteins

Choiely-bred calves for April and May delivery. Sired by imported Ykema Sir Posch and Pontiac Sarcastic, a grandson of Sarcastic Lad. Registered. Delivered. Express paid. Safe delivery guaranteed.
E. D. GEORGE & SONS, PUTNAM, ONT.

Spring Bank Holsteins and Yorkshires

For sale: 1 cow, 6 years old, good producer; 3 bull calves; young Yorkshire sows.
Wm. Barnett & Sons, Living Springs, Ont. Fergus Station, G. T. R. and C. P. R.

The Maples Holstein Herd

of Record-of-Merit cows, headed by King Posch De Kol. Nothing for sale at present except choice bull calves from Record-of-Merit cows. Also one or two good cows.
WALBURN RIVERS, FOLDEN'S, ONTARIO

CRAIGALEA AYRSHIRES

have won more money the last four years than all competitors combined. They are heavy producers and high testers; records of production given. Stock of both sexes for sale of show-ring form.
H. C. HAMILL, BOX GROVE P. O., ONT. Markham, G. T. R.; Locust Hill, C. P. R. Bell phone connection from Markham.

WALBURN RIVERS, FOLDEN'S, ONTARIO



BURNSIDE AYRSHIRES!

Fresh importation just landed in quarantine of 60 head. I have the choicest lot of 12 young bulls I have ever imported. From the best herds in Scotland, such as Auchinbrair, Osborne, Netherhall, Bargenoch, Barr of Hobsland, Mitchell of Lochfergus. All fit for service. A number of cows, 3-year-olds, 2-year-olds, and 20 choice yearling heifers. All are for sale.
R. R. Ness, Howick, Que.

Ayrshires and Yorkshires!

We still have a few choice individuals of almost any age on hand in Ayrshires, and are always ready to price any. Other breeders in this section. Bull calves from Record of Performance cows. A few young Yorkshires on hand. Long-distance phone.
ALEX. HUME & CO., MENIE, ONT.

HILLCREST AYRSHIRES.

Bred for production and large teats. Record of Performance work a specialty. Fifty head to select from. Prices right.
FRANK HARRIS, Mount Elgin, Ont.

Ayrshires

Bull calves, from 4 months to 9 months, from imported sire and Record of Performance dams. Records 50 to 63 pounds per day.
N. Dymont, Clappison's Corners, Ont.

Stonehouse Ayrshires

36 head to select from. All imported or out of imported sire and dam. For sale: females of all ages. Am now booking orders for bull calves.
Hector Gordon, Howick, Quebec.

ISALEIGH GRANGE AYRSHIRES!

Our herd were all selected on their ability to produce a heavy yield of milk. We have a number of 40, 45 and 50 lb. cows, imported and Canadian-bred. From them are young bulls and heifers for sale. Some better. JAMES BODEN, DANVILLE, QUEBEC.
ISALEIGH GRANGE FARM.

A High Percentage

The combined percentage of Protein and Fat in **BRANTFORD GLUTEN FEED** is 25%

There is no better feed for milking cows. Present price, \$24.00 per ton.

The Brantford Starch Works LIMITED BRANTFORD, ONTARIO.

Jerseys and Chester Whites

I am offering some choice young Jersey bulls, sired by Brampton's Blucher, winner of first prize, Toronto and Winnipeg, and from choice, deep-milking cows with good teats. Also Chester White pigs, 3 to 4 months old, both sexes, at special prices.

CHAS. E. ROGERS, Dorchester, Ont.

ARE YOU IN WANT OF A Choice Bull

To head your herd? We are offering choice bull calves sired by Fountain's Boyle, who won first prize at Toronto, London and Ottawa, who also headed first-prize herd at Toronto and Ottawa. Also offering some choice heifers.

D. Duncan, Don, Ont. Duncan Station, C. N. O.

BRAMPTON Jerseys

CANADA'S GREATEST JERSEY HERD. We are offering for sale one 2-year-old bull and four yearlings, fit for service; also six bull calves; females of all ages. Come and see them or write.

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

WANTED!

Ten Jersey Heifer Calves, from 2 to 4 months old, eligible to register. Send description, with lowest cash price, to: High Grove Stock Farm, P. O. Box 111, Tweed Ont.

