

**PAGES  
MISSING**

JULY 4, 1907

THE SPICE OF LIFE.

Scene, a boarding-house. — Wife: "Why do you always sit at the piano, David? You know you can't play a note!"

David: "Neither can anyone else while I am here!"—[Punch.

The discovery that the center of a cake of artificial ice is generally opaque, while the part first frozen—the outside—is generally clear, has been made by Sacerdote, as reported in La Presse Medicale. Says the Medical Record, in an abstract: "As the water freezes slowly, all the impurities are pushed away from the part first freezing. Whatever the character of the water which is frozen, that obtained by melting the outer, clear parts is almost perfectly pure, while the central, opaque parts contain the impurities. Bacteria do not escape this law, but will be found centrally congregated."

A hotel man in New Hampshire was surprised to see one of his woman guests come down stairs several nights running, fill her pitcher from the water cooler in the hall, and return quietly to her room again. Accordingly, on the fourth or fifth night, he approached her politely, took the pitcher from her hands and filled it himself.

"If you will ring, madam," he said, "this would be always done for you. There is no occasion for you ever to come down yourself for water." And he carried the pitcher up to her room for her, and pointed to the bell beside her bed. "That is the bell," he said.

The lady started in surprise. "That the bell," she exclaimed. "Why, the bellboy told me that was the fire alarm, and I wasn't to touch it on any account except in case of fire."

Among J. J. Hill's novel ideas of railroad construction and operation was that of having his own sleeping cars on the Great Northern. "Uncle Jim," as he is known from one end of the line to the other, reserved the right to name the cars, and, without exception, he drew upon the language of the Chippewas.

As an etomologist (if the word may be allowed), the great financier was a success, but in one instance, according to The Post, of Philadelphia, his unfamiliarity with Indian terms led him to make a mistake.

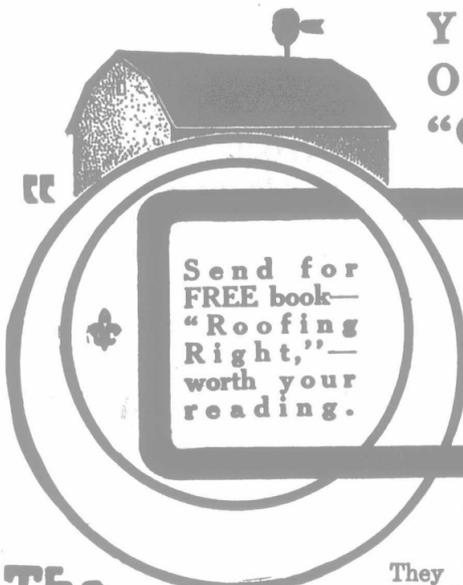
One of the newest and handsomest sleepers Hill christened "Wambuska." But the Wambuska, in spite of its furnishings, proved unpopular with the travelling public. Uncle Jim gave the matter little concern until one day his private car happened to be riding in the same train with the Wambuska. At a station where the train stopped for a connection, Uncle Jim alighted.

His attention was immediately attracted to three trappers, who were standing at the side of the Wambuska, jabbing each other in the ribs and laughing heartily. Hill tiptoed toward the trio, as near as he could without being seen. He was rewarded by hearing another explosion of laughter as one man pointed toward the sleeper. Hill stooped and peered under the car, almost sure there must be something wrong with the construction of the underpinning. Dismayed, he tapped one of the trio on the shoulder and inquired the cause of their laughter. "That name, W-a-m-b—" But before the trapper could finish he gave way to another spell of laughing.

"What's the matter with it?" asked Hill.

"What's the matter with it? Why, Wambuska in Chippewa means, 'Where the bugs are!'" answered the trapper.

The sleeper went into the shops at the end of the run, where, by aid of painter's brush, "she" was rechristened.—[Saturday Night.



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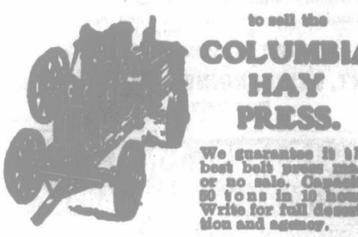
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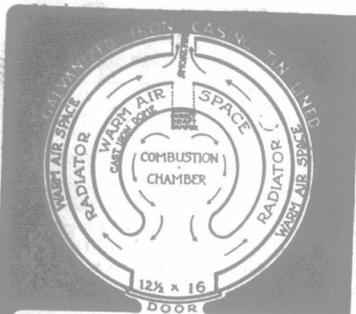
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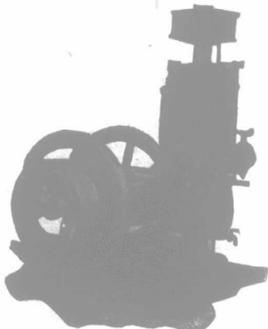
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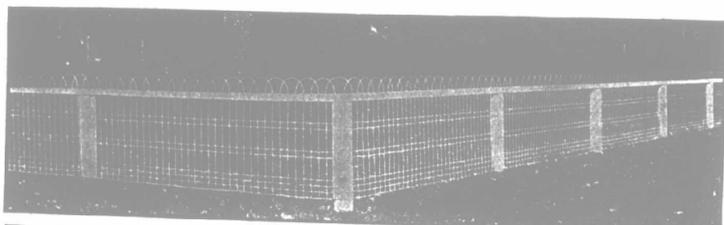
DON'T YOU THINK one roof ought to be enough for any building? Charles Lexow, of Mitchell, Ill., recently became a convert to this Carey Idea. In 20 years or so, doubtless he will pay the sort of tribute to Carey's Roofing that H. L. Bonta, of Harrodsburg, Mercer Co., Ky., does, when he wrote us, April 23rd last:—"Some 15 or 18 years ago, I bought Carey's Roofing to cover a large barn. The Roofing is still doing good service."

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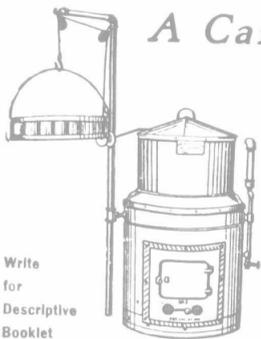
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# The Farmer's Advocate and Home Magazine

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Vol. XLII.

LONDON, ONTARIO, JULY 4, 1907.

No. 771.

## EDITORIAL.

### SPRAY THE POTATOES FOR BLIGHT AND ROT.

The Ontario Department of Agriculture knows human nature. It realizes that, to bring about any desired change in farm practice, the first thing to do is to arouse public interest. For years the steady decline of the potato-growing industry in the banner Province has been a matter of note. Experts knew the reason perfectly well. They knew that our potato fields were injured by blight and rot, which lessened the yield, injured the quality by causing premature dying of tops, and often resulted in the loss by rot of a considerable share of the crop. The blight is of two kinds, "early" and "late." "Early blight" usually begins to appear early in July in spots over the leaves, which gradually enlarge and unite. Finally the whole leaf withers and dries up, followed by the death of the plant, the real cause being often unsuspected. Though called "early blight," this disease may occur late, as well as early. The "late blight," besides affecting the tops, also affects the tubers, causing rot. Five dollars' worth of time and material per acre would keep the growing vines coated with Bordeaux mixture, thus preventing both kinds of blight, as well as the rot. It is true there is a bacterial form of rot, distinct from the disease caused by the blight, and on this bacterial rot Bordeaux has no effect, but the common rot can be prevented by the timely application of the above mixture. Moreover, this same mixture, when combined with Paris green, is the best treatment for the cucumber flea beetle, a minute black insect, which often does considerable harm to potato leaves at this season by eating small holes in them. Everyone knows that Paris green is death to potato bugs. By applying it along with Bordeaux mixture (bluestone, lime and water), the poison is made to adhere better, and fewer applications are necessary.

Experts knew all this long ago, and have been preaching it for years. Time and again "The Farmer's Advocate" has pointed it out. Annual experiments at Ottawa have shown that spraying with Bordeaux mixture increased the yield 94.5 bushels per acre. Experiments at Cornell, N. Y., and elsewhere, were even more striking. But most farmers deemed such spraying too troublesome, and went on using Paris green alone, while blight, rot and flea-beetles had it their own sweet way.

We presume it was to open the people's eyes—to make them sit up and think—that the Department appointed Mr. H. B. Smith, B. S. A., a bright young graduate of the Ontario Agricultural College, a committee to investigate the potato-growing industry. He visited dealers and growers, and picked up much information, all of which goes to corroborate what wide-awake men knew long before. An advance synopsis of his report appears in this issue. We trust it will have the desired effect, and that many growers who never used anything but Paris green before will now see the wisdom of combining with it Bordeaux mixture for each spraying necessary for bugs after the middle of July. When bugs cease to be troublesome, omit the Paris green, but keep the vines coated with Bordeaux to the end of the season. The man who sprays only with green is but half doing the job.

An incidental advantage of using Bordeaux along with the poison is that the lime in the Bordeaux will tend to prevent injury to the foliage by soluble arsenious acid in the Paris green. It will, also, as mentioned above, cause the poison to adhere longer to the vines.

To apply, buy a spray pump. Every farmer

who grows potatoes or fruit needs one, while it will also come in handy in whitewashing barns, outbuildings, fences, etc. A good pump, suitable for the purpose, will cost about \$25, and it has been proven by experiments at the Central Experimental Farm, Ottawa, that more than this can be saved in one year on one acre of potatoes sprayed to prevent blight and rot.

### THE PLACE OF THEORY IN FARM PRACTICE.

There is a constant tendency in many minds to discount theory and stake everything on the altar of practice. We yield to none in emphasis upon the practical, meaning by that whatever tends to the betterment of man or his estate. The person who has learned how to live well is entitled to be called practical just as much as the one who makes a success of business. The Scotch are an eminently practical people, possessing virtues and qualities that are turned to good account, and in whatever line a Scotchman engages, whether farming, manufacture, commerce, teaching, or the ministry, he almost invariably climbs. It cannot be charged against the Scotch that they are a sordid people, for "sordid" and "practical" are not synonymous terms, although many people confuse them. The practical man is the useful man—the one who can do things, and do them well—anything from plowing to preaching or invention.

But there is need for theory, too. And what is theory? The dictionary gives four meanings, but it will answer our present purpose to consider two. One of these we quote as follows: "The philosophical explanation of phenomena, either physical or moral." This might almost be summed up in the one word conjecture, which means to judge from probabilities or possibilities. To illustrate, a man assumes that such and such is so and so. Certain known facts indicate plausible deductions. The inference he draws is a theory of the case under consideration. It may or may not be correct, but in attempting to prove or disprove such theories, a vast amount of useful knowledge has been gained. Columbus reasoned that the earth was round, and on this assumption sought a short-cut to India. His attempt led first to the discovery of America. Afterwards the rotundity of the earth was positively ascertained, and Columbus' theory turned out to be true. Of course, a great many such theories or conjectures, when tested, fail to "hold water," and are discarded, hence, until finally established, they are a very unreliable guide for ordinary practice; but for all that, theorizing, or day-dreaming, as it is sometimes contemptuously called, has been a great blessing to the world, having led to untold lengths of discovery and invention. The fact that theorists are not always practical in applying the results of their theorizing, should not debar them from an honored place in our esteem.

There is another kind of theory, which signifies an exposition of the general principles of a science. If we were framing a definition of our own, it would be: "Theory is the generalized deduction which is based on the result of a wide variety of experience and observation in a certain science or art." If this theory is formulated by a man of a practical turn of mind, who is widely informed on his subject, and has had enough personal experience to thoroughly acquaint himself with the circumstances and needs of the class for whom he is theorizing, and can thereby avoid or guard against little snags that might otherwise crop up unexpectedly in the application of his conclusions—then such theory becomes the best possible guide for practice. The fact that in agriculture conditions are so incomprehensibly diverse, and

vary, moreover, with almost every season, makes the science of agriculture exceedingly complex and the formulation of agricultural principles extremely difficult. No farmer can ever succeed who literally works by rule or rote. There is increasing demand for the play of individual judgment. This is not an unmixed evil. It has made farmers a practical and capable class of people, but, on the other hand, it has tended in some cases to discourage the application of scientific principles, and has induced a too common contempt for "book learning."

Science has done much for farming, and is doing more. Two factors contribute to make science increasingly useful in agriculture. First, agricultural science is being taken up, investigated and preached by a more practical class of men year by year, men who study in the field as well as the laboratory, and who are acquainted with actual farm conditions; men who are not merely chemists and biologists and physicists, but farmers as well, or sons of farmers, at least. The theories that agricultural science offers the farmer are becoming more helpful every year. What was incomplete is amplified; what was abstruse, simplified and made plainer; what was untrue, retracted, and what was absurd, reconciled with common sense. The second reason why science is able to help us more than formerly is that the farmer is learning the place of science in his calling, learning what she can do for him, and how to employ her assistance. But of this anon.

### THE VALUE OF AN EXPERT ENTOMOLOGIST.

Sometimes the average citizen is inclined to wonder what value the country receives for its expense of supporting the paid experts in entomology, botany, chemistry, bacteriology and other ologies, who are maintained at Ottawa, Guelph, Truro, Winnipeg, Ste. Anne, Que., and other places. We cannot answer the question. To compute in dollars the practical benefit these men have been is impossible. Could it be done, the figures would be astounding. They accumulate and diffuse accurate information concerning things which otherwise would be hazy, contradictory and indefinite in the public mind. When a new bug or weed becomes troublesome, we call on the biologist, who comes to our aid ready armed with full knowledge about its life-history and remedies, obtained from countries where the new pest has been encountered and studied before. A case in point has been furnished by the discovery of the dreaded brown-tail moth in the Annapolis Valley, of Nova Scotia. A winter nest of the moth was sent to Dr. James Fletcher, Entomologist and Botanist, of the Experimental Farms, Ottawa, who immediately identified it as belonging to the brown-tail moth, which for years has been so expensively fought in the New England States, particularly Massachusetts. To be forewarned is to be forearmed. Through the press and otherwise, Dr. Fletcher at once made known the unwelcome news, with the result that immediate and thorough search was instituted throughout the suspected territory. Information was broadcasted, and the whole country aroused. The Provincial Department of Agriculture took up the matter energetically. Inspectors were sent out, who held meetings and visited schools and farms. To further encourage the destruction of the nests, a bounty of 3 cents apiece was offered to the schools. On June 7th a largely-attended meeting was held at Annapolis, at which measures were discussed for the control of the moth, and, in fact, no stone is being left unturned to stamp out the pest.

And all this was due to the timely warning of our expert entomologist. The Annapolis Valley

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THE LEADING AGRICULTURAL JOURNAL IN THE  
DOMINION.

PUBLISHED WEEKLY BY  
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JOHN WELD, MANAGER.

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is full of wide-awake, intelligent fruit-growers, but although hundreds of the nests have since been found, no one in Nova Scotia discovered the insect, until C. Percy Foote sent specimens to Dr. Fletcher, hundreds of miles away, at Ottawa. After this, let no one doubt the value of scientific experts to agriculture and to the country. Incidentally, let farmers and others cultivate the habit of observation, and when a new insect or plant is discovered, or a strange disease manifests itself, take no chances, but send it, or at least a description of it, to someone who knows. "The Farmer's Advocate" is always willing to advise, and services of the foremost experts in the country are ever at our call.

## THE WASTE OF MANURE.

According to Prof. Cyril G. Hopkins, of the University of Illinois, the waste of barn manure in the United States amounts to three-quarters of a billion dollars a year. Careful estimates by the U. S. Department of Agriculture show that the 180,000,000 domestic animals produce annually two and one-third billion dollars' worth of manure, of which at least one-third is wasted. Putting it another way, the average American corn crop for the past ten years has been two and a quarter billion bushels, and the manure wasted is equal to the value of this whole crop at 33 cents per bushel. The \$75,000,000 worth of commercial fertilizer used in the Republic each year is equal to only one-tenth of the annual waste in farmyard manure. And yet, with this stupendous economic loss constantly facing them, there are farmers—never the best ones, either—who will say they are farming as well as it is possible to do, and that the study of soil chemistry is a fruitless search. It is hard to convince a man who does not wish to learn.

In Canada, be it said to our credit, there is less waste in the handling of farmyard manure than across the line. We suspect, however, that

if the truth were known, the loss in this country is not far short of one-third the potential value, if we were to count leaching and washing in the field as part of the loss. Not all this waste can be eliminated by the most thrifty methods, but there is a grand opportunity to reduce it, and the knowledge that it is constantly going on should cause us to think, and think hard. Underdrainage of fields, cement floors in stables, water-tight barnyards, manure spreaders, and prompt application to the land, are essentials in the utilization of manure to the best purpose, and with a minimum of loss.

## CO-OPERATION: A NEW ERA IN ORCHARDING.

Co-operation is no new thing on Canadian farms. The pioneers, finding that twenty men working together for one day at clearing land, could do more work than one man working alone for twenty days, co-operated in logging bees until the necessity for these passed. They still co-operate for threshing grain, for dairy work, and to less extent for other purposes. There is no special virtue in co-operation, except in certain lines of work. These lines, however, Canadian farmers do not quickly recognize. They apply co-operative methods to some extent in butter and cheese making, but not to the production of bacon. The Danes, our greatest competitors in butter and bacon, co-operate with great success in the production of both. In both industries there exists the necessity for larger quantities of the finished product of a uniform grade, and also the necessity for greater economy in production.

Necessities were met in Canada largely by a semi-co-operative system for cheesemaking and for the production of bacon by a factory system, owned and managed exclusively by capitalists in no way engaged in the production of raw material. Both systems are developing in the apple industry, as the result of a slight difference of conditions in different parts of the country. The most important feature of the new development is a central packing-house system. In some cases capitalists own and manage central packing-houses, though they are in no way engaged in the production of the fruit. The purely co-operative apple packing and selling associations of Canada had their origin in the south-western portion of the Province of Ontario, and the application of the co-operative method came in the way of a natural development, arising out of the condition of the industry in that section of the country.

The foregoing paragraphs preface a bulletin on "Co-operation in the Marketing of Apples," by A. McNeill, Chief of the Fruit Division of the Dairy and Cold-storage Commissioner's Branch, Dominion Department of Agriculture, a bulletin so full of meat that to summarize it seems an injustice. We shall have occasion to quote it freely from time to time. Meanwhile, it is enough to note in a cursory way the various points discussed.

Apple culture in Ontario began with small plantations of many varieties, which to-day aggregate between 6,000,000 and 7,000,000 bearing trees in Southern and Western Ontario. For some time local markets absorbed the surplus, at profitable prices, but about 1865 to 1870 the pressure of overproduction began to be felt, and apples became almost valueless. Then began an export trade, which has gradually mounted to \$4,000,000 or \$5,000,000 annually. Buyers bought the apples on the trees, and organized gangs of packers, who proceeded from orchard to orchard. Orcharding again became profitable, and new plantings of commercial orchards were made, especially along the northern shore of Lake Ontario and on the shores of Georgian Bay. When these came into bearing, accessible foreign markets began to feel the pressure of increased supply, and when the phenomenal Canadian and American crop of 1906 was put on the market, prices again slumped. In the old districts of numerous, nondescript small orchards, conditions became generally bad. It is estimated that in the neighborhood of 7,000,000 barrels were wasted in Ontario orchards in the year 1906.

Necessity commands invention. Bad conditions lead to their own remedy. An earnest inquiry

into the situation was made by both Governmental and private authorities to determine why planting should proceed with vigor, as it continued to do, in one part of the Province, while in others trees were being chopped down. It was found that the requirements of the foreign market were being more or less adequately met by the newer and larger orchards. These requirements were four in number, viz.:

1. Larger lots of fruit.
2. Few varieties.
3. Uniform packing, grading and marketing.
4. The employment of skilled labor.

From here, Mr. McNeill goes on to describe existing systems of packing and selling, and discusses such points as, selling by the barrel; co-operation and the fruit market; the value of a guarantee; the pernicious practice of selling by commission; the ideal system of selling by tender; direct buying, and the introduction of the co-operative method in the southwestern portion of the Province, where conditions had become chronically bad. The original purpose of co-operative organization of Ontario apple-growers was to combine a number of small lots of fall apples into car lots for shipment, with the object of securing thereby a reduction in freight charges. But the idea has greatly developed, until it is now proposed to substitute for the ordinary methods mentioned above, co-operation in packing, as well as in selling, and even in power spraying and other phases of production. The following advantages will be gained by the adoption of co-operation:

1. Large stocks will be controlled by sellers who will act as a unit.
2. Uniform packing, grading and marking will be practiced.
3. A reputation associated with a permanent brand or trade-mark will be established.
4. The cost of picking, packing and marketing will be reduced.
5. Fruit will be picked and packed at the proper time.
6. Less common varieties will be utilized.
7. Storing facilities will be better provided for.
8. Direct selling at the point of production will be encouraged.
9. Packages will be bought in large quantities or manufactured on the premises, with a material reduction in cost.
10. The placing of the purely commercial part of the industry in the hands of competent men whose interests are connected with those of other members of the association.
11. Spraying by power outfit, co-operatively, will in most cases be adopted.
12. The manager and the better growers among the patrons will have every inducement to stimulate the less progressive members to better work.

These points are discussed in all necessary detail, and the appendix contains model constitutions and by-laws adopted by the Forest Fruit-growing and Forwarding Association, in Ontario; the Kelowna Farmers' Exchange (Ltd.), in British Columbia; and the Island and Gypsum Fruit Company, incorporated under the laws of one of the American States. Laws relating to the incorporation of joint-stock companies in Canada are explained, and instructions given to would-be organizers.

To the value of co-operative organization, let this fact testify: The members of the co-operative association in Ontario sold the greater part of their 1906 crop for \$2.25 per barrel. Many outside growers did not succeed in selling their earlier varieties at all, and on such sales as they did make, secured not more than \$1.00, equivalent to \$1.50, f.o.b. One apple-buyer reported that he had secured two thousand barrels in Southern Ontario at fifty cents per barrel. The only explanation of such absurd prices in such a season as last year, is lack of organization among the growers.

The thoughtful reader may inquire whether the co-operative system of selling fruit will be permanent, or whether the central packing-houses will eventually be taken over and operated by private capital, as so many cheese factories and creameries have been. It may be, but meantime co-operation, with its attendant advantages, is lifting the apple business out of the mire and placing it on its feet. It is bringing about a bright, new era, not only in marketing, but in methods of production;

and even if it does eventually give way to a system of private ownership, it will have proven a tremendous and lasting boon. There is no essential reason, however, why the co-operative system may not prove permanent, if growers will stand together in a spirit of loyalty and intelligent self-interest. By so doing, they will save the toll of an unnecessary middleman, and keep in direct touch with the Old Country trade, with marked and constantly-increasing advantage to themselves, to the fruit dealer, and to the welfare of the industry at large.

## HORSES.

### THE PARADISE OF BEASTS.

A poor old horse, hitched to a coupe, was sleeping a rainy night before the door of a low restaurant, in which women and young fellows were laughing.

And the poor, scraggy plug, with his dejected head, his weak legs, a sorry sight, awaited the pleasure of these night-birds to get back to his miserable, stinking stable.

Half asleep, the horse heard the coarse jests of these men and women. He had been for a long time accustomed to them. Even his feeble brain taught him that there is no difference between the squeaking cry of a wheel and the cry of a degraded woman.

And this night he dreamed vaguely that he was again a little colt on a lawn where he used to gambol in the green grass with his mother who fed him.

All at once he fell stiff, dead, on the sticky pavement.

He came to the door of Paradise. A learned man who was waiting for St. Peter to open the door, said to the horse:

"What are you doing here? You have no right to enter Paradise. I have the right because I was born of a woman."

And the poor plug answered, timidly:  
"My mother was a gentle mare. She died old, abused; and I came to find whether she is here."

Then the door opened, and lo! the Paradise of animals.

And the old horse knew his mother, who recognized him.

She neighed in joy. And when they were both on the celestial prairie, the horse exulted in finding again the old companions of his misery and seeing their happiness, which would last forever.

There were horses that had drawn huge stones over slippery pavements; that had been beaten violently; that had succumbed under cruel loads; that, with blinded eyes, had turned ten hours each day the merry-go-round. There were mares that, in the bull-fights, and before the eyes of young girls, who had looked on with flushed cheeks, had swept the hot sand of the arena with their rent intestines. And there were others and others.

And now they all took their own gait on the great plain of divine peacefulness.

Other animals were also happy. Cats, mysterious and refined, obeyed only their Creator. They pawed gently at threads, with a feeling of inexplicable importance.

Dogs—good mothers—spent their time nursing their young. Fish swam without fear of the angler; birds feared no gun. And so it was with all the animals.

There was no man in this Paradise.—[Boston Journal.

### HORSES AND GRASS.

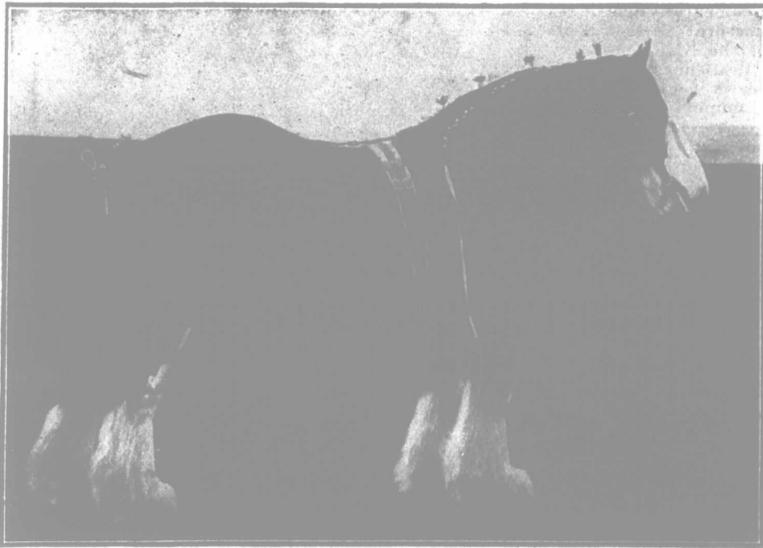
A famous veterinary surgeon declares that grass beats all the drugs in creation as a cure for sick horses and mules. Horses should have a few quarts of grass daily, from spring until fall, he says. The prevalent notion that it is harmful is idiotic and cruel. Grass to horses is the same as fresh vegetables and fruit to us. Their craving for it proves their need of it. Yet, ignorant, unfeeling drivers yank them away from it as if it was poison, instead of the life-giving medicine it is, designed by their Maker for them. When they gnaw the bark of trees or eat leaves, it is because they crave grass and can't get it. Millions of bushels of grass go to waste yearly by the wayside which should be utilized for our noble, faithful, helpless dumb servant, the horse, thus making him healthy and happy.

Judged by the immense success of the International Show, interest in the horse is far from dead; it will live and be stronger for this show, and, furthermore, English horse-breeding should likewise receive an impetus, which perhaps it has been wanting, says the Live-stock Journal.

### A SUCCESSFUL HORSE SHOW AT WINNIPEG.

The Winnipeg Horse Show, held last month in the capital prairie city, was described as a huge success in every way, except from a financial standpoint, and the deficiency in this respect was due, not to sparse attendance, but to the enormous initial expense in preparing a place to hold the show, and to the fact that it is not subsidized by a Government grant. To meet the running expenses of the show, the directors pledged their personal credit, and then erected a special pavilion in which to show the horses and accommodate the spectators. The weather was most propitious, and the city horse-owners were most liberal in their patronage of the show in their entries and attendance, entries amounting to some 450, all told. The grand champion for the best horse of the show was won by Miss Johns, shown by J. A. S. MacMillan, of Brandon. She is an imported English harness mare that shows to particular advantage as a ladies' driver. Three horses recently purchased by Mr. Hugh Sutherland from Tichenor, of Chicago, carried off several prizes in the harness and saddle classes and for runabout horses. In the latter classes the judges settled a doubt in many people's minds as to what a runabout horse should be by sending out of the ring several entries that were after the roadster type and retaining those that were more after the carriage build, but with a dash of speed in them. The winner of this class was a high-stepping Standard-bred, but a pure-bred Hackney mare, with a smart dash of speed, got third.

The heavy-drafters made a noble showing in singles and doubles, the first in singles being a gray Clydesdale-Percheron cross, and in the doubles a pair of grade Clydesdales were first. On the last afternoon the show was favored by a visit from his Royal Highness Prince Fushimi, of Japan, who enjoyed the display of ladies' hunters, tandems and roadsters very much.



Tatton Friar (21953).

Shire stallion. Let for season of 1907 for \$5,000. Brown; foaled 1900. Sire Conquering Harold, dam by The Friar.

The judges were: Geo. H. Webb, of Chestnut Hill, Pa.; R. H. Taber, of Condie, Sask.; and A. G. Galbraith, of A. Galbraith & Son, Brandon and Janesville.

The officers and directors this year are: President, A. M. Nanton; Secretary, G. F. C. Poussette; Vice-Presidents, R. Ross Sutherland, C. C. Chipman, D. E. Sprague; Treasurer, W. A. Machaffie; Directors, C. W. Graham, Geo. A. Carruthers, Fred W. Scott, F. S. Jacobs, Chas. Little, V. S.; F. W. Weir, W. E. Gunn, G. H. Miner, A. A. Gilroy, Joseph Maw, Roy W. Armstrong, W. J. O'Connor, Thos. Billington, A. Kingdon.

The work of this show in creating a market for high-classed horses of different types is such as to commend it to the consideration of the Provincial Government when appropriations are being made for the assistance of agricultural work.

### WHAT IS A YELD MARE?

Some horsemen put the matter down hard and fast, and say "a barren mare," a definition that can hardly be termed correct, for it is unsafe to say that any mare with her full complement of generative apparatus is barren. It will be safer, therefore, to accept the dictionary term, "not giving milk," rather than the term barren, which has a sound of finality, which horsemen know is in very many cases a relative term, for a mare may be sterile to the service of one horse and not to another; or, as is well known, some mares are

temporarily sterile to a stallion and not to a jack-ass; yet, after once being stimulated to the fecund state, are later on fertile to their own kind. Strictly speaking, the mare carrying a fall colt cannot be barred from the yeld-mare section.

### THE CLYDESDALE RULES.

Editor "The Farmer's Advocate":

I have carefully read the pedigree registration rules of the Scottish Studbook, as published in your issue of June 20th, and compared them with the rules of the Clydesdale Association of Canada, respecting imported stallions and mares, as printed on the back of the application forms, and with the new rule of the Canadian Association, as advised in your editorial on the subject in your issue of June 27th, in which light, you say, the situation should be made tolerably clear. I may be very obtuse, but it does seem to me that, with all the light you have endeavored to throw upon the matter, the average horseman will yet regard it as about "as clear as mud." In order to clear away the clouds in my own cranium, and which may exist in others, I would like to ask the mover and seconder of the new rule, or anyone who voted for it, the following questions:

1. What sense is there in requiring that, in order to be eligible to registration in the Canadian Book, a Clydesdale mare or filly imported after the first of July, 1907, must first be registered in the Scottish Book, and bear a registration number in said Book, when the rules of the Scottish Book say plainly that a mare can only be registered in that book which has produced a foal?

2. If the object in formulating this so-called "amended rule" was to raise the standard of registration, how do they get over the apparent fact that fillies that had been imported previous to July first will have the advantage of bearing registration numbers in the Canadian Book from the present date, while those imported after July first cannot secure either Scottish or Canadian numbers until after they have produced a foal, which may be five or ten years after importation, if ever.

3. Was there some hidden object in wording the "amended rule" to read, "will be accepted" for registration, instead of reading in plain and unmistakable terms, "will only be accepted if bearing registration numbers in the Scottish Book," or, "will not be accepted unless bearing such numbers"?

4. If it was intended that the rule should mean what it implies, why was it not made positive, like the Scottish rules, so that common people might understand it, and be guided accordingly?

To my mind, the rules of the American Clydesdale Association, regarding the acceptance for registration of imported animals, printed on the back of their application forms, a recently-received copy of which I have before me, is much more simple and easily understood, and should have been satisfactory for our Association as well. Their rule 3, governing admission of entries, reads: "Imported Clydesdale stallion or mare recorded in the Clydesdale Studbook of Great Britain." Their rule 4 reads: "Imported Clydesdale stallion or mare by sire and out of dam both recorded in the Clydesdale Studbook of Great Britain." And a note reads: "Imported Clydesdale stallion or mare will be admitted only upon the certificate of the Secretary of the Clydesdale Association of Great Britain and Ireland." There you have it, with no red tape, in plain and unmistakable terms, which he who runs may read and need no explanations, while our brilliant leaders have formulated a rule that they fail to make clear enough to be understood by the average horseman, and which entails unnecessary and vexatious trouble, correspondence and expense. The object in thus complicating matters for those who risk their money in importing and those who purchase imported animals, may have been purely unselfish, but I fancy the leaders in the movement will not receive very general credit or commendation for the part they have played in the matter. It will take considerable explaining to satisfy me and some others why Canadian-bred graded Clydesdales

should be placed on a higher plane of registration than Clydesdales imported from the home of the breed, the former being given registration numbers on the unsupported statement of their owners as to the breeding, with no inspection as to individual merit, and with only one recorded dam, while an imported mare, accepted for registration in the Scottish Studbook, must show two recorded dams, with numbers, in that book, and wait until she has produced a foal in order to receive a number herself. And, again, I fancy it will take considerable argument to establish the legality of the action of the directors in calling a meeting of the members to consider a published notice of motion, and then springing upon the meeting a motion entirely different in wording and meaning—a motion which, had it been advertised as the other was, would probably have brought out a much larger attendance at the meeting and a different result. The letter of the Secretary on the "problems," in your last issue, serves only to make the muddle worse mixed.

Huron Co., Ont.

HORSEMAN.

### COB OR DRAFTER: WHICH?

During the past year Canada has been fortunate enough to have a large number of Clydesdale fillies brought out from Scotland and sold at auction in many parts of the country. Some of these have been right up to the mark in both breeding and individuality, and, if properly handled, will prove a valuable acquisition to the registered breeding stock of the country. Much, however, will depend upon how they are fed, exercised, cared for and developed. Unfortunately, it is a foregone conclusion that some of them will never amount to anything better than ordinary general-purpose or light-draft stock.

The first thing to do with these fillies is to give them a chance to grow. The great trouble with most Canadian-bred draft stock is deficiency of scale. Size is a fundamental requisite in a drafter. Without size, the draft-bred horse is less desirable than a horse of the lighter breeds. As we have stated before, draft-horse conformation without draft-horse scale, is a poor proposition. To be sure, quality is important, but quality alone does not make a cart horse. Moreover, while quality is mainly a result of breeding, scale is largely—not entirely, of course, but largely—a matter of feed and development. A horse or filly has a given degree of quality to begin with. Whether it attains sufficient size or not, is largely left to the groom. Of course, every animal has its natural limitations. One can't get Clydesdale weight in a Hackney, but it is possible to keep the weight of the Clydesdale down to little more than that of the Hackney, just simply by denying him sufficient feed of the proper kind during the period of growth, particularly during the first and second years.

Stunt a young animal and you permanently curtail its weight. To understand why this is so, consider the bones of the young animal. These are composed of elastic cartilage. Towards each end of the long bones is a center, from which ossification or "bonyfication" extends. The rate at which ossification proceeds depends normally upon the age of the animal and its hereditary tendency, some animals, such as man, requiring a good many years to reach maturity. Once the ossification from one center reaches that which started from the other center, the bone becomes set, and growth in length ceases. The length of the bone, and, therefore, the size of the skeleton, depends upon how well the animal was nourished with bone-making material during the years prior to the complete ossification of the bones. It is plain, therefore, that we must—to use a field metaphor—"make hay while the sun shines." In other words, we must put the growth on the animal while it is young—the younger, the faster. And yet there are men who begrudge a few hundredweight of skim milk—that best of all bone-and-muscle-making feeds—to a growing colt.

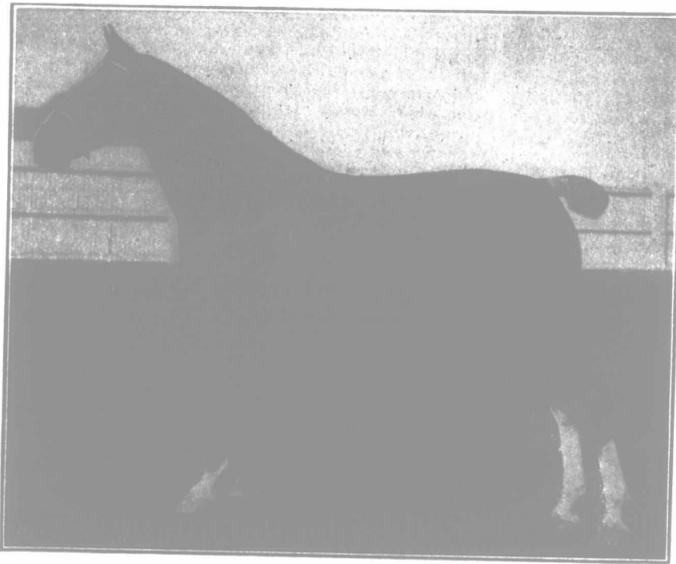
Of course, there are extremes. It is not wise to overdo the kindness, and rush the animal too fast. Such a practice seems to make it soft and flabby. There is reason in all things, and here, as elsewhere, there is a happy medium, but we have only too much evidence that the average Canadian farmer errs on the side of scanty feeding, especially in the case of draft-bred colts and fillies. Feed generously to insure liberal growth in the years while it is still possible to promote growth.