CENTRE AND HILLVIEW HOLSTEINS

Offers a number of young bulls: One born Oct. 5—more black; his dam gave at 5 years old 418 lbs. milk and 17 1/2 lbs. butter; his sister, at 4 years old, gave 416 lbs. milk and 17 1/2 lbs. butter in 7 days; his sire is Brookbank Butter Baron, who has a number of A. R. O. daughters—one 23.66 lbs. butter in 7 days at 3 years old. Price \$60 if sold at once. A few 2-year-old heifers from B.B.B. for sale. P. D. EDE, Oxford Centre, Woodstock Station. Long-distance telephone.

Glenwood Stock Farm Holsteins and Yorkshires.

Holsteins all sold out. Have a few young Yorkshire sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock.
Thos. B. Carlaw & Son, Warkworth P.O., Ont. Campbellford Station.

MAPLE HILL HOLSTEIN-FRIESIANS SPECIAL OFFERING:

Four-year-old cow, fresh last October; bred April 2nd to Choicest Century, whose dam is the highest seven- and thirty-day record cow in Canada.
Bell phone.
G. W. CLEMONS, St. George, Ont.

Ridgedale Holsteins

I have left three bull calves that will produce, and their sire was bred right.
R. W. WALKER, Utica, Ont. Phone connection.

Maple Grove Holsteins

It is from Maple Grove Holsteins and their descendants that the largest records are made. They combine individuality, quality, with the highest performance. H. Bollert, Cassel, Ont.

FOUNDED 1866
ight Prepaid
You—No Duty
N
rds
rresters, Ground
necessary.
Drawings, explain-
any language, num-
n or long distance
ing your own tele-
pendent Telephone
France and by the
ne writing us about
ts.
Ont., Canada

S 275
arlings.

re.
d or have
X mile from
gton, Ont.
5 months old; 20
th calves at foot.
eman, Ont.

When look-
ing for Short-
young bulls fit for
red in the purple,
it, Freeman, Ont.
hire Hogs
thorns, both bulls
tifully belted.
STA. Phone.

Meyer
ph, Ont.,
RNS Exclusively.
tribes have repre-
sents: Scottish Hero
H. B.; Chester
Young stock for
use.

atch)
f or with calf
Catalogue.
Cargill, Ont.

northorns
extra choice lot of
old heifers, Scotch
bed, Claret, Non-
d by Royal Bruce,
ng them are daugh-
daughters of imp.
ulls also for sale.
wen Sound, Ont.
connection.

h young Short-
s, females all
Shropshire and
beep that will
I also have
e, Ontario.

E & SONS
first-class Short-
both sexes. Drop
yourself. Weston
ice phone in house.
ONTARIO.

ILLS
eter, on G. T. R.
e have for sale
ewton Ringleader
mp. 1 = 2785.
ssid bull, with first-
ass breeding. Also
all of the choicest
s, Ayr, Ont.

ERNS
SALEM.
Down Sheep
Sweth breeding
lamb, two aged
e better. Phone
na P. O. Ont.

REILS
ng and 2 1/2 year-old
ice animals. The
n, Oakville, Ont.

Lost Five Children With DIARRHOEA

Saved the Sixth One With DR. FOWLER'S Extract of Wild Strawberry.

Mrs. John Firth, Craighurst, Ont., writes:—"I have had six children and lost them all but one. When young they would get Diarrhoea and nothing would stop it.

As I lived in a backward place, I did not know of Dr. Fowler's Extract of Wild Strawberry.

I saved my last child, who is now eight years old, but I owe it to Dr. Fowler's Extract of Wild Strawberry. Had I known about it before I feel that I would have saved the others. I shall forever praise and bless it and will never be without it again."

"Dr. Fowler's" has been on the market for over sixty-five years, and has a "world wide" reputation for curing all Bowel Complaints.

Do not be imposed upon by any unscrupulous dealer who wishes to substitute the so-called Strawberry Compounds for "Dr. Fowler's." Price 35 cents. Manufactured only by The T. Milburn Co., Limited, Toronto, Ont.

WOOL

WE WANT TO BUY YOURS.
WRITE NOW FOR OUR PRICES.

E. T. CARTER & CO.,
84 FRONT ST. E., TORONTO, CANADA

SHROPSHIRE AND COTSWOLDS

I am now offering a choice lot of yearling rams of my own breeding from imp. Minton ewes, also ram and ewe lambs of both breeds. A few rams and ewes fitted for showing.

John Miller, Brougham, Ontario
CLAREMONT STATION, C. P. R.

SOUTH DOWNS

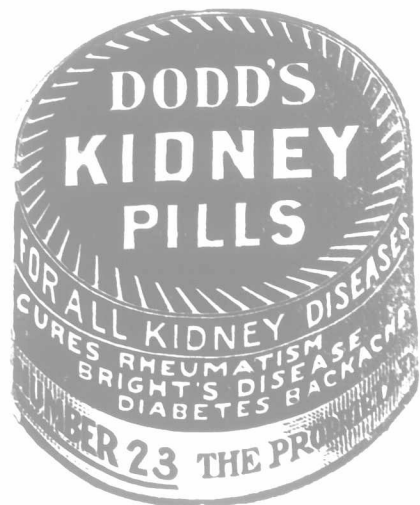
Allway Lodge Stock Farm

A few fitted shearlings and lambs for sale, and some good strong breeding sheep of all ages. Long-distance phone.

ROBT. McEWEN, BYRON, ONTARIO

Little Boy—I want a dose of castor oil. Pruggist—Do you want the kind you can't taste?

Little Boy (anxious to get even). No, sir, it's for mother.



GOSSIP.

GETTING MAGAZINE FACTS RIGHT.

Important articles in magazines of the type of the "American," "Collier's," "McClure's," and "Everybody's," like plays, are rewritten rather than written. To begin with, there must be the idea, then to find the man or woman best able to embody it. That settled, the author must steep himself in his subject. When he acquires mastery, his findings are written down and submitted to the editor. This may take months; it often requires years.

It has happened that the editor did not know what he wanted until he read this first draft. Now he has the subject spread before him by an authority. His associates all read it and criticize. Sometimes that first draft is flawless, but most often it is returned to the author with direction for reconstruction. The process may be repeated half a dozen times. Finally the manuscript is satisfactory, which means that it is valuable, simply expressed, and readable. It is in shape for publication. It is put into type and sent around to outside experts who are the representative authorities on the subject.

In these days, a magazine can afford to have its conclusions disputed, but its facts must be incontrovertible. Perhaps the trouble the big publications take to be right—and that means square and just, as well as accurate—explains such prestige and influence as they now enjoy in America.—Everybody's Magazine.

CLOSING FEATURES OF THE ROYAL SHOW.

(Our English correspondence.)

The last two days of the Royal Show—the popular shilling days—were harassed by rain and mud, but in spite of the handicaps, about 40,000 people paid for admission on each day. All hope of breaking Newcastle's wonderful attendance record was abandoned, but the total attendance for the five days reached the excellent figure of 137,812. It is satisfactory to note that the society will have a profit on the show of about £6,000 or £7,000.

The finest feature of the last day was the parade of 200 heavy draft horses in years. Liverpool has long been proud of her magnificent heavy horses, and rightly so. A well-known judge remarked as the horses passed: "I did not believe the country contained so many team horses of such average high value. I would not hesitate to pay \$100 each for the first eighty which I could select as they passed."

The Liverpool corporation and Messrs. Jarvis carried off the first honors. There was a close contest for the "Venture" Challenge Cup, for best tandem, and some pretty driving was seen. Miss Dora Schmitz, of Liverpool, was the winner with her grand chestnuts, "Catalina" and "Morocco." Another good competition was for the "Viking" Challenge Cup, for best pair of harness mares or geldings. John Kerr's bays, "Loudwater Diana Vernon" and "Loudwater Rob Roy," were the winners.

Some capital prizes were paid for bulls at the auction sale during the show. Many foreign buyers were present, and bidding was keen for anything of high quality. The highest price was 1,050 guineas, for Lord Middleton's roan Shorthorn, "Birdsall Crusus," second in his class. He was bought by Mr. Rodgers for South America. The same buyer also bought Lord Middleton's "Birdsall Claudius" for 400 guineas, and paid 450 guineas, 400 guineas and 300 guineas, respectively, for three bulls offered by Messrs. Garne.

An offer was made for the champion bull of the show, "Duke of Kingston 2nd," but the owner would not sell, though the offer was a high one.

Some good prices were obtained at the sheep sale. The highest was £235 5s., paid by Mr. Clauden, for a two-shear Shropshire ram, from T. S. Minton's flock. Mr. Harding, of L. S. A., paid £210 for a Shropshire two-shear ram, from L. A. Butler's flock.