But there is another reason for good feeding. Stunted colts and fillies not only lack size, but their proportions are marred. As an illustration of this principle, we are reminded of the remark of a cattle herdsman, who asserts from considerable experience that good care and feeding will straighten the back of almost any droop-rumped cow. A similar principle applies in horse-breeding. To secure full and symmetrical development of all the parts, with coolness, proper temper and condition, feed well, rear with care. Many a promising filly, with genuine blood lines, sinks into oblivion in the hands of a man who doesn't know how to feed, or of a man who

proportions, scrawny appearance, unsoundness due to overwork and neglect of the underpinning—these are some of the misfortunes that disqualify what were the makings of first-class horses and mares. Few realize how much good breeding comes to naught through just such causes. If they did, they wouldn't be so sparing of the feed.

If, therefore, you have been fortunate enough to secure a well-bred filly, or, indeed, if you have any other filly or colt, but especially if it be of one of the draft breeds, keep it growing right along. At the same time, see that it has moderate exercise, so as to insure the conversion of the feed into bone and muscle, rather than mere adipose tissue. In the winter, provide exercise, either in harness or in open paddock. This, with proper attention to general health, teeth, legs and feet, should result in realizing out of each young animal something like its inherent possibilities, and making the investment a source of constant pleasure, as well as substantial profit. Breed will tell with the feed and care, but not very often without.

A colt wants to be kept eating and growing and exercising, and anything except fattening, as long as he has a time assigned him by nature to grow. Well-bred and well-kept horses stand hard usage better at an early age than horses that have had a struggle for existence and have an inferior quality of blood in their veins.



Memento.

Hackney mare. First at the London Hackney Show, March, 1907.

## LIVE STOCK.

### MUSLIN-CURTAIN VENTILATION IN LARGE STABLE.

Editor "The Farmer's Advocate":

The Tully Farms, owned by the Solvay Process Company, of Syracuse, N. Y., have some barns that are partially ventilated by means of muslin over openings at the tops of the glass windows. The windows of one barn, in which 86 cows are kept, are hinged so that the tops may be drawn in. The space over the top of the window is covered with muslin. This arrangement permits fresh air to enter without creating drafts, and has been a very satisfactory arrangement in this particular barn. Ventilating flues are provided for the escape of the heated foul air. The muslin arrangement proves more satisfactory than cold-air ducts, which would permit fresh air to enter in sufficient volume to cause perceptible drafts. The arrangement of which I am speaking was put in the barn last fall, and has been tried one winter, with very satisfactory results. Under our conditions, I know of no objections to this method of ventilation. It permits considerable fresh air to enter without creating drafts, and at the same time excludes dust.

In my judgment, it is essential that cow stables, where any considerable number of cows are kept, should be provided with ventilating flues through which the heated foul air can escape. I should plan to have these flues extend near to the floor, so that the air near the floor, as well as the warmer air near the ceiling, may be removed. The removal of the foul air from the stable is quite as easy to provide for as is the entrance of fresh air without drafts.

In the case of stables not provided with ventilating flues, or with fresh-air ducts of any kind, I should suggest constructing flues for the escape

of the foul air, and covering part of the window with muslin. The amount of muslin to be used would, of course, depend largely upon the number of animals kept in the stable and the amount of air-space in the stable per cow. The smaller the air-space, the more rapidly should the air be changed.

We are about to construct a new stable, having a capacity for 96 cows, and are planning to get from 550 to 600 cubic feet of air space per cow. Our cows are mixed Holsteins, Jerseys and common stock. They will probably weigh nearly 1,000 pounds per cow.

G. C. WATSON.

Gen. Manager Tully Farms, New York State.

### RECOLLECTIONS OF A SHEPHERD.

(Continued.)

The reference in my contribution in last week's issue of "The Farmer's Advocate" to a \$20 prize for a ram lamb at a Toronto exhibition in 1852, may surprise present-day exhibitors and fair boards when compared with the prize-list of the Canadian National of 1907, in which the first prize for ram lambs is \$15, and when we compare a first prize of \$70 for bulls at the former date with \$30 at the latter, and \$60 for stallions in several classes then with \$40 now, our boasted progress in some lines makes no great showing in this respect. And the prices paid for pure-bred sheep now make even a poorer showing in contrast with those of fifty years ago, when the country was young. At the Provincial Fair, at Hamilton, in 1853, the first-prize Leicester shearling ram was sold for \$120. At London, in 1854, the first-prize two-year-old ram of the same breed was sold for \$240, and a two-year-old ewe of the first-prize pair of Cotswolds for \$120; while at Brantford, in 1857, the first-prize Cotswold shearling ram sold for \$250. These, it is true, were imported sheep, and as the freight and other expenses of importation were much higher then than now, and the risk much greater in the long voyages by sailing vessels, importers had to receive stiff prices in order to make a profit; yet, with a liberal allowance for this, and with due deference to their enterprise, one cannot but think they were not overmodest in their asking, nor the buyers lacking in pluck, when they paid such prices, so soon after their battle with and conquest of the forests that had so recently covered their farms. As evidence that Canadian farmers were not less enterprising then than now, I recall that not a few were willing to pay two to five dollars each for the mating of their best grade ewes with imported rams, and take their ewes ten to twenty miles in wagons in order to secure the best breeding. An amusing incident in this connection recurs to my mind. An ambitious up-country man brought a wagon load of pretty plain sheep fully twenty miles to be bred to our imported ram, and, in unloading them, the under shepherd, then quite a young boy, made the interesting discovery that one of them was a wether. The exclamations of the owner on this revelation would not look well in print, hence are not recited. Suffice it to say, he seemed to find it difficult to do what he considered justice to the occasion, since the joke, he knew, was too good to be kept a secret. Speaking of high prices for rams, reminds me that the Leicester two-year-old above mentioned as being sold for \$240, lived but four weeks after being turned in with a flock of 112 ewes, but the dates of birth the next spring showed that only six of the number were not in lamb to him, and as about fifty were paid for at the rate of \$4 or \$5 each, the investment proved a not unprofitable one, which indeed it would not had only the owner's little flock been bred to him; as his get were so superior they sold readily at fancy prices far in excess of the ordinary. This may appear rather a "tall" tale, but is a modest record, and cuts little figure compared with the story I remember reading somewhere in history of a scrub ram that swam across a river and sired 125 young scrubs in one night, which reads somewhat like fiction, but, in view of the virility of evil, is scarcely preposterous, but for the improbability of his finding so many willing accomplices in so short a period, unless the flock was of the ranch order, numbering in the thousands.

It used to be said that figures cannot lie, but in this age of exaggeration and incredulity a good many people have come to doubting the reliability of much they read in the papers, and some go so far as to say there are few things that lie faster than

figures. But before leaving the subject of ovine fecundity, let me say that the largest litter of lambs I ever saw taken from the internal economy of one ewe at one time was five. That was in the case of a Cotswold ewe in our own flock. All were of good size and well developed, and would probably have been born alive but for the fact that, in struggling with the pains of parturition the ewe had rolled over on her back, and, being unable to rise, was found dead in the morning. That, however, even if it had been the complete success it promised to be, would have been but a modest record compared with the capability of the Dorsets, some of whose breeders, in expatiating on the virtues of their favorites at the fairs, claim that they produce two and sometimes three litters in a year—a distinct advantage, now that eight-weeks-old lambs are selling for as many dollars per. And another advantage they claim for them is that they are sure dog-proof; that, when attacked, they instinctively form a solid square, horns outward and tails inward, and challenge the enemy to "come on, McBuff." And it is related that, at a Toronto fair, a few years ago, one enthusiast, probably indulging his imagination, told to a group of credulous, open-mouthed auditors the story of his having found two dead dogs in his field, one pounded to a jelly, and the other with his entrails torn out by side-cuts from the antlers of the lord of the harem.

"SHEPHERD."

**A GOOD SERVANT AND FAITHFUL FRIEND.**

Editor "The Farmer's Advocate":

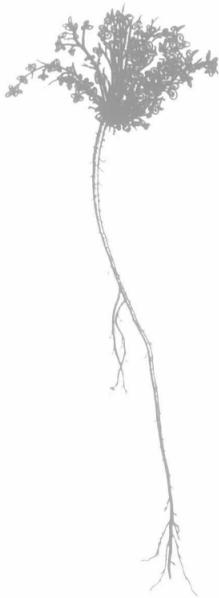
I cannot understand how there can be any possible doubt as to the value of the Collie dog—a good servant and a faithful friend. When at the Agricultural Show, Sydney, N. S. W., the most interesting event to the millionaire squatters was the exhibition of shepherding by the Collies. May I point out that the word collie really means a shepherd's dog, and formerly meant a sheep?

A LOVER OF DOGS.

**THE FARM.**

**THE WONDERFUL ROOT GROWTH OF ALFALFA.**

Under suitable conditions, alfalfa is very long-lived, fields in Mexico, it is claimed, having been continuously productive without reseeded for over two hundred years, and others in France are known to have flourished for more than a century. Its usual life in the United States is probably from ten to twenty-five years, says Coburn, in "The Book of Alfalfa," although there is a field in New York State that has been mown successfully for over sixty years. In Canada there are fields on clay hillsides which have yielded splendid crops year after year for at least twenty years,



An Alfalfa Plant of One Season's Growth. Root, Three Feet Six and a Half Inches.

and look good for many more. In its root-growth, it is probably the greatest wonder among plants. Roots go down ten, twenty or more feet, and a case in Nevada is reported by Chas. W. Irish, Chief of Irrigation Inquiry, U. S. Department of Agriculture, where the roots were found penetrating crevices in the roof of a tunnel one hundred and twenty-nine feet below the surface of an alfalfa field. At first thought one would feel sure Mr. Irish must have been deceived, but his statement is endorsed by high authority. Prof. W. P. Headden, of Colorado, found roots nine feet long from alfalfa only nine months old, and another man reports roots seventeen inches long at about four weeks' growth, the plants being but six inches high. In Canada, cases have come to our notice of roots found eight feet down in cellar excavations, in the hardest kind of clay, and the accompanying cut was made from a photograph taken this spring of an alfalfa plant of only one season's growth, selected at random, and dug up this spring by a member of our staff on a breakwater along the Thames River in London, the breakwater being composed of very poor sand. The root of this plant measured three feet six and a half inches, while from its crown forty young shoots were starting up. No doubt much longer roots could have been found. In fact, the wonderful authenticated instances of the root-

growth of alfalfa lend color to the belief that it will go down until stopped by impervious rock or by the watertable.

The alfalfa plant generally has a tapering taproot, with many branches, tending downward, yet with considerable lateral growth. As the taproot is piercing the earth, it is also sending out new fibrous roots, while the upper ones, decaying, are leaving humus and providing innumerable openings for air, water and the fertilizing elements from the upper soil. Scattered along the roots may be seen, as a usual thing, small nodules or tubercles the size of a pinhead up to that of a pea. Here dwell the bacteria which collect nitrogen from the air in the soil, and, after using, pass it along to the plant, to be built up in its tissues. Where nodules are not present, the field requires artificial inoculation with them, to secure best growth; where nodules are present in large numbers, it is sure evidence that inoculation has already been accomplished in some natural or artificial way.

By its roots, therefore, alfalfa, like clover, is a means of greatly increasing the nitrogen content of the farm, while the mechanical effect of its root growth and decay constitutes another of the great virtues of the plant. On well-drained land, with plenty of lime and potash, and a reasonable amount of phosphoric acid, it is the most efficient, deep-reaching subsoiler and soil renovator known to agriculture, clover not excepted. It will do best on clay hillsides, other conditions being equal, for here it is less likely to be winter-killed or crowded out by grass.



Dorset Lambs Armed with Weapons of Defence.

**SOME RESULTS OF FIELD EXPERIMENTS AT GUELPH.**

In "The Farmer's Advocate" of June 20th, under the heading, "What the Excursionists See and Hear This Year at the O. A. C.," there were given some practical gleanings from the work in the Field Experimental Department at the College. Lack of space curtailed our report, which is herewith supplemented by some additional points brought out by Prof. Zavitz in his conduct of excursionists through the Department.

**STIFF-STRAWED VARIETIES OF OATS.**

There is a demand in many quarters for a variety of oats not liable to lodge. This point has been studied, with the result that Prof. Zavitz recommends, as among the best in this respect, the Liberty, Early Champion, and the two English varieties, Tartar King and Storm King. These latter two do not stool very fully, and it has also been noticed that, although they do not lodge readily, when they do go down they go down very badly, and are harvested with considerable difficulty.

**BEST-YIELDING OATS.**

Speaking of oats, the question has been asked, whether there is a better-yielding oat than Black Tartarian and Egyptian, varieties which used to be grown so extensively. The reply is that they have introduced varieties which have largely out-yielded either of these sorts. For instance, in the average results for the last sixteen years, the Siberian, the Oder-rucker, the Banner and the Joannette have each given an average annual yield of fully ten bushels per acre more than Egyptian or Tartarian. The Improved Ligowo is also a good oat.

Q. Do the early oats yield as heavily as the late varieties?

A. Generally speaking, the early varieties of oats do not give as large yields of grain per acre as those varieties which ripen later in the season. There are a few varieties of early oats, however, that are giving excellent satisfaction. The Daubeney oats are very early, produce a good length of straw, a spreading head, and grain which is

white in color and very thin in the hull. This variety is one of the very best yielders of all the early oats which we have grown at the College, and one which is becoming more extensively grown throughout the Province from year to year.

**THICK VS. THIN HULLS.**

Q. Is there much difference in the percentage of the hull of different varieties of oats?

A. There is certainly a very great difference in the different varieties in this respect; for instance, the Daubeney and the Joannette varieties have only about twenty-two to twenty-four per cent. of hull, while the Early Dawson and the Pioneer varieties have from thirty-five to forty per cent. of hull. We frequently find that a variety which gives a heavy weight per measured bushel is an oat of poor quality, owing to the comparatively small amount of meal, and the large amount of hull obtained from one hundred pounds of grain.

**THE BEST-YIELDING GRAIN.**

"What kind of cereal crop yields the largest average number of pounds of grain per acre?" is a question Prof. Zavitz often uses to draw out his hearers. The answers usually favor one kind after another in turn. It is a surprise to many to learn that, judging from Bureau of Industry returns, as well as from results obtained at the College and through the Ontario Experimental Union, barley heads the list. Moreover, the average per cent. of hull in barley is only 15 per cent., whereas the average per cent. of hull in oats is 30 per cent. The inference is that barley yields considerably the largest amount of feeding value per acre.

Emmer, we may add, has not been included in this comparison of different kinds of grain.

There is, however, another side to this matter, and a rather important one. Oats are a balanced ration, while barley, although containing a good deal of fattening material, is relatively deficient in protein, the element that enters so largely into the composition of bone, flesh and milk. The average farm ration is deficient in protein (for any except, perhaps, purely fattening purposes), and needs a feed relatively rich in protein to balance it up. For this purpose, oats are better than barley. Generally speaking, oats are better for the milking cow, the growing animal and the working horse. Notwithstanding the larger percentage of hull, oats contain 9.2 per cent.

protein, while barley contains 8.7 per cent. In carbohydrates, however (starches, sugars, etc.), barley is considerably richer, as intimated above. It is a good grain for fattening, although for this purpose it is not equal to corn. Our own opinion is that barley is already occupying about as large a place in our farm economy as is desirable.

**CROPS OF MIXED GRAINS.**

While barley has outyielded oats, a mixture of barley and oats, one bushel of each per acre, has given at least 200 pounds per acre larger returns than either alone; larger, also, than any other mixture, and larger than a mixture of these same grains in any other proportions. Nine different proportions of these grains have been compared in experiments extending over five years. In sowing mixtures, it is necessary to choose varieties that will ripen together. Best results have been secured by mixing Daubeney, one of the earliest oats, with Mandscheuri barley. For green fodder or for hay, they have obtained best results by sowing two bushels of Siberian oats and one bushel of Prussian Blue peas per acre.

Q. Does alfalfa thrive at Guelph?

A.—We have tested alfalfa or lucerne quite extensively during the last twenty years, and find that the crop thrives splendidly. We usually sow at the rate of 18 to 20 pounds of seed per acre in the spring of the year, either with or without a grain crop, on land which has been well cultivated. The crop has been used both for green fodder and for hay. It gives an average of three cuttings each season, furnishing a total yield per annum of about twenty tons of green crop or of five tons of cured hay per acre. The crop should be cut when it is starting to bloom, and carefully cured, so as to retain the leaves. When properly handled, the hay is of excellent quality, being even richer than that made from common red clover. There is not much use of sowing alfalfa on cold, wet soil. As the roots of the plants grow to so great a length, it is important that the subsoil be well underdrained, either naturally or artificially. A number of varieties or strains of alfalfa are being tested in plots side by side. There are two from Peru and Arabia, respectively, which have

almost completely killed out. The most promising ones are from Turkey and Southern Russia. Some of these plots are a picture, with their fresh, early, vigorous growth.

**CORN CULTURE.**

From the results of experiments conducted by farmers through the medium of the Experimental Union, we learn that, on the average, the corn which was planted in hills or squares produced about one ton of total crop per acre more than that which was planted in rows. The same amount of seed was used in both cases. Of this increase, about one-fifth of a ton was in the form of ears, and four-fifths in the form of stalks and leaves.

Q. What method of corn cultivation would you recommend?

A. Deep cultivation between the rows of corn in the early part of the season, gradually getting shallower at each successive cultivation as the season advances, is the method which has given us the best results in our experiments on the college plots.

**SORGHUMS.**

Q. Would you advise farmers to grow any of the sorghums as a farm crop?

A. Some of the sorghums have given very good results. The Early Amber Sugar Cane and the Early Minnesota are amongst the leading varieties. On light, warm soils, the sugar canes will sometimes thrive better than corn, especially if the season is comparatively dry. The sugar cane is very sweet, and readily eaten by farm stock.

In this connection we might mention the experience of one farmer who grew sorghum, mixed in drills with his corn, for ensilage. The sorghum made great growth in the hot weather, and he considered that the mixture outyielded corn alone. He used to secure yields estimated at twenty tons per acre. Of course, he cultivated and manured it well, and grew it always on a clover sod.

**POTATO EXPERIMENTS.**

Q. Have you had any rot in the potato crop at Guelph, and if so, do you find that all varieties rot to the same extent?

A. In 1897 potatoes rotted considerably. From that time until 1903 we had out little trouble from this disease. In 1903, 1904 and 1905, however, the potatoes rotted quite badly. There was also some rot in 1906.

There is certainly a marked difference in the amount of rot developed in the different varieties. In the average results for the last four years, some varieties have had less than five per cent. of rot. These are mostly new varieties, and some of them have been imported from the Old Country. Those freest from rot are Robertson's Champion, Stray Beauty, Skerries, Holborn Abundance, Green Bay, Seedling No. 230, and Main Crop. Each of these varieties have had less than five per cent. of rot. In comparison with these, we find that there was upwards of 30 per cent. rot in the average crop of the Beauty of Hebron, Hanlan Beauty, White Pinkeye and Montana Bluff.

Q. Have you found any potato which has given better results than the White Elephant variety?

A. The Empire State gives a better yield per acre, produces potatoes of superior quality, and is not nearly as subject to rot as the White Elephant variety.

Q. Do you cut potatoes for planting?

A. We prefer cutting good-sized potatoes into pieces weighing about an ounce and a half each, having two, three or four eyes in each piece. We find it is a great advantage to cut the potatoes, sprinkle them over immediately with land plaster, and plant on the same day.

Q. To what depth should potatoes be planted?

A. In the results of experiments conducted for seven years in succession in planting potatoes one, three, five and seven inches deep, we obtained the highest average yield per acre by planting at a depth of five inches. The soil in which these experiments were conducted is what might be termed a clay loam.

**WHEAT AND CHESSE.**

Q. Will wheat turn to chesse?

A. On several occasions I have sown chesse in rows in our experimental grounds, and have never failed to obtain a crop of chesse from the seed thus sown. We are always careful, however, to cut the chesse while the plants are still quite green, so that there is no possibility of the seeds lodging in the ground, to remain there until they receive the proper conditions for germination. We always carefully pick by hand all winter wheat before it is sown. In the hundreds of winter-wheat plots which we have grown during the past ten years, I have never yet been able to find a single plant of chesse. At the suggestion of farmers, we have conducted several peculiar experiments, but have never been successful in obtaining chesse from wheat.

**EMMER VS. SPELT.**

Q. Are spelt and emmer the same kind of grain?

A. By most authorities wheat is divided into seven distinct types or species, emmer and spelt

represent two of these. There are several varieties of each of these two types. It will, therefore, be seen that emmer and spelt are quite distinct. In both types, however, the grain is very closely surrounded by the chaff, and there is not a clear separation of the chaff and the grain in the process of threshing. The grain is usually ground, and the meal used for feeding stock. But very little, if any, spelt is grown as a field crop throughout Ontario. In a good many cases, however, emmer is grown under the name of spelt. In the experiments at the College, and also in the co-operative tests throughout Ontario, emmer has produced very high yields of grain per acre, being about equal in this respect to the very highest-yielding varieties of oats and barley. The straw of the emmer is rather weak, but is very free from rust. The true spelt has given very poor results in the experiments both at the College and throughout the Province.

**BEARDLESS BARLEY.**

We have under test several varieties of beardless barley. They are quite early in maturing and fairly stiff in the straw, but none of them produce nearly as much grain per acre as the leading six-rowed bearded varieties. Probably the best-known beardless barley in Ontario is what is called the Success. This variety, however, produces only about two-thirds as great a yield of grain as the Mandscheuri barley.

**MANDSCHEURI BARLEY DISTINGUISHED FROM MENSURY.**

Q. Is the Mensury barley identical with the Mandscheuri variety?

A. There is some difference in the appearance and a very marked difference in the productiveness of the Mensury and the Mandscheuri varieties of barley. We secured Mensury barley from several sources in the United States and Canada, and retained the strain which gave us the best results. Even this strain of the Mensury barley, however, has produced an average annual yield of fully eleven bushels of grain per acre less than the Mandscheuri in the average results at the College for a period of sixteen years.

Q. Does the Mandscheuri barley do equally well in all parts of the Province?

A. This variety has certainly made an excellent record, not only at the College, but in practically all of the sections of Ontario. We imported the Mandscheuri barley in the spring of 1889. After testing it at the College for about five years, and finding that it was giving such excellent results, we distributed small quantities through the medium of the Experimental Union. The experimenters soon increased the seed, and sold to their neighbors. According to inquiries made amongst farmers throughout the Province, it appears that fully 500,000 acres of this variety are now grown annually.

**IMPROVING VARIETIES BY SELECTION AND HYBRIDIZATION.**

Q. Have you been enabled to introduce many new varieties of farm crops which are better for Ontario than the old standard varieties?

A. We have been instrumental in introducing some new varieties which are decidedly better than some of the old standard kinds, and which are now grown extensively on the farms in the Province.

Q. Do you expect to be enabled to introduce other varieties which are superior to those which you have already distributed?

A. We are now endeavoring to improve the very best varieties through systematic selection and thorough cross-fertilization. The results so far are very promising. We are commencing to distribute some improved strains obtained through selection, and believe that they will make a good record for themselves throughout the Province. Last year we had about 15,000 plants, resulting from crosses between our leading varieties.

**HOW CROSS-FERTILIZATION IS ACCOMPLISHED.**

Q. Will you explain a little more fully your work in cross-fertilization?

A. The flowers of wheat, oats, barley and peas are self-fertilized, while those of corn are generally cross-fertilized through the influence of the wind. If we desire, therefore, to secure crosses between two varieties of any of the first-named grains, it is necessary to cross-fertilize the flowers by hand. This requires time, care and patience. During the last five years we have obtained some very interesting and promising crosses between such grains as Dawson's Golden Chaff and Turkey Red varieties of winter wheat, common emmer and Red Spelt, the Herison Bearded and the Red Five varieties of spring wheat, the Joannette and Siberian varieties of oats, the Mandscheuri six-rowed and the Chevalier two-rowed barley, etc. We believe that we will be enabled to secure new varieties which will combine approximately the good qualities of the parents, such as winter wheat with the strong straw and high-yielding properties of the Dawson's Golden Chaff, and of the good milling qualities of the Turkey Red; a spring wheat with the compactness of head and the heavy weight per measured bushel of the Herison Bearded, and the quality of grain of the Red Five.

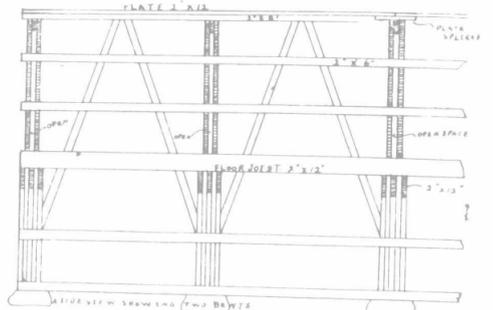
an oat with the great stooing power, the high-yielding property and the thinness of hull of the Joannette, and the character of straw of the Siberian variety; a barley with the strength of straw and the circumference of head of the Mandscheuri, and of the length of head and quality of grain of the Chevalier, etc. This is work which requires several years to develop, but in which we are greatly encouraged, believing that in time we will be able to originate varieties of several classes of farm crops which are more suitable for the farms of Ontario than those which are now in general cultivation.

**FRAMING PLANK BARNS.**

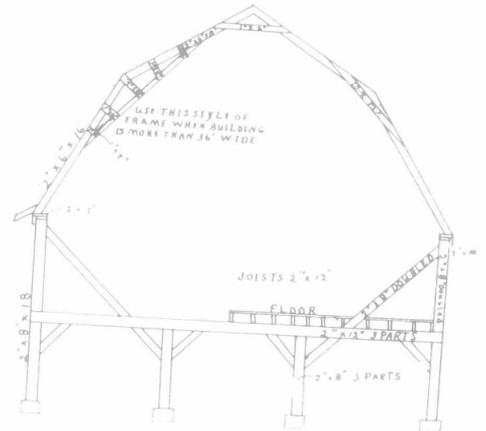
In reply to a correspondent, "The Farmer's Advocate," Winnipeg, Man., gives the following suggestions regarding the general construction of plank-frame barns:

Such barns are usually built in two stories, the lower for a stable; sills are unnecessary; planks may take the place of timbers; heavy cross-beams and plates are not required; a roof can be made strong without a purlin plate, etc.

In building a barn, if possible, set it upon land that is practically level and dry. Set stone or concrete posts under the frame posts, coming well above the surface of the ground, and going down well to a solid foundation. Between the concrete and the bent post place a 2-inch plank, to absorb the moisture. These piers and the bents may be



from 16 to 20 feet apart, depending upon the nature of the fodder or grain that will be stored in the upper story. On the interior and across the ends of the barn these piers may be set where it is convenient to place posts to support the heavier stringers that will carry the joists for the floor over the stables. The bents are then framed, using plank 2 x 10 in. for an average-sized building, and 2 x 8 in., if under average size. Fit the upright and the cross planks together, which leaves a 2-inch space between planks; break joints systematically, and spike a 2-inch piece over each joint. The bents are all framed before raising, which would take, with a good carpenter in charge, and about four men helping, two or three days for a 40 x 60-ft. barn. When the bents are up and well braced, it is best to board up the walls before putting on the roof. Use perpendicular siding, with 3-in. battings, as it is less liable to let in moisture and to rot. It would also be best to get the joists in place and lay the floor before putting on the roof.



When ready to put up the rafters, which should be at least 2 x 5 in., cut them to give the lower rafters a square pitch and the upper ones a quarter pitch. The rafters may terminate at the plate, and should be braced well at the joints with 2 x 4-in. pieces. Erect the end rafters first, stay them well, and proceed with the others, bracing them firmly with two or more nails to each brace. The projection at the eaves can be given by spiking on 2 x 4-in. pieces. The roof may be of different materials, but if shingles are used, it adds to their durability to dip them in oil or tar before putting them on. If oil is used, it improves the appearance of the roof to add Venetian red to the oil.

Then arrange a piece of iron or tin so that the shingles can be placed to drain before using.

We should have said that the end bent requires more braces and girths than the center ones. These can be placed so that the building will be braced, doors left to let in hay, and the siding nailed to them. Their ends should be inserted into the corner-posts between the planks, and, to make them flush, an extra plank can be nailed to the outside. It would be well to double the end rafters this way, also. At the ends it will also be necessary to use perpendicular pieces to carry the girths up.

The cuts we publish herewith (from Farm Buildings), will give a better idea than words of how the frames of such barns are made. There are other designs used for plank frames, but we have selected the most simple, and the one that is used under most average conditions. In building such a frame, it will require a carpenter to superintend the job, especially in laying out the roof.

For the stables below, 2 x 6-in. planks may be spiked together for posts, or solid timber used.

In some cases iron rods are used to brace the bents, the rods running clear across the barn, or from the plates to the floor. A thread and double screw is used to keep these rods rigid, and where the frame is likely to be subjected to severe strain, these rods are a good provision.

**MOVABLE RACK-LIFTER FOR END-DRIVE BARN**

Editor "The Farmer's Advocate":

I noticed in your issue of April 11th a description of the end-drive barns of Halton Co. In the description, it is said that rack-lifters just suit end-drive barns, and that they can be slid along a track from mow to mow. I have an end-drive



Fig. 1.—Diagram of Rack-lifter.

barn of the size mentioned, 56 x 100, and intend putting in a rack-lifter this season. All the rack-lifters in this part of the country are stationary. Please explain how they can be made to slide along a track from mow to mow.

P. A. C.

Perth Co., Ont.

For the accompanying notes, with drawings, from which the engravings were made, we are indebted to W. S. Chisholm, of Halton Co., Ont. The frame of the rack-lifter (shown in diagram, figure 1) consists of two sills, 24 feet long, of 6 x 6-in. pine, with a 2-inch plank at each end, let down into the sills 2 inches, and spiked there. The planks have to be kept a short distance away from the wheels, so as to give them room to work freely. The rack-lifter is set in this frame, the axles being let down about 2 1/2 inches into the sills. The axles are 26 feet apart for a

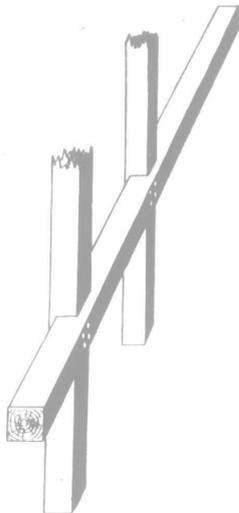


Fig. 2.—Showing a Rack-lifter Girt, with Projection on Which the Sill of the Lifter May be Slid Past the Posts.

16-foot rack, and 18 feet apart for a 14-foot rack. When the rack-lifter is to be moved from one mow to another, a rope is put around one of those planks in the center, and through a pulley further on. The rope is brought to the barn floor, and a team of horses hitched to it. The new barns they are putting up lately in Halton County have 24-foot posts running all the way up to the purlin plate. They put up a rack-lifter girt (see Fig. 2) 20 feet from the floor, 10 x 10-inch timber, leaving 6-in. face to the driving floor, on which projection the sills of the rack-lifter may be drawn along. In some older barns, a piece has had to be spiked to the side of the girt in order to make this continuous track.

Fig. 3 shows a diagram representing the view seen by standing on the driveway and looking towards ends of windlass. The windlass itself is not shown, but merely indicated by the square section in the center of each of the large wheels. G is

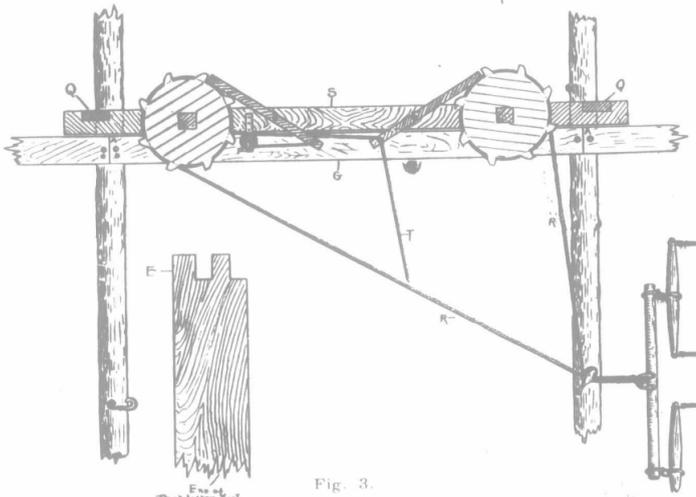


Fig. 3.

the rack-lifter girt, with projecting edge, on which rests S, the sill or bed-piece of the rack-lifter frame. The manner in which the girt is mortised into the posts by means of double tenons is shown at A A, and also by the small drawing showing end of rack-lifter girt. The outer tenon, E, projects on the driveway side of the purlin post. Q Q are the plank which connect the sill S with the corresponding sill on the opposite side of the driveway. T is a small trip-rope used to raise the dogs when the empty rack is to be lowered.

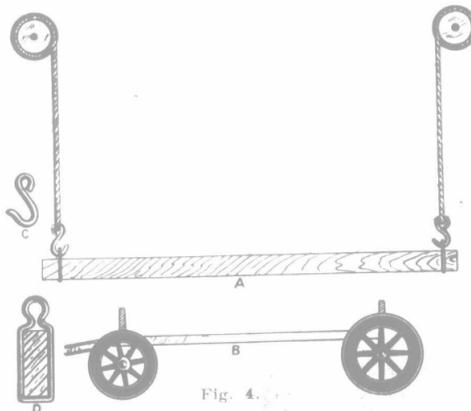


Fig. 4.

It runs around the small wheel P, which is attached to sill S, and always slides with it when it is moved. R R are draw-ropes, which, in unwinding, as they are drawn out, wind up the lift ropes on the windlass or axle.

Fig. 4 shows how the wagon rack is raised. B is the wagon, and A the sill of the rack. Two ropes from each windlass hang down, and are hooked, one to each corner of the rack, by hooks and eyes, as shown in C and D.

**FAIR DATES FOR 1907.**

- July 13-20—Winnipeg Industrial.
- July 22-26—Brandon, Man.
- July 30 to August 2—Regina's Big Fair.
- Aug. 23-30—Iowa State, Des Moines.
- Aug. 26 to Sept. 9—Canadian National, Toronto.
- Aug. 29 to Sept. 6—Detroit, Mich.
- Sept. 2-4—Dominion Exhibition, Sherbrooke, Que.
- Sept. 13-21—Canada Central, Ottawa.
- Sept. 6-14—Western Fair, London.
- Sept. 9-13—Indianapolis, Ind.
- Sept. 9-14—New York State Fair, Syracuse.
- Sept. 17-19—Guelph.
- Sept. 18-20—Woodstock.
- Sept. 25 to Oct. 3—Halifax.
- Sept. 27 to Oct. 5—Springfield, Ill.

**THE DAIRY.**

**HOW TO ABATE THE GREEN-CHEESE EVIL.**

Editor "The Farmer's Advocate":

I do not desire to engage in a controversy on the question of shipping green cheese, as I have already stated my views pretty fully, but I would like to refer as briefly as possible to some points raised by several of your correspondents in "The Farmer's Advocate" of June 20th.

I think my friend Mr. Steinhoff confuses the matter of shipping cheese with that of placing green cheese in the hands of the consumers. I quite agree with him that the shipping of cheese in green condition is not likely to injure the quality, although I do think there is some danger of trouble arising with the rinds of cheese that are boxed and shipped in a very green condition. I agree, also, that fodder cheese should be shipped out early; but the question is a much broader one than that, and refers to the later-made cheese. Mr. Steinhoff gives credit to the cool-curing and the improved transportation for the improvement in the cheese as arriving in Great Britain during the last year or so. I would point out, in this connection, that the improved transportation facilities make it all the more imperative that the cheese should be held for a reasonable time in our factories, because, on account of the lower temperature in transit, they do not mature as rapidly as they did in former years.