At the pig sale the best price was £50, for a large black boar for New Zealand.

The Full Percentage of Cream

Getting the full percentage of cream from milk depends as much upon the oil used to lubricate the separator as upon the separator itself. Gummy oil will cut the fine bearings of your machine, spoil its balance and waste good cream in the skim-milk pail.



STANDARD Hand Separator Oil

never gums, never rusts, never corrodes. It feeds freely into the closest bearings and insures the perfect lubrication that is essential to the free spinning of the bowl and the complete separation of cream from milk. It lessens the driving effort and lengthens the life of your separator.

One gallon cans. All dealers. Or write to

The Imperial Oil Company, Limited
Ontario Agents: The Queen City Oil Co., Ltd.

LEICESTER SHEEP

Willowdale Stock Farm, Lennoxville, Quebec.

Has Leicester sheep that cannot be beaten in Canada. Lambs of both sexes for sale. Exhibition stock. Lambs come in February and March. **J. H. M. Parker, Lennoxville, Que.**

FARNHAM OXFORD DOWNS

The Champion Flock, First Importation, 1881. Our present offering is a grand lot of ram lambs for flock headers, from our imported champion ram, and a number of them from imported ewes. Also a first-class imported yearling and a two-shear ram. Fifty superior yearling ewes, and a number of ewe lambs. We are also offering a few large Hampshire ram lambs from imp. sire and dam. Long-distance phone on the farm—Central, Guelph.

HENRY ARKELL & SON, ARKELL, ONTARIO

Oxford Rams

WANTED.

Parties having Oxford rams for sale are requested to write the undersigned, stating age of rams, weight, price, and if recorded.

PETER ARKELL & SONS, Teeswater, Ontario.

Fairview's Shropshire Offerings:

Their breeding is of the very best, and for 26 years they have proved their superior quality in the leading show-rings, including **three World's Fairs**, where the Fairview exhibits won more section, flock, champion and special prizes than all competitors combined. That's the kind we now offer. For a flock header or a few ewes, write for circular and prices to: **J. & D. J. Campbell, Fairview Farm, Woodville, Ont.**

LABELS

Metal Ear Labels for Cattle, Sheep and Hogs.

The old standby for all who have stock liable to stray, or to dispute as to identification or ownership; for herd or flock records, or for general convenience. Send for free circular and sample. It may save you much trouble. Write today. **F. G. JAMES, ROYALTONVILLE, ONTARIO.** When writing please mention this paper.

Oxford Down Sheep, Shorthorn

Hogs Present offering: Lambs of either sex, prices, etc., write to **John Cousins & Son, Harrisburg, Pa.**

HILLVIEW YORKSHIRE

Are ideal in type and quality. We have young things of both sexes for sale. Also one ton Clyde mare; one Shorthorn bull. Long-distance phone, G. T. R. and C. P. R.

W. F. DISNEY, GREENWOOD, C.

PINE GROVE YORKSHIRES

At the late Guelph Winter Show we won more prizes than any two exhibitors, including all the firsts and sweepstakes for best dressed carcasses, both at Guelph and Ottawa Winter Fat-stock Shows of 1918-19. Young pigs for sale, mated not akin, all the progeny of imported stock of superior excellence. **Joseph Featherston & Son, Streetsville, Ont.**

Newcastle Tamworths and Shorthorns

FOR SALE: Young sows due April and May, by imp. boar, dams by Colwill's Choice, Canada's Champion boar in 1912-13; also choice pigs, both sexes. Two yearling Shorthorn bulls, Syme and Lavender families, and six choice heifers and heifer calves. Prices right. Bell phone.

A. A. Colwill, Box 9, Newcastle, Ont.

Willowdale Berkshires!

Nothing to offer but suckers and three extra choice young sows, bred by Larrow, May and June. Be quick if you want one. **J. J. WILSON, Importer and Breeder, Milton P. O. and Station, C. P. R. and G. T. R.**

LARGE YORKSHIRE

Have for sale present time a fine lot of young sows to imp. boar, due to farrow end of also boars ready for service. A good lot of spring pigs. Pairs supplied not akin large stock from the best British Long-distance Bell phone. C. P. R. & G. T. R.