Professor Dean says, in effect, that the salesmen have continued to sell green cheese, notwithstanding the advice given them to the contrary. That statement is too general or sweeping to be accurate. No doubt some of the salesmen are still doing so, but I am glad to say that many of them have taken the advice offered to them, and several of the cheese boards passed resolutions, after receiving my circular letter of May 7th, not to sell cheese under ten days old; and I am told by Mr. Publow and others that they are living up to this agreement. Members of my staff who are watching the arrival of cheese in Montreal, report a decided improvement of late. I would ask Professor Dean if he ever heard anyone trying to define the exact point at which a cheese ceases to be "green," and becomes "ripe"? Everybody recognizes a difficulty on that point, because there are so many conditions to deal with. For that reason, I have always preferred not to define any particular period for cheese to remain at the factory. A little "common sense" is helpful in this connection. As for Professor Dean's advice to cheesemakers, I will leave the instructors to deal with that. I hope none of the makers will be foolish enough to follow it. If they do, they are pretty sure of having the pleasure of paying for it.

I think Professor Dean overestimates the competition from Cheshire cheese. Cheshire cheese is not sold very much outside of Lancaster, and it does not compete directly with our cheese as much as the English and Scotch cheddar does. The Old Country cheddar is held in the curing-rooms for several months before it is put on the market, and it is significant that the difference in price between Canadian and British cheddar was greater last year than it had been for many years.

Professor Dean makes some insinuations regarding the origin of the agitation which are as unworthy as they are uncalled for. As I do not wish to indulge in personalities, I will let that pass for the present. He would leave the future of the cheese business in the hands of the Canadian cheese merchants. Well, he and I differ there. There are some merchants who have always shown that they have the welfare of the industry at heart, but there are others who care only for their own interests. Montreal merchants will tell you to-day that they know this shipping of green cheese is bad for the trade, and yet they continue to ship green cheese. But I will go Professor Dean one better. I am content to leave the matter to the judgment of the Old Country merchants, who surely understand the situation as well as the merchants on this side of the water. Now, what do they say about it? In my annual report, now in the press, will be found letters, or extracts of letters, received last winter from the following firms: Eben Thomas & Co., Liverpool; W. A. McKnight, Liverpool; Colonial Produce Co., Bristol; Rowson, Hodgson & Co., Ltd., London; Pullin, Thomas & Slade, Bristol; Geo. Wall & Co., Liverpool; Geo. Little, Ltd.,

Manchester; Pearson & Rutter, Manchester; Wall & Co., Manchester. All these firms condemn the practice of shipping green cheese in the most vigorous terms, and point out that it will be ruinous to the Canadian trade if continued. I think it will be admitted that these leading firms know what they are talking about. The circular letter which I sent out on May 7th was mailed to merchants in the Old Country, and I am now receiving letters by every mail, commending our action most highly. Here are a few extracts:

From Pullin, Thomas & Slade: "We agree with all you write, and say emphatically that the practice, if continued, will mean a serious blow to the Canadian cheese trade."

From W. Titley & Sons, Bristol: "We beg to acknowledge your circular of May 7th, and thoroughly endorse your views as to the disastrous policy, both to the interests of the cheese trade in Canada and the distributing business here, by shipping cheese in green condition."

From Wall & Co., Manchester: "We are obliged for a copy of your circular letter, which, we presume, has been sent to cheese factories. We are glad to see the points you take up, and hope that you will stick at it until you get the factory-men to see the wisdom of holding their cheese until they are fit to be sent out."

A handbill, received from G. W. Burrows, of London, contains this significant sentence: "ENGLISH CHEESE. There is no value offering in Canadian that can compare with English at the moment. The former have been shipped out very green, and have arrived in a very unripe condition."

If we cannot take the advice of these men, where are we to go for information as to how we can best meet the tastes and desires of our customers. The approval of men so well qualified to speak is more to me than the sneers of any amateur who may feel inclined to air his views on the matter. Prof. Dean goes on to condemn the practice of holding cheese for weeks at a high temperature. Who wouldn't? The sensible remedy is to provide cool-curing rooms, as many are doing. Shipping cheese once a week to cold storages is not a complete remedy, because there is permanent injury to cheese before they are a week old if they are exposed to a temperature of over 60 degrees.

Next, Prof. Dean asks, "Who has demonstrated that green cheese is less digestible than ripe cheese?" Now, what does he mean by "green" and "ripe" cheese? To quote his own words, "Who knows where one leaves off and the other begins?" Perhaps a little common sense will help us out again. I can tell him of one person who has demonstrated to his own satisfaction that green cheese is less digestible than ripe cheese, and that is myself; and I am of the opinion that there are several million people in Canada and Great Britain who hold similar views. Who cares what the actual digestibility or nutritive property of green or well-ripened cheese is when he finds that he can't eat the one and can eat the other? No persons will eat green cheese when they know that it will "disagree" with them, as it does with so many, even if they were assured that it was just as digestible. Professor Dean may not be aware that a certain firm of cheese dealers are building up a great business in Canada by catering to the public with well-ripened cheese, instead of green, immature stuff.

Now, Mr. Editor, in conclusion, I wish to say that the discussion of this question has too frequently hinged on the point of the immediate gain to the factory in selling cheese only a few days old, as compared with holding them for a reasonable time. The question deserves to be treated in a broader spirit. The temporary gain, which is very much overestimated, is as nothing compared to the results in the future, if the practice is continued. Is the future of this great industry not worth considering?

I notice that some of my friends, whose opinions I value, while blaming the buyers, as I do, do not suggest any plan by which the buyers can be compelled to refuse to buy green cheese. The buyers' interest consists wholly in buying and selling at a profit. The interest of the producer is centered more largely in the future of the industry than it is in any little temporary gain. Who, then, has the greatest responsibility in the matter? Mr. Eager says, in one sentence, "My idea is that the men who established the practice of shipping green cheese (meaning the buyers), are the men to look to for a remedy." And in the preceding sentence he states, "The cheese merchants in Montreal will not refuse green cheese if they can see a fraction of a cent in handling that class of goods."

I have endeavored to awaken the producers to a sense of their responsibility. Believe me that when the facts are put before them, they will take the necessary steps to protect their own business, and not fold their hands and beg others who have no interest in doing so to protect it for them. I have the satisfaction of knowing that considerable progress has been made in the direction of abating the evil as the result of the agitation which I started at the dairy conventions last winter.

J. A. RUDDICK, Commissioner.

## SOMETHING OF AGRICULTURE IN FOREIGN LANDS.

### AGRICULTURE AND DAIRYING IN ARGENTINA.

We hear much of the Argentine Republic nowadays, and the fact that each year a number of young men with Spanish names from that far-away country are numbered among the students of the O. A. C., at Guelph, shows that it is fast becoming progressive agriculturally.

The Argentine Republic is a great territory of about 1,600,000 square miles, occupying the south-eastern portion of South America, between Brazil on the north, and Patagonia on the south. It was originally inhabited by Indians, but is today largely populated by a Spanish people, the



Milking in the Streets for Delivery, Buenos Ayres.

descendants of the Spaniards who flocked in after the aborigines were finally subjugated by the great Spanish general, San Martin. The Government is a republic, with a president, who, according to the law, cannot be re-elected after his six years' term at its head.

The climate of the country is somewhat similar to our own, but, especially in the central and northern regions, is considerably warmer, with sunshine the greater part of the year. In almost every part of it great plateaux and plains, covered with good grass, which does not seem to deteriorate towards the end of the season, and intersected by rivers and streams of good water, prevail, and, as a consequence, Argentina has easily become one of the most important grazing countries in the world. Many millions of cattle roam over its vast grass lands, the number in the Province of Buenos Ayres alone being estimated at 10,500,000, while there are 82,000,000 sheep, and about 2,230,000 head of horses.

So far the export trade has chiefly been in cattle, chilled meat, jerked beef, wool, tallow and hides, but of recent years the dairy interest has been creeping into prominence, although there is still much to learn before the Argentine product can compete with the best in the world. However, that is a mere detail. When progress begins it is likely to continue, and already there are several fairly up-to-date butter factories distributed among the larger cities. The largest in the world is in the beautiful city of Buenos Ayres.



Gauchos (Natives) Bringing Milk Into Buenos Ayres.

In the best season it turns out 16 tons a day, but is said to be capable, with very little addition in equipment, of easily doubling that quantity.

In portions of Argentina some of the methods of handling milk are exceedingly primitive, and information cannot come too soon. For milking, the cows are driven into small enclosures, where the udder is permitted to accumulate to a depth of several inches. Finally it is dried, cut into squares, and used for fuel. Comparison of these yards with those of Denmark is scarcely possible. A peculiar feature of the

milking operation in these more backward districts is that it is always thought necessary to keep the calf by the cow in order that she may let down her milk. The calf is first permitted to suck a little, then it is tied to the cow's leg in such a position that it cannot interfere with the rest of the milking process. Even when the cows are driven from door to door in the towns, as they sometimes are, the calf must needs go along, too.

The milk brought into the towns from a distance is subject to as rough a handling as can well be imagined. It is conveyed, as is also the cream, by horseback, in cans dangling along, sometimes as many as six or eight of them, at each side of the horse. As a consequence, the cream becomes churned into slushy butter, which is skimmed out and sold, the remaining milk afterward also bringing a good price. In Buenos Ayres, however, and some of the other cities, better methods are coming to the fore, and in the former there are places where one can get really good milk, milk-shakes, etc., to drink. These places are painted white inside, and are kept scrupulously clean.

Incidentally, it may be said that the milking is largely in the hands of Bastons, a peculiar people, who came originally, it is said, from the southern part of France, but who live in rough huts on the estates, and seem quite contented to be "hewers of wood and drawers of water" to the more wealthy and aristocratic "estancieros" on the large ranches.

## MORE CANDID COMMENTS ON GREEN CHEESE.

Editor "The Farmer's Advocate":

Notwithstanding the statement of one of your correspondents, in the June 20th number of "The Farmer's Advocate," that "hysterical appeals are being made in the press in regard to shipping green cheese," I take this opportunity to say a few words upon the subject.

If the writer of the letter, "Candid Comments on Green Cheese," had been in Montreal last week, and had gone through the warehouses with me, he would have been forced to the conclusion that the "bitchen" of the Canadian cheese business was broken. I have been trying to find a reasonable cause for so many rough-textured, open-bodied cheese being shipped into the warehouses last week. Merchants say they have not seen so many poor cheese at one time for years, and we must face the question, Why? I must confess that I am forced to the conclusion that shipping green cheese has had and is having a great deal to do with the situation.

In the first place, the cheese have been leaving the factories so green that the makers and instructors have not been able to know just what the quality is like. Second, shipping green cheese has a great tendency to cause makers to be careless in the small details in their methods of making and in the careful selection of the milk at the weighing stand. And third, when the cheese are shipped green, makers have in many cases been leaving too much moisture in the curds, with the idea they would break down quickly, and would also give a better average. They are also salt-

ing earlier than if the cheese were to remain in the curing-room for a week or ten days, and the result is open cheese. Taking all these things into consideration, we can only come to one conclusion, that, shipping the cheese out of the curing-rooms in a green or uncured condition has had a tendency to lower the quality of the cheese.

Prof. Dean, in his letter, says: "My candid judgment of the situation is that the Eastern Ontario manufacturers have been able to put good cheese on the markets from small, poorly-equipped factories that are manned by makers not nearly

equal to the skilled makers in large factories, both East and West, largely because the cheese are shipped weekly from the factories, and are marketed or sent to cold-storages in Montreal or elsewhere, where they are safe." After spending some time in Montreal, and having an opportunity to see the cheese from these small factories in Eastern Ontario and Quebec, my candid opinion of the situation is that shipping these green cheese in here, almost from the hoop, is now, and will be even more so, the worst thing that could happen to the cheese industry of the Eastern dis-

tricts, because it encourages small and poorly-equipped factories and curing-rooms, and encourages the proprietors of these factories to hire cheap, inexperienced makers; and it is to be regretted that anyone who has any influence in the cheese trade should say anything that would encourage such conditions.

I have not seen a merchant in Montreal who wants green cheese, but have heard them repeatedly finding fault with them. I heard one of the leading merchants tell a factoryman last week that he wanted him to distinctly understand that his warehouse was not a curing-room, and if he had to keep the cheese till they were cured, he would have to get paid for it.

Canada made her reputation for cheese because they were recognized as cheese that would keep, and we are in a fair way to lose our reputation by making a cheese that will not keep. Doubling the amount of extract, is all very well for fodder cheese, but when we get making grass cheese, let us make our standard Canadian cheese, firm in body, smooth in texture; and the only reasonable solution of the curing problem to-day is to build cool-curing rooms at the factories, where the temperature can be kept at 58 or 60 degrees in any kind of weather, and keep the cheese in them for at least a week or ten days. Then the cheesemakers can see the result of their methods of making, the instructors will be able to point out defects and suggest remedies; then we will get the full benefit of their efforts.

Prof. Dean states that it is a month or more after the cheese leave the factory in Canada before they reach the consumer in Great Britain, and says that writers about green cheese seem to forget this. Does he not forget that the transportation facilities are quite different to what they were five years ago, and are such that we can safely cure our cheese more at the factory than we could a few years ago? With iced cars to carry the cheese to the warehouse or steamship wharf; warehouses on this side, where the cheese are put in at a temperature of 40 or 45 degrees almost as soon as they arrive; cool-air chambers on the steamships, and cold-storages in England, why should we for a moment want to ship our cheese away from the factories before they are in the best condition to judge of their quality?

GEO. H. BARR.

THE MODERN VERSION.

"Where are you going, my pretty maid?"  
 "I'm going a-milking, sir," she said.  
 "Dear maiden, I'd like to disclose the fact,  
 That I'm an inspector under the Act.  
 So pray remain, for I want to know  
 A thing or two before you go.  
 Nay, pretty maiden, you must not weep;  
 How far away are the pigs you keep?  
 And what percentage of butter-fat  
 Does your moo-cow yield? Pray tell me that.  
 And how is the health of your pretty pet?  
 Has it anthrax, cancer, blackleg, garget?  
 Has your sister measles or whooping cough?  
 Is the water clean in the drinking trough?  
 I pray thee answer these questions of fact,  
 For I'm an inspector under the Act.  
 With the fierce bacilli also I cope  
 By means of my powerful microscope.  
 Excuse me, I must examine your hand,  
 Purely official, you'll understand."  
 —American Exchange.

TEN OR FIFTEEN DAYS IN FACTORY.

Editor "The Farmer's Advocate":  
 I think cheese should not be shipped from the factory inside of ten days, and fifteen would be better. The best way, in my opinion, to stop the shipping of green cheese is for the salesmen of each cheese board to unite and set their foot on the habit. Of course, each salesman is anxious to make as much as possible for the patrons, but if they would only consider the future of the cheese trade, I think they would very soon come to the conclusion that it would be better to hold all cheese in the factories for ten or fifteen days, at least.  
 THOS. B. CARLAW.  
 Northumberland Co., Ont.

CO-OPERATIVE DAIRYING IN SWEDEN.

U. S. Consul-General E. L. Adams, of Stockholm, writes that during the past five years the number of dairy establishments in Sweden has decreased from 1,681 to 1,575. This shrinkage is due to a consolidation of the smaller dairies, especially on a co-operative basis. The number of these co-operative dairies has increased from 139 to 470. An increase of production has taken place every year during the five-year period. The increase of butter manufactured from 1900 to 1905 was 26,114 to 28,000 tons. The southern part of Sweden has the largest increase. The main export of Swedish butter is to the English market, where it competes with the Danish product.

WISCONSIN DAIRYMEN.

The twenty-third annual report of the Agricultural Experiment Station of the University of Wisconsin, U. S. A., is not so strong in dairy features as usual. Only three articles may be classed as strictly dairy, viz.: "The University Dairy Herd," "Development of Factory Dairying," and "Distribution of Lactose-fermenting Yeasts in Dairy Products."

COWS: FEEDS AND BREEDS.

The first subject, "Dairy Herd," is discussed chiefly under the heads: Methods of Feeding and Cost of Feed; Production; Breeds. The concentrates fed were: Wheat bran, distillers' grains and cottonseed meal, in the proportion of 2, 2, 1, by weight. "The amount of grain fed from day to day to mature cows in a normal condition of flesh was one pound for each pound of butter-fat produced per week." Stated another way, the cows were fed seven pounds of grain per day when producing one pound of milk-fat daily. "The roughage consisted of corn silage, soiling crops, mixed hay, and some alfalfa hay. All cows were fed as much roughage as they would eat up clean." The average cost of feeding a cow from July 1st, 1905, to June 20th, 1906, was \$38.41. The average net profit per cow was \$41.20. The average cost of feed per 100 pounds of milk was 52.4 cents. The average cost of one pound butter-fat was 12.7 cents.

The principle of feeding according to the production of the cows, is one of prime importance in economical dairying.

THE COWS.

The herd, during the year, consisted of 7 Jerseys, 8 Guernseys, 8 Holsteins, 3 Shorthorns, 4 Red Polls, and 2 Brown Swiss. The report states, with reference to the breeds: "The average data show that, on the basis of the records made, the different breeds rank in the following order:

- "In Production of Milk.—Holstein, Jersey, Guernsey, Red Polls, and Brown Swiss.
- "In Butter-fat.—Holstein, Jersey, Guernsey, Red Polls, Brown Swiss, Shorthorn.
- "In Cost of Feed.—Shorthorn (lowest), Brown Swiss, Guernsey, Red Polls, Jersey, Holstein (highest).
- "In Average Net Profit.—Holstein, Jersey, Guernsey, Red Polls, Brown Swiss, Shorthorn.
- "In Average Net Profit, 1898-1906.—Holstein, Jersey, Guernsey, Red Polls, Shorthorn, Brown Swiss.

According to the average results obtained of our herd for the period of 1898-1906, the three dairy breeds proper rank first, and the so-called dual-purpose breeds come last, both as regards average production of butter-fat and profit returned. The figures give decided evidence on this point, and emphasize the fact that cows of breeds that have long been bred and developed with a sole view toward a large and economical dairy production are the most profitable for a dairy herd." The report goes on to say: "In view of the changed conditions that confront the American farmer, with regard to the breeding of special-purpose cattle, and the demands for meat-producing animals of great excellence, as well as for dairy animals capable of a large and economical dairy production, we cannot recommend the perpetuation of the dual-purpose breeds for two purposes. It is possible, by careful and judicious breeding, to change them to a special-purpose breed, either a dairy breed or a beef breed, but excellence in either direction cannot be reached except by uninterrupted breeding towards one specific end for many generations. For this reason, we believe it will be the part of wisdom for dairy farmers to adhere to some one of the specific dairy

breeds, and for producers of beef cattle to choose one of the improved beef breeds."

The foregoing are wise words, worthy the careful consideration of Canadian farmers.

FACTORY DAIRYING.

"The number of creameries in the State has decreased from 1,073 in 1900, to 1,017 in 1905, while the skimming stations have increased from 61 to 260. The total butter product for the State is estimated at 12,000,000 pounds, of which about one-quarter is produced in farm dairies. The cheese business of the State has increased, in five years, from 60,000,000 to nearly 110,000,000 lbs. cheese." By way of comparison, the 1905 statistics for Ontario give the estimated cheese production of this Province as 165,000,000 pounds, or about 55,000,000 pounds more than the great State of Wisconsin; but our increase in the last five years has been, in round numbers, only 37,000,000 pounds, whereas Wisconsin has nearly doubled her cheese production in the same time. We shall need to look to our laurels. The average Wisconsin cheesemaker is much more anxious to seek information and improve his product than is the average Canadian cheesemaker, who is disposed to rely upon what has been accomplished, and to think there is nothing more to learn about the cheese business.

In addition to cheddar-cheese factories, the State has 301 Swiss cheeseries, which made about 15,000,000 pounds of Swiss cheese in 1905.

YEAST FOES OF THE DAIRYMAN.

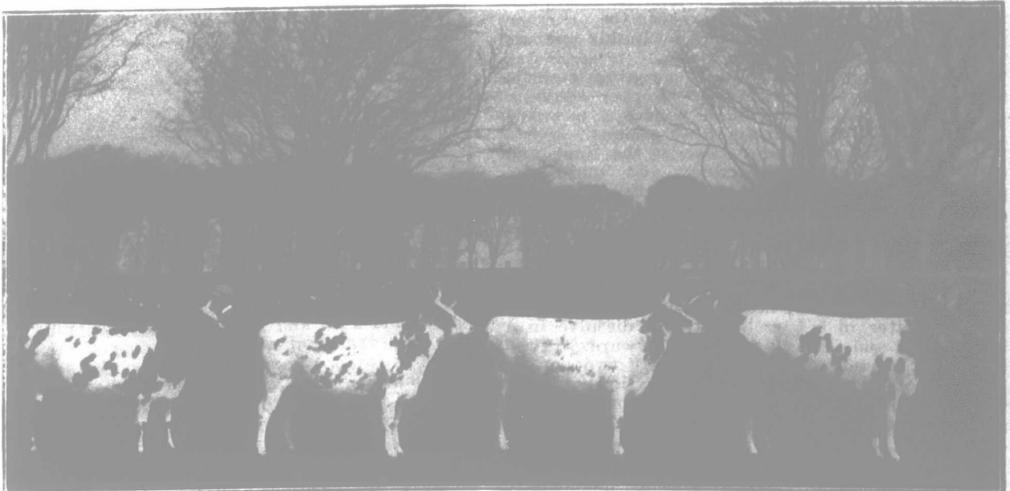
It is the hidden and unseen which mystifies and unnerves a man. So long as men believed in ghosts, hobgoblins and princes of the air, the world made little progress. As science cleared the mists and fog of the middle ages from men's minds, they began to ascend with leaps and bounds. It is the hidden, sneaking foe which causes most trouble. The man who resorts to mean, low-down, petty, spiteful tricks, is the worst kind of an enemy. An enemy that fights in the open can be met and successfully overcome, if we have courage.

The unseen foes of the cheese and butter maker are his worst enemies. The average maker will not take the trouble to study the tactics of the enemy, hence many go down to defeat. The unseen yeasts are by far the worst enemies of the dairy industry, and we know very little about them.

The report says: "During the past year, 450 samples of milk, cream, butter, cheese and whey were examined for these yeasts. These samples came from all parts of the State, representing the Swiss and cheddar cheese, as well as the butter. These yeasts appear to be most abundant in whey, as nearly one-half of the samples in a Swiss-cheese section containing them were from whey. Heating to 170° F. destroys all yeast cells present, hence this would seem to be a practicable remedy to get rid of yeasty flavors. This heating may be done with the exhaust steam from the engine of the factory, at practically no expense. In a brick-cheese district, 59 out of 67 samples of patrons' milk contained the yeast germs. Samples of whey from 18 cheddar factories, in various parts of the State, all demonstrated the presence of lactose-fermenting yeast. The number of yeasts present in the butter was very small."

The writer goes on to say that the organisms are found wherever dirt accumulates and is protected from drying. Referring to the fact that a Canadian Bacteriologist found a yeast of this type on the leaves of maples, he remarks: "This was undoubtedly an accident, the organism having been borne there in the dust."

In the cheddar industry, while the whey may contain considerable numbers of this form of yeast,



Ayrshire Heifers, Two Years Old.

First, second, third and fourth at Ayr Show, Scotland, 1907. All bred by Michael Logan, Drungan.

yet, in competition with the lactic-acid organisms, that develop so luxuriantly in this habitat, they are not able to hold their own. The foregoing probably explains why the "bitter flavor" is worst when the whey tank is cleaned. This is no argument for not cleaning the whey tank; on the contrary, it shows that the whey tank was not properly cleaned, else the yeast cells had been destroyed.

H. H. D.

### THE DAIRY SPECIAL.

The Manitoba Agricultural College has arranged for a special train, to be known as "The Dairy Special," for the purpose of giving demonstrations in buttermaking, milk-testing, the operation of cream separators, etc., at a number of points located in the districts specially adapted for dairying. This train will have one car fitted with cream separators, churns, butter-workers and Babcock milk-testers. There will also be seating capacity for a large number. The staff of lecturers and instructors will include Principal Black, of the Agricultural College; Prof. Carson, of the Dairy Department; Prof. Rutherford; A. R. Greig, B. A., Sc.; L. A. Gibson, Inspector of Creameries, and N. J. Kuneman, Inspector of Cheese Factories for Manitoba. Lectures will be given on pertinent subjects.

## GARDEN & ORCHARD.

### POTATO-GROWING.

#### SPRAYING FOR ROT.

The Ontario Department of Agriculture has been making an investigation into the potato industry of the Province by Mr. H. B. Smith, B. S. A. After visiting the most important potato-growing sections of Ontario, he is preparing a special report for publication. Pending the full report, which will probably show a more serious state of affairs than is generally supposed, the following recommendations are put out, with a view to impressing upon farmers the necessity of immediate action. The treatment of potatoes to prevent the rot is a matter of extreme importance.

"Ontario produced fewer potatoes in 1906 than she ever produced in any single year in all the time the Provincial Department of Agriculture have been collecting information concerning the acreages annually devoted to farm crops. Within the past few years the area planted to potatoes in this Province has decreased by 50,000 acres, the product by approximately 6,000,000 bushels. Present indications are that the crop of 1907 will be lighter than last year's, with the high prices that have ruled for some time strongly maintained. Farmers, on the right kind of soil, who have planted a good acreage to this crop this spring, will, if they are able to successfully bring their crop to maturity, reap larger returns from potatoes than they could likely derive from any line of farming in which they might engage, and it is to point out briefly one or two little things that in these days must be attended to, if potato-growing is to be successfully accomplished, that this article has been prepared.

Inability to cope with the rot has been the great cause of failure in potato-growing in Ontario, yet five dollars, or even less, will cover the entire cost for material and labor required to treat one acre of potatoes with Bordeaux mixture, and this mixture, properly made, and consistently and intelligently applied, is a certain preventive of the usual form of rot. From experiments officially conducted at Guelph, at Ottawa, and at practically every experiment station in the United States, and from the practical experience of growers everywhere, Bordeaux mixture has proven the only effective remedy for potato rot. At Ottawa, during the past three years, the average increase in yield from spraying with this mixture was 94.5 bushels per acre.

Bordeaux mixture for potato-spraying is made from the following formula: Copper sulphate (bluestone or blue vitriol), 6 pounds; unslaked lime, 5 pounds; water, 40 to 50 gallons.

As it is inconvenient to weigh the lime and copper at the time of mixing, and quite impracticable to keep a supply of ready-mixed Bordeaux on hand, "stock solutions" of the copper and lime are usually prepared ready for mixing as required. To prepare material sufficient to treat one acre of potatoes four times, proceed as follows: Place 72 pounds of bluestone in a bag or basket and suspend it near the surface in 36 gallons of water in a barrel. It will dissolve in a few hours, and every gallon afterwards dipped from this barrel will contain exactly two pounds of bluestone. For the stock mixture of lime, take 60 pounds of fresh, unslaked lime and 36 gallons of water. Slake the lime by the use of as little of the water as possible, and when all is broken down, bring the solution to standard strength by adding what remains of the 36 gallons of water. Every gallon of lime mixture now contains exactly two pounds of lime. These mixtures, if kept under cover, and evaporation prevented, will retain their strength all summer.

In making the Bordeaux, it is important to remember that these strong "stock" mixtures must never be brought together. Pour 3 gallons of the bluestone solution into a 40-gallon barrel (an ordinary barrel holds between 40 and 50 gallons), half fill the barrel with water, add 2½ gallons of the lime solution, fill up with water, stir thoroughly, and the mixture is ready for use.

For applying, a spray pump will be found economical of labor and materials, and the gain in product from one year's spraying of one acre of potatoes will usually pay the entire cost of such an appliance; but if none is at hand, Bordeaux may be applied after the same manner as Paris green would be applied in solution for bugs. The object is to keep the crop covered with the mixture during the season in which blight is liable to occur, and, while modern spraying machinery does this a little better than anything else, there are scores of farmers in Ontario who are obtaining quite satisfactory results from applying the Bordeaux by whatever means are at their disposal. In preparing the mixture, where any kind of power sprayers are to be used, always strain the lime solution when mixing with the bluestone. The lime sometimes slakes lumpy, and clogs up the nozzles. For bugs, Paris green may be applied with the Bordeaux, adding half a pound of Paris green to each barrel of the mixture. The Paris green should be mixed with water to a thin, even soup, and then stirred into the barrel of dilute Bordeaux.

Spraying should begin about July 15th, and the vines kept covered till September. Four applications, as required, will usually accomplish this. Some have had fairly satisfactory results from one good spraying just at the time the disease begins to spread; and, as we gain in spraying experience, the number of applications may perhaps be decreased, but, ordinarily, it is best to use the mixture at least four times.

Bordeaux is the only effective remedy yet devised for the control of potato blight and rot. It is easy to make and easy to apply, and, where properly made and thoroughly applied, is certain to be effective. The only precautions to observe in making are to use pure, fresh materials, and mix these in correct proportions and in the proper way, and, in applying, to keep the mixture on the vines during the season that blight is likely to appear.

### THE TUSSOCK MOTH IN NOVA SCOTIA.

Prior to the discovery of the brown-tail moth in Nova Scotia, the most interesting and "promising" of our new orchard pests was the Tussock moth. It had been here for years, and had never been known to occur in any great numbers nor to do any special damage. Every season a greater or smaller number of the pretty caterpillars would be seen, and some leaves were eaten on apple trees, but never enough to cause any apprehension.

Last summer, however, they suddenly appeared in very large numbers in two or three small localities, not more than a dozen orchards at the most in any one place, and even in the dozen there would be only two or three that were badly

seriously attacked the worms seemed to prefer the fruit to the leaves, so that great injury was done.

Strangely enough, there seemed to be a marked difference in the extent to which different varieties were attacked. Blenheims, Baldwins and King of Tompkins suffered most, with Golden Russets almost as bad, Ben Davis and Bishop Pippins fairly bad, and Spies and Gravensteins comparatively free. These were practically the only sorts growing in the orchards attacked, except an odd tree here and there of some other sort. An old early, sweet variety was almost annihilated.

The writer at once secured permission to do some experimental spraying (not a difficult thing to secure), and on July 26th four rows were sprayed, two with arsenate of lead, at the rate of 3 pounds per cask, and two with Bordeaux mixture, with Paris green added, at the rate of 1 pound per cask. Three days later practically every caterpillar had disappeared from the sprayed trees, while unsprayed ones alongside were as thoroughly infested as ever.

Other orchards and other localities gave practically the same results, after careful investigation. The same varieties were attacked to practically the same extent, and, strangely enough, it was only on trees where the insects were fairly abundant that they attacked the fruit. On trees where, without much hunting, one could find a dozen insects at any time, not an apple would be touched.

Fortunately, a good many of the caterpillars were found to be attacked by parasites, and as quite a number of different parasites are known to attack it, we may hope that these natural enemies will soon get the upper hand.

Apples which were badly eaten, for the most part, dropped from the trees. Others, not so badly eaten, developed, but were of little value, as will be judged from the accompanying illustration. Still others, which were not very much gnawed, would pass for No. 3's, but not higher than that.

As has been suggested, the insects are not hard to kill when spraying is done at the proper time. The trouble is that, coming on so late in the season, orchard-owners are at other work, and these pests get a start before they are noticed. It would be well for every orchardist to carefully examine his orchard during the first and second weeks in July (or even earlier) and see if these insects are present in any numbers, and, if so, spray, no matter if haying and other work does have to wait. The insects are easily recognized in the caterpillar stage by the two long pencils or tufts of black hairs at the front end, and one at the back, the general color being a mixture of black and yellow, the proportion of the two colors varying in different species. The head is usually a bright red in color, and there are also several other red markings on them.

F. C. SEARS.

Agricultural College, Truro, N. S.

### HORTICULTURAL PROGRESS.

Prepared for "The Farmer's Advocate" by W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

#### BEST VARIETIES OF STRAWBERRIES.

The lists of tree fruits recommended for different parts of Canada are very little changed from year to year, as it takes a long time to thoroughly compare the relative merits of a new variety of apple, pear, plum, peach or cherry with the standard varieties. Even the changes in the lists of bush fruits are not many nor frequent, for the same reason. With strawberries, however, it is different. One year from the seed it is possible to see the fruit, and in a very few years one can tell whether a new variety is better than one which has been recommended. Hence the lists of strawberries change much more frequently than other fruits. Many new varieties of strawberries are introduced from year to year, some of them at very high prices, and it is the business of the experimental stations to test these varieties and make the results public. At the Ohio Experiment Station, Wooster, Ohio, the testing of varieties has been a prominent feature of the work in the Horticultural Department, and several bulletins have been published. The last of these is Bulletin 178, by F. H. Ballou, in which he describes thirty-two of the newer kinds, and further notes are given on sixteen varieties already reported upon. A table of yields is also published in this bulletin. Of the new varieties described, the following are favorably commented upon:

Armstrong (perfect): a large, dark-crimson berry, of good quality. "Promises to stand well among the big fellows of its type."

King Edward (per.): large, bright crimson, attractive, and of good flavor. "A very promising variety, originating in Holmes Co., Ohio."

La Belle (imp.): This is another large, attractive, glossy strawberry, of a brilliant, dark-crimson color. The flesh is firm and the quality good. "Not a single variety in our entire collection of over one hundred sorts held up so well in size over so long a period of ripening."

Wonder (per.): This is said to be a large, beauti-



Work of the Tussock Moth on Apples.

infested over any great number of trees. On July 23rd the writer received word that some strange insects were attacking the apples at Long Island, near Grand Pre, and were not only stripping the trees of leaves, but were eating over the surface of the little apples, which were then the size of a large marble. On visiting the locality, it was found to be the Tussock moth, and the trees certainly presented a deplorable sight. Many of them had already lost a good share of their leaf-surface, but the worst feature was the condition of the little apples, which were sometimes entirely "peeled" by the worms, and in others had large, irregular patches eaten over the surface. In badly-infested trees, not an apple could be found which was free from injury, and even on trees not

ful and attractive berry, dark crimson, mottled with a lighter color and white. Flesh firm and quality good. "Promising for a large, fancy berry for the home; also for market, if it proves sufficiently prolific. The Wonder made a favorable impression on all who saw it at its best this year."

The Cardinal, a comparatively new variety, which was introduced with high praises, and for which much was claimed, has not come up to expectation when tested by experimenters. The Ohio Station has already reported somewhat unfavorably on this variety, and the first report is confirmed here. "It has been a disappointment to record again a comparative failure of Cardinal, of which so much was expected."

Fremont Williams again did better than Gandy at the Ohio Station as a late berry. "It is superior in size and beauty to Gandy, and while not as prolific as one could desire, produces more fruit than Gandy."

Gill: "Still heads the list as a first-class early sort, of rare merit." It is a very productive variety, but the fruit runs somewhat towards the end of the season.

Latest: Is one of the best late varieties. Mead: The plants of this variety are very free from disease, and, though only a moderate bearer, the fruit is of "good size, uniform, firm, of attractive color, and pleasant flavor."

The thirteenth annual report of the Fruit Experiment Stations of Ontario contains much useful information, as in it are included the reports of experimenters in charge of the eleven fruit stations, in which are given lists of the varieties of nearly all the kinds of fruits grown in Ontario which have been found to be the best, with descriptions. There is a report on strawberries by the Rev. E. B. Stevenson, Ponsoby, Ont. Notes and descriptions are given of over one hundred varieties, of which fifty-nine are recommended. These are:

Extra Early and Early.—Van Dieman, Michael, Success, Howard's No. 3, Excelsior, Cameron, Howard's No. 103, Johnson's Early, Beder Wood, Lord Sheffield, Texas, Early Hathaway, Springdale B., Fairfield, Ham, Staples.

Midseason.—Bubach, Haverland, Reynolds, Splendid, Bismarck, Sutherland, Marshall, Tennessee Prolific, Senator Dunlap, Parson's Beauty.

Midseason to Late.—Three W's, Victor, Wonder, Glen Mary, Lyon, Marie, Saunders, Williams, Wm. Belt, Brandywine, Emperor, Woolverton, President, Kitty Rice, Yant, Mrs. Fisher, Sample, Uncle Sam, Uncle Jim.

Late to Extra Late.—Joe, Aroma, Gandy, Abingdon, Cardinal, Stephen's Late Champion, Nettie, Greenville, Latest, Howard's 96, New Home, Elma, North Shore, Commonwealth.

As this long list might be somewhat confusing to a beginner in strawberry culture, the following list of varieties, prepared by the Board of Control of the Fruit Experiment Station, is given. This list was prepared very carefully after a comparison of results at different places:

Commercial.—Splendid (perfect), Beder Wood (per.), Warfield (imp.), not suited to light, sandy soil; Greenville (imp.), Williams (per.), Saunders (per.), Sample (imp.), Irene (imp.), Buster (imp.).

Domestic.—Van Dieman (per.), Splendid (per.), Excelsior (per.), Senator Dunlap (per.), Ruby (per.), Bubach (imp.), Wm. Belt (per.), Lovett (per.).