H. J. Davis, Woodstock,

Monkland Yorkshires

With very nearly 100 sows imp. of modern type and high quality, our herd will stand comparison with any in Canada. We are always in a position to bill large or small lots with dispatch. Long-distance phone. **JAMES WILSON & SONS, FERGUSONVILLE, ONT.**

Hilton Stock Farm

Hotsteins and Tamworths. Present offering: 6 yearling heifers and several younger ones. All very choice. Of Tamworths pigs of all ages and both sexes, pairs not akin. **R. O. MORROW & SON, Hilton, Ont.** Broughton Tel. & S. W.

PINE GROVE BERKSHIRE

Sows bred and ready to breed. Nice things, three and four months old. **W. W. BROWNIDGE, Milton, C. P. R., Ashgrove, Ont., Georgetown, G. T. R.**

DUROC - JERSEY SWINE

Imported and bred. Sows ready to breed. Boars fit for a trial and a few other sex. Also English and Mals. **CAMPBELL & SONS, HARWICH, ONT.**

MORRISTON TAMWORTHS

A grand lot of boars from 2 to 10 mos. also young sows (dandies). Some just bred. Some in farrow to first-class boars from best herd in England. Prices right. **Chas. Currie, Morriston, Ont.**

Maple Villa Yorkshires and Oxford Dow

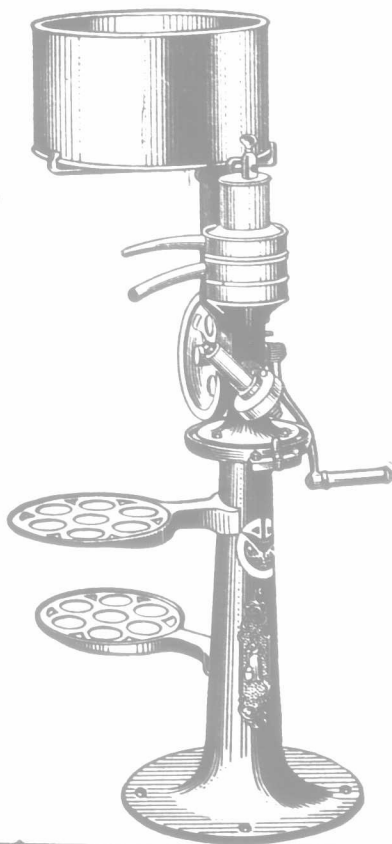
For immediate sale. A few choice sows ready for use. Some splendid sows farrowed in May. A very good lot of ewe lambs. Satisfaction guaranteed. **J. A. CERSWELL, BOND HEAD, ONT. BEETON OR BRADFORD STA.**

GOSSIP.

Dr. D. McEachran, of Ormstown, Que., makes a change in his advertisement, in which he states that his June importation of Clydesdales being immediately disposed of, he will, to fill numerous orders, have a large consignment of yearlings and two-year-olds arrive at the end of September, and in the meantime special orders will be executed for customers who will communicate with him, stating their wants.

PLEASANT VALLEY SHORTHORNS.

The almost unprecedented success that has attended the venture of Geo. Amos & Son, of Moffat, Ont., as breeders of Shorthorns in the ten years of their experience, is evidence of natural adaptability for that particular line of pure-bred stock-breeding, and uncommonly fine judgment in the selection of breeding stock, backed up by a master ability to care for, feed and exhibit them in the best possible fit. Their first purchase was made ten years ago, and consisted of three Golden Drop females, and the Vanity bull, Vanguard, a son of Imp. Knuckle Duster. This cross produced a number of local show winners that, in turn, crossed with their next herd-header, Imp. Old Lancaster, made an international reputation for the firm, and proved one of the greatest sires of his day; produced a number of winners at Toronto and other leading shows in Western Canada and the United States. The next addition made to the herd was the purchase of Imp. Mattie, a Mysie cow, and Imp. Scottish Queen, a Jilt. The latter, mated with Imp. Old Lancaster, produced that great heifer, Pleasant Valley Jilt, who won for the firm the grand championship at Toronto, and afterwards sold for \$2,500; Scottish Queen also produced the grand young bull, Scottish Signet, by Old Lancaster, considered by the firm one of the best they ever raised, and is retained as one of their main stock bulls. Another notable son of this great cow is Jilt Victor, imported in dam, who won so many honors at the leading shows in the herd of James A. Watt. Imp. Mattie, also produced her quota of Toronto winners, and is the dam of Lancaster Princess, who, in turn, is the dam of Lomond's Mysie, junior champion at Toronto last year, and which sold for \$2,000 at auction last winter, she being sired by Ben Lomond, which followed Old Lancaster as chief herd-header. Pleasant Valley Mysie, a full sister to Lomond's Mysie, also won first prize as junior heifer calf at Toronto last fall. Other breeding cows purchased were Imp. Sweet Fragrance and Imp. Collynie Fragrance. Four of the daughters of the latter cow, by Old Lancaster, are doing duty in the herd, three of them being Toronto winners. Imp. Princess Victoria, whose daughters have won honors for the firm at Toronto, one of them, Victoria 74th, sold to cross the border, has a brilliant record of winnings in the land of the Stars and Stripes. Scottish Lassie, a Flora-bred cow, produced for the firm the sensational heifer, Flora 90th, by Old Lancaster, she was grand champion of Canada in 1907, and in the United States in 1908. Another of the great breeding cows is Rosalind 11th, the dam of Lancaster Bud, first prize two-year-old, and reserve champion at Toronto last fall, and grand champion at Alaska-Yukon Exhibition at Seattle, 1909. Briefly, this firm has won at Toronto, on animals (with the exception of Imp. Old Lancaster) of their own breeding, first, senior and grand championship on Old Lancaster, in the 1907 and grand championship on Flora 90th, in 1907, first, junior and grand championship on Pleasant Valley Jilt, in 1908, first and reserve junior championship on Lomond's Mysie, first, reserve junior championship and reserve grand championship on Lancaster Bud, both in 1909. These, besides first on exhibit, first on breeder's herd, first on get of one sire, first on get of one cow, etc., a record never equaled by any one firm in Canada. It is felt that the usual representation of a high-class quality out for sale, where the firm will be glad to meet their many



The CAPITAL Is the Cream Separator that will "Buy Itself" For You.

As soon as you have read this advertisement, sit down and write a post card for The Capital book—the book that not only tells the story of the easy-running, cream-saving separator, but that tells how you can put The Capital in your own dairy practically without costing you a cent.

The book also tells all about the wonderful Capital gears, about their perfect meshing and non-wearing qualities—how they run in oil—how an automatic clutch stops them running the minute you let go of the handle—and about how they give the light, three-and-a-half-pound bowl 7,000 revolutions a minute.

It tells how and why The Capital skims closer—why The Capital wastes less than one-fifth the cream that other separators waste—and then explains how the machine can be made sweet and clean in two minutes after you are through using it.

This book is full of hard-and-fast facts—separator facts—which every dairyman owes it to himself to know; facts which will prove a revelation to the dairyman who is not familiar with The Capital.

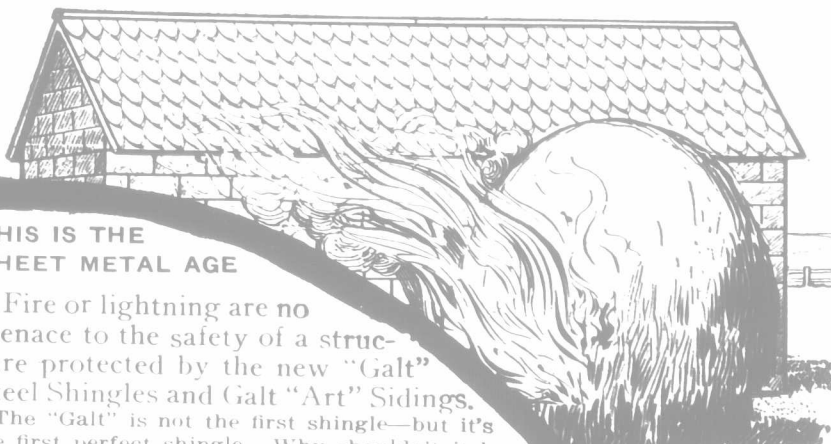
Write for the book to-day—NOW.

THE NATIONAL MFG. CO., LIMITED.

Head Office: Ottawa.

Factories: Ottawa and Brockville.

Branch Offices:—Regina, Sask.; Edmonton, Alta.; Moncton, N.B.



THIS IS THE SHEET METAL AGE

Fire or lightning are no menace to the safety of a structure protected by the new "Galt" Steel Shingles and Galt "Art" Sidings.

The "Galt" is not the first shingle—but it's the first perfect shingle. Why shouldn't it be—haven't we the weaknesses of all others to warn us?