While some varieties of strawberries succeed better on heavy than on light soils, varieties, on the whole, have a wide range of adaptation, so that one which does well in one district is likely to do well in another. In connection with this, it is interesting to give the list of varieties of strawberries recommended by the Wisconsin Horticultural Society, the thirty-seventh Annual Report of which recently came to hand.

Strawberries recommended by the Wisconsin State Horticultural Society: Beder Wood, Crescent, Clyde, Senator Dunlap, Enhance, Gandy, Glen Mary, Haverland, Lovett, Sample, Splendid, Warfield. Six of the above twelve are recommended in the Ontario list, while the Crescent and Haverland are known to be two of the hardiest sorts, and in a hardy list for Ontario would probably appear. Glen Mary and Enhance could both be grown with profit in Ontario, as they are very productive, and of good size. Clyde does well in Ontario, where the soil is moist and heavy, but in light soil there are too few leaves and the fruit scalds. Gandy is a good late sort, but needs rich soil, and is usually not very productive.

SIZE OF BERRY BOXES.

There are to be no small berry boxes this year, writes the Ottawa correspondent of the Toronto Globe. The fruit inspectors have been after the box manufacturers, and have served notice upon all and sundry that anything less than the legal size will mean prosecution. The law declares that a berry box shall contain not less than four-fifths of a quart. The law was on the statute books for a long time without any attention being paid to it. In the first place, it was the duty of the trade and commerce officials to administer

it; then that duty was turned over to the Inland Revenue Department, but the officials of these two Departments were too busy to worry about the size of berry boxes, and the result was they kept getting smaller. When they got down to about two-fifths of a quart, the administration of the law was turned over to the inspectors of the Fruit Branch. The berries arrive during their slack season, so they started after the small-fruit men last summer with warnings, which were renewed this spring. The result is they have reported to Ottawa that they have so far found no undersized berry boxes on the market, and the manufacturers state that none have been ordered. The boxes from the United States are all reported to be up to the Canadian standard of size.

POULTRY.

CURTAIN VENTILATION FOR POULTRY HOUSES.

Editor "The Farmer's Advocate":

During the past six years or more I have had experience with cloth curtains in ventilating scratching sheds and windows of poultry houses. Thus far it has proven to be the most desirable method of keeping the air pure. Its effectiveness, however, will depend upon several factors: the thickness of the cloth, the tightness of the building, and the size of the cloth area. It follows, naturally, that the smaller the opening, the looser the mesh of the cloth should be, and also that the looser the building, the closer the mesh of the cloth and the smaller the opening should be. In a loose building, where drafts can occur, a small opening of loose cloth will give far more actual change of air than a very large opening of close cloth in a building that is otherwise tight. We have not yet determined the exact amount of cloth opening which should be provided. Roughly speaking, it would appear that where cheese cloth or very loose burlap or muslin is used, the cloth space should be about equal to that of the glass surface.

We prefer part glass and part cloth, rather than all cloth or all glass. Cloth catches dust, and is likely to make the room darker than would the same amount in glass. We find, in our experiments, about three times the density of sunlight through glass than we get through cloth.

The actual difference of temperature will depend upon the rapidity of the change of air. In a very tight poultry house, a window containing all glass, as compared with a similar house with the window entirely of cloth, shows a temperature of only about a degree and a half to two degrees higher, on an average, during the winter, the house containing the usual number of fowls; that is, one to each four or five square feet of floor space. No other ventilation was provided.

In short, we find that a proper amount of cloth in the south side of the poultry house will cause the air in the house to be very much purer, slightly colder and very much drier than, though not quite so light, as where glass alone is used. Taking all things into consideration, the fowls do better and the house is more satisfactory where the cloth is used. We prefer both cloth and glass.

JAMES E. RICE,  
Assistant Professor of Poultry Husbandry,  
Cornell University, Ithaca, N. Y.

THE FARM BULLETIN

HOW THE SOD SHOULDER INJURES ROADS.

Until within eighteen months I did not fully comprehend the importance of the low weeds and grass along the wheel tracks as a factor in destroying roads. They are an unobtrusive but powerful agent of destruction. There has been an active campaign against the tall weeds, and we are compelled to mow them, but the little fellow has been getting in his work unnoticed. In the spring the big grader smoothes the road from ditch to ditch, then we all drive down the center. After the first shower the weeds spring up, and in a few days are ready for business. Their business is a four-in-one combination, i.e., to prevent the rain water from running to the side ditches, thus holding it in the wheel tracks even when no ruts exist; in dry weather to catch and hold the dust; in wet weather to catch and hold the mud that hoofs and wheels splash; and at all times to keep the surface moist and loose and therefore soft. Is it not clear that if one inch of dust and mud is removed from the center and caught by the weeds in one side, that their relative levels have been changed two inches? When we mow these weeds we aggravate the difficulty, by adding their tops to the accumulation. Dragging with split-log drag kills the weeds in the seed leaf, and allows the water to find its way unobstructed to the side ditch.

D. WARD KING.

DEPARTMENTAL WORK IN NOVA SCOTIA.

AGRICULTURAL MEETINGS.

June and the first part of July is usually the best time for holding agricultural meetings in Nova Scotia. The farmers have put in their crops, and usually have a little slack season between this and haying; consequently, the Department of Agriculture always arranges a large series of meetings for this period. Meetings are being held in most of the counties. The following are the speakers: Dr. Standish, of Walkerton, Ont.; subject, "Horse-breeding and Veterinary Treatment." G. H. Vroom, Dominion Fruit Inspector, Middleton; subject, "Fruit-growing." W. H. Woodworth, Berwick, N.S.; subject, "Fruit-growing, Spraying and Soil Cultivation." F. W. Foster, Kingston, N.S.; "Dairying." R. J. Messenger, B.A., Bridgetown, N.S.; "Fruit-growing and Soil Cultivation." C. H. Black, Amherst, N.S.; "Dairying and Soil Cultivation." S. J. Moore, Dominion Seed Inspector, Truro, N.S.; "Improvement of Crops and Seed Selection." The meetings thus far have been particularly successful, and bid fair to continue so.

Mr. F. L. Fuller, formerly Superintendent of the Agricultural College Farm, Truro, and recently appointed Superintendent of Agricultural Societies, has commenced work under his new appointment, by visiting the Agricultural Societies in Cape Breton. Mr. Fuller is spending from one to two days with each society, holding meetings in the different sections, and meeting the members personally. He is also inspecting the stock and endeavoring to effect improvements in the selection and management of stock purchased by these societies. There are 166 Agricultural Societies in Nova Scotia. These societies receive a bonus from the Government, amounting, this year, to 80c. for every \$1.00 subscribed. The money is used almost entirely for the purchase of pure-bred stock. In some sections much improvement has been wrought by this means, but in other sections there has been altogether too much changing of breeds, and also a tendency to the practice of false economy in purchasing inferior sires at low prices. When first organized the members, for the most part, had an idea that a pure-bred bull could not be other than good. They have now learned, sometimes after sad experiences, that, even among pure-breds, there are good and bad individuals. Nothing teaches like experience, and, therefore, it is only reasonable to suppose that there will be a great improvement in the work of these societies during the next few years. Mr. Fuller has made a splendid success of the Stock Department at the Agricultural College Farm, and is, therefore, well qualified to give advice, and generally to assist these societies in their efforts to improve livestock conditions in Nova Scotia.

THE BROWN-TAIL MOTH.

No event that has transpired in Nova Scotia has better shown the importance of having a well-organized Department of Agriculture than the recent invasion of the brown-tail moth. In Massachusetts a million and a half of public funds have been spent in an endeavor to repress this pest. It is estimated that upwards of a million of private money has been devoted to the same cause. These figures are sufficient to indicate the seriousness of the invasion of such a pest in Nova Scotia. However, through the efforts of the Provincial Department of Agriculture, the pest has been located and its bounds defined before the people whose trees were being affected were aware of its presence. In Massachusetts it was different, for there nothing was done by the Commonwealth until the caterpillars had done much devastation. Another year without any public effort would have meant that this serious pest would have gained an almost impregnable foothold in the Province. However, by prompt and strenuous effort upwards of 8,000 nests have been destroyed. As far as can be judged this constitutes the largest proportion of nests actually existing. Now that the period for destruction has passed by, the Department is operating two spraying outfits in those sections of Digby County where wild apple trees exist in large numbers, and where little, if any, private spraying is done. These spraying outfits are in charge of Mr. G. H. Vroom, of Middleton, who reports that they are working very satisfactorily, and assisting in the further destruction of the caterpillars. Whether the brown-tail moth can be absolutely stamped out in Nova Scotia it is difficult to say. However, it would appear as if, by this prompt effort, it would, at least, be prevented from ever gaining a strong foothold, such as it has now in the New England States.

TRAVELLING DAIRIES.

The work of the travelling dairies in Nova Scotia has been so successful during the past five years that it is still being continued. This year one travelling dairy school is being operated under the Superintendence of Miss Bella Milar, of Guelph, Ont. She is, at present, holding meetings in Hants County, and will continue through King's, Annapolis, Digby and Yarmouth.

IMPORTATION OF STOCK.

Realizing that live stock is absolutely essential to the progress of Eastern agriculture, the Government will import this year some more horses and sheep, which will be dispersed at public auction in several centers. It is contemplated to import about 100 rams and some ewes, about 20 Clydesdale fillies, and probably one or two stallions. The importance of importing fillies is especially being commented on. Heretofore there have been some splendid sires of various breeds in Nova Scotia. Unfortunately, there have not been

many females of the same breed. As a result, little pure-bred stock has been raised, and there has been a tendency to save the best grade sires for subsequent use. This has greatly retarded the progress which ought to have been expected. There are some who criticize this importation of fillies, on the ground that a filly, at least for the present, can benefit only the individual purchaser; whereas a stallion may be of value to a whole community. When, however, one looks at the subject as above, in the light of 10 to 20 years hence, the importance of securing pure-bred females cannot be overestimated. Many Western readers will wonder why private enterprise would not accomplish this end. Undoubtedly it ultimately will, but, up to the present, it has not, hence the policy of the Government in devoting a certain amount of the agricultural appropriation for this purpose.

#### CROP PROSPECTS.

It is yet too early to predict the prospect for crops in Nova Scotia. For the most part hay fields and pastures are not very promising, and even the best of weather cannot bring these up to the mark. However, the season has been particularly good for seeding and planting, and should there be a sufficient fall of rain for the next few weeks, the grain and root crops will probably turn out extra good. Fruit, at the present, gives splendid promise, but it is yet too early to predict with any degree of certainty what the harvest will be.

#### AGRICULTURAL EDUCATION AT LINDSAY.

In Lindsay, and in Victoria County, the addition of a department of agriculture to the Collegiate Institute has met with an enthusiastic endorsement. The County Council have given a grant of \$300, and have placed an additional \$200 at the disposal of a committee of three of their number, to be used should this additional sum be required for running expenses and equipment. The Board of Education have devoted considerable time to the planning of accommodation for the new course, which will be under the direction of F. H. Reed, B.S.A., and during the summer will spend \$200 in alterations to form a new class-room, with suitable tables and cabinets for holding laboratory equipment. A plot of ground has been purchased convenient to the Collegiate, and adjoining the County Agricultural Fair Grounds. Here experiments will be conducted by the students, and at Fair time the plots will be open for inspection by the large crowds who annually visit this County Fair. The County Public School Inspectors are heartily in favor of this broadening of the Collegiate course, and will encourage the farmers' sons to come in and take this training for their life-work. The farmers throughout the County realize that this is the farmer's first chance in the Collegiate Institute, and many of them have expressed their intention to send in their sons to take the two years' course. The short course in grain and stock judging is even more popular, and very many, both old and young, will take the judging course, and the many good lectures on care and management of stock, and on methods of tillage, which will then be given. The people of Lindsay realize that what is of direct benefit to the farm is of indirect benefit to the town, and are even more enthusiastic over the course than the farmers. Many boys from both country and town will soon be taking this new course in agriculture. It will be a new connecting link between town and country, but with this difference, we are promised: the cry will soon be not, "How to keep the boys on the farm," but "How to keep the boys in the town."

#### MEDALS FOR DAIRY HERD COMPETITIONS.

A very interesting and instructive feature of the annual convention of the Western Ontario Dairymen's Association last winter was the awarding of prizes for herds, respectively, of cheese factory and creamery patrons receiving the best cash returns during the season for milk. Rylie Bros., jewelers, of Toronto, contributed beautiful silver and bronze medals for the competition, and they advise us of their willingness to contribute medals again this year under similar conditions.

#### GOSSIP.

Official Records of 91 Holstein-Friesian cows, accepted by the American Holstein-Friesian Association, from May 16th to May 23rd, 1907, show that this herd of 91 animals, of which but 23 were full-aged cows, produced in seven consecutive days 35,192.5 lbs. milk, containing 1,155.284 lbs. of butter-fat, thus showing an average of 3.28 per cent. fat. The average yield for each animal was 386.7 lbs. milk, containing 12.695 lbs. of butter-fat; equivalent to 55.2 lbs., or 27 quarts, milk per day, and 14.8 lbs. of the best of commercial butter per week.

The last issue of the Official Reports closed the 18th Vol. of the Advanced Register. During the official year covered by that volume, 1,725 H.-F. cows and heifers were officially tested for 1,400

of not less than seven days, producing during the seven consecutive days 659,840.6 lbs. of milk, containing 22,629.929 lbs. of butter-fat; thus showing an average of 3.41 per cent. fat. The average production for each animal was 382.5 lbs. milk, containing 13.119 lbs. of butter-fat; equivalent to nearly 27 quarts of milk per day, and 154 lbs. of the best of commercial butter per week. Such averages are simply wonderful. The average increased production of all these animals, tested, over the averages for those so tested the previous year, was nearly six pounds of milk and 277 of a pound of butter-fat.

In the list are the following cows owned by—  
Dietrich, 2064, Friesian, 63904, age 4

years 5 months; days from calving, 54; Milk, 453.5 lbs.; per cent. fat, 3.12; fat, 14.151 lbs. Owner, H. Bollert, Cassel, Ont.

Tidy Pauline De Kol 2nd 83916, age 3 years 4 months 12 days; days from calving, 43; Milk, 523.6 lbs.; per cent. fat, 3.50; fat, 18.345 lbs. Owner, H. Bollert.

#### PROFITIOUS.

An English daily had the following advertisement: "Wanted—A gentleman to undertake the sale of a patent medicine. The advertiser guarantees it will be profitable to the undertaker."

Men are responsible for the light which they might have, as well as for that which they actually enjoy.—Pinney.

Colwill Bros., Newcastle, Ont., in ordering a change of advertisement, write: "We have had a very large demand for Tamworth hogs since we last wrote you, and as we are very busy overhauling our buildings and remodeling them in order that we may enlarge our hog industry and be enabled to keep up with the demand for stock, we are constantly selling freely at close figures. We are shipping some splendid show stock to Messrs. Bamford Bros., of Chilliwick, B. C., which will undoubtedly be heard from after the fair's are over out there."

Memory is a net; one finds it full of fishes when he takes it from the brook; but a dozen miles of water has run through it without sticking.—O. W. Holmes.

#### NOTES FROM IRELAND.

##### THE SEASON.

We have had a remarkable spring. Everything in the atmospheric region has been topsy-turvy, and we had the unique experience of finding the temperature on Whitsunday (May 19) several degrees lower than on New Year's Day! Only within the past few days (writing on the 13th June) have really seasonable warmth and geniality prevailed. Owing to prolonged spells of rainy weather, field work was very much interfered with, and those farmers who were wise enough to take advantage of a fine period about Eastertide to get in their turnips and oats have never regretted their luck. Keen, windy days and nights of frost were quite frequent during May, and the absence of heat retarded the growth of pasture grass, the pinch being felt pretty generally, but especially by farmers who follow the mistaken practice of continuously grazing their land all the season. The planting of potatoes—a most important crop—proved a more than ordinarily prolonged operation, the wet spells being the principal cause; and, for the same reason, root crops were got in irregularly; but with the advent of heat roots and also grain have been making good headway within the past fortnight or so. In the southern and well-favored districts, notwithstanding the severity of the weather, some early potatoes were fit for raising before June set in, and, on the whole, they gave satisfactory promise on behalf of the bulk of the earlier crops. Some of them were marketed in Scotland a week sooner than last year. It is premature to speak definitely of the prospects of the season as a whole; suffice it to say that things are likely to be much more satisfactory than might have been expected from the very harsh unsettled weather through which we have passed.

##### CHANGES IN THE DEPARTMENT.

This heading does not refer to the results of the recent Committee of Inquiry into our Agricultural Department, for we have yet to learn the nature of its recommendations. It has, however, to do with an event of much importance, namely, the passing of the original Vice-President, Sir Horace Plunkett, about whom I have had occasion to write frequently in the course of this correspondence. Sir Horace, it will be remembered, at the last general election consented to retain office under the incoming Liberals—at any rate until the proposed inquiry had been completed and the report published. For reasons which only residents in Ireland can properly grasp, this did not commend itself to our Nationalist members of Parliament, who brought the matter forward at Westminster, and, on the pretext of constitutional right and wrong, made out a case in favor of removing Sir Horace, and appointing as successor a man whose political views were in sympathy with the party in power—one, moreover, who could represent the Department in the House of Commons. The Government, though not adopting an antagonistic attitude, delivered the verdict that they regretted not being able to reconcile Sir Horace Plunkett's position with constitutional usage, or terms to that effect. The upshot was that in a few days Sir Horace asked to be relieved of his duties. Thus retired a truly patriotic Irishman, from a position in which his ability and initiative had found such opportunity for self-sacrificing exercise. It is to be hoped that the country will not be deprived of his continued service in some other sphere. Like all mortals, he made mistakes, but his out-and-out sincerity not even opponents could question.

A well-known and vigorous politician, land reformer, and strenuous temperance advocate, in the person of Mr. F. W. Russell, M.P., was duly appointed to the vacant position. He is a Scotchman—one of many of his countrymen connected with the Department—and he has the reputation of being a man of much ability, and a keen worker, imbued with the dogged determination characteristic of his race.

##### IRISH TOBACCO GROWING.

The passage through all the intricate processes of Parliamentary procedure was lately accomplished of the Irish Tobacco Bill. The fragrant weed, as many may know, has been the subject of experiment in Ireland during the past few years, and it has been demonstrated that its successful culture by our farmers was possible. Owing to an old statute its growing has

hitherto been attended and hampered by rather oppressive restrictions, permission having to be obtained from the Inland Revenue authorities before a farmer could even make arrangements to plant the crop. The new Bill does away with this formality, and gives much greater freedom for extended cultivation. Of course it is still to the interest of the grower to notify that he has put so much of his land under tobacco, in order that in due time the claim of the curer for a rebate of the duty may be properly substantiated. The measure still awaits Royal assent, but this is in its case presumably a matter of course. EMERALD ISLE.

#### THE GUELPH SALE OF CLYDESDALES.

The auction sale at Guelph on June 26th of imported Clydesdale fillies belonging to the importer, Mr. J. F. Elliott, of Oxford Centre, Ont., brought out a large attendance of farmers looking for young mares for breeding purposes, as well as workers, and they found a good, useful offering, which, owing to the fillies being in moderate condition, having landed less than a week before the sale, they secured at prices which should make them a profitable investment for the buyers, though probably not for the importer. The average realized was about \$275. Following is the sale list:

Lady Sterling, '04; N. A. Walker, Craigie, Man.	\$ 500
Lady Kinloch, '05; Geo. Grummett, Nassagaweya	270
Bandeath Flower, '04; W. H. Giles, Paisley	255
Jennie Jarvie, '04; John Atkinson, Guelph	330
Atalanta, '05; Wesley Jones, North Bruce	270
Lady Ann, '05; Robert Hall, Guelph	205
Rosie Jarvie, '05; N. A. Walker, Carnegie, Man.	285
Bandeath Susie, '03; C. Currie, Morris	305
Betty of Culmore, '01; R. H. Nodwell, Hillsburg	260
Maggie Jarvie, '04; P. R. Musser, Wallenstein	240
Elsie Carrick, '05; Wesley Jones	175
Lily of Campsie, '05; T. R. Mercer	160
Daisy Baroness, '06; W. Elliot, Galt	175
Prince Francis (colt), '05; W. H. Giles	355
Strathview Prince (colt), '05; H. Devlin, Eramosa	290

#### THE WATT-AITCHISON CLYDESDALE SALE.

The joint auction sale, held on June 27th at Elora, Ont., of imported fillies belonging to Messrs. R. A. & J. A. Watt and Andrew Aitchison was largely attended by an appreciative class of farmers, and the excellent selections were taken at fairly good prices, as the sale list given below will show:

Melody, foaled 1904; E. Evans, Chilliwick, B.C.	\$ 630
Princess Nettie, '05; Wm. Burnett, Salem	405
Lizzie, '05; T. A. Lawrence, Thamesville	335
Margaret, '05; A. T. Anderson, Mich. Ag. College	325
Marianette, '06; A. Richardson, Marden	300
Queen Thyra, '05; A. T. Anderson	335
Jessie Dick, '04; Thos. Lyons, Creeksbank	300
Maggie Scott, '05; J. A. Stewart, Campbellford	285
Bankhead Bell, '04; J. A. Stewart	280
Royal Blossom, '04; Neil McCallum, Brampton	380
Silver Belle, '04; Neil McLean, Everton	290
Brown Bess, '04; Albert Boyer, Cumick	285
Miss Scott, '05; Jas. Stark, Ashgrove	320
Sadie Press, '05; W. R. Elliot, Guelph	280
Jenny 2nd of Grange, '05; W. J. Church, Arthur	220
Dandy Girl, '06; J. Monkman, Eramosa	270
Ardyne Belle, '03; O. Sorby, Guelph	320
Heather Belle, '05; W. J. Church	355
Maggie Alexis, '05; T. A. Lawrence	315
Susie McMillan, '05; W. Bye, Elora	245
Lady Ronald, '06; Herbert Wright, Guelph	205
Black Damsel, '05; W. R. Beattie, Emsville	325
Milly 2nd, '04; Herbert Wright	260
Duchess 3rd, '04; Herbert Wright	295
Baisy 2nd, '04; Geo. Cayton, Peepahun	400
Rose of Masterton, '04; J. Watt & Son, Salem	300
Royal Ascot (colt), '05; E. Aitchison, Elora	510
Clan Ronald (colt), '05; John Robb, Salem	500

26 fillies averaged \$318.

Ottawa despatches last week mentioned that Messrs. N. Niki, K. Tsubouchi and S. Takashima, representing the Japanese Government, were in Ottawa in connection with their mission to Canada to buy army remounts for Japanese cavalry regiments. A number of Canadian horses were bought last year by the Japanese Government, and were found very satisfactory by military officials.

# The Sovereign Bank of Canada

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## MARKETS.

### TORONTO.

#### LIVE STOCK.

Receipts of live stock at the City and Junction markets last week were not nearly as large as for several weeks past, all told there were 210 carloads, consisting of 2,922 cattle, 2,473 hogs, 1,893 sheep, 600 calves, and 6 horses. Trade in all classes of cattle, excepting stall-fed exporters, has been dull. Too many half-fat grass cattle were rushed on the market that should have been left on pasture for six weeks longer. Prices for grassers dropped more than a cent a pound, and stall-fed about 40c. to 60c. per cwt. in the butcher classes. Prime exporters did not suffer as much, but they, too, were off about 25c. per cwt.

Exporters.—Prices last week ranged from \$5.70 to \$6.25, the bulk going at \$5.90 to \$6; export bulls, \$4.50 to \$5.

Butchers.—Prime picked lots of stall-fed, \$5.60 to \$5.85; loads of good, \$5.20 to \$5.50; medium, \$4.25 to \$4.50; common, \$3.90 to \$4.15; cows, \$3.50 to \$4.50.

Stockers and Feeders.—There was little doing in these classes last week. A few stockers, 500 to 700 lbs. each, sold from \$2.75 to \$3 for common, and \$3.25 to \$4 for medium to good quality.

Milk Cows.—Milkers and springers are lower, light, common to medium cows being in poor demand, although there is always an outlet for choice cows. Best cows sold from \$45 to \$55. Mediums were hard to move at \$30 to \$40, and poor cows sold down to \$20 and \$25.

Veal Calves.—Good to prime calves sold readily at \$5 to \$6.50 per cwt. New-milk-fed calves are worth \$7 per cwt. Inferior dairy calves sold at \$3.50 to \$4 per cwt.

Sheep and Lambs.—Receipts were a little heavier. Trade fair, with prices easier for export sheep at \$5 to \$5.25 for ewes, and \$3.50 to \$4.50 for rams. Choice light yearlings for butcher purposes sold as high as \$6 per cwt. Lambs sold at \$3 to \$6 each. Some prime lambs, 80 to 100 lbs. each, sold at \$7 to \$8 each.

Hogs.—The market was easy at the decline. Selects sold at \$6.75, and lights, \$6.50 per cwt.

Horses.—Burns & Sheppard report a dull market, with prices lower all along the line. There are no buyers from the Northwest, and few from other outside points. Horses that have been worked to death in the country had better be kept there. For rugged, full-aged horses, there are always buyers. Choice-quality drafters are scarce, and always bring a good price. Alexander Doherty, of Scarborough, bought two pairs last week, 1,650 to 1,850 lbs. each, at \$600 and \$700 per pair. They were bought with 14 others, all high-priced, for Jos. Russell, one of Toronto's prosperous brickmakers. Horses 1,400 to 1,600 lbs. each are reported by Burns & Sheppard as selling from \$180 to \$240 each. Horses, 1,200 to 1,350 lbs., \$150 to \$200; good roadsters, \$140 to \$225.

#### BREADSTUFFS.

Wheat.—No. 2 white winter, sellers, 90c.; No. 2, mixed, 90c.; No. 2 red, sellers, 91c.; spring, No. 2, buyers, 80c.; Manitoba No. 1 Northern, buyers, 93c.; sellers, 94c.

Buckwheat.—60c.

Rye.—70c.

Oats.—No. 2, sellers, 82c.; buyers, 78c.

Oats.—No. 2 white, 44c. to 45c., outside points.

Corn.—No. 2 yellow American, 60c. to 61c., at Toronto.

Barley.—Nominal, 53c. to 54c. for No. 2; No. 3 extra, 51c. to 52c.

Bran.—\$18 to \$19 per ton, at outside points.

Flour.—Manitoba patent, \$4.05, on track, at Toronto; Ontario, 90 per cent. patent offered at \$3.55; Manitoba patent special brands, \$5; second patents, \$4.40; strong bakers', \$4.30.

#### COUNTRY PRODUCE.

Butter.—Receipts liberal; market easy, with prices a little lower. Creamery, pound rolls, 21c. to 23c.; creamery, boxes, 20c. to 21c.; dairy, pound rolls, 19c. to 20c.; tubs, 19c. to 20c.; bakers' tub, 16c. to 17c.

Eggs.—17c. to 18c. per dozen, case lots.

Cheese.—New, large, 12c.; twins, 13c.

Honey.—Unchanged; strained, 12c.; combs, per dozen, \$2.60 to \$2.75.

Evaporated Apples.—8c. to 9c.

Beans.—Car lots, in bags, at Toronto, hand-picked, \$1.25 to \$1.30; primes, \$1.15 to \$1.20; broken lots, \$1.45 to \$1.55 for hand-picked; \$1.30 to \$1.35, in bags.

Potatoes.—New potatoes are becoming more plentiful, which is causing Canadian old potatoes to be easy at about \$1.30 to \$1.35 per bag, in car lots, for New Brunswick Delawares, at Toronto.

Poultry.—Receipts growing larger as the season advances. Turkeys, 11c. to 14c. per lb.; spring ducks, 25c. to 30c. per lb.; spring chickens, 15c. to 20c. per lb., alive, and 20c. to 25c. per lb., dressed; fowl, 10c. to 14c. per lb., dressed.

Hay.—Baled; market strong at \$16 per ton for No. 1, and \$14.50 to \$15 for No. 2, for car lots, at Toronto.

Straw.—Baled, car lots, on track, at Toronto, \$6.75 to \$7.25 per ton.

#### TORONTO FRUIT MARKET.

The Toronto wholesale fruit market was opened up for the season at the foot of Yonge and Scott Streets. Receipts were confined principally to strawberries, that is, Canadian, which are fairly plentiful, considering the season, selling at 14c. to 16c. per quart, by the case.

#### HIDES AND TALLOW.

Prices are quoted as follows by E. T. Carter & Co., 85 East Front St., Toronto: Inspected hides, No. 1 cows and steers, 9c.; inspected hides, No. 2 cows and steers, 8c.; country hides, 7c. to 8c.; calf skins, No. 1, city, 13c.; calf skins, No. 1, country, 11c. to 12c.; sheep skins, each, \$1.70 to \$1.80; horse hides, No. 1, each, \$3.25 to \$3.50; horse hair, 30c.; tallow, 5c. to 6c.; wool, unwashed, 13c. to 14c.; washed, 23c. to 24c.; rejections, 17c. to 18c.

#### CHICAGO.

Cattle.—Common to prime steers, \$4.60 to \$7; cows, \$3.25 to \$4.75; heifers, \$3 to \$5; bulls, \$3.40 to \$5; calves, \$3 to \$6.50; stockers and feeders, \$3 to \$5.

Hogs.—Good to prime, heavy, \$5.90 to \$5.95; medium to good, heavy, \$5.80 to \$5.90; butchers' freights, \$5.95 to \$6; good to prime, mixed, \$5.90 to \$5.95; light mixed, \$5.95 to \$6.05; packing, \$5.25 to \$5.95; pigs, \$5.50 to \$6.05; selected, \$6 to \$6.12; bulk of sales, \$5.90 to \$5.95.

Sheep and Lambs.—Sheep, \$4 to \$6.25; yearlings, \$5.50 to \$6.50; lambs, \$5.75 to \$7.75.

#### CHEESE BOARD PRICES.

Kingston, Ont., 11 1-16c. Madoc, 11 1-16c. Tweed, 11c. bid. Victoriaville, Que., 10c. Listowel, 11 1-16c. for white; 11c. for colored. Ottawa, 11 1-16c. to 11c. for white; 11 3-16c. for colored. Napanee, 11c. for white, 11c. on board, for colored; on curb, 11c. to 11c. Chicago, creamery butter, 19c. to 24c.; dairies, 17c. to 21c.; cheese, 11c. to 11c.

#### BUFFALO.

Cattle.—Prime steers, \$6.25 to \$6.75. Veals.—\$5 to \$7.75. Hogs.—Heavy, \$6.10 to \$6.40; roughs, \$5 to \$5.40.

#### MONTREAL.

Live Stock.—Shipments from the port of Montreal, last week, showed a considerable increase over those of the previous week, being 4,310 cattle, as compared with 3,361 the previous week. Although the weather has been very warm and stuffy of late, receipts of cattle have been slightly larger than previously, the result being a slightly easier market. The bulk of the cattle offering consists of half-finished grass stock, there being very few really choice animals available. Exporters claim the market on the other side will not return a profit on stock shipped at present cost here, notwithstanding the low rate of freight prevailing. Some choice steers sold for export at 6c. per lb., and 5c. was bid and refused for more, bulls changing hands at 5c., and a fraction more. Butchers paid as high as 6c. to 6c. for choicest stock, fine bringing 5c. to 6c.; good, 5c. to 5c.; medium, 4c. to 4c., and common, 3c. to 4c. per lb. There was very little doing in sheep and lambs, owing to small offerings; demand being, however, good. Prices are 5c. per lb. for sheep, and \$4 to \$5 or \$6 for lambs, calves being \$4 to \$10 each, according to quality. Calves were in fair demand. The market for hogs was on the easy side, and prices declined fractionally, owing partly to the lower cable from England on bacon. Extra heavy hogs sold here at 6c. per lb.; heavy at 7c., and selects at 7c. to 7c., the highest figure being hard to get.

Horses.—Dealers complain of the great scarcity of good horses. Common stock is scarce enough, but it can be had, and, as a rule, it remains on dealers' hands for some time. Fine animals, however, are no sooner in than they are out again. Some have been shipped to the United States lately, and there is never any trouble disposing of them. Dealers state that if farmers would breed choicest stock only, they would make much more out of them. Meantime, prices hold steady, as follows: Heavy-draft, weighing 1,500 to 1,700 lbs., \$275 to \$350 each; light-draft, 1,400 to 1,500 lbs., \$250 to \$300; express horses, \$175 to \$250; common plugs, \$75 to \$150, and choice driving and saddle animals, \$300 to \$500 each.

Dressed Hogs and Provisions.—The easier feeling prevailing in the market for live hogs, already referred to, has had an effect upon the market for dressed stock. Choice weights of abattoir, fresh-killed hogs, may be quoted at 10c. per lb., heavy-weights and inferior quality being quoted at 9c. to 9c. per lb. Demand is only fair. There is a fair amount of trade passing in smoked and salt meats, although nothing in the nature of activity can be reported. Barrelled pork is steady at \$20.50 to \$24.50 per barrel. Hams are in fair demand, and prices hold about the same, at 14c. per lb. for hams weighing 25 lbs. and more; 14c. to 15c. for 18 to 25-lb. weight; 15c. to 15c. for 12 to 18 lbs.; 16c. for 8 to 12 lbs. Bacon holds firm, at 10c. to 12c. for green, and 13c. to 16c. for smoked. Lard is 10c. to 11c. per lb. for compound, and 12c. to 13c. for pure.

Potatoes.—The market is on the easy side. Potatoes continue to arrive from all sorts of unexpected quarters, and for the most part the quality is very good. The present weather, however, will shortly begin to produce an effect. Dealers are a little afraid of the new stock, which is now arriving from the United States, and the price of which has been marked down considerably of late. It will be at least two weeks yet before new Canadian potatoes will be heard from. Recent rains in the vicinity of Montreal have done the growing crop much good. Dealers are now paying about \$1 per bag of red or mixed stock, per 90 lbs., on track, and \$1.05 to \$1.10 for white stock, and reselling at an advance of 3c. to 5c. For jobbing lots, bagged and delivered into store, \$1.15 to \$1.25 is being received.

Eggs.—Demand has fallen off, and merchants are not anxious to handle much stock. They claim to be buying at 15c. to 16c., at country points, according to quality and location, and to be selling here at 16c. to 17c. per dozen, for straight receipts, the latter figure being almost impossible to obtain. Demand is light, and the stock is not nice to put away. Selects are 19c. and over, sometimes 20c.

Butter.—The market holds fairly steady.

Shipments from Montreal, last week, amounted to 1,489 packages, total shipments for the season being now 1,795, against 65,000 a year ago. Prices quoted are 20c. to 21c. for choicest Townships creamery, 20c. to 20c. for Quebecs, and 20c. for Ontario, dairy being 17c. to 18c. The make is increasing slowly, but there is every promise of a small make this season. Making butter at present prices does not pay, when cheese will bring over 11c.

Cheese.—Exports of cheese amounted to 82,000 last week, being the same as a year ago, and bringing the total shipments this season to 342,000 boxes, or about 100,000 less than a year ago. The make is gradually increasing in volume, but the quality is not improving, the present hot weather and the drying of the pastures having a bad influence. Recent rains should be an aid. Prices are 11c. to 11c. for Ontario, 11c. to 11c. for Quebecs, and 11c. for Townships.

Flour and Feed.—Millers report a good demand for flour, at steady prices. Manitoba strong bakers' is quoted at \$4.50 per bbl., in bags, patents being quoted at \$5.10. Ontarios are quoted at \$4.10 to \$4.20. Bran is in good demand, but shorts is in exceptionally active demand, and millers are unable to supply a sufficient quantity, so that prices are exceedingly firm. Manitobas are \$21 for bran, in bags, shorts being \$23. Ontario bran is quoted at \$19.50 to \$20, and shorts \$22 to \$22.50.

Grain.—The local market for oats has shown very little change during the past week. The recent fireworks seem to have exhausted themselves, and demand is now dull, at 49c. to 49c. per bush. of Manitoba No. 2 white, store, 48c. to 49c. for No. 2 Ontario, 47c. to 48c. for No. 3, and 46c. to 47c. for No. 4.

Hay.—The market continues easy here. The crop is making a better showing than a year ago, and it is fully expected by dealers that the rains of the past few days will bring the crop ahead rapidly. Prices hold steady at \$16 to \$16.50 per ton for No. 1 timothy, \$15 to \$15.50 for No. 2, and \$14 to \$14.50 for clover and clover mixture.

Hides, Tallow and Wool.—The market for hides shows very little change this week. Sheep skins are not now quoted, and dealers have reduced their offers for calf skins to 12c. per lb. for No. 2, and 14c. for No. 1. They are still offering 8c., 9c. and 10c. for hides, either country or city take-off, for Nos. 3, 2 and 1, respectively, and offering to tanners at 1c. advance. Horse hides are quoted at \$1.75 each for No. 2, and \$2.25 for No. 1. Lamb skins are 20c. For rough tallow, 1c. to 3c. per lb. is offered, and for rendered, 6c. to 6c., reselling at 1c. advance. The market for wool holds much the same as a week ago. Shearing is going on actively in the West, and dealers are offering about 17c. to 18c. per lb. for N.-W. Merinos, country points, but many sellers are asking more. The rest of the market is unchanged.

#### BRITISH CATTLE MARKET.

London.—Liverpool and London cables are steady at 12c. to 13c. per lb., dressed weight; refrigerator beef is quoted at 9c. to 9c. per lb.

The Irishman wanted to sell the dog, but the prospective buyer was suspicious, and finally decided not to buy. The man then told him why he was so anxious to sell.

"You see," he said, "I bought the dog and trained him myself. I got him so he'd bark all the time if a person stepped inside the gate, and I thought I was safe from burglars. Then my wife wanted me to train him to carry bundles, and I did. If I put a packet in his mouth the dog would keep it there till someone took it away. Well, one night I woke up and heard someone in the next room. I got up and grabbed my gun. They were there—three of the scoundrels and the dog."

"Didn't he bark?" interrupted the man.

"Nary a bark; he was too busy."

"Busy? What doing?"

"Carrying a lantern for the burglars."



## Life, Literature and Education.

[Contributions on all subjects of popular interest are always welcome in this Department.]

### PEOPLE, BOOKS, AND DOINGS.

Damascus is the first city in the Turkish Empire to be lighted with electricity and have electric street cars.

The new building of the Singer Sewing Machine Co., which is now in process of construction, and will be completed in May of next year, will be the tallest office building in the world. It will be equipped with sixteen high-speed elevators, of which four are to be in the tower, and will house 2,500 persons. No wood has been used in its construction, even the sashes and doors being of metal, and the floors of cement and marble.

If genius is the "capacity for taking infinite pains," certainly the late Dr. John Watson (Ian Maclaren) lacked in it not at all. Before giving them to the public, he put his stories through the following processes: (1) Draft of plan slowly arranged; (2) plan revised before writing; (3) actual writing; (4) MSS. revised; (5) first proofs corrected twice; (6) after serial use revised for book; (7) proofs again corrected. Referring to his humor, a writer in "Canada" says: "That he was a true humorist, nobody will deny who had the pleasure of his acquaintance or ever attended one of his lectures. He was always angry, in a mild way, when the Scotchman's inability to see a joke was mentioned. 'It is true,' he would say, 'that my people don't laugh much, and that, no doubt, is why they are supposed to have no sense of humor. An Englishman, when he gets hold of a joke, goes screaming down the street with it. A Scot, on the other hand, turns it about in his inside, and enjoys it quietly; he is afraid to tempt Providence with too much noise.' The last sentence, as 'Canada' well notes, displays a touch of humor as delicately delicious as anything of Barrie's."

It is significant that a son of General Piet Cronje has been nominated to a Rhodes scholarship. General Cronje, it will be remembered, commanded the Western Army of the South African Republics during the Boer war, and was captured at Paardeburg by General Roberts.

The naval expenditure of England last year amounted to £31,869,500, that of France was £13,003,238, and that of Germany £12,347,379.

### THE GREATEST BRIDGE IN THE WORLD.

By E. M. Graham, author of "A Canadian Girl in South Africa."

Not so many years ago we heard our cousins to the south of us assert, with such conviction, that the United States possessed all the greatest

things in the world, that many Canadians ended by believing them. Now it is Canada first. But when it is said that the Quebec Bridge is the greatest in the world, it is not meant that it is the longest. The Forth Bridge, in Scotland, for instance, which up to the present has been considered the greatest, is really much longer. It, however, is constructed of two cantilever spans 1,710 feet in length, resting on a center pier; while the Quebec Bridge consists of one great span of 1,800 feet. This span is the longest yet built.

It was necessary to go up the St. Lawrence six miles above Quebec to find shore levels suitable for such a bridge, and as one sails around Cape Diamond, the finished part of the

Bridge Co., Pa., although the chief engineer, Mr. Hoare, and most of the workmen are Canadians. The bridge is to be finished in 1909, at an estimated cost of \$3,800,000, not including the approaches. At present it is the property of the Quebec Bridge Company, but whether it will remain in their hands, when completed, or be taken over by the Government, has not yet been decided.

The engineers had to face the fact at once that in this locality nothing but a single-span bridge over the St. Lawrence was possible. The river, two hundred feet deep in the center, has a bed of hard strata covered with glacial boulders. There is a maximum current of eight miles an hour, and, although there are no

and this long cantilever span is to be balanced by two 500-foot anchor arm-spans, joining it to two anchor piers on the shore. To the lay mind, therefore, the structure is like two immense teeters, balanced on the channel piers, of which the shore ends, with the anchor piers, are by far the heavier, and of which the center light ends, projecting over the river, are held down by the 800-foot center suspended portion. The latter thus acts as a sort of keystone.

One grasps the magnitude of the bridge only on a close view, for then the airy curves resolve themselves into clusters of twenty steel braces each, many inches in thickness, reinforced by numberless cross-braces, as seen in illustration No. 1. One learns, also, that the steelwork will weigh some 40,000 tons. And the floor, which appears from the boats below to have a moderate width, is really 63 feet wide, and will contain two steam-car tracks, two electric-car tracks, two driveways, and may have an outer-bracket attachment for sidewalks.

This great weight of steel, then, depends from the two channel piers, sunk deep in the river, while the balancing of the span is done by the two anchor or shore piers, built on rocks exposed at low tide.

The building of the two channel piers was in itself a wonderful piece of work. Each stands on a caisson or great box of Georgia pine, 150 by 100 by 30 feet, the bottom of which rests 80 feet below the river-bed. Each caisson cost \$30,000, and the first was set in position June 21st, 1901. Each caisson was built with a false floor, seven feet above the bottom, under which the men were able to work in an air-tight compartment excavating the river-bed. As the caisson gradually sank to the desired level, it was filled with cement, and used as a foundation for the granite piers, standing thirty feet above the high-water level. The stone was quarried fifty miles north of Quebec, and the south pier was finished in November, 1901. Each pier, with its surmounting steel tower, stands 360 feet above high-water level.

Much more wonderful is the method of building the steel superstructure, or, rather, methods, for there are three distinct ones employed. Exactly one-half is to be finished from the south shore, and exactly one-half from the north; and, by the plans, the two parts will meet in the middle to a hair. Working out from shore, one method is used as far as the channel pier, a second as far as the end of the downward sloping span, and a third to the middle of the upward middle curve. At the present time the south side is completed as far as ten panels from the south channel pier, as seen in illustration No. 3. As the north-side piers are also finished, the scaffolding or falsework used for the shore span is being rapidly moved from the south to



No. 1.—The Quebec Bridge, Showing the "Falsework" or Scaffolding; and Upper Braces of 20 thicknesses of Steel.

huge structure faces one, like a bit of cobwebby lace against the sky, so graceful are its lines. One can imagine that when finished it will present the appearance of a great wrought-iron gateway spanning the noble river.

The bridge was projected nearly ten years ago, when the National Transcontinental Railway was first discussed. The corner-stone was laid October 2nd, 1900, by Sir Wilfrid Laurier, although the contract was not finally completed until April, 1904. The steelwork and construction are all done by the Phoenix

floods, yet there is danger in spring from the great ice-fields. There is also an average tide of fifteen feet, which changes the width of the river from nineteen hundred to twenty-five hundred feet at this point. It was, therefore, decided to build a bridge 2,800 feet long, supported by two great piers, 1,800 feet apart, near the north and south shores, this 1,800 feet to be crossed by a long, cantilever span, 150 feet above high-water level, consisting of three sections. These three comprise two 500-foot channel pier spans, and one central suspended span of 800 feet.

the north, so that work may go on simultaneously on both sides.

This falsework is itself as massive and complicated as any ordinary steel bridge, as seen in illustration No. 1. It consists of 18 steel towers, arranged in groups, varying from 127 to 160 feet in height. Separate from the steel falsework is wooden falsework, supporting temporary tracks on the bridge floor for the cars hauling supplies. The falsework has two purposes: First, to support the bridge floor and all the weight of the superstructure as far as the channel piers; and second, to support the great steel traveller seen in illustration No. 3. The latter alone has to do the work from the channel piers as far as the "key-stone" curve.

This steel traveller is of high-grade steel, as carefully made as any bridge. It is a tower 212 feet high, standing on twenty-four great wheels, with a base of 103 by 54 feet, and a 54-foot rear base extension to balance a 66-foot front projection supporting half-made panels and men working thus in advance of the finished part. It is capable of holding suspended, until fixed to place, sections weighing a hundred tons. From its top hang 75 tackles, some of them having 3/4-inch steel cables a mile long. Its work is now finished on the south side, and it must give place to a smaller traveller, standing on the top curve and working upward to the middle of the bridge. The traveller's work is done by means of four powerful electric hoisting motors, driven by power generated from the adjacent Chaudiere Falls.

A notable feature of the work is that absolutely everything is done by electric power; all rams, drills, hammers, etc., are operated by air-pressure from two 500-horse-power electric air compressors. It is quaint to see the workmen apply the nozzle of what appears to be a small water hose to a red-hot bolt. Instantly the most deafening hammering commences.

There seems to be millions of rivets hammered in already, and the men at work on these, here and there, appear like flies, in contrast to the huge structure.

The approaches to the bridge are themselves no mean feats of engineering—long viaducts, tedious blastings, the Chaudiere bridge—works which have doubtless used up already a great part of the original grant for the bridge. But all are dwarfed by the towering magnitude of the chief work. One visits it in the same frame of mind that one visits Niagara, with admiration, with increasing wonder, and with the fascinated interest which demands a speedy return.

[Note.—The author wishes to thank Mr. Barthe, the secretary of the Bridge Company, and Mr. Belanger, of the Soleil, for information kindly given, and for the photographs.]

"To know, to appreciate, and to do—this is perhaps the whole business of life. To know the truth, to appreciate the best, to do what is beautiful, is a threefold task that may well tax our most persistent and

unflagging energies, through however long a lifetime; and it would seem as if the whole effort of the universe were to make possible that consummation. If ever we approach it, we shall know by the test of happiness that we are near the enchanted ground, the garden of the gods, the fairy-land that actually exists."—[Bliss Carman.]

"CARMICHAEL."

What some of the leading papers are saying about it:

London Advertiser.  
A CANADIAN GIRL'S NOTABLE BOOK.

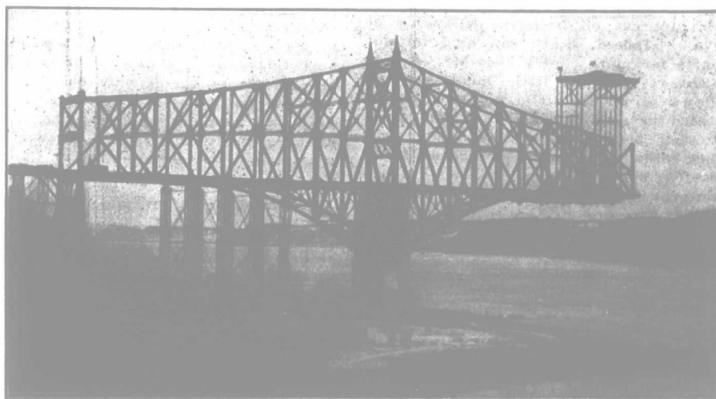
"Carmichael," by Anison North, illustrated and decorated by Cora Parker, published by the Wm. Weld Company, of this city, at \$1.25, is a most charming volume. The story hinges upon a quarrel between two Canadian farmers, arising from that too frequent cause of dispute, the

their stubbornness, lose the many years of good fellowship which they could both have so well enjoyed, is a beneficial lesson for our Canadian youth, stalled as they may well be by the crooked views of life so often presented to them in the modern romance. It is said the accomplished young author is a London girl.—[London Advertiser, Canada.]

This book will be sent, postpaid, to any subscriber for \$1.25. Address "The Farmer's Advocate," London, Ont.

THE DAYS GONE BY.

O the days gone by! O the days gone by!  
The apples in the orchard, and the pathway through the rye;  
The chirrup of the robin, and the whistle of the quail  
As he piped across the meadows sweet as any nightingale;



No. 3.—The Quebec Bridge as Far as Completed.

boundary-line fence. The misunderstandings that result give great sorrow to the two children of the disputants. These are a boy, Dick, and a girl, Peggy, who, being each the only child of a family, are permitted to meet, roam the woods, pick berries in the meadows, and together have a happy childhood, marred only by the fact that neither ever dare venture to enter the home of the other. This, like all parts of the book, is true to life, for the Canadian farmer may heartily hate his neighbor with whom he has quarrelled, but seldom extends this unchristian feeling to his neighbor's child. The wholesome kindness of our farmers and the simplicity of their lives are well shown, without any mawkish sentimentality about the monotony of life, and the lack of refinement, so often indulged in by writers who do not appreciate the richness and worth of character engendered in those whose lives are passed close to the real heart of nature. In this book, the wisdom of the "hired man, old Chris," would alone make it worth the price; and the sweetness and honor of the various characters, even of the two men who, through

When the bloom was on the clover, and the blue was in the sky,  
And my happy heart brimmed over—in the days gone by!

In the days gone by, when my naked feet were tripped  
By the honeysuckle tangles where the water lilies dipped,  
And the ripples of the river lipped the moss along the brink,  
Where the placid-eyed and lazy-footed cattle came to drink,  
And the tilting snipe stood fearless of the truant's wayward cry  
And the splashing of the swimmer, in the days gone by.

O the days gone by! O the days gone by!  
The music of the laughing lip, the luster of the eye;  
The childish faith in fairies, and Aladdin's magic ring—  
The simple, soul-rejoicing, glad belief in everything.  
For life was like a story, holding neither sob nor sigh,  
In the golden, olden glory of the days gone by.

—James Whitcomb Riley.

GOOD-BYE'S THE WORD.

"Heave up the anchor, heave ye ho!  
And swing her head about;  
The blue flag flies, the breezes blow,  
Let all her canvas out!  
Blue eyes and black upon the quay  
Are smiling tears away,  
And sweethearts blush at parting kiss,  
And wives and mothers pray.

"The babe upon my Polly's breast will toddle down the strand,  
And pipe a welcome when again our good ship sails to land,  
And Tom will reach my elbow then,  
and Ned be shoulder high;  
Avast! Avast! I sail too fast—good-bye's the word, good-bye!

"Heave up the anchor, heave ye ho!  
And speed us on our way!  
A stiff breeze, sweet with rose and thyme,  
Blows fast along the bay:  
And sails round out, the rattling shrouds  
Are loud with noisy glee;  
The staunch craft trembles as she hears  
The footsteps of the sea.

"Belike my mates, 'tis just the way a lass's heart will beat  
When sounds upon the shingly strand  
her tar's returning feet,  
Or Poll will tremble when she hears my footsteps drawing nigh;  
Avast! Avast! I sail too fast—good-bye's the word, good-bye!

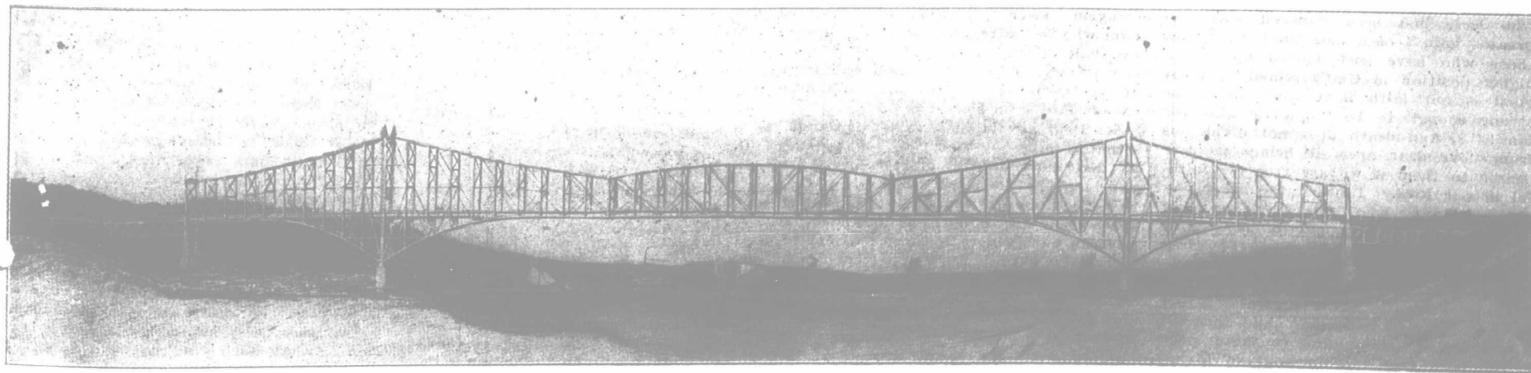
"Heave up the anchor, heave ye ho!  
God bless the dear brown hands  
That wave good-bye when Jack sets sail,  
To steer for other strands;  
And though our ship her anchor heaves  
When she would sail afar,  
My eyes! She don't resemble there  
The ways of true Jack tar.

"For when Jack casts life's anchor down—his heart, belike, you know,  
He never hauls it up again, whatever squalls may blow,  
Mine's grappled safe in Polly's breast  
until the day I die—  
Avast! Avast! The wind blows fast—good-bye's the word, good-bye."

—From the Collected Poems of Isabella Valency Crawford.

MINIATURE MAXIMS.

Don't worry.  
Don't hurry. "Too swift arrives as tardily as too slow."  
Simplify! Simplify! Simplify!  
Don't overeat. Don't starve. "Let your moderation be known to all men."  
Court the fresh air day and night.  
Oh, if you knew what was in the air!  
Sleep and rest abundantly. Sleep is Nature's benediction.  
Spend less nervous energy each day than you make.  
Be cheerful. "A light heart lives long."  
Think only healthful thoughts. "As a man thinketh in his heart, so is he."  
Avoid passion and excitement. A moment's anger may be fatal.  
Associate with healthy people. "Health is contagious as well as disease."



No. 2.—The Quebec Bridge as It Will Be when Completed.

Total length of bridge, 3,300 feet. Length of channel span, 1,800 feet. Ship-clear headway, above highest tide, 150 feet. Height of cantilever towers above the river, 360 feet. Total width of floor for double-track railway, with electric track and highway each side, 63 feet.

## The Quiet Hour.

### TO DIE IS GAIN.

For to me to live is Christ, and to die is gain.—Phil. I.: 21.

"Blinded windows, sobs and tear-stained faces,  
And a shrouded baby in a bed,  
Round the room a tiny maiden paces,  
Chanting softly, 'Little brother's dead,  
All his pain is gone, so still he sleeps;  
Jesus Christ our little baby keeps.'

"In our arms we caught the simple creature,  
Bade her hush her song 'for mother's sake,'  
Tried the tale of death and loss to teach her,  
Empty cot, wet eyes, and hearts that ache,  
Pretty baby buried in the ground,  
Father, mother, sister weeping round.

"And the maiden listened, wide-eyed, paling  
In the dreary chill of churchyard lore;  
Then she pleaded (the child-faith not failing),  
'Yes, I know I shan't see baby more:  
But—he's one of God's own cherubim;  
Mayn't I be a little glad for him?'

"Oh, babe-lips, touched lately by the Maker,  
How ye shame us poor half-hearted men!  
We, who know death makes our dead partaker  
Of a joy beyond our farthest ken,  
Yet bewail our loss, till faith grows dim;—  
Can't we be 'a little glad for him?'

Surely God still teaches wisdom through the baby prattle of little children, and we older disciples of Christ may learn a great deal from their happy confidence. We profess to believe in a new and far more glorious life on the other side of the gate which we call "Death." We say that to die is to be more consciously in the presence of our Lord than here, and, therefore, death must be a great "gain" to those who have walked with Him on earth. Yet, when a loved one passes on to the great gladness of the new life, we are only too apt to mourn as those who have no hope. If the one who has been promoted by our King to higher service is young, we even venture to speak of him pityingly, saying: "How very sad that such a bright young life should be cut off when it gave promise of so much usefulness." If our Christianity is a reality, and not a sham, we must not be false to our own convictions in this fashion. Christ has lighted our flame of faith so that we may be able to show a light to others. Think of the harm it does to those who are in darkness to hear such expressions of pity from professing Christians—pity for glad souls who have just been crowned with the great "gain" of a new life! Pity for those who have been moved up to a higher position in God's school! What good is our faith if it can't make us strong enough to be "a little glad for him!" And death does not divide us from our dear ones, it brings us ever nearer to them if we are true and faithful in our love. I heard the other day of a lady, who, because an only daughter had passed out of her sight, threw open her beautiful home to tired and lonely girls—nurses, shop-girls, etc.—giving them a happy holiday as long as they needed it. What a glad way of keeping in touch with her child that is! Every act of service done to those poor girls is a real reaching out in loving ministry to her own dear daughter, for the "communion of saints" is not a mere name, but a living reality. I am now visiting my brother, who is continually showing, by acts of considerate

tenderness towards his wife and children, his love for the bright young son who a few weeks ago passed out of his keeping. How often we see a father, or mother, act in exactly the opposite fashion, fretting over the one that is said to be "lost," until the other children find home the most gloomy place on earth, and begin to fancy that no one cares for them there. The best way of touching those who are "on the other side of Christ," is to minister to Him through His "brethren" who are still visibly near us. And gloomy service is hardly worth offering or accepting. If you can't realize anything of the joy of Paradise, if you find it impossible to share in the blessedness of those who are worshipping God face to face, then pray earnestly that your eyes may be opened.

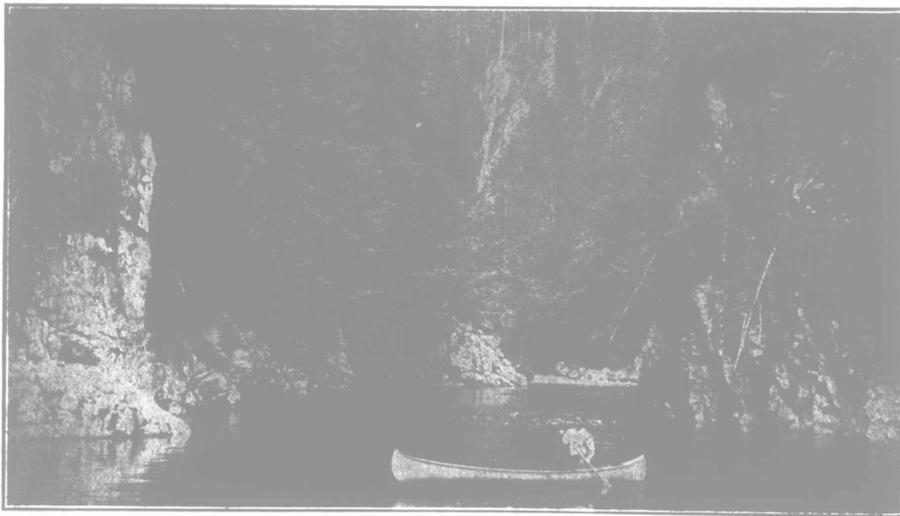
Think what you are missing, if you let slip the golden cord with which God binds heart to heart. Do not say: "I can't see the face I love, therefore I have lost it out of my life," for that is not true. If love is killed by loss of sight, then it is indeed a terrible thing to be blind. If the voice you love is silent, that need not be any barrier; for the deaf are not cut off from the fellowship of love. Indeed, death can bind faithful hearts far more closely together, for it removes all the little hindrances to fellowship, all the little faults which irritated us are forgotten, and our souls at their best can reach out and touch those other souls at their highest and best. We can rejoice in their bright, ever-growing beauty, and we can also learn to rejoice in God's refining pain, which will make us daily more beautiful in soul. To be "with Christ" is to grow daily more "like Him"; for, as someone has said: "As the garment whiten in sunlight, so the spirit must whiten before the Sun of Righteousness. He will heal and stimulate. We shall be like Him, for we shall see Him as He is. Think of that joy! Brave and pure

often waits upon the dying hours of His saints with a special benediction. The long-dreaded event has come—but where are the gloom and darkness which he anticipated? Can this be death, the king of terrors, who so gently is soothing the weary brain to sleep! Slowly the heart grows weak, but where are the fear and dread? A Hand seems to take the attenuated hand within a loving grasp, a Voice to whisper: "Be not afraid!" and quietly as a child might be bosomed on its mother's breast, the weary soul is soothed into the restful sleep of death. Nor is the nursing complete even when the angel of death has done its work and retired; for invisible hands seem to rub out each wrinkle of care, and throw a smile so peaceful upon the worn and pallid features, as a parting sunbeam lingers in a dreary landscape. Precious in the sight of the Lord is the death of His Saints. Our fears are mostly in anticipation, and disappear as we draw near to the great reality. Whatever darkness remains is illuminated by the sunlight of Christian Hope. In union with the Lord of life, life comes crowding in upon the soul, and death dwindles down to an episode."

And just think how short that episode is! It is like passing through a short tunnel on a railway journey. The soul shivers in the gloomy chill of the darkness, and then it is rejoicing in the burst of sunlight on the other side. Often, very often, the dark gateway between the lower and the higher life is passed unconsciously, as one on a train may be asleep when the tunnel is passed, and the new life bursts suddenly on the rapturous soul.

"For 'tis to God I speed so fast.  
For in God's breast, my own abode,  
Those shoals of dazzling glory passed,  
I lay my spirit down at last."

HOPE.



"A perfect day,  
Whereon it is enough for me  
Not to be doing, but to be."

### RELIANCE.

Not to the swift, the race;  
Not to the strong, the fight;  
Not to the righteous, perfect grace;  
Not to the wise, the light.

But often faltering feet  
Come surest to the goal;  
And they who walk in darkness meet  
The sunrise of the soul.

A thousand times by night  
The Syrian hosts have died;  
A thousand times the vanquished right  
Hath risen glorified.

The truth the wise men sought  
Was spoken by a child;  
The alabaster box was brought  
In trembling hands defiled.

Not from my torch the gleam,  
But from the stars above;  
Not from my heart life's crystal stream,  
But from the depths of love.

—Henry Van Dyke, in the Atlantic.

and joyful, strong and tender and holy—like JESUS!"

Here we are ever struggling upward, and surely we shall not stop this struggle after perfection when we see Him who is "altogether lovely." Rather, we shall bound forward after Him with new energy, drinking in more and more of His spirit, striving to be perfect, even as our Father in heaven is perfect.

St. Paul says that "to live is Christ"—that is daily joy—and "to die is gain," so that must be still greater joy. Are you looking forward to this joy that lies ahead, or do you dread the hour of death as a horror of great darkness that you can hardly dare to face? Of course, there is a natural shrinking from death, which is an instinct of our nature, and which makes suicide a most unnatural and inhuman act. But that need not prevent us from glad anticipations of the meeting with our Lord, that need not keep us from going forward joyously when the call comes, and stepping with springing tread through "the little golden gate that opens into Paradise." As Rev. C. H. Strong says: "God

## Health in the Home

### TYPHOID FEVER.

The world will be slow to give up the theory that typhoid fever is a germ disease, disseminated through the agency of infected water or milk, even at the bidding of so eminent a bacteriologist as Dr. Koch, who has been refuting the commonly-accepted view before the military school at Berlin. He did not deny that the typhoid-fever germ can live in water or milk, and that when it is taken into the stomach with these fluids it causes illness. But he declared that it does not live long outside the human body, and that such agencies as milk and water are not important factors in dissemination. From special investigations made at Treves, where there was an epidemic of typhoid, he has concluded that the personal contact of typhoid patients with well persons is the chief cause of infection, and that isolation of patients is the most effective way of exterminating it. Further evidence on this point may properly be asked. But, meanwhile, it may well be advisable to add more attention to the handling of patients to efforts at keeping pure the water and milk supply.—[Providence Journal.

### BEDS FOR INVALIDS.

Sickness comes at some time, soon or late, to every family, no matter how carefully guarded, but trained nurses are not always at hand. On this account, it is a safe thing for every woman to know just how to prepare and change a bed for a person too ill to be readily moved. The best bedstead for use in sickness is of brass or iron, six and a half feet in length, two or two and a half feet in height, and three feet in width. The mattress should be of hair, as that can be readily cleaned and disinfected. Cotton makes the best material for sheets, as linen is apt to chill. Three sheets should be in use at a time—the upper, the lower and the draw, which is placed directly under the patient. Blankets of good quality make the best covering, with a light-weight counterpane at the top. There should be two large pillows—one of hair and the other of feathers—and as many small pillows as the exigencies of the case require. If a rubber sheet is necessary, spread it smoothly on the mattress. Put on the lower sheet, and pin it into place on the under side of the mattress, so that the patient may not work it up into wrinkles. Fold the draw sheet, and pin it across the middle of the bed so that it will extend from the patient's shoulders to well below the hips. Put on the upper sheet, leaving it a little loose for the feet, and long enough to turn over the blanket at the top. The blanket need not be so long as the sheet, but should be long enough to tuck around the patient's neck. The counterpane may be of the same length as the sheet and left long enough to fold over. In changing the bed, roll the patient to one side, putting one hand against the shoulder and the other against the hip. Roll the lower sheet up in lengthwise folds against the patient, put on the fresh sheet and the draw sheet and pin in place. Protect the patient with the upper sheet, and roll him over on to the spread-out portion of the clean sheets. Pull the lower sheet smooth and pin. Put a clean upper sheet on over the soiled one, tuck in the clean one, and remove the soiled one. It is scarcely necessary to emphasize the fact that in changing the bedding, everything should be aired, warmed and at hand, so that there need be no delay. Double beds make good sick beds, as the patient can sleep on one half during the day and the other half at night.—[Exchange.

Punctuality meets an engagement;  
Promptness meets a situation; and pro-  
ficiency meets both.—Poor Richard.

Home

The Ingle Nook.



Jenny Lind.

(As she appeared in La Sonnambulata.)

JENNY LIND.

Some time ago one of our members asked for a picture and sketch of Jenny Lind. I have been waiting to find all the data possible about her. In reading over the history of her life this morning, I have been especially impressed with one thing, the fact that, in spite of repeated hindrance and discouragement, she triumphed. But it was not without work. Talent, ambition, application—these are the three graces which spell success in any walk of life, and they must go hand in hand, else much is lost. Whether the talent is great or small this is true.

Jenny Lind was a Swede, born in Stockholm, in October, 1820. Almost from infancy she could sing, and when about nine years of age she was sent to the musical academy at Stockholm, where her progress was so remarkable that inside of a year she was given parts of operas to sing on the stage. For two years, she was the wonder of Sweden, then suddenly her voice failed, and for four years she was not permitted to use it. This period, however, she devoted assiduously to instrumental music. When she was about sixteen, an accident to one of the unimportant singers in one of Meyerbeer's operas was the occasion of her being brought before the public again, and to the surprise and delight of everyone, it was found that her voice had returned to her with even more than its old-time sweetness and purity. She was immediately invited to take a leading part in Weber's Freischutz, and for two years was the leading prima donna of the Swedish Capital. But she was not yet satisfied. She felt that she was capable of still further development, and so went to Paris to study under Garcia, then the first singing master in Europe. Notwithstanding her successes, Garcia gave her very little encouragement; but she plodded bravely on. After a time she was introduced to Meyerbeer, who instantly recognized her power, and was the means of securing for her an invitation to sing in Berlin. There, in 1845, she achieved her first great success. Subsequently she sang in all the larger European cities, and finally, in 1847, went to England, where, in London, she created a sensation "almost without a parallel in the history of the opera." For three years more she sang here and there in Europe in oratorios and light operas, then she came to the United States under contract with P. T. Barnum, to give a series of 150 concerts. New York immediately went wild over her. The tickets were put up at auction, and it is on record that one man, a hatter, paid several hundred dollars for the choice of the best seat. Her first concert netted her \$10,000, but she bestowed the most of it on local charities. Subsequently, she visited other American cities, and, while in Boston, was married to Herr Otto Goldschmidt, a young pianist who had accompanied her for some time. On returning to Europe, the Goldschmidts lived for a few years at Dresden, but finally removed to London, where, as professor in the Royal Academy of Music and trainer of

the Bach choir, "Jenny Lind" continued to wield an influence in the musical world unequalled, perhaps, in her days of public singing. Her voice was a soprano, embracing a register of two and a half octaves.

RE ICE CREAM.

Dear Dame Durden.—I wish you would tell me how to freeze ice cream successfully without a freezer. I have tried it several times, but it will not freeze. I think the Ingle Nook is very interesting, and in it many can find out things which they know nothing about themselves. A MOUNTAIN FLOWER.

Lincoln Co., Ont.

You had only to "rub the lamp" and the genie appeared, Mountain Flower. The following recipes, telling all about it, were held over from last year. I may say here that my favorite ice cream contains no eggs, but is simply made of pure cream, sweetened slightly, flavored, whipped until frothy, then frozen. It may be flavored with vanilla, with crushed strawberries, or with melted chocolate. Since ice-cream freezers are so cheap nowadays, it seems almost a pity to be without one. After ice cream is frozen, it should either be packed in a mould or pressed down solidly to the bottom of the can, and left an hour or more to ripen before being served.

Dear Dame Durden.—I think I am indebted to nearly all the Chatterers for some recipe or suggestion, and although I have never written before, it was not for lack of interest in the Ingle Nook. I often think, as grandma says, how would we ever keep house without the helpful hints derived from "The Farmer's Advocate"?—for I don't think many of us stop at the Ingle Nook.

To make ice cream for about six or eight persons, I take about one quart of milk, set on the range, and, when at boiling point, add about two teaspoonfuls cornstarch dissolved in a little milk. Let this boil a few minutes, but be careful not to let it burn. Add three eggs well beaten, and remove from the range. I do this with my noon fire. Then set away to cool. When cold, add a quart and one-half or two quarts of cream, and sweeten, and flavor to taste. I put this mixture in the large part of my double boiler, but anything with a closely-fitting lid will do. Then set in the butter bowl, and pack ice, finely chopped, closely around it, adding a few cups of salt. Be very careful not to let any of the salt get into your ice cream. Now, I sit down and whirl my dish around until the mixture begins to stick to the sides of it. Take a spoon and scrape it off, and thus continue until you have ice cream, which will not be long. When frozen, drain off the water. Add more ice and salt, if necessary. Cover closely, and leave until you are ready to use it. I can have it ready for the men's supper quite easily, and there is no dessert they enjoy more on a sultry summer day. With regard to separator-cream whipping, I may say that we have a separator, and I have never had the slightest difficulty in getting it to whip. GREY EYES.

Bruce Co., Ont.

Dear Dame Durden.—I always enjoy "The Farmer's Advocate"; it is so helpful. As a farmer's daughter is wishing to know about ice cream, I thought perhaps I could help a little along the way. I have often made it without a freezer. I take a small pail with a lid on (a ten-pound honey pail) for the cream, and set it in a larger one. Take ice and salt (a dipperful of salt to two of ice finely crushed), mix it together, then put it around the small pail in the large one, and keep the small pail turning. It soon begins to freeze, but has to be scraped off with a knife and stirred up as it freezes.

Ice Cream.—Two eggs, 1 cup of sugar (granulated), 1 tablespoon of cornstarch, 3 cups of milk, 1 cup of cream, flavor with vanilla. Take the yolks of eggs and milk and cornstarch, mix well, and stir on the stove till it thickens. Then set away to cool. Beat white of eggs stiff, and whip the cream. Mix all together, flavor, and freeze, and you will have a delicious ice cream. You can whip the separated cream splendidly with an egg-beater, but have your cream twenty-four hours old, or even thirty-six. You cannot whip fresh cream as well.

MRS. A. H.

Dear Dame Durden.—First, if you want

good hard ice cream, take 1 quart of milk (not cream), put it in a double boiler; beat up 2 eggs and 1 cup of granulated sugar, and put this in the milk when it boils. Then mix 3 or 4 teaspoonfuls of cornstarch in half a cup of milk. Stir this into the boiling milk. When this is cooked, remove from the stove, and let cool. If you want 3 quarts of ice cream, add 2 quarts of cream to this, and then flavor all with any flavor you desire. Do not use too much separator cream, it is better mixed with milk. Now for our homemade freezer: Take a good-sized pail, put some broken-up ice in the bottom and some coarse salt, then have your cream in some small pail or sap can (I use a sap can), and set it in the other pail; fill up all around with ice and salt, and stir the can half round until the cream is frozen. If water comes in your pail, you will have to lift out your can and empty the water off, as it will not freeze with water in the pail. If you have some old pail you don't need, bore holes in the bottom, and then the water will run off and save a lot of work and trouble. It usually takes 20 to 30 minutes to freeze.

WEARY WANDERER.

Russell Co., Ont.

THE CHARGE OF THE MAD BRIGADE.

(With acknowledgments to Tennyson.)