The fiercest gale can't drive rain or snow through the Gale-proof, Closed-end, Side-locks, or the continuous overlapping and interlocking bottom lock of the "Galt" Shingles.

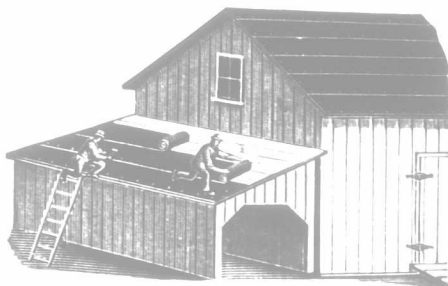
Covered nailing flanges both top and sides—no wind can loosen them. No openings or cleats. Easiest and quickest to lay. Handsome Bold Gothic Tile patterns—fit for a palace. Best British Galvanized Steel Sheets—Guaranteed to last a life time. Ask for Catalog "B-3"—it tells all about them.

THE GALT ART METAL CO., LIMITED, GALT, ONT.
Sales and Distributing Agents: Dunn Bros., Winnipeg and Regina.

"Galt" Shingles

Mica Roofing

For steep or flat roofs, waterproof, fire-proof; easily laid; cheaper than other roofing. Send stamp for sample, and mention this paper.



HAMILTON MICA ROOFING COMPANY,
101 REBECCA STREET HAMILTON, CANADA.

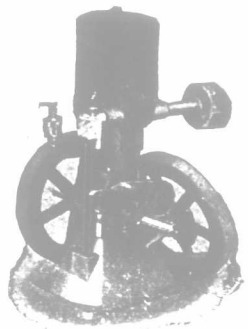
Buy That Engine Now

LIFE IS TOO SHORT TO BE WITHOUT A

"LONDON" Gas or Gasoline Engine

to do that heavy, tiring, crank turning and handle pumping you have done all your life. Postal brings our Catalogue 110.

London Gas Power Co., Limited, London, Can.



3 1/2 %

On Your Savings

You would accept a higher salary if it were offered to you, so why not accept our offer to pay you 3 1/2% interest on your savings instead of usual 3%? Our \$2,000,000 assets is your Security.

Agricultural Savings & Loan Co.,
109 Dundas St., London, Ont.



ELECTRIC BEANS

Stand supreme as a Blood and Nerve Tonic.

They are unequalled for Biliousness, Sick Headache, Constipation, Heart Palpitation, Indigestion and Anemia. Those who are in a position to know what is best use "ELECTRIC BEANS."

Write for Free Sample 50c. a box at all Dealers or upon receipt of price, from THE ELECTRIC BEAN CHEMICAL CO. LTD. OTTAWA

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

Land Plaster

Car lots or any quantity. Write for prices.

TORONTO SALT WORKS
128 Adelaide St. E. Toronto, Ont.
G. J. CLIFF, Manager

You Cannot Afford Any Roofing Which is Not Guaranteed for Twenty-five Years

GET SEVENTY-EIGHT POUNDS OF STEEL TO THE SQUARE

SO put it squarely up to the next fellow who tries to sell you some roofing "as good as Oshawa Steel Shingles." Ask him to agree in writing to replace the roof free if it gives any trouble within the next quarter-century.

Then watch him dodge. See him evade. Hear him tell about Mr. Somebody, of Somewhere, who roofed a barn with his roofing in 1884 and it's a good roof yet. Hark to him ask if that doesn't make you feel safe.

Tell him it doesn't prove what the Pedlar Guarantee does prove. Because that guarantee is your absolute protection against roof troubles for twenty-five years to come.

There is your roof-insurance for the future. There is a binding promise to give you a new roof entirely free, to put it on the building for you free, and to guarantee it for another twenty-five years, if your roof of Oshawa Galvanized Steel Shingles gives any roof trouble within twenty-five years from the day it's on.

There is \$250,000 capital back of that guarantee. There are 48 years of honorable reputation back of that guarantee. And there is the biggest business of its kind in the British Empire back of that guarantee.

So it is plain common sense for you to refuse to buy any roofing that is not guaranteed. And the only kind that is guaranteed is this kind we make — Oshawa Galvanized Steel Shingles. Guaranteed for 25 years. Actually good for a century.