Half a block, half a block,  
Half a block onward,  
Packed into trolley cars  
Rode the six hundred.  
Maidens and matrons hale,  
Tall spinsters, slim and pale,  
On to the Bargain Sale,  
Rode the six hundred.

Autos to the right of them,  
Hansoms to the left of them,  
Flying trains over them,  
Rattled and thundered.  
Forward through all the roar,  
On, through the crowd they bore,  
To Price and Seller's store  
Rode the six hundred.

When at that mart of trade,  
Stern-faced and unafraid,  
Oh, the wild charge they made!  
All the clerks wondered.  
Theirs not to make reply,  
Theirs not to reason why,  
Theirs but to pacify  
All the six hundred.

On bargains still intent,  
Homeward the buyers went,  
With cash and patience spent,  
And friendships sundered.  
What though their hats sport dents—  
What though their gowns show rents—  
They have saved thirty cents;  
Noble six hundred.

—Woman's Home Companion.

MY GRANNIE.

My mother says her Grannie 'd sit  
Beside a fire all day, and knit;  
She wore a black gown every place,  
With cuff and collar of rich lace;

A shawl and bonnet out; when in,  
A cap with strings beneath her chin;  
She'd shake her head and sadly say:  
"Children were different in my day."

My Gran' can skate, play golf or sew,  
And go where other ladies go.  
She often bicycles till lunch;  
She took me to a circus once.

We always have some lovely plan  
When I go out alone with Gran'.  
She wears a hat and dainty gown,  
Of grey, or blue, or fawn, or brown.

At Auntie's tea she looked so fair,  
A soft pink rose next her white hair;  
She's like a picture; when I'm old  
I mean to do the same, and hold

All of life's treasures firm and fast,  
Thus gracefully grow old at last.  
No doubt old Gran's were nice; the new  
Are better still, I think, don't you?

—Katherine A. Clarke.

Ambition is generally a desire to do something we can't.

About the House.

PICNIC FANCIES.

Chicken Paste for Sandwiches.—To 4 cups minced chicken, add 1 cup minced ham. Season with salt, pepper, mustard and tomato catsup; add enough of the liquor in which the chicken was boiled to mix the meat to a paste. Spread between slices of buttered bread, with a lettuce leaf between.

Mint Sandwiches.—Infuse a tablespoonful of shredded peppermint leaves in two of hot water, strain, and add 1 pint of thickly-whipped cream, a dash of salt, white pepper, and  $\frac{1}{2}$  ounce gelatine softened in a tablespoon of cold water and dissolved over hot water. Let cool in a square mould, then slice, and use for sandwiches.

Nut Sandwiches.—Mince very finely any kind of nuts, season with salt, and mix with cream, or add a little mayonnaise, if liked, and spread between sandwiches on a lettuce leaf.

Jellied Chicken.—Boil 2 chickens until the meat is easily removed from the bones. Put the meat in alternate layers, dark and white, into an earthen dish, and over each layer sprinkle a little white pepper and salt. Boil down the liquor in which the chickens were boiled until it makes a pint; let this cool, and just before it begins to jelly pour over the meat. Put a rather small cover on to allow for evaporation, press down with a weight, and set away in a cool place. If the chickens are not quite young, it will be necessary to add a little gelatine in the broth to stiffen it.

Veal Loaf.—Three lbs. veal and  $\frac{1}{2}$  lb. salt pork minced fine; seasoning of salt, pepper and sage, 2 eggs, 1 cup powdered crackers. Mix together well; make into a loaf, and pack in a loaf-pan. Bake one hour. Serve cold, cut in slices.

Veal Roll.—One slice of veal from the leg, cut half an inch thick. Remove the bone and tough portions, and lay on a hardwood board. Scatter the fat over it, and pound out thin, lapping it out where broken. Next cover with a thin layer of finely-shaved ham or tongue. Chop fine 2 thin slices of fat salt pork; mix it with four crackers rolled fine, season with salt, pepper, lemon and onion juice. Moisten with hot water or veal stock to make it hold together, and spread over the meat. Roll up, and tie tightly. Wrap a piece of cheesecloth around, and tie at the ends. Put it in a kettle; cover with boiling water, adding one sliced onion, one teaspoon mixed whole spice, also the bones and clean trimmings of the veal. Let it simmer three hours, then let it cool in the liquor until you can handle it without putting a fork in it. Now, put it in a brick loaf-pan, with another pan, weighted, on top. When ready to serve, remove the strings and cloth, and slice, with garnishings of lettuce or water-cress and slices of lemon. This may be used for sandwiches, with a dash of horse-radish spread over.

Tongue.—Wash a beef tongue; boil it; then skim while hot, and curve in a bowl in which it will fit snugly. Put a saucer and weight on top, and let cool.

SUMMER DRINKS AND ICES.

Lemon Syrup.—Grate the rind of 6 lemons with lumps of sugar; squeeze, and strain their juice. To a pint of juice, add a pint of water and 3  $\frac{1}{2}$  lbs. sugar, beside what was rubbed on the lemons. Place in an enamelled pan, and when the sugar is dissolved over a gentle heat, the syrup may be bottled.

Blackberry Cordial.—To a peck of berries well mashed, add 1 ounce each of cinnamon and cloves and 2 ounces allspice, all well pulverized. Mix and boil slowly until done; then strain the juice through a bag, and add to each pint of juice a pound of white sugar. Boil, again, 15 minutes, and remove from fire. When the syrup is cooling, a little brandy may be added, if wished.

Hop Beer.—Two quarts dry hops, 1 quart molasses, 3 tablespoons ginger, 12 quarts water, 1 cake yeast, 1 tablespoon wintergreen essence. Steep the hops very slowly for two hours in 2 quarts water, then strain, and add rest of ingredients, adding the water first to make the whole tepid before adding the yeast cake. Let all stand in an earthen jar 12 hours, then strain and bottle.

Iced Coffee or Tea.—Make tea or coffee,

sweeten well, chill on ice, and serve with a slice of lemon in it.

**Elderberry Wine.**—Mash the berries, cover with cold water, and let stand 9 days, stirring every 2 days; then strain, and put 1 cup sugar to 2 cups juice. Stir till dissolved, and let stand 9 days more. Skim every second day; then bottle. Berries must be very ripe, and little more than covered with water.

**Currant Shrub.**—Stem red currants, place in a jar, cover, set in a dish of hot water, and cook until the juice is well extracted. Put into a flannel bag, and drain. For every pint of juice allow 1 lb. sugar and boil five or six minutes. Remove, stir until cold, and bottle. To prepare as a beverage, fill a glass with chipped ice, pour in 2 tablespoons shrub, and fill with cold water.

**Cold Chocolate.**—This most refreshing summer drink is made by cutting into small bits 1 ounce of unsweetened chocolate. Put this into a graniteware saucepan, and gradually pour over it half a pint of boiling water, stirring all the time over the fire, until the chocolate is quite smooth. Add one pint of granulated sugar and stir until it begins to boil. Cook a moment or two longer, then strain and let cool. When quite cold, add one tablespoonful of vanilla extract. Bottle and keep in a cold place. When ready to serve it, put into a tall glass 1 tablespoonful of cracked ice, 2 tablespoonfuls of the chocolate syrup, 3 tablespoonfuls of whipped cream,  $\frac{1}{2}$  a cup of milk and a dash of soda water from a siphon bottle, and a tablespoonful of vanilla ice cream. This is a delicious drink, even if the soda water and ice cream are omitted.

**Caramel Ice Cream.**—One cup thin cream, 4 teaspoons sugar, 3 tablespoons boiling water, vanilla to flavor, a pinch salt. Put sugar in a saucepan, and brown slightly, add the water, and boil to a syrup, add the cream, vanilla and salt, and freeze.

**Iced Coffee with Cream.**—Add 4 tablespoons sugar and 1 cup very strong coffee to 1 quart boiling milk. Let stand  $\frac{1}{2}$  hour. Turn into an ice form, and leave packed in ice and salt  $\frac{1}{2}$  hour. Stir well, and mix in 1 pint whipped cream. Iced tea is made in the same way.

**Ice Cream.**—Take pure cream, sweeten and flavor it. Whip until frothy, then freeze. Mix in chopped nuts, if liked.

**Lemon and Orange Ice.**—Four lemons, 4 oranges, 1 lb. sugar, whites of 6 eggs. Strain the juice of the fruit; add 1 quart water. Pour in the sugar and beaten whites, and freeze, churning hard.

### SEASONABLE RECIPES.

**Cherry Pudding.**—Two eggs, 1 cup milk,  $1\frac{1}{2}$  cups flour, 1 tablespoon melted butter,  $\frac{1}{2}$  teaspoon salt, 1 teaspoon baking powder, 2 lbs. cherries. Beat the eggs well, add to them the milk, salt and butter, then the flour, with the baking powder sifted in. Turn into a greased baking tin. Lay the stoned cherries on top; sprinkle thickly with sugar, and bake in a quick oven for 25 minutes. Serve hot with sauce. If you wish, you may stir the cherries into the batter, and steam 1 hour.

**Strawberry Floating Island.**—Make a custard of 1 quart milk, yolks of 4 eggs, 1 tablespoon cornstarch, and 1 cup sugar, as follows: Beat the yolks with  $\frac{1}{2}$  cup of the milk. Dissolve the cornstarch in  $\frac{1}{2}$  cup of the milk, and stir the two mixtures together. Let the remainder of the milk come to a boil, then add the mixture, and cook until creamy. Last of all, add 1 teaspoon salt and the sugar. Take from the fire, and, when cool, add enough lemon juice to flavor. Have 1 pint strawberries and  $\frac{1}{2}$  cup sugar mashed together, and let stand an hour. Whip the whites of the eggs until stiff; add 2 tablespoons pink sugar and the juice strained from the berries. Place this pink mixture, by the spoonful, on the custard; set in a cool place for a little, then serve.

**Strawberry Souffle.**—Place a layer of berries in a glass dish, sprinkle with sugar, then add a layer of berries, and so on, until the necessary quantity of berries has been used. Let stand on ice 4 hours. For 1 quart berries allow the following: One pint milk, 2 eggs, 2 tablespoons sugar, 1 teaspoon vanilla, pinch salt. Make a boiled custard of these, and set on ice. Just before serving, whip to a froth  $\frac{1}{2}$  pint cream, add 1 tablespoon sugar, pour the custard over

the berries, and place whipped cream on top.

A Delicious Dessert is made by placing stale layer cake in the bottom of a dish, covering with berries and custard as above, then with a sprinkling of chopped nuts before the whipped cream is added.

**To Can Cherries.**—Pit the cherries. Put in a granite kettle, and let come to a boil. In another kettle, make a syrup of sugar and water. When the cherries come to a boil, skim them out into the syrup, and when again boiling, seal. Cherries done in this way are mild and delicious. Make the left-over juice into a fruit syrup by boiling down with sugar and bottling. This syrup may be used, mixed with water, for a summer drink, or for flavoring sauces, ice cream or mincemeat.

**Cherry Pie.**—Line a piepan with pastry, and fill not quite full with pitted cherries; sprinkle over them a heaping teaspoon of cornstarch (a tablespoonful, if they are very juicy), a small cup of sugar, and dot with bits of butter. Cover with pastry, pressing down well at the edges. Through a hole in the center, place a funnel-shaped roll of white paper to prevent the juice from escaping.

**Black Cherry Pie.**—Use a deep pie dish. Line with pastry, and fill with unstoned cherries. Add a pinch of salt, and sugar to taste. Dredge the top with flour, and cover with pastry. Make a good hole in the top and insert a paper funnel, then bake.

**Onion and Lettuce Salad.**—Wash the tender leaves of two lettuce heads, and crisp them one hour in cold water. Peel one small Spanish onion, and cut into thin shavings. Shake the lettuce free from water, and arrange in a bowl in alternate layers with the onion slices, sprinkling on each a little dressing made of 6 spoonfuls of oil or melted butter, 3 of vinegar, a dash of salt and pepper. Serve at once.

**Dutch Lettuce.**—Cut  $\frac{1}{2}$  lb. ham or bacon into dice, and fry until crisp. While hot, add 2 tablespoons vinegar. Beat an egg well, add to it 2 tablespoons sour cream, and add to the ham. Stir all over the fire until thick, and pour while hot over lettuce. Stir with a fork, and serve at once.

**Sour-cream Salad Dressing.**—One cup sour cream, 1 teaspoon sugar, 1 tablespoon lemon juice, 1 small teaspoon salt, dash of cayenne, 3 tablespoons vinegar. Mix the dry ingredients in a bowl. Add the lemon juice, and then the vinegar. Beat till smooth, then add the cream, and set on ice till needed. Use for any vegetable salad.

### HAVEN'T YOU FELT THAT WAY?

Haven't you often worn goggles of blue, And, seeing Life's sham and its shame, Felt it was all a big scramble, and you Might as well get into the game? That nothing much mattered but a big bunch of cash, And the man who was good was a jay, And the whole blooming country was going to smash; Haven't you, haven't you felt that way?

Haven't you felt it was hardly worth while To try to live up to your best? And haven't you smiled a cynical smile— And something way down in your breast Whispered Life had a prize that was higher than gold And sweeter than fame or display, And the faith that slipped took a brand-new hold; Haven't you, haven't you felt that way?

And didn't a peace come near that was far, And urge you to strive toward it still? And didn't you turn your face to a star, And didn't you say: "I will!" And weren't you stronger and didn't you find The world was better, and didn't it pay To be brave and patient and cheery and kind? Haven't you, haven't you felt that way? —Maurice Smiley, in Collier's Weekly.

Men who ride hobbies would not be half so objectionable if they did not want all the road to themselves.—M. H.

## The Young People's Department.

All letters intended for Young People's Department must be addressed to Cousin Dorothy, 52 Victor Ave., Toronto.

### ON HOBBIES.

#### III.

#### NATURE STUDY.

A great many hobbies may be included in this rather dull-sounding name. (At least, it sounded dull to me, until a friend of mine took me out one day into the garden, and showed me three or four birds that I had never noticed before. After that, Bird-study at least became one of my most exciting pursuits.) Of course, I could not say much about them all in such a small space, and, indeed, I have very little practical experience of this hobby, because I wasted my time when I lived in the country, which I hope none of you will do. We ought to have some letters from those who know something about these things. There are, I am sure, a great many boys who could give an account of the eggs, the habits, and the appearance of birds some of us have never seen. And the same with plants—how few of us know the names of the most common weeds along the roadside. Won't some interested person be so kind as to tell us how he comes to know all about them. It is a puzzle to discover the names of even the commonest weeds. There are a great many in my garden, I am sorry to say, but the only names I know are dandelion, lamb's-quarter, and twitch. I suppose the best way would be to get a book with descriptions of Canadian plants, and some good pictures. Perhaps you learn botany at the High School, and your teacher could tell you the name of a good book to get. Then please hand on the information to us. Botany is endlessly interesting; you find more and more in it as you go on. You might make a specialty of ferns, for instance, and yet never come to the end of the different varieties you would discover. There is another thing we would like to know from somebody, how to press and preserve specimens of plants and leaves, because we want to have something to show for our trouble. I dare say ordinary mucilage would do to fasten the pressed specimens to heavy paper, which might be made into a large book.

Then, there is the insect world, about which one could talk all day. I never heard of a girl who had made a collection of butterflies or bugs, no doubt because it seems cruel to kill the poor things; but boys, with no such scruples, have often very fine collections, and we girls have no objection to admiring them. We can do more, though, without hurting any insect's feelings: we can observe their curious ways (that is, if we are not afraid to come too close, as a good many of us are). With regard to both birds and insects, I should be much pleased to have printed in this column short descriptions of the varieties any of you may have seen, if you will take the trouble to send them to me, for the information of others who have not been so fortunate.

This does not close the list of nature-studies, by any means. The complicated science called geology seems to be quite as fascinating to some people as any of the easier branches, and nobody who has ever read or heard anything of the marvellous science of astronomy can help wishing that he had a telescope of his own, and could become a star-gazer on his own account. Get one of Proctor's books on Astronomy out of your library, and see if you are not quite carried away.

Now, my dear readers, I have laid out a rich feast of hobbies for you, take your choice, and begin, and tell me the result. For my part, I am sure that there would be no discontented people in the country if everybody took Shakespeare's advice, and found—

"Tongues in trees, books in the running brooks, Sermons in stones, and good in everything."

### WHEN MILKING-TIME IS DONE.

When milking-time is done, and over all  
This quiet Canadian inland forest home  
And wide, rough pasture lots the  
shadows come,  
And dews, with peace and twilight  
voices fall,  
From moss-cooled watering-trough to  
foddered stall  
The tired plow horses turn, the barn-  
yard loam,  
Soft to their feet, and in the sky's  
pale dome,  
Like resonant chords, the swooping night-  
jars call.

The frogs, cool-fluting ministers of dream,  
Make shrill the slow brook's borders;  
pasture bars  
Down clatter, and the cattle wander  
through—  
Vague shapes amid the thickets; gleam by  
gleam  
Above the wet grey wilds emerge the  
stars,  
And through the dusk the farmstead  
fades from view.

—Charles G. D. Roberts.

### THE MAID OF THE HOUSE.

An English paper prints the following story told by Lady Aberdeen in her address on Women in Canada. As an instance of the capability and adaptability of the Canadian girl, it is of interest, and value as an example to other girls: "On one occasion, when the Governor-General and I were travelling across Canada, we were to dine one night at a house remarkable even amongst Canadian homes for its charm and beauty, presided over as it is by one of the most attractive of mistresses. A 'recherche' repast was laid out before us, and we were waited on by so trim a parlor maid, so deft in her movements, so irreplicable in her cap and apron, that Lord Aberdeen felt constrained to compliment our hostess on the results of her training. 'Oh,' said the lady, 'I am so glad you think Jane did well—I should like you to tell her so presently.' And when that presently came, what did we discover, but 'Jane' arrayed in evening dress and proving to be the daughter of the house—who, in consequence of the unexpected departure of the servant, had not only to wait on the table but to cook the meal, with the assistance of her mother, an adept in such matters."

### IT WAS HIS DOG.

An automobile dashed along the country road. Turning a curve, it came suddenly upon a man with a gun on his shoulders and a weak, sick-looking old dog beside him. The dog was directly in the path of the motor car. The chauffeur sounded his horn, but the dog did not move—until he was struck. After that, he did not move.

The automobile stopped, and one of the men got out and came forward. He had once paid a farmer \$10 for killing a calf that belonged to another farmer. This time, he was wary.

"Was that your dog?"

"Yes."

"You own him?"

"Yes."

"Looks as if we killed him."

"Certainly looks so."

"Very valuable dog?"

"Well, not so very."

"Will \$5 satisfy you?"

"Yes."

"Well, then, here you are." He handed a five-dollar bill to the man with the gun, and added, pleasantly, "I'm sorry to have broken up your hunt."

"I wasn't going hunting," replied the other, as he pocketed the bill.

"Not going hunting? Then what were you doing with the dog and the gun?"

"Going down to the woods to shoot the dog."—[Youth's Companion.

Little Willie.—Papa, why does the railway company have those cases with the ax and saw in every car?

Father.—I presume they are put in to use in case anyone wants to open a window.

If a man is unhappy, this must be his own fault: for God made all men to be happy.—Epictetus.

A TERRIBLE NIGHT.

By Anton Tchekhof.

The author of this story, the late Anton Tchekhof, one of the foremost writers of modern Russia, received from his contemporaries the appellation of "The Russian Maupassant." He undoubtedly shared with the brilliant Frenchman the gift of short-story telling; also his pessimism, untainted, however, with the latter's morbidity. His pessimism was philosophical rather than temperamental. He had brooded long over the riddle of the universe, and come to the conclusion that life is futile. Most of his later books were enshrouded in an atmosphere of gloom. Only at rare times, as in the present story, a touch of humor suddenly illuminates the shadow that darkens his page.

Jean Petrovitch Panikhidine, paling, turned down the wick of the lamp and began in a voice full of emotion:

"An impenetrable, gloomy fog was enveloping everything one night in November, 1883, as I was returning home from the house of a dead friend where we had been holding a long spiritualistic seance. The narrow streets on my route were for some unknown reason but poorly lighted, and I was obliged to grope my way ahead. I was living in Moscow, near the Church of the Resurrection, in the house of a public employee whose name was Troupof—that is to say, in one of the most deserted parts of the Arbate quarter. As I walked along my thoughts were of a painful and overwhelming nature.

"Your life approaches its end. . . . Repent. . . ."

"Such was the phrase which had been addressed to me by Spinoza, whose spirit we had evoked at the seance. I had demanded its repetition, and not only was it repeated, but there was an addition: 'To-night.'

"I do not believe in spiritism, but the idea of death or a mere allusion to death fills me with sadness. Death is inevitable, gentlemen, it is the common lot; but, nevertheless, death is contrary to human nature. Now that the cold and impenetrable darkness was enshrouding me, and the furious rain-drops madly whirling before my eyes, while overhead the wind was plaintively wailing; now when I could see not a living soul around me and could hear no human voice, my whole being was seized with an undefinable, inexplicable fear. I who had no superstitions, hastened my steps, fearing to look back or even to glance aside. It seemed to me that if I dared look behind me I should surely see the ghost of the dead man."

Panikhidine sighed heavily, drank a little water and continued:

"This undefinable fear, you will understand, did not leave me even when, having mounted the four flights of stairs of Troupof's house, I opened my door and entered my room. It was dark within my modest dwelling. I could hear the weeping of the rain through the stovepipe; it was beating on the draft doors as though beseeching hospitality.

"To believe Spinoza," said I to myself, smiling. "I shall have to die to the sound of this wailing. All the same it is painful!"

"I lit a light. A furious blast of wind swept over the roof of the house. The calm wailing changed to a wicked roar. Somewhere below a counterblast produced a knocking sound and the draft vent began to cry plaintively for help.

"It is a hard thing to be without shelter on such a night," thought I.

"But there was no time to abandon myself to reflection. As the sulphur of my match began to burn with a blue flame and as my eyes were searching the room, an unexpected and terrible sight was presented. . . . What a pity some blast of wind did not extinguish the match! Perhaps then I should have seen nothing and my hair would not have stood on end. I uttered a cry, took a step toward the door, and, filled with fright, despair and amazement, I closed my eyes.

"In the middle of the room was a coffin!"

"The blue flame did not burn long, but I had had time to discern the outlines of the coffin. . . . I had seen the glittering red brocade with its spangles. I had seen the gold cross in passementerie on the cover. There are things, gentlemen, which engrave themselves on the

memory, though one sees them but for a moment. It was thus with this coffin. I looked at it for a second only, but I remember its slightest details. It was a coffin made for a person of medium height, and, judging from its crimson color, it seemed destined for a young girl. The expensive brocade, the supports, the bronze handles, everything told that the dead occupant had been wealthy.

"I rushed from the room with all speed, and without reflecting, without thinking, but wholly under the influence of an inexpressible fear. I descended.

"The corridor and the staircase were in darkness, my feet became entangled in my pelisse, and I am surprised that I did not fall and break my neck. Reaching the street, I leaned against a lamp-post and began to compose myself. My heart was beating terribly, my respiration had ceased."

One of the ladies who was listening turned the lamp lower, and drew nearer the story-teller, who continued:

"I should not have been astonished had I found my room on fire, or encountered a thief or a mad dog. . . . I should not have been astonished had the ceiling fallen, or the floor given way or the walls tumbled in.

"All that would be natural and comprehensible. But how could a coffin have made its entrance into my room? Where did it come from? It was an expensive coffin, designed for a woman, evidently for a young aristocrat. How could it have fallen into the poor apartment of a small employee? Is it empty or does it actually contain a body? Who was this young patrician who had abandoned this life forever and paid me the strange and terrible visit? Poignant secret!"

"If this is not a miracle, it is a crime," such was the thought that came to my mind.

"I was lost in conjectures. During my absence the door had been fastened and the place where we kept the key was known only to myself and to some intimate friends. But no friends had ever brought me this coffin. It might possibly be surmised that the coffin had been brought to me by mistake by the undertakers. Wrongly directed, they had made an error and brought the coffin where it was not needed. But everyone knows that our undertakers never go on a job until they first have been paid or at least furnished with drink money.

"The spirits have foretold to me my death," thought I. "Have they not possibly taken the trouble to supply me with a coffin?"

"I do not believe in spiritism, gentlemen, and never have believed in it, but a coincidence like this gives a mystical turn of mind even to a philosopher.

"I concluded that the whole thing was a piece of folly and that I had been scared like a mere student. It was an optical illusion, nothing more. Returning under the mastery of such gloomy impressions, it was not strange that my sick nerves had conjured a coffin before my eyes. Most certainly it was an optical illusion! What else could it possibly be?"

"The rain beat against my face and the wind was tossing my coat, skirts and hat. I was numb with cold and wet to the bone. It was necessary to go somewhere, but where? To return home was to risk seeing the coffin again, and such a sight was beyond my strength. Without a living soul in sight, without a human voice within hearing, to remain alone face to face with this coffin in which was a corpse, perhaps—this would be to visit the loss of one's reason. To remain in the street exposed to the torrential rain and exposed to the cold was equally impossible.

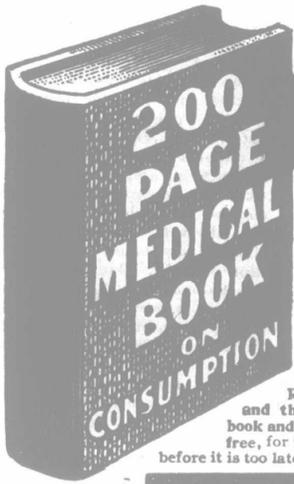
"I decided to go and pass the night with my friend Oupakojef, who, later, as you know, committed suicide. He was then living in the Hotel Tcherepof, Rue Meustvy.

Panikhidine wiped away the cold sweat which was running down his pale face, and heaving a painful sigh, continued:

"I did not find my friend at home. Having knocked at his door and being convinced that he was not in, I felt for the key on the shelf over the door, and fitting it into the lock, entered. I threw my wet coat on the floor, and touching a sofa, I sat down to rest myself. It was dark. In the ventilating shaft the wind was howling sadly. In the stove a cricket was making its monotonous chant. I hurriedly struck a match. But the

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light did not relieve my melancholy—quite the contrary. A terrible and inexpressible fear seized me anew. . . . I uttered a cry, stumbled, and losing all control over myself, hurled myself out of the room.

"In my friend's room, as in my own, I had just seen a coffin!

"My friend's coffin was almost twice as large as mine, and its chestnut garnishing gave it a particularly mournful aspect. How came it there? It was impossible to doubt, now, that this was an optical illusion. It was not possible that there could be a coffin in every room! Evidently this was some nerve malady. It was an hallucination. It mattered little, now, where I went; I should see everywhere before me the frightful image of death. Evidently I had become mad; I had been seized with a mania for coffins, and the cause for my madness was not far to seek. The spiritualistic seance and the words of Spinosa explained it.

"I am going mad! I thought with horror, as I held my head in my hands. My God! What shall I do?"

"My head was bursting, my legs gave way under me. . . . It was raining in torrents, there was a piercing wind, and I had neither coat nor hat. To return to the hotel for them was impossible. Fear was contracting my limbs. My hair was standing on end, a cold sweat was pouring down my face—in spite of my belief in an hallucination.

"What was to be done?" continued Panikhidine. "I was going mad and was in danger of taking cold. Fortunately I recollected that not far from the Rue Meustvy lived a good friend of mine, Dr. Pogostof, who recently had obtained his diploma and who, moreover, had assisted with me at the spiritualistic seance. I hastened toward his house. He had not married the rich lady, who has since become his wife, and he lived on the fifth floor of the house occupied by the councillor of state, Kladbischeuski.

"It is to be recorded that at Pogostof's my nerves underwent new torture. While mounting to the fifth story I heard a terrible noise. Overheard someone was rushing about, stamping his feet and slamming doors. I heard piercing cries: 'Come here! help! concierge!' and a moment afterward there descended upon me a melancholy shadow wearing a coat and a battered silk hat.

"Pogostof!" cried I, recognizing my friend. "It is you! What has happened?"

"Reaching my side, Pogostof stopped and seized me convulsively by the hand. He was pale, breathed with difficulty, and was trembling. His eyes were haggard and his breast was heaving.

"Is it you, Panikhidine?" he asked in a hoarse voice. "But is it really you? You are as pale as a ghost come from the grave. . . . But are you not an hallucination? . . . My God! You are frightful!"

"But, what is the matter with you? You are all in disorder!"

"Ah, dear friend, let me breathe. I am content merely to see you, if, indeed, it be you and not another hallucination. A curse on spiritism! It has so shaken my nerves that, on returning home, imagine it, I saw in my room—a coffin!"

"I could not believe my ears, and I begged him to repeat it.

"A coffin, an actual coffin," said the doctor, seating himself with great effort upon a stool. "I am not timid, but the devil himself would be frightened if he saw a coffin loom up before him in the darkness.

"I gave the doctor a stammering account of the coffin I had seen.

"For a whole minute we looked at each other in open-mouthed astonishment. Finally, to convince ourselves that we were not laboring under hallucinations, we began to pinch each other.

"Both of us can feel the pain of that," said the doctor, "consequently, we are not asleep, but wide awake. Consequently, the coffins, mine and yours, too, were not optical illusions; they exist. What shall we do now, my friend?"

"After remaining a whole hour on the staircase, shivering, lost in conjectures and suppositions, and perishing from the cold, we decided to get the better of our cowardice, and to rouse the servant in order that we might enter the doctor's rooms in his company. We did what we had decided upon. Entering the room, we lit a candle, and, true enough, we saw

a coffin garnished with gold, fringed with white brocade and acorns. The servant piously crossed himself.

"Now," said the doctor, pale, and trembling in all his limbs, "we shall know whether the coffin is empty or not."

"After hesitating a long time the doctor, his teeth chattering from fear and expectation, bent over and raised the coffin pall.

"We looked; it was empty.

"There was no body in it, but to make up for this absence we found a letter which said:

"My dear Pogostof: You know that my father-in-law's affairs are in a bad way. He is head and heels in debt. Tomorrow, or the day after, he will be seized by the sheriff. This would be a fatal blow for his family and mine; and our honor, which I rate above all else, would be tarnished. Yesterday in family council we decided to conceal everything of any value. As the whole fortune of my father-in-law consists of coffins (he is the finest maker of caskets in the city, as you know), we have decided that the most beautiful shall vanish. I address you as a friend; save my fortune and our honor! In the expectation that you will be willing to do me this service, I send you, dear friend, a coffin which I beg you to keep for me till I send for it. Without aid from our friends and acquaintances we are lost. I hope that you will not refuse me this, as this coffin will not be permitted to remain with you more than a week. To all those I consider my true friends I have sent a similar message, and I count upon their generosity and their integrity. . . . Your loving friend, . . . JEAN TCHELOUSTINE."

"After this adventure, I nursed my shattered nerves for three months; our friend, the son-in-law of the coffin manufacturer, saved his honor and his possessions; he now heads an establishment for the sale of funeral supplies. The business is not a very prosperous one, and every evening on my return home I dread seeing near my bed a white marble monument or a catafalque."—[Current Literature.

## Current Events.

Sixty officers of the militia in Russia have been arrested for mutiny.

\* \*

The Supreme Court has upheld the validity of the local-option by-law in Owen Sound.

\* \*

A mutiny in the militia has followed the revolt of the Narbonne wine-growers in France.

\* \*

The British Government is sending expert officers to Canada, Australia and New Zealand to report upon the coast defences.

\* \*

A committee has been appointed by the British Government to consider the proposals for a subsidized steamship line between Great Britain and Canada.

\* \*

Premier Campbell-Bannerman's resolution to curtail the power of the British House of Lords, has been enthusiastically carried by the House of Commons. His proposal is that provision should be made for conferences between the two Houses, but that, when differences arise, the Commons shall be empowered to pass a bill over the heads of the Lords.

It was on a suburban train, the young man in the rear car was suddenly addressed by the woman in the seat behind him.

"Pardon me, sir," she said, "but would you mind assisting me off at the next station? You see, I am very large, and when I get off I have to go backward, so the conductor thinks I am trying to get aboard and helps me on again. He has done this at three stations."

## FORTY YEARS AGO.

By Nixon Waterman.

I wandered to the college, Tom, where you and I were mates  
And crammed our heads with learning till we nearly split our pates.

The tutors thought that quite the thing in those old times, but, oh!  
They don't do now the way they did some forty years ago.

I sought the lonely campus, Tom, and asked a cripple, "Where  
Are all the students?"—"Well," says he, "they're scattered here and there;  
The ball nine's in Chicago, and the crews are off to row."  
We couldn't get away like that some forty years ago.

"The tennis team," continued he, "is doing Brown to-day;  
Our golfers are at Princeton, and the glee club, too, 's away;  
Our gun club and our archery team are laying Harvard low."  
We missed a lot of fun, dear Tom, some forty years ago.

"Our football men are in New York arranging dates," said he,  
"For this year's games." And then he sighed: "I'm here at home, you see.

Because my back and legs are broke—rough-housed me, don't you know?"  
We didn't have such sport, dear Tom, some forty years ago.

I said to him: "Well, anyhow, the faculty is here?"  
"You're wrong," says he, "they've gone along to help the rooters cheer;  
But you might find the janitor." I said to him, "Oh, no!"  
And hurried from those scenes, dear Tom, of forty years ago.

In those old days of grind, dear Tom, our tutors were perverse;  
Although we'd telegraph ourselves "Come home; your mother's worse!"

The sly old "profs" would wink a wink which meant it wasn't so,  
And keep us grubbing in the books some forty years ago.

Things may be better now, dear Tom, than in those days of yore,  
When every fellow had to get of bookish stuff a store;  
I hope the boys are happy now, but this one truth I know,  
I wish we could relive those days of forty years ago.

## SEEING PRETTY THINGS.

My mother had a happy way  
Of seeing every pretty thing.  
She always saw the sunset's glow,  
The shadows floating cloudlets fling,  
A bud, a shell, a bit of moss,  
A dainty spray of cypress vine,  
Against the azure of the sky  
Where slender, leafless twigs entwine.

Saw tiny rainbows span the spheres  
Of shimmering dew on leaf and blade;  
A fragile insect's gauzy wing,  
The shifting play of light and shade  
In sky and cloud, on bluff and plain;  
A dove's smooth breast, the sumach's glow,  
The "little wheels" made in the pool  
By sparkling rindrops falling slow.

Midst closely ribbed meadow grass  
She spied a daisy still uncropped;  
She saw a fern, a pebble bright,  
A feather by some song bird dropped,  
A flower in unaccustomed place,  
The touch of color on the hill  
From autumn leaves by frost lips kissed,  
Beside the way a trickling rill.

The old, sweet childhood days are gone,  
My mother now a memory  
From out the past—the dear, dead past,  
Yet near and ever comes back to me  
With all its power for happiness,  
The wealth of cheer and peace it  
brings.  
The influence of her blessed gift  
Of always seeing pretty things.

Gazelle Stevens Sharp.

THE GIRL WHO IS LOVED.

A woman cannot be said to be truly attractive or popular unless she is loved and admired by the members of her own as well as the opposite sex.

She must be welcomed by all, old and young, male and female, or she cannot be called an attractive woman without reservation.

A girl, to be truly popular, never says mean things about other girls, thinking that the men will like her better, and she doesn't try to monopolize the attentions of all the men at once, but is willing to let other girls have their share of admiration and attention along with her.

ARAB BUTTERMAKING.

Among the Arabs an interesting department of woman's duty is dairy work. This, like all other operations, is carried out on an old-fashioned and patriarchal plan.

THE BEAUTIFUL HOME.

I never saw a garment too fine for a man or maid; there never was a chair too good for a cobbler or a cooper or a king to sit in; never a house too fine to shelter the human head.

A wise man has well reminded us that, in any controversy, the instant we feel anger we have already ceased striving for truth and have begun striving for our selves.—Carlyle.

THE MILLINERY MENU.

Summer bonnets are to be trimmed with small fruits; flowers will appear in the fall designs. This is done to prevent women from wearing the summer hats in the fall.—Millinery Edict.

A few potatoes on the brim, Arranged in some artistic plan, Will put the wearer in the swim, But only through the month of Jan.

Some early lettuce torn to shreds And woven in a dainty web, Will nod upon the stylish heads That know what is the mode for Feb.

Young onions of the palest green, Arranged to form a swaying arch Of tossing tops, will soon be seen As quite the only thing for March.

Strawberries with a net of lace That simulates the light whipped cream, Will form a finish for the face That April styles will cause to gleam.

A bunch of cherries and green peas, And little apples, too, will sway Upon the bonnets that will please The fashionable folk in May.

A wreath of roses—bear in mind That they must not come in too soon— You're out of style if we should find You wearing them preceding June.

The morning-glory hat will be The idol of each woman's eye, When, garnished with skyrockets, she Will see it flourish in July.

The poppy hat—now, do not let Your recollection slip a cog, To be in fashion, don't forget, You must wear poppy hats in Aug.

The golden wheat and rye, through which The zephyrs of summer crept, Will make a bonnet rare and rich And rule the thirty days of Sept.

If you should wear chrysanthemums, Your friends would be extremely shocked Should you forget that bonnet comes Upon the fashion stage in Oct.

A turkey wing and pumpkin shell Are millinery's treasure trove— You'll find that they'll do very well To show you're up-to-date in Nov.

A Christmas-tree, with ornaments Of tinsel balls and candle grease, Will make a hat that represents, The noblest design of Dec.

WOOD SICK.

I'm weary for the woods; I want to hear The lusty rushing of the early spring, Wind-winged, among the sycamores; the clear Slow sound of reedy waters whispering.

I'm famishing for scents of forest birth— Of reaching root and dawning mist of grass; The smell of wet green lichen and of earth— Of haw and willow-bud and sassafras.

My heart is wood-sick—thirsty for the things That only one who loves the forest knows— The gracious grandeur of the strong old kings, The golden fires that cuckoo-buds dis-close.

My day-dreams lead me in the dapple ways Where sunlight spatters down in yellow spots, And set me revelling in phantom sprays Of hyacinths and blue forget-me-nots.

Think while you work. Brute force has a value, but not a very high one. It is in just proportion that it is supplemented by brain power that its value grows. There are many instances in American history of the mechanic who thought at his work and became famous for invention.

Surely the farmer following the plow or driving the binder has less reason, because of the opportunity to think, to be unintelligent than any other class.—[Circle]

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NOT PHYSICALLY QUEER.

The Lady.—Your little boy does look queer. D'yer think there's anything wrong with 'im physically?
Her Friend.—Physically, indeed! No, I'm sure there ain't. 'E 'asn't 'ad a drop of physic in 'is life."

To Summer Tourist Resorts

- Muskoka Lakes
Lake of Bays
Georgian Bay
Algonquin Park
Portland
Tomagami
Kawartha Lakes
Thousand Islands
Quebec
Old Orchard, Me.
White Mountains

ALL REACHED BY THE

GRAND TRUNK RAILWAY

THE TOURIST ROUTE OF AMERICA.

Direct connection with all boat lines. Tourist tickets on sale daily to all resorts. For tickets and full information call on

E. De la Hooke, City Pass. and Ticket Agent, E. Ruse, Depot Ticket Agent, London, Ont.

OR WRITE

J. D. McDonald, Union Depot, Toronto, Ont.



LADIES.

Send for a FREE Sample of ORANGE LILLY.

If you suffer from any disease of the organs that make of you a woman, write me at once for ten days' treatment of ORANGE LILLY, which I will send to every lady enclosing 3 cent stamps. This wonderful Applied remedy cures tumors, leucorrhoea, lacerations, painful periods, pains in the back, sides and abdomen, falling, irregularities, etc., like magic.

You can use it and cure yourself in the privacy of your own home for a trifle no physician being necessary. Don't fail to write to-day for the FREE TRIAL TREATMENT. This will convince you that you will get well if you continue the treatment a reasonable time. Address MRS. F. V. CURRAH, Windsor, Ont.

Every Woman is interested and should know about the wonderful Marvel Whirling Spray Douche

Ask your druggist for it. If he cannot supply the MARVEL, accept no other, but send stamp for illustrated book—sealed. It gives full particulars and directions invaluable to ladies. WINDSOR SUPPLY CO., Windsor, Ont. General Agents for Canada.

\$10 WOMEN'S LUSTRE SUITS, \$8 Wash suits, \$5-50 up. Cloth suits, \$6 to \$16. Skirts, waists and silk coats at manufacturers' prices. All garments tailored to your measure within one week. Send for free cloth samples and fashions. Southcott Suit Co., London, Ont.

Messrs. Cudmore & Son, Kippin, Huron County, Ont., last week delivered to T. E. Handford, of Exeter, a six-year-old gelding, weighing 1,900 lbs., for which they received \$425.

At the dispersion sale, on June 26th, of the Aberdeen-Angus herd of the late L. H. Herrick, at Bloomington, Ill., 253 head, ranging in age from six months to fifteen years, brought an average of \$101. The top price for a bull was \$375 for the yearling, Afton Jam; and the highest price for a female, \$480, for Imp. Etrina, five years old. W. A. Hart, Cairo, Mich., who is 84 years old, was the heaviest purchaser, taking calves and all, nearly 60 head, at about the average of the sale, to stock a 1,240-acre farm recently purchased, 100 miles north of Detroit.

REVELED IN DIRT.

During the reign of Queen Mary and Queen Elizabeth, the washing of clothes was unknown. Cotton was hardly in use and linen was expensive. The poor wore rough woollen garments, which were never washed, and the better classes adorned themselves with silks and velvets, which were dyed when they would no longer pass muster in regard to cleanliness. It is recorded, continued Dr. Hastings, that James I. never washed either hands or face during the period he posed as the wisest fool in Christendom, but confined his cleanliness within the narrow limits of wiping his finger tips upon a damp napkin.

ITS CLASS.

The Gushing One.—Don't you think this hat is a perfect poem?
The Candid One.—Not exactly; if you want my judgment, I should say it was magazine verse."

Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, Pet Stock, and miscellaneous advertising.

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 \$0 cents.

FOR SALE—Fruit farm Box 49, Fruitland, Ont.

FARM FOR SALE—Tenders will be received up to August 11th next for the desirable farm of the late Thomas Howay, west half lot seven, concession one, Township West Nisour, containing 116 acres—100 cleared, 15 bush, clay loam, well drained, clean, and in good state of cultivation; extra well fenced. Good young orchard, also small fruit trees. Large bank barns, new drive shed, good frame house. Spring water with windmill; one power windmill. Six miles from London. For further particulars apply at lot three, con. four, London Township, or address: E. Howay, The Grove E. O., Ont.

WANTED—A few good subscription agents for The Farmer's Advocate and Home Magazine. Liberal terms. The William Weld Co., Ltd., London, Ont.

WANTED—Ladies in rural districts desirous of engaging in profitable business will do well to write the Robinson Corset & Costume Co., London, Ont.

PRIVATE TREATY—HACKNEY STALLIONS FOR SALE—P. Crawford Dargavel, Dumfries, Scotland, has, in addition to the usual big lot of CLYDESDALE STALLIONS, suitable for foreign buyers, about 30 first-class HACKNEY STALLIONS, two to six years old, ranging from 15 to 16 h. h., specially selected, and got by such sires as Rosador, Garton Duke, Polonus, etc. Quite a number of them were well up in the prize lists at the recent London and other shows.

## POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each initial counts for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than \$0 cents.

WHITE Wyandottes (exclusively). Strongly fertilized eggs from heavy laying Martin and Dunston strain, one dollar per fifteen, five dollars per hundred. Daniel T. Green, Brantford.

### BANDS, MARKERS & BOOKS

All kinds for Poultry, Pigeons, Rabbits, Cattle, Sheep & Hogs.

### PRINTING AND CUTS

For poultrymen, Farmers and Stockmen. Price list and cut catalogue free. Use Morgan's Roup Cure, 25c., postpaid.



## INGLESIDE HEREFORDS

For Sale

Young bulls of true beef type, combining early maturity and size. Registered females of all ages. Over 60 head to select from. Highest merit, low prices and easy terms.

H. D. SMITH, Hamilton, Ont.

Two little children, being awakened one morning, and being told that they had a new little brother, were keen, as children are, to know whence and how he had come.

"It must have been the milkman?" said the little girl.

"Why the milkman?" asked her little brother.

"Because it says on his cart, 'Families supplied,'" replied the sister.

### 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 must be enclosed.

### Miscellaneous.

#### CUBIC FEET OF WALL PER BARREL OF CEMENT.

How many feet of concrete wall will one barrel of Portland cement make (mixture of four to one)? J. C. R.

Ans.—Mixed 1 to 4, a barrel of cement should build 15 cubic feet of wall. This is an unusually strong mixture.

#### BOOK ON SHEEP.

Would you please inform me, through your valuable paper, if you know of any book published on the subject of "Breeding and Management of Sheep," that you could recommend to one desiring to make a study of the subject, also where it may be obtained, and the price of same? R. J. D.

Ans.—"Sheep Farming in America," by Wing, 330 pages, fills the bill as well as any. Price \$1.10 postpaid. May be had through this office.

#### PATENTING AN INVENTION.

1. How to go about to get out a patent right?  
2. Is it necessary to engage a lawyer?  
3. What would be about the probable cost? A. M.

Ontario.

Ans.—1 and 2. You should employ a solicitor of patents. There are several law firms in Ontario who make a specialty of such applications, and of patent law generally, and preferably one of those should be retained in the matter rather than one who is not a lawyer, but a patent expert merely.

3. The fees payable to the Government at the Patent Office, Ottawa, are as follows: Full fee on patent for 18 years, \$60; partial fee for 12 years, \$40, and for 6 years, \$20. There is no fixed tariff of solicitors' fees in respect of applications for patents, and without knowing the nature of the invention, we could not even estimate the probable expense in that direction.

#### CATTLE AT LARGE.

What is the law concerning cattle running at large in Algoma in an unorganized township? Has the man that owns the cattle to look after them, or pay the damage? Algoma, Ont.

Ans.—Provision is made by the Unorganized Territory Act, Revised Statutes of Ontario, 1897, chapter 109, section 94, as follows: No damages are to be recovered in respect of injuries committed in any of the districts to which the Act applies (and which include Algoma) upon any land by horses, cattle, sheep or swine straying upon such land, unless the animal so straying was running at large contrary to a municipal by-law in that behalf; and where no by-law prohibiting or regulating the running at large of the class of animals to which the animal trespassing belongs, is in force in the municipality, township or place, then no such damages are to be recovered unless such animal has broken through or jumped over a fence then being in reasonable good order and of the height of four and one-half feet; but the section is not to apply to breachy or unruly animals.

### FENCING SCHOOL SITE.

The trustees bought an acre of land for a new school site. A neighbor's line fence runs along one side of school ground. The section wants to build a new wire fence all around the school ground. Can section take down neighbor's rail fence and build wire fence instead, and do rails belong to section, or do they belong to neighbor? Ontario.

Ans.—It is a matter to be disposed, if possible, by agreement between the school trustees and the owner of the adjoining land. If, however, they are unable to agree, the fence-viewers should be called in to arbitrate in the matter. In any event, we would say that the rails would continue to belong to such adjoining owner.

### HATCHING OF THE BLOW FLY.

How long is the hatching period of the eggs of the common blow fly? R. J. G.

Ans.—The eggs of the common blow fly hatch in twenty-four hours, or less. One common species gives birth to maggots, hatched from eggs still in the body of the female; the maggots are thus brought into the world, ready at once to perform their work of destroying meat or other animal substances. They develop very rapidly, and mature in three or four days, so that the whole life of the insect is completed in from ten to twelve days. This rapid multiplication enables these creatures to destroy a carcass in a very short period of time, and thus complete their work as nature's scavengers.

CHARLES J. S. BETHUNE,  
Entomologist.

O. A. C. Guelph.

### FERTILIZER FOR STRAW-BERRIES.

What artificial manure or chemical fluid would increase the size of strawberries, and what quantity to put on each plant? J. B.

Ans.—Wood ashes, 50 bushels or more per acre, will benefit the strawberry bed, but better results will be secured by the use of a complete fertilizer. The following mixture has been recommended in our columns by a very successful New Brunswick strawberry-grower: 50 per cent. bone black, 12 per cent. nitrate of soda, 20 per cent. muriate or sulphate of potash, and 18 per cent. land plaster to make the mixture easier to handle. He applies it in spring as soon as the winter mulch has been raked off the vines, at rate of 1,500 pounds per acre, and has had excellent returns without any barnyard manure whatever. Many would consider this a very heavy application.

### DRAINAGE.

I wish to drain a field at the north end of farm. There is a creek crossing the lot north of this. It comes within four or five rods of the north-west corner of our field. It crosses the next two farms west, and is not cleaned out. It still runs on, but is cleaned out. Now, our field was much drier twenty years ago than it is now, for the simple reason that the creek is dammed with dead timber. The third man to the west may have some stuff damming the water, but after that I am sure that the water has free course to run. There is a road allowance running west the width of our farm, and the next two west, after which the road is already open. The job was once let by our council to have the rest of road opened, but the men that took the job failed to do it. Now, the farmer to the north, the next two or three to the west, and the township road allowance are affected by this creek. What will be my duties and what will be theirs towards this draining? SUBSCRIBER, Ontario.

Ans.—It is not quite clear from your statement of facts whether your case would come properly under the Ditches and Watercourses Act (Revised Statutes of Ontario, 1897, chapter 285), or under the Municipal Drainage Act (R. S. O., 1897, chapter 226), but it is probable that the former Act is applicable, and we would refer you to it, and more especially to sections 7, 8 and 9 thereof for the appropriate steps to be taken and forms to be used.

### A COLT KILLED.

The Railway Co. are building a railroad through our township, and are fencing each side of their right-of-way. A neighbor had a valuable colt that got so entangled in said fence that it had to be killed. At the place where it was injured, the fence was lower than 4 feet 6 inches, being but 4 feet 3 1/2 inches. Would this be a matter for the Railway Commission to deal with? If so, who would have to pay the cost of commissioners coming here? Ontario.

Ans.—We think not. If any proceedings for damages ought to be taken, the regular and appropriate course would be to enter an action for same in the County Court.

### TRADE TOPIC.

PRESTON FIRM EXPANDING.—Even in these days of industrial growth, the history of the Metal Shingle & Siding Co., of Preston, Ont., is remarkable. From a small beginning, about ten years ago, they have grown rapidly until their goods are now sold in every part of Canada, and in many foreign countries as well. At the close of last year, their business in Eastern Canada having assumed large proportions, it was decided to open a branch factory in Montreal. The directors were fortunate in securing the large building at the corner of St. Catherine St. and DeLormier Ave., known as the old C. P. R. shops, and work was immediately begun to fit up the building for its new purpose. A large warehouse was erected with "Acorn Quality" corrugated sheets, and other extensive improvements made to the property. The work of installing machinery has now been completed, and the plant is in full running order. The Montreal factory has a large capacity, and, with the increased production, the company are now able to make prompt shipments to their customers everywhere. The manager of the Montreal branch is A. K. Cameron, whose successful experience on the road in Ontario marked him out for the promotion. Within the past couple of weeks, the Metal Shingle & Siding Co. have also opened a branch office and warehouse at 100 Esplanade East, Toronto, where a stock of all their principal lines will be carried. L. B. Beath, who formerly represented the company in New Ontario, has assumed management of the Toronto branch.

### GOSSIP.

At a sale of Holstein cattle, at Syracuse, N. Y., June 6th and 7th, 152 head brought \$40,000; 41 head brought \$300 and over; 26 head, \$400 and over; 16 head, \$500 and over, and eight head, \$600 and over. The highest-priced cow was \$1,250; next highest, \$1,025. Two-year-olds brought as high as \$850 per head.

The well and widely-known Shorthorn breeder, Mr. James Durno, of Jackston, Rothie Norman, Aberdeenshire, Scotland, has accepted the invitation of the Directors of the International Live-stock Exposition Association, Chicago, to officiate as Judge at this year's International Show, in the classes of grade and cross-bred bullocks, and to award the bullock championship.

Cuss words on the polo field are not infrequently heard and some of the best players indulge in them with the apparently uncontrolled abandon of a runaway. There is no doubt that at times a good cuss eases the nerves, which reminds us of a good story told in the Country Gentleman of a popular player whose tendency to stammer did not prevent his addressing strong terms of disapproval to a hard-pulling pony whenever it carried him just a wee bit wide of the ball. Asked, in consideration of the ladies present, to temper his phrases, "all events when on the pavilion side of the arena, he readily and gallantly consented; but a few minutes later, within close range of the whole galaxy of beauty, he exploded with a still more piquant apostrophe to his erring mount than before. This time he was really seriously remonstrated with. "P-p-o-n-y word, old f-f-fellow," he explained, "I b-b-began that little s-s-swear-word on t-t-t other side of the g-g-ground!"

## Modern Farming Requires Modern Methods

We can supply you with a wide-tire steel wheel, low, handy wagon, or a set of wide-tire steel wheels for your old wagon, which will place you in the front position. They save a lot of labor, and will last for years without any cost for repairs. Wheels are made any size, with any width of tire desired, and to fit any axle.

Sold under a positive guarantee. Write to-day for illustrated catalogue.

DOMINION WROUGHT IRON WHEEL CO., LIMITED, ORILLIA, ONTARIO





**Your best Horse may strain his Shoulder or Fetlock tomorrow**

Get a bottle of FELLOWS' LEEMING'S ESSENCE today.

Fellows' Leeming's Essence acts like magic. It draws out all the soreness and stiffness from strains, sprains and bruises—and limbers up the joints. One application usually cures ordinary lameness—and two rubbings fix the horse all right.

It does horses so much good right at the start that they can be put to work a few hours after the Essence has been applied.

Accidents are liable to happen at any time. Be ready for them. Get a bottle of Fellows' Leeming's Essence today. 50c. a bottle. At all dealers or from the

NATIONAL DRUG & CHEMICAL CO., LIMITED, MONTREAL.



**Tudhope Carriages**

hold their good looks, just as they hold their strength. A special feature is made of the painting and finishing. And Tudhopes retain their gloss—look new—when other makes, bought at the same time, have lost their pristine brightness.

**TUDHOPE No. 45**

Is one of the easiest carriages we make. It's built especially for the man who uses his buggy constantly—and besides making riding a pleasure—stands hard driving and rough roads. Supplied with rubber tires if desired.

Our free catalogue tells all about it. Write for a copy.

THE TUDHOPE CARRIAGE CO., Limited ORILLIA, Ont.



**Clydesdales, Percherons and Hackneys**

I have still on hand 12 Clydesdale stallions, 4 Clydesdale fillies, all imported; Scotland and Canadian prizewinners; 3 years old, that will make 2100-lb. horses of choicest quality and richest breeding; 4 black Percheron stallions, 3 years old, big, flashy, quality horses, and 6 Hackney stallions, 1st-prize and championship horses among them. Will sell reasonable and on terms to suit.

DR. T. H. HASSARD, Millbrook P.O. and Stn.

**W. C. KIDD, LISTOWEL, ONT.**

Importer of Clydesdales, Shires, Percherons, Belgians, Hackneys, Standard-breds and Thoroughbreds

of highest possible quality and richest breeding. Have sold as many stallions the last year as any man in the business, with complete satisfaction in every case. I have always a large number of high-class horses on hand. My motto: "None but the best, and a straight deal." Will be pleased to hear from any one wanting a rare good one. Terms to suit. Long-distance phone. LISTOWEL P.O. AND STATION.

**SMITH & RICHARDSON, COLUMBUS, ONT.,**

have now on hand only the choice imported colts Dashing King, a 3-year-old, and Baron Columbus, a 2-year-old; also a couple of rattling good Canadians, 7 and 3 years old.

Long-distance Phone, Myrtle Station, C. P. R. Brooklin or Oshawa, G. T. R.

**Graham & Renfrew's CLYDESDALES and HACKNEYS**

Our Clydes now on hand are all prizewinners, their breeding is glib-edged. Our Hackneys, both stallions and mares, are an exceedingly high-class lot. We also have a few high-steppers and carriage horses. Yonge Street cars pass the door every hour. Phone North 4488.

GRAHAM & RENFREW, BEDFORD PARK, ONT.

**THE CHAMPION IMPORTED CLYDESDALE STALLION, BARON KITCHENER (10499)**

this year's winner of the Cawdor Challenge Cup at Glasgow, will stand for service to approved mares for the season of 1907 at "The Fir," Woodstock, Ont. Mares from a distance will be kept on pasture at \$1 per week. Terms to insure, \$25. For further particulars address the owner

J. W. BOYLE, P. O. Box 563, WOODSTOCK, ONT.

**U. S. SENATOR VEST'S FAMOUS EULOGY ON THE DOG.**

Gentlemen of the Jury.—The best friend a man has in this world may turn against him and become his enemy. His son or daughter that he has reared with loving care may prove ungrateful. Those who are nearest and dearest to us, those whom we trust with our happiness and our good name, may become traitors to their faith. The money that a man has he may lose. It flies away from him, perhaps, when he needs it most. A man's reputation may be sacrificed in a moment of ill-considered action. The people who are prone to fall on their knees to do us honor when success is with us, may be the first to throw the stone of malice when failure settles its cloud upon our heads. The one absolute, unselfish friend that man can have in this selfish world, the one that never deserts him, the one that never proves ungrateful or treacherous, is his dog.

Gentlemen of the jury, a man's dog stands by him in prosperity and in poverty, in health and in sickness. He will sleep on the cold ground, where the wintry winds blow and the snow drives fiercely, if only he can be near his master's side. He will kiss the hand that has no food to offer, he will lick the wounds and sores that come in encounter with the roughness of the world. He guards the sleep of his pauper master as if he were a prince. When all other friends desert, he remains. When riches take wings and reputation falls to pieces, he is as constant in his love as the sun in its journey through the heavens. If fortune drives the master forth an outcast in the world, friendless and homeless, the faithful dog asks no higher privilege than that of accompanying him to guard against danger, to fight against his enemies, and when the last scene of all comes, and death takes the master in its embrace, and his body is laid away in the cold ground, no matter if all other friends pursue their way, there by his grave-side will the noble dog be found, his head between his paws, his eyes sad but open in alert watchfulness, faithful and true even to death.—[Our Dumb Animals.

**THE ARTFUL SQUIRREL.**

You may find many a squirrel in the course of your tramp, but no two alike exactly in their method of attempted escape or concealment. The ways and means of the little rascals are legion. One may flatten himself out against a gray patch on the back of a tree trunk, absolutely motionless; and unless, in your earnest, steadfast looking, you can detect an ear or a shoulder in relief against the sky, you might as well abandon search. Another may lie along a bough flattened at full length; but here the tell-tale ears are more easily silhouetted. Still another may crouch drawn up in a fork; and here the thing to look for is the fluffy tip of that little signal flag which always works and waves and jerks and signals so bravely when danger is not in the air. Or one may gather himself up in a bunch to imitate a knot or a knob; and here he can very well tell when you have spied him out. He will catch your eye, even as you catch the eye of an acquaintance in a crowd, and will instantly limber up for heading flight, leaping from tree to tree, till he vanishes over the ridge.—[Field and Stream.

A bicycle policeman of the same nationality appeared against a man he had arrested for fast riding.

"How fast was he going?" asked the judge.

"Pretty fast," answered the policeman.

"As fast as a man can run?"

"Yis, your honor, he was going as fast as two min can run."—[Green Bag.

**Horse Owners! Use**



**GOMBAULT'S Caustic Balsam**

A Safe, Speedy, and Positive Cure  
The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. THE LAWRENCE-WILLIAMS CO., Toronto, Can.

**Seldom See**

a big knee like this, but your horse may have a bunch or bruise on his Ankle, Hook, Stifle, Knee or Throat.

**ABSORBINE**

will clean them off without laying the horse up. No blister, no hair gone. \$2.00 per bottle, delivered. Book 8-O free. ABSORBINE, JR., for manking, \$1.00. Removes Soft Bunches, Cures Varicose Veins, Varicocele, Hydrocele, Muscles or Ligaments, Enlarged Glands. Allays Pain. Mfd. only by

W. F. Young, P. D. F., 73 Monmouth St., Springfield, Mass. Canadian Agents, Lyman, Sons & Co., Montreal.

**FERTILIZERS**

My "Star Brand" Wood-Ash-Fertilizer is Nature's fertilizer for the Lawn, Garden, Orchard or Farm. They contain plant food in a concentrated form, dry, fine, and guaranteed in first-class condition; no objectionable odors. Put up in strong bags of 100 lbs. each. We employ no agents, sell at one price to all, direct to customers. Prompt shipment to all points. Prices, in lots of 200 lbs. or more, quoted upon application. Address CHAS. STEVENS, Napanee, Ont.

Drawer 641.

**Dr. Page's English Spavin Cure.**

For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains, Bruises, Thick Neck from Distemper, Ring worm on Cattle, and to remove all unnatural enlargements.

This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any other enlargement, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents: J. A. JOHNSTON & CO., Druggists, 171 King St. E., Toronto, Ont.



**Notice to Horse Importers**

**GERALD POWELL, INTERPRETER, LILLE, FRANCE,**

Is well posted on the Percheron, French Draft, Belgian and French Coach horse trade, can meet importers at any port in France or Belgium. 17 years' experience, and best of references. Correspondence solicited. All information about shipping, pedigrees and banking.

**Imp. Clydesdale Fillies!**

Have now on hand about a dozen, nearly all imported. A high-class lot and very richly bred. Combine size and quality, and all in foal. Also one-year-old stallion. Write me, or come and see them. Nelson Wagg, Claremont P.O. & Stn.

Clydesdales, Shorthorns and Cotswolds—For richest bred and choicest individuals of above breeds, write me. My new Cotswold and Clydesdale importation will arrive early in the season.

J. C. ROSS, Jarvis P.O. & Stn.

YOUNG MEN WANTED—To learn the Veterinary Profession. Catalogue sent free. Address VETERINARY COLLEGE, Grand Rapids, Mich. L. L. Conroy, Trin.

# KENDALL'S SPAVIN CURE

## The Horseman's Friend —Safe and Sure.

If you have a lame horse, get Kendall's Spavin Cure. If you have a horse that you can't work on account of a Sprain, Strain or Bruise, get Kendall's Spavin Cure. If you have a horse, that even the veterinary can't cure of Spavin—or any Soft Bunches or Swellings—get Kendall's Spavin Cure.

Be sure you get KENDALL'S. Two generations—throughout Canada and the United States—have used it and proved it.

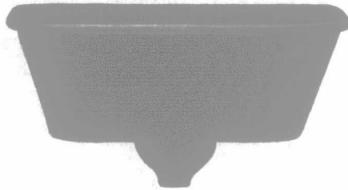
TRAVELERS' REST, P.E.I., Dec. 15, '05.  
"I have been using Kendall's Spavin Cure for the last 20 years, and always find it safe and sure."  
HUBERT P. McNEILL.

\$1. a bottle—6 for \$5. Write for a copy of our great book "Treatise On The Horse." It's a mine of information for farmers and horsemen, who want to keep their stock in prime condition.  
Mailed free. 25

DR. B. J. KENDALL CO.,  
ROSSBURG FALLS, - VERMONT, U.S.A.



## WITH OUR STOCK WATERING BASINS



You have a constant, pure and even-temperature supply of water for your cattle. They prevent disease contagion.

They are strong, durable and easy to install.

They are made of cast iron, and either coated or galvanized.

Write for prices to

G. RICHARDSON & CO., Box 500. ST. MARY'S, ONT.

## THOS. IRVING

Winchester, Ont.

Established for over 30 years.  
Importer and exporter of

HACKNEY,  
CLYDESDALE and  
SHIRE STALLIONS and MARES.

New importation of winners just arrived. 90 miles west of Montreal on C. P. R.

## HODGKINSON & TISDALE, BEAVERTON, ONT.



Importers and Breeders of Clydesdale and Hackney Horses. We have on hand at present the choicest specimens of Clydesdale fillies in Canada, also a few extra fashionably-bred young Clyde stallions. People wanting good ones should see these before buying. Our farm, "Simcoe Lodge," is situated near Beaverton, on James Bay and G. T. Railways. Long-distance 'phone No. 18. Visitors will be met at Beaverton on notification.

## CLYDESDALES AND FRENCH COACHERS, IMP.



Scottish and Canadian winners, stallions, mares and fillies. The Clydes represent the blood of such noted sires as Baron's Pride, Up-to-Time, Royal Favorite, Ethiopia and Acme. They combine size, quality and action. The French Coachers are a big, flashy, high-stepping lot, and are winners in both France and Canada. Our prices are right, and our horses as good as the best. Long-distance telephone.

ROBT. NESS & SON, Howick, Quebec.

## CRAIGALEE HACKNEYS



In my stables intending purchasers will always find a good selection of high-stepping harness horses, saddlers, etc. Just now I have a number on hand, also a few high-class Hackney mares; some with foal at foot. Noted prize-winners among them, and some rare good youngsters.

H. J. Spencely, Boxgrove P. O.  
MARKHAM STA. LONG-DISTANCE 'PHONE.

## OAK PARK STOCK FARM CO., LTD. BRANTFORD, ONTARIO.



Breeders and Importers of Hackneys, Clydesdales,  
Shropshire Sheep, Berkshire Pigs and Scotch Collie Dogs.

A number of choice Hackneys of both sexes for sale. A number of choice Shropshires of both sexes, from our imported flock, for sale. Will have a number of show pens, will be ready for sale by the end of July. Some choice Berkshire boars and sows for sale from our imported stock. We are booking orders for Scotch collie puppies from our imported kennel.

## GOSSIP.

One of the richest prizes offered to aeronauts is that of a London newspaper—\$50,000 for the first machine that can cover the distance between London and Manchester, allowing two stops for fuel. Another \$50,000 is offered by a Paris journal for a flight beginning at 10 o'clock in the morning and reaching London in 24 hours.

The auction sale, on June 17th, of English Hackneys from the stud of Mr. R. G. Heaton, Chatteris, Cambridgeshire, the largest sale of Hackneys ever held in England, advertised in "The Farmer's Advocate" of May 16th, by Douglas Grand, auctioneer, well known in Canada, was an unparalleled success for the number, the whole offering averaging £147 (\$735). A large number of Canadians were present, and Mr. Grand's skill and judgment as a salesman was greatly admired.

The Oshawa hay forks have been before the farming public for the past twenty years. They have led from the beginning, and they are there yet. This company give their undivided attention to this line of goods. This year they have added the celebrated "Meadow King" line, so that they have a most complete assortment, and, as in the past, are determined to be found in the front rank leading. See the advertisement of the Oshawa Hay Carrier Works, South Oshawa, Ont., and write them for particulars, mentioning "The Farmer's Advocate."

When Bishop Berry, of the Methodist Episcopal Church, was a young preacher, he once gave a lecture in a rural community. Wishing to be witty, he announced to his audience that he was a berry, and called upon them to state what kind of berry. Nearly every berry known in the vicinity was guessed, and the speaker refused to share the qualities of any of those named. At last an old lady, who was not sympathetic with the seeming levity of the lecturer, arose and exclaimed in a squeaky voice: "I know what kind of a berry you are. You are a gooseberry, and a very green one at that. Go on with your lecture." And the lecturer did—quickly.

Messrs. J. Watt & Son, of Salem, Ont., write that the show Shorthorns they offer for sale are a high-class lot and in good show shape. The two-year-old bull is by Imp. Merchantman (a son of Lovat's Champion), and out of an imported cow. The bull calf is an extra good one, low-set and thick, and is a good strong entry in any class, sired by Duke of Richmond (from imported sire and dam), and out of Merry Lass 8th, by Lord Lovat, he by Royal Star. The two yearling heifers are a pair that will be hard to get over in any company. They are both in calf, and in the pink of condition. One is from an English Lady dam, and by Imp. Good Morning; the other, out of Imp. Duchess, and sired by Royal Star. The above-mentioned cattle will be sold worth the money, and anyone with a blank in their show herd in any of the above-mentioned classes will do well to come and see them.

The younger son of a well-known politician of Chicago has spent pretty much all his life in the big city by the lake, and consequently knows little of country ways and things.

Not long ago, he visited a man he had met in Chicago, and who maintains a big farm near Cairo, whither he had insisted the youngster come for a lengthy stay.

One day the Chicago youth was wandering about the farm, closely examining the top, ends and sides of a certain trim, well-made object fenced round in the paddock.

"What are you searching for, Jimmy?" asked the owner of the place, with a quizzical smile.

"Where are the doors and windows?" asked Jimmy.

"Doors and windows? Why, Jimmy, that's a haystack."

"Look here, old man," exclaimed Jimmy; "I may be only a green person from the city, but you can't bluff me that way. Hay doesn't grow in lumps like that!"

## Veterinary Experience



Infallible guide to horse health. 100 page book, free. Symptoms of all diseases and treatment, by eminent veterinary, compounder of

## TUTTLE'S ELIXIR.

Sure cure for curb, colic, splint, recent shoe boils, most horse ailments. \$100. reward for failure where we say it will cure.

Tuttle's American Worm Powders never fail. Tuttle's Family Elixir, greatest of all household liniments. Write for the book.

TUTTLE'S ELIXIR CO.,  
69 Beverly Street, Boston, Mass.  
Canadian Branch, 32 St. Gabriel St., Montreal, Quebec.

## Aberdeen - Angus Bulls

FOR SALE.

One 17 months old, the other 15 months old. Prices \$85 and \$75. Good, growthy animals, of excellent breeding and type. Come and see them or address: WM. ISOME, P. O. and G. T. R. Sta., Sebr ngville, Ont.

## Aberdeen - Angus Cattle.

If you want anything in this line, write or come and see them at Elm Park, Guelph.

James Bowman, Guelph, Ont.

## The Sunnyside Herefords.



To make room for my new importation, I will sell four cows with heifer calves by side, two yearling heifers, one yearling bull and two bull calves at a 20% reduction if taken in the next 30 days. The best of breeding and individual merit. Herd is headed by a son of the grand champion, Prime Lad. Address: M. H. O'NEIL, Southgate, Ont.

## Broxwood Herefords

Cows, heifers and calves

For Sale.

R. J. PENHALL, Nover, Ont.

FOREST VIEW FARM HEREFORDS  
Four bulls from 8 to 13 months old; prize-winners and from prizewinning stock. Several heifers bred on the same lines; choice individuals for sale  
JOHN A. GOVENLOCK,  
Forest Sta. and P.O.

## Glover Lea Stock Farm SCOTCH SHORTHORNS

Superior breeding and individual excellence. For sale: Bulls and heifers—reds and roans, some from imp. sire and dam. Visitors met at Ripley station, G. T. R.

R. H. REID, PINE RIVER, ONTARIO.

## A. EDWARD MEYER, Box 378, Guelph, Ont.,

Breeds SCOTCH SHORTHORNS of the following families: Cruickshank Bellonas, Mysies, Brawath Buds, Villages, Broadhooke, Campbell Claretts, Minas, Urya, Bessies, Bruce Mayflowers, Augustas, Marr Missies and Lovelaces, and others. Herd bulls: Scottish Hero (imp.) =55043= (90065), Sittytton Lad =67214=. Correspondence solicited. Visitors welcome. Long distance 'phone in house.

## KENWOOD STOCK FARM. SHORTHORNS.

Headed by (Imp.) Jib Victor =45187=. Offerings are two bull calves, an 11-months Miss Ramaden, from imp. sire and dam; a 12-months Missie, by Elythesome Ruler, and other bulls; also heifers of choice breeding. A few choice Berkshire pigs just off the sow.

HAINING BROS., Highgate, Ont. Kent Co.

## Valley Home Shorthorns AND BERKSHIRES.

Offering 5 choice bulls, 11 to 14 months old. Young cows and heifers in calf, and yearling heifers. Young sows, safe in pig and boars and sows three months old, of prolific strains.

B. J. PEARSON, SON & CO.,  
Meadowvale, Ont.

Stations: Meadowvale, C.P.R.; Brampton, G.T.R.

## SHORTHORNS

One beautiful roan bull for sale, sired by Derby, Imp., the great stock bull. This is grandly-bred bull, and will make a good sh. bull, and also a grand getter. We also have several first class heifers of breeding age, also some cows in calf or calves at foot—imported and home-bred.

W. J. SHEAN & SON,  
Box 856, Owen Sound, Ont.

Scotch Shorthorns A grand pair of yearling bulls, also a few heifers, bred from imp. sire and dams. Pure Scotch and fashionably pedigreed. Will be sold right. C. RANKIN & SONS, Wyebridge P. O., Wyevale Station.

# LADIES!

## We Want Name for New Range

We have under construction patterns for the most modern and finest Steel Range ever placed on the Canadian market, and look to the ladies of Canada to supply a suitable name for it.

The name should be original, and suitable for the highest grade of heavy cooking apparatus. A name that will look well in print, and one easily remembered.

This range will be made of heavy steel plate, with handsome cast ornamentation, constructed with a view to meet the requirements of the GREAT WEST, but equally applicable to any part of Canada.

### Conditions of Contest.

No. 1. Name, if one word, to contain not more than 8 letters. If two words, not more than 10 letters.

No. 2. Not more than 3 names to be suggested by one person.

No. 3. All replies must be addressed to our London office and mailed within two (2) weeks after this paper is published.

No. 4. The judges in the contest will be officers of the McClary Company, assisted by two advertising experts.

No. 5. Should the name decided upon be sent in by more than one person, the prize will be given to the person whose name is first received.