This is the Roofing For Your Money

Oshawa Galvanized Steel Shingles make the roof you can best afford for any building. They cost but five cents a year per square. (A square is 100 square feet). They are stamped from heavy sheet steel—28 gauge steel. Then they are thickly galvanized. That means they are coated with zinc—the rust-defying metal—in such a way that the zinc is driven right into the steel. It cannot flake off, as it would if this galvanizing were done the ordinary way.

Thus these Oshawa Shingles require no painting. They will not rust. They cannot possibly leak.

So you are sure you will have no bother with your Oshawa-shingled roof, once it's on the building. You can depend on that; and you can doubly depend on it because you have the guarantee. Hand it to your banker or lawyer to keep for you; and know that it is good for a new roof right up to the last day of the twenty-fifth year—if the first one gives any trouble whatever.

Cost Far Less Than Wood Shingles

You must pay about the same price per square for ordinary wood shingles. They will cost you more to lay, because it is a quick and simple job to roof with Oshawa Steel Shingles, and it is no easy job to lay wood shingles.

And the wood-shingled roof will need repair every year or two. Probably it will leak from the start. And it will be no real roof at all at the end of ten years, at the most.

You can be certain that an Oshawa-shingled roof will give you a real shingled roof for ten to one. That's your best bet, by a wide margin.

This is the Roof That Really Protects

Oshawa-shingled roofs are not merely weather-proof roofs. They are fire-proof roofs. They are wind-tight roofs. They keep buildings cooler in summer and warmer in winter.

And the building covered with Oshawa Steel Shingles is safe against lightning—far more so than it would be if it fairly bristled with lightning rods.

Put these Oshawa Shingles on a building, following the simple, plain directions that come with them, and you have a roof that is handsome enough for a city hall and that absolutely protects.

Practically an Oshawa-shingled roof is one seamless sheet of tough galvanized steel. Not a crevice for moisture to get through. No way to set fire to it. No chance for the wind to worry it. Dampness cannot gather on the under-side of it. It needs no painting. And you need not worry about it needing any repairs, for twenty-five years at least.

Isn't that kind of a roof the roof for you? Isn't that kind of a roof worth more than its costs? Isn't it the only roof you ought to consider?—since it is the only roof of which all these things are true.

Get Your Copy of This Free Book

Send your name and address to the nearest Pedlar place. Tell them you want your free copy of "Roofing Right."

When you have read that book through, you will know more about roofing than a good many experts know. It gives you facts, proofs, figures.

Get it and read it. Get it even if you don't expect to do any roofing for some time yet. It will put you right on the whole roofing question.

With the book will come a copy of our Guarantee. Study that, too, and see how fair and square and straightforward it is. See what positive protection it gives the man who buys Oshawa Steel Shingles.

Sample Shingle Free

WITH the book will come a sample of the Oshawa Shingle itself. It will interest you to study it. You will see the actual construction. You will see that the Pedlar Improved Lock, on all four edges of the shingle, makes it certain that moisture never can get through any Oshawa-Shingled roof. You will see how the Pedlar process of galvanizing drives the zinc right into the steel so it never can flake off. You will be in no doubt about which roofing after you have studied this shingle.

Send for it and the Book and Guarantee—Send now.



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.

Send to-day for Sample Shingle and "Roofing Right" Booklet No. 16

It Will Pay You to Pedlarize All Your Buildings

"To Pedlarize" means to sheathe your whole home with handsome, lasting and beautiful steel—ceilings, side-walls, outside, roof. It means to protect yourself against cold; against fire; against much disease; against repair-bills. Ask us and we will tell you the whole story. Just use a postcard and say: "How about Pedlarizing my house?" State whether brick or frame. Write to-day.

THE PEDLAR PEOPLE OF OSHAWA



HALIFAX ST. JOHN, N.B. QUEREC MONTREAL OTTAWA TORONTO LONDON CHATHAM
100 Upper St. 400 Upper St. 127 Rue du Port 321-300 Craig St. 423 Sumner St. 11-113 Bay St. 86 King St. 200 King St. W.

PORT ARTHUR WINNIPEG REGINA CALGARY VANCOUVER VICTORIA
45 Cumberland St. 1000 St. 1901 Ross St. 1117 First St. West 821 Powell St. 434 Kingston St.

ADDRESS OUR NEAREST BRANCH. IF YOU WANT AGENTS IN SOME LOCALITIES, WRITE FOR DETAILS. MENTION THIS PAPER.