No. 6. Mention this paper.

### Prizes.

1st. One of the new ranges complete, with reservoir and high closet, delivered to the winner's nearest station. Value, \$65.

2nd Choice. One of the new ranges, square—that is, without reservoir and high closet, delivered to the winner's nearest station. Value \$40.

3rd Choice. Goods—stove or enamelware—delivered to the winner's nearest station. Value \$30.

4th Choice. Goods—stove or enamelware—delivered to the winner's nearest station. Value \$20.

5th Choice. Goods—stove or enamelware—delivered to the winner's nearest station. Value \$10.

The winning names will be decided upon without delay, and the results will be published in this paper within ten days or two (2) weeks afterwards. Address all communications to

## THE McCLARY MFG. CO.

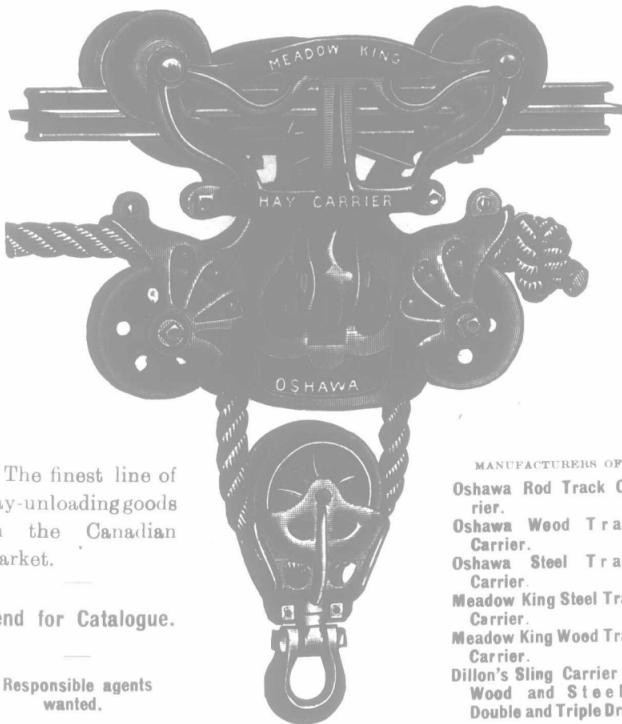
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LONDON, ONT.

Largest Makers Under the British Flag of Stoves, Ranges, Furnaces, Enamelware, Etc.

## DILLON'S MEADOW KING

### HAY CARRIER FOR WOOD OR STEEL



The finest line of hay-unloading goods on the Canadian market.

Send for Catalogue.

Responsible agents wanted.

MANUFACTURERS OF  
Oshawa Rod Track Carrier.  
Oshawa Wood Track Carrier.  
Oshawa Steel Track Carrier.  
Meadow King Steel Track Carrier.  
Meadow King Wood Track Carrier.  
Dillon's Sling Carrier for Wood and Steel—Double and Triple Draft.

THE OSHAWA HAY CARRIER WORKS  
South Oshawa, Canada.

### SONG OF THE COMMON PEOPLE.

We are the common people, the hewers of wood and stone,  
The dwellers in common places, mighty of brawn and bone,  
Bearing the common burden that only the shirkers shun,  
And doing the common duty that others have left undone,  
Dubbed, by the few, plebian, rabble or proletaire,  
Ours is the hand that feeds them, ours is the prize they share,  
And ours is the common blessing, free to the toilers all,  
To win from the lowly valley unto the summits tall.

Common, and only common—  
This by the might of birth—  
Yet the world in its need leans on us—  
We are the kings of the earth.

We are the common people, and ours is the common clay  
That a God deemed fit for using, when, in that olden day,  
He took the dust of the Garden, the dust that His will obeyed.  
Fashioned and formed and shaped it, and man in His image made;  
And, seeing that God selected such clay for the human test,  
And deeming His wisdom suffices to choose but the surely best,  
We, who are common people and made of the common clay,  
Leave to the proud uncommon to improve on the Maker's way.

Common, and only common—  
Tattered, sometimes, and frayed—  
We are still content with the pattern  
That God in His wisdom made.

We are the common people, yet out of our might is wrought,  
Ever, by God's own fiat, masters of mighty thought,  
Men of that grand republic whose rulers walk alone,  
Piercing the future shadows, knowing what seers have known:  
And, measured by these, the unco' are petty and wee and small.  
Playing with gilded baubles, chattering, voluble all;  
And these, our sons, surpass them as the hills o'ertop the glen,  
For their great hearts throb to the world's long sob, and they are the saviours of men.

Common, and only common—  
Hopelessly commonplace,  
Yet out of our loins still issue  
The saviours of the race.  
—Alfred J. Waterhouse.

### MY PA AND I.

My pa he didn't go down-town  
Last evening after tea,  
But got a book an' settled down  
As comfy as could be.  
I'll tell you I was offul glad  
To have my pa about!  
To answer all the things I had  
Been tryin' to find out.

And so I asked him why the world  
Was round, instead of square?  
And why the piggies' tails are curled?  
And why don't fish breathe air?  
And why the moon don't hit a star?  
And why the dark is black?  
And just how many birds there are?  
And will the wind come back?

And why does water stay in wells?  
And why do June-bugs hum?  
And what's the roar I hear in shells?  
And when will Christmas come?  
And why the grass is always green,  
Instead of sometimes blue?  
And why a bean will grown a bean,  
And not an apple, too?

And why a horse can't learn to moo?  
And why a cow can't neigh?  
And do the fairies live on dew?  
And what makes hair grow gray?  
And then my pa got up, an', gee!  
The offul words he said!  
I hadn't done a thing, but he  
Jes' sent me off to bed.  
—Selected.

Expert testimony, in these days, may be defined as the truth told by men who sell it to the highest bidder.

## Stomach Troubles of Long Standing

### Were Cured by Dr. Chase's Kidney-Liver Pills When Doctors' Treatment Failed.

Doctors failed to cure Mr. De Courcey because they were satisfied to treat the stomach instead of getting at the cause of trouble in the liver and bowels.

The most complicated and deep-seated digestive troubles yield to Dr. Chase's Kidney-Liver Pills, because of their direct and combined action on the liver, kidneys and bowels. We are continually receiving such letters as the following one in regard to the failure of mere stomach treatment:

Mr. Patrick De Courcey, Midgell, lot 40, P. E. I., writes: "For some time I had stomach trouble, and was scarcely able to do anything at all. I was treated by doctors, but they did not seem to do me any good. A friend advised me to try Dr. Chase's Kidney-Liver Pills, and I did so to very great advantage, for my old trouble has disappeared, and, though past middle age, I feel young and hearty again. I have great confidence in Dr. Chase's Kidney-Liver Pills, one pill a dose, 25 cents a box, at all dealers, or Edmanson, Bates & Co., Toronto.

## HOMESEEKERS'

SECOND-CLASS ROUND-TRIP EXCURSIONS TO  
**MANITOBA SASKATCHEWAN ALBERTA**

**DATES** Excursions leave Toronto **Tuesdays**, June 4, 18; July 2, 16, 30; August 13, 27; Sept. 10 and 24. Tickets good to return within sixty days from going date.

**RATES** Are the same from all points in Ontario—ranging from \$32.00 round-trip to Winnipeg to \$42.50 round-trip to Edmonton. Tickets to all points in the North-west.

**TOURIST SLEEPERS** A limited number of Tourist Sleeping Cars will be run on each excursion, fully equipped with bedding, etc., smart porter in charge. Berths must be secured and paid for through local agent at least six days before excursion leaves.

**COLONIST SLEEPERS** In which there is no extra charge for berths, passengers supplying their own bedding, will be used as far as possible in place of ordinary coaches.

Rates and full information contained in free Homeseekers' pamphlet. Ask nearest C.P.R. agent for a copy, or write to

C. B. FOSTER, District Pass. Agt., C.P.R., Toronto

### SHORTHORNS

Six superior yearling bulls, some of them out of great milk cows; heifers of all ages. A lot of very big yearlings and a few heifer calves cheap.

### GLYDESDALES

Two mares 5 years old, one an extra good one, and a pair of geldings 4 years old.

### JAS. McARTHUR, Gobles, Ont.

### SHORTHORNS AND BERKSHIRES

Three young bulls fit for service; the right sort at reasonable prices and easy terms. Also heifers a d cows with calves at foot by Bendoleer-40106-. In Berkshires: Sows five months old, and pigs soon ready to wean.

F. Martindale & Son, Caledonia Stn. York P.O. H Idimand Co.

### Glen Gow Shorthorns

Our present offering is 9 bulls, from 6 to 14 months of age, sired by Imp. Ben Loman and Imp Joy of Morning, and out of Imp. and Canadian-bred cows. Also a number of very choice heifers. No fancy prices asked. Long-distance phone.

WM. SMITH, Brooklin & Myrtle Stns. Columbus P.O.

### Young Shorthorn Bulls!

Am now offering 3 grand ones from Scottish Peer (imp.). Will make show animals. A few Berkshire boar pigs 3 months old. Also Leicester sheep. JAS. SNELL, Clinton, Ont.

### Arlington Shorthorns and Leicesters.

Present offering: A few females of different ages, some from imp. sires. No sheep for sale at present. Stock guaranteed as represented. John Lishman, Hagersville P. O. & Stn.

### MAPLE GROVE SHORTHORNS

Scotch and dairy bred; up-to-date in type; prize-winners at the local shows. A number of 1 and 2 year old heifers 1 year old bull, and one 5 mos. old—the last will make a show bull. Flora bred—will be sold easy. L. S. POWELL, Wallenstein P. O. and Stn. C. P. R.

## Shorthorns!

### BELMAR PARC.

John Douglas, Manager. Peter White, Pembroke, Ont.

Calves for sale by our grand quartette of breeding and show bulls:

Nonpareil Archer, Imp. Proud Gift, Imp. Marigold Sailor. Nonpareil Eclipse. Females. Imported and from imported stock in calf to these bulls. An unsurpassed lot of yearling heifers.

## AT "MAPLE SHADE"

Our young bulls are the best that our herd has ever produced. We can furnish Cruickshank bulls of high quality to head the best herds, and some that should produce the best prime steers. We have a bull catalogue. Send for one.

JOHN DRYDEN & SON, Brooklin, Ont. Stations: Brooklin, G.T.R. Myrtle, C.P.R. Long-distance telephone.



### Special Offering of Scotch SHORTHORN BULLS

2 just past two years old; 15 just over one year old; 7 just under one year old.

The best lot we ever had to offer in individuality and breeding, and prices are right. Catalogue.

John Clancy, Manager. H. CARGILL & SON, Cargill, Ont.

## Pure Scotch Shorthorns

We are offering 10 young bulls, fit for service, all from imported sires and dams, among them some choice herd bulls. Cows and heifers of all ages, including some excellent show heifers. One imported Clydesdale mare, four years old, with an extra good foal at her side. Young Yorkshires of both sexes. Long-distance telephone.

W. G. PETTIT & SONS, Freeman, Ont., Burlington Jct. Stn.

### Pleasant Valley Shorthorns

Herd headed by Imp. Ben Lemon -45160-, assisted by Bud's Emblem, 2nd-prize senior bull at Toronto, 1905, son of Old Lancaster 50068. Correspondence solicited. Inspection invited.

Geo. Amos & Son, Moffat Sta. & P.O., C.P.R. Farm 11 miles east of City of Guelph.

### Shorthorns and Clydesdales

I am now offering 6 young bulls from 8 to 90 months old, all Scotch bred, two of them from extra good milking families, and a few registered fillies of good quality.

JOHN MILLER, Brougham, Ont. Claremont Sta., C.P.R.; Pickering, G.T.R.

### Glenoro Shorthorns and Lincolns.

Imp. Marr Roan Ladys, Misses, Urys, and Miss Ramsdens. All bulls of breeding age sold but the grand young bull, Lord Missie. Rich roan. Show bull anywhere. Fifteen months old. Will sell at a bargain. Lincolns and Shorthorns all ages for sale. Correspondence invited.

A. D. McGugan, Rodney, Ontario.

### DOMINION SHORTHORN HERDBOOK WANTED.

The Dominion Shorthorn Breeders' Association will pay \$1 each for the following volumes of their herdbooks: Volumes 8, 9, 12, 13, 14, 15, 16, 17 and 19. Parties having these volumes to part with, write for wrappers and mailing instructions to

W. G. Pettit, Sec.-Treas., Freeman, Ont.

## Dunrobin Stock Farm

### Clydesdales, YORKSHIRES, Shorthorns

We are booking orders for breeding stock from our grandly-bred Yorkshire sows. Twenty-five sows to farrow in the next few weeks. Unrelated pairs a speciality. Write for prices and particulars.

DONALD GUNN & SON, Beaverton, Ontario. G. T. R., C. N. O. R. stations 1 1/2 miles from farm. Customers met on notification.

### JOHN LEE & SONS, Highgate, Ont.



#### SHORTHORNS & LINCOLNS

The champion herd of Elgin Kent and Essex counties. For Sale: 6 choice young bulls 8 reds and 3 roans, of grand type and quality; also good selection of young cows and heifers. Visitors welcome.

### Queenston Heights Shorthorns

Two high-class Cruickshank herd bulls. Show animals in bull and heifer calves. Straight Scotch, Canadian and American registration. Easy prices.

HUDSON USHER, Queenston, Ontario.

### The Salem Herd of Shorthorns

IS HEADED BY JILT VICTOR (IMP.).

It contains a number of the most noted matrons of the breed. Write for what you want.

R. A. & J. A. Watt, Salem, Ont. Elora station, G. T. R. and C. P. R.

### Maple Grove Shorthorns

Herd headed by the grand show bull, Starry Morning. Present offering: Imported and home-bred cows and heifers, also a few young bulls. Terms and prices to suit the times. C. D. SWAGER, Enterprise Stn. and P.O. Addington Co.

## WESTSIDE SHORTHORN HERD AND BORDER LEICESTER FLOCK.

All Registered in the Herd and Flock Books of Great Britain.

We invite all interested to inspect the cattle and sheep on this farm. The Shorthorns are long-graded families, tracing to the pioneer herds of Scotland through channels of repute. The Border Leicester flock is one of the oldest in Scotland, and embraces blood of the highest breeding. Selections for Sale. Visitors from the States and Canada will be cordially welcomed.

A. Cameron & Sons, Westside Farm, Brechin, Scotland.

### Maple Ridge Shorthorns

For sale: One 15 mos. red bull by a son of Imp. Prince Louis, and out of a bon cow (a wonderful milker), and a 5-mos.-old full brother; also a red yr.-old, with Imp. sire and dam—a show bull; half a doz 1 and 2 yr. old heifers. Show stuff. D. CURRIE, Black's Corners P. O., Crombie Sta. When Writing Please Mention Advocate



### John Gardhouse & Sons

Importers and breeders of Scotch Shorthorn cattle, Shire and Clydesdale horses, and Lincoln sheep. Call and see us.

Highfield P. O., Weston Station 3 1/2 Miles. Telephone.

### THE LANGUAGE OF UMBRELLAS.

There is a language of umbrellas as of flowers. For instance, place your umbrella in a rack, and it will often indicate that it will change owners.

To open it quickly in the street means that somebody's eye is going to be in danger.

To shut it quickly signifies that a hat or two will probably be knocked off.

An umbrella carried over a woman, the man getting nothing but the drippings of the rain, signifies a courtship.

When the man has the umbrella and the woman the drippings, it indicates marriage.

To swing your umbrella over your shoulder signifies "I am making a nuisance of myself."

To put an alpaca umbrella by the side of a silk one signifies "Exchange is no robbery."

To lend an umbrella indicates "I am a fool."

To return an umbrella means—well, never mind what it means; nobody ever does that.

### GEORGE ADE AND THE TURKEY.

George Ade, on his last European trip, spent a good deal of his time in the Amerika's smoking-room, but, as his wont is, was quiet.

The humorists of the smoking-room clustered about Mr. Ade night after night. They told him all their latest stories. They did their best to shine before the young man.

One evening, toward the end of the voyage, they begged Mr. Ade to tell a story in his turn.

"We have done our best to amuse you," said a Western millionaire. "We have given you many a yarn that will come in useful when you get to work on your next book. Now it's your turn. Fire away."

Mr. Ade pondered a moment. Then he said:

"I can't tell you a story gentlemen, but I'll ask you a conundrum. What is the difference between me and a turkey?"

Everybody gave the conundrum up.

"The difference between me and a turkey," said Mr. Ade, slowly, "is that the turkey is not stuffed with chestnuts until after it is dead."

### ORIGIN OF PRINTER'S DEVIL.

Why is the printer's errand boy called the "printer's devil"? A writer at the end of the seventeenth century explained it thus: "These boys in a printing-house commonly black and dawb themselves; whence the workmen do jocosely call them devils, and sometimes spirits, and sometimes flies." It is related, however, that Aldo Manuzio, the great Venetian printer of the fifteenth century, had a black slave boy, who was popularly supposed to have come from below. Accordingly, he published notice: "I, Aldo Manuzio, printer to the Doge, have this day made public exposure of the printer's devil. All who think he is not flesh and blood may come and pinch him."

### A GRACIOUS SOVEREIGN.

Considerable amusement was once caused by a slip of Emperor Nicholas's pen in accepting the offers of several companies of Siberian militia who volunteered for service at the front. The petition read: "We humbly lay at your Majesty's feet our desire to be permitted to fight and die for the fatherland." The Emperor, in accepting, wrote on the margin of the petition in his own hand, "I thank you sincerely, and hope your wishes may be fully realized."—[Sacred Heart Review.

"My wife sent two dollars in answer of an advertisement of a sure method of getting rid of superfluous fat."

"And did she get the information she wanted?"

"Sure; she got a reply telling her to sell it to the soap man."—[Mystic, Conn., Times.

## Fistula and Poll Evil

Any person, however inexperienced, can readily cure either disease with Fleming's **Fistula and Poll Evil Cure**—even bad old cases that skilled doctors have abandoned. Easy and simple; no cutting; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in Fleming's Vest-Pocket Veterinary Adviser. Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated. FLEMING BROS., Chemists, 75 Church Street, Toronto, Ontario.

### WILLOWBANK SHORTHORN HERD

ESTABLISHED 51 YEARS. FOR SALE: Young bulls and heifers from imp. sires and dams, of most fashionable breeding and type; exceedingly choice. Prices to suit the times. JAMES DOUGLAS, Caledonia P.O. and Sta.

### Shorthorns, Clydesdales and Shropshires.

In Shorthorns we have 100 head to select from, of both sexes and all ages. No fancy prices asked. Several choice young Clyde mares and fillies. 75 Shrop. lambs of both sexes. Small profits and quick returns is our motto.

EDWARD E. PUGH, Claremont P. O. and Station. Telephone connection.

### FOR SALE 8 SCOTCH SHORTHORN BULLS

Aged 6 to 14 months. Many Beautys, Campbell Clarets, Bessies, Claras and Rosebuds, got by the Broadhocks bull, Broadhocks Prince (imp.) 55002. Also cows and heifers in calf or with calves at foot or being bred to same bull. Prices lowest and terms easy.

DAVID MILNE, Ethel, Ont.

### GREEN GROVE SHORTHORNS

Fairy Queens, Urys, Floras, Clarets, Isabellas, Rose of Autumns, Village Girl. Females of all ages 3 choice young bulls. Prices right. Breeding unsurpassed.

W. G. MILSON, Goring P. O. Markdale Station

### Shorthorns and Leicesters

Present offering: 1 extra good bull calf, 6 months old, from a grand milking young cow, and sired by Rosicrucian of Dalmeny (imp.); also young cows with calf at foot. Leicesters of all ages.

Address: W. A. Douglas, Caledonia Station, Tuscarora P. O.

### Shorthorns, Cotswolds and Berkshires.

For sale: 3 yearling bulls, also 5 bulls ranging from six to nine months; also yearling heifers and young calves. Will book orders for Cotswolds and Berkshires. CHAS. E. BONNYCASTLE, P. O. and Stn. Campbellford, Ont.

### 1 BULL

16 months old, sired by Royal Bruce, imported; 2 10 months old, sired by Lord Lieutenant, imported; cows and heifers imported and home-bred. All at reasonable prices. SCOTT BROS., Highgate, Ont.

### J. WATT & SON

OFFERS FOR SALE 1 two-year-old show bull from imp. sire and dam. 1 senior show bull calf from imp. dam. 2 senior show yearling heifers, one from imp. sire and one from imp. dam.

The above mentioned are all in show shape, and will be sold worth the money.

SALEM P. O., ELORA STA. G.T.R. AND C.P.R.

### FOR SALE: SCOTCH COLLIE PUPS

Sable and white, at \$5 to \$10, f. o. b.

J. K. HUX, Box 154, Rodney, Ont.

Maple Leaf Shorthorns Chancellor's Model now heads the herd, which contains Crimson Flower, Lady Fanny, Miss Ramsden, Rosemary, Matchless, Diamond, and Imp. Bessie Wenlock. Now offering a lot of choice calves, both sexes. Israel Groff, Alma Ont.

### SCOTCH SHORTHORNS

For sale: 7 young bulls, also my stock bull, Royal Prince -31241- (roan), sire of the two noted females, Fair Queen and Queen Ideal, World's Fair champion. H. K. FAIRBAIRN, Thedford, Ont.

# KIDNEY COMPLAINTS

The kidneys form a very important channel for the out-let of disease from the system, carrying off accumulations that poison the blood.

The kidneys are often affected and cause serious disease when least suspected. When the back aches, specks float before the eyes, the urine contains a brick-dust sediment, or is thick and stringy, scanty, highly colored, in fact when there is anything wrong with the small of the back or the urinary organs then the kidneys are affected.

If you are troubled with your kidneys

## DOAN'S KIDNEY PILLS

will cure you. Mrs. Frank Foos, Woodside, N.B., writes: "I was a great sufferer with backache for over a year, and could get nothing to relieve me until I took two boxes of DOAN'S KIDNEY PILLS, and now I do not feel any pain whatever and can eat and sleep well; something I could not do before."

Price 50 cents a box or 3 for \$1.25, at all dealers, or The Doan Kidney Pill Co., Toronto, Ont.

## T. DOUGLAS & SONS



Breeders of Short horns and Clydesdales. 15 bulls, 60 cows and heifers, 1 imp. stallion, imp. and home-bred allies. Write us what you want or come and see our stock. Farm 1 miles north of town.

**Spring Valley Shorthorns**  
Bulls in service are: Bapton Chancellor (imp.) = 40359 = (78286), Clipper Chief (imp.) = 64220 =. Stock for sale at all times.

### KYLE BROS., Agr. Ontario.

**High-class Shorthorns** Royal Chief, a son of Mildred's Royal, at head of herd. We are offering a few choice heifers of show-ring form. Pure Scotch. Terms reasonable. A. DUNCAN & SONS, Carluke, Ont.

**SHORTHORNS, YORKSHIRES and S.-C. WHITE LEGHORNS.**—I have sold all my young bulls advertised, but can offer straight Scotch-bred heifers of the noted \$3,000 bull, Joy of Morning (imp.) = 32070 =, and young cows bred to him. Also choice Yorkshires, 5 months old, imp. sire and dam. Leghorn eggs supplied at 75c. per 13. Geo. D. Fletcher, Binkham, Ont., Erin Station, C. P. R.

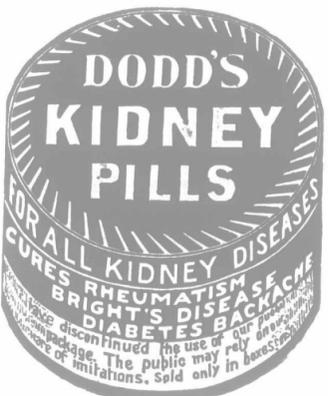
**Scotch Shorthorns** Clarets, English Ladys, Mildreds, Nonpareils, Present offerings by Springhurst 44864 and Mildred's Royal. Prices moderate. F. W. EWING, Salem P. O., Elora Station.

**Blm Park Shorthorns, Clydesdales & Berkshires** Herd headed by the choicely-bred bull, British Flag (imp.) 50016. Stock of all ages for sale. JOHN M. BECKTON, Glencoe, Ontario. G.T.R., C.P.R. & Wabash. Farm adjoins town limits.

**MAPLE HILL STOCK FARM—High-class Scotch Shorthorns.** Herd headed by Rose Victor = 64835 = and Victor of Maple Hill = 65480 =, both sons of the Duthie-bred bull, Sittytton Victor (imp.) = 60093 =, and from richly-bred imported cows. W. R. Elliott & Sons, Box 426 Suelph.

**Brown Lee Shorthorns** Nonpareil Victor = 63307 = at head of herd. Young stock for sale at all times. Prices very reasonable. Agr. C. P. R.; Drumbo, G. T. R. DOUGLAS BROWN, Agr. Ont.

If thy work and deeds are not attractive to all men try to attract the few—folly to humor a crowd.—Schiller.



## QUESTIONS AND ANSWERS. Miscellaneous.

### COWS FAIL TO COME IN HEAT.

Is there any remedy for cows failing to come in heat? A number of my cows freshened in January and February, and have not come round since, also two young farrow cows, four years old. Bull running with the cows, which are healthy and in normal condition and got along well when they freshened.

Ans.—We do not know of anything more likely to bring cows in heat than liberal feeding.

### UNTHRIFTY MARE.

Five-year-old Shire mare is not in a thriving condition. Has a ravenous appetite, but does not improve in flesh. Her teeth appear in good condition, but some of the old hair has not come out, though she is groomed regularly. Is only doing ordinary farm work.

Ans.—Give her a purgative ball made up of 8 drams aloes and 2 drams ginger. After purgation ceases, get the following prescription: Sulphate of iron, nitrate of potash and gentian, of each three ounces. Mix, and make into 24 powders. Give a powder night and morning in feed. If she will not eat, then mix with a pint of cold water, and give as a drench. Water before feeding, and work moderately.

### FERTILE EGGS—MIXING PAINTS.

1. Is it possible to tell an egg that will hatch from one that won't by looking at the sun through them after setting for a short length of time?

2. What is a good recipe for mixing up white paint, also green, red and dark-gray paint?

Ans.—1. By the use of the egg-tester, a tube excluding the rays of light excepting those that pass through the egg, one that is fertile will show a dark spot, with venous rays extending out in different directions, in from 5 to 7 or 8 days after being set.

2. A good white paint is made by using white lead, oil, with probably a little blue to intensify the whiteness, turpentine and a little drier. Dark gray is made by adding lampblack to white lead and oil. Materials for the other colors may be purchased, according to tints, from dealers. As a rule, amateurs will get more satisfactory results by purchasing a good prepared paint ready to apply, according to sample tints. Different lots of home-mixed paints usually vary in tint, and without considerable experience in mixing and painting the results are not satisfactory.

### THE HOOP SILO.

I have read the account given in May 10th issue, by W. Winter, of Northumberland Co., regarding hoop silo, but he did not tell us how he joined his hoops together at the ends. Another thing, would the hoops, being made of elm, not be likely to be short-lived? He also mentioned that his corn spoiled to the extent of about three inches. What was the cause of this, as we have a silo built of staves and have the same trouble? Is it the air getting in, or is it because it is not thoroughly tramped? Last year, we took extra precautions to prevent it by tramping it well, and tightening the hoops, but still it spoiled.

Ans.—I let ends of first round of strips in hoop meet, and cut last strip to fit, then broke joints with second, third and fourth. Would put three thicknesses on one side; then drive wedges between outside blocks and these, and nail with three-inch wire nails, clinching on inside. After these are nailed, you can take out of blocks and put on as many thicknesses as you wish. I intend to put a caltar (cement preparation that we use on roof), with sand on second coat, on hoops.

[Note.—Spoiled ensilage around the outside of the silo is usually due to the air getting in through imperfect walls, and is also caused by insufficient tramping.—Editor.]

## SPRAYING COWS FOR FLIES.

Please let me know in the next week's "Advocate" if it pays to spray cows, and what kind of stuff to use. A. E. D.

Ans.—If the flies get to be very numerous, we believe it will pay to treat them with a mixture for that purpose. Prof. Dean, of the O. A. C., recommends the following: Fish oil, one-half gallon; coal oil, one-half pint; crude carbolic acid, four tablespoonfuls. Mixed, and applied to all parts of the cow with a brush. Kansas State Agricultural College recommends the following mixture: Resin, 1 1/2 lbs.; laundry soap, 2 cakes; fish oil, one-half pint; enough water to make three gallons. Dissolve the resin in a solution of soap and water by heating; add the fish oil and the rest of the water. Apply with a brush. One-half pint of this is considered enough for one application for a cow. At first, it will be necessary to give two or three applications per week, until the outer ends of the hair become covered with resin. After that, retouch the parts where the resin is rubbed off. Still another preparation that is recommended is fish oil, one gallon; crude carbolic acid, two tablespoonfuls.

## BARN PAINT, AND CEMENT BLOCKS.

1. How would it do to prime a barn with crude oil, and then give it a second coat of paint oil and oxide?
  2. How many pounds of oxide is generally used to the gallon of oil?
  3. In mixing cement for concrete blocks for a barn, is one of cement to five of gravel and sand strong enough?
  4. Which is the strongest block, a block 8 x 10 x 20 inches, or a block 8 x 12 x 20 inches?
- Ans.—1. The plan proposed would answer, providing the oil dried out; otherwise, the paint put on subsequently would peel off.
2. About 5 lbs.
3. Yes; if the gravel and sand is sharp and perfectly free of earthy matter. In some cases, the makers of cement blocks advise facing them with stronger material than that in the center, say, 1 part cement to 2 of sand and gravel.
4. We think the latter would be stronger. If the length be increased, there is danger of cracking in case the foundation or wall should settle.

## GEMS FROM THE SCHOOLROOM.

Charon was a man who fried soles over the sticks.

Simon de Montfort parmed what was known as the Mad Parliament—it was something the same as it is at the present day.

An abstract noun is one that cannot be felt, heard, seen, touched or smelt.

Cromwell raised a famous body of soldiers, known to history as "The Ironclads."

The Tories objected to the passing of the Reform bill because they thought that the House of Commons would soon be filled with republicans and sinners.

The snow-line stretches from the north pole to the south pole, and where it crosses the Alps and the Himalayas it is many thousand feet high in the air.

The Transvaal is situated on a plateau four thousand miles high, and produces large crops of serials.

Socrates died from a dose of wedlock.

The heart is over the ribs in the midst of the borax.

A thermometer is an instrument for measuring temperance.

A toga is a sort of naval officer, usually found in China or Japan.

Marconi is used to make delicious puddings.

In 1234 A. D., the A. D. shows that it is A Date.

A good deal of paper is now made of Esperanto grass.—[University Correspondent.]

One day at Latin recitation Johnny Jones was so drowsy that, when the professor asked for the conjugation of a certain verb he failed to catch it, and, turning to his bosom friend, inquired, "What verb?"

"Darnfo," whispered his classmate.

"Darnfo, darnfarn, darnfarni, darnfarnum!" said Johnny to the horrified professor.—[Lippincott's.]

### The Cream of Cream Separators

The Sharples Dairy Tubular is the cream of cream separators—the pick of the whole bunch. Supply can wait low, you can fill it with one hand. All gears enclosed, dirt free, absolutely self-oiling—no oil holes, no bother—needs only a spoonful of oil once or twice a week—uses same oil over and over. Has twice the skimming force of any other separator—skims twice as clean. Holds world's record for clean skimming.

Bowl so simple you can wash it in 5 minutes—much lighter than others—easier handled. Bowl hung from a single frictionless ball bearing—runs so light you can sit while turning. Only one Tubular—the Sharples. It's modern. Others are old style. Every exclusive Tubular feature an advantage to you, and fully patented. Every Tubular thoroughly tested in factory and sold under unlimited guaranty. Write immediately for catalog J-123 and ask for free copy of our valuable book, "Business Dairying."

The Sharples Separator Co., West Chester, Pa., Chicago, Ill., Toronto, Can.

## Maple Lodge Stock Farm 1854-1907.

Am now offering a grand lot of young Shorthorn Bulls, several from choice milking strains. Also a few extra good heifers.

A. W. SMITH, MAPLE LODGE, ONT.

## GREENGILL HERD of high-class SHORTHORNS

We offer for sale 8 young bulls, a number of them from imp. sire and dam; also females with calf at foot or bred to our noted herd bull, Imp. Lord Roseberry.

R. MITCHELL & SONS, Nelson P.O., Ont.; Burlington June, Sta.

## SHORTHORNS AND LINCOLN SHEEP.

Two bulls, 11 and 12 months old—a Miss Ramsden and a Bessie, both by the good breeding bull, Proud Gift = 50977 = (imp.), also cows and heifers in calf by him. Inspection solicited. Always have some choice Lincoln sheep for sale at reasonable prices.

J. T. GISSON, DENFIELD, ONTARIO.

## J. BRYDONE,

Breeder of pure Scotch Shorthorns. Breeding females imported. Headed by the pure Orulshank (Duthie-bred) bull, Sittytton Victor (imp.) = 60093 = (87897). Young stock from imp. dams for sale. Prices reasonable. Telegraph, Telephone, R. R. Sta. and P. O., Milverton.

## RECORD OF MERIT HOLSTEINS

Herd 110 strong. Over 40 head now in the Record of Merit. Two of the richest-bred bulls in Canada at head of the herd. For sale: 18 bulls, from 9 months to 1 year of age, all out of Record of Merit cows and sired by the stock bulls.

P. D. EDE, Oxford Centre P.O., Woodstock Station.

## Spring Brook Holsteins and Tamworths

Herd headed by the first-prize bull, Nanuet Pletertje Paul, whose dam and sire's dam and g-dam have official butter records averaging over 25 lbs. in 7 days. Females bred and young bulls sired by him for sale. Tamworths of all ages and both sexes. Come and see, or write at once for prices.

A. O. Hallman, Breslau, Ont.

## Imperial Holsteins

Bull calves for sale.

W. H. SIMMONS, New Durham P. O., Ont.

## Greenwood Holsteins & Yorkshires

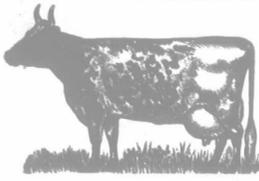
For sale: Two richly-bred bulls ready for service. No females to offer at present. Choice Yorkshires of either sex.

D. Jones, Jr., Caledonia P. O. and Sta.

## BRAMPTON JERSEYS

**CANADA'S PREMIER HERD.**—Strengthened regularly by importations from United States, England and the Island of Jersey. We have animals of all ages and both sexes for sale, and the largest herd in Canada to choose from. Write for prices and particulars. Long-distance 'phone at farm.

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



### Ayrshires and Yorkshires

Our imported Ayrshires are now safely in our own stables. Three young bulls, balance females of different ages. Any for sale. We can now offer imported or Canadian-bred animals of any age of the choicest dairy breeding, at lowest living prices. Write us. A few pigs only on hand. Information cheerfully given.

**ALEX. H. ME & CO., MENIE, ONT.**  
Long-distance 'Phone Campbellford.

### I Will Import for Showing and Breeding

**SHROPSHIRE, COTSWOLDS, HAMPSHIRE, OXFORDS, SOUTH-DOWNS,** or any other of the English breeds of **Sheep, Cattle, or Horses**, for those wishing to make an importation, large or small, this season. The best of care in selecting and delivering will be exercised, and the commission will be reasonable. Write me at once for what you want.

**ROBERT MILLER, STOUFFVILLE, ONTARIO.**

## ANNANDALE FINE STOCK FARM

TILLSONBURG, ONT.

Premier sire, Prince Posch Calamity, whose dam and sire's dam average in official test 86 lbs. milk in 1 day and 26 lbs. butter in 7 days.

No stock for sale at present.

**GEO. RICE, Tillsonburg, Ont.**

### HOLSTEINS FOR SALE



Four imported and one home-bred bulls, from 8 to 13 months old; also our entire crop of spring bull calves, from week old up to 13 months, sired by the grandly-bred imp. bull, Sir Howitje B. Pietertje whose dam's record is over 82 lbs. milk in one day, and from great-producing cows of the most fashionable strains. Can spare a few cows and heifers from one year up; 75 head to select from. Cheeses 13c. Don't delay if you want one from this herd.

**H. E. GEORGE, Brampton, Ont.**

### MAPLE GLEN HOLSTEIN HERD

Quality Tops for Sale

In A. R. O. test a Sylvia female has just made 605 1/2 lbs. milk and 26.04 lbs. butter for 7 days. Who wants her son by Sir Alta Posch Beets? Four other of his sons for sale. A sister to his dam has just made over 32 lbs. butter in 7 days. Prices right.

**G. A. GILROY, Glen Buell, Ont.**  
Brockville Stn., G.T.R. or C.P.R.

### Fairview Herd Holsteins

Home of Pontic Rag Apple, the cow that sold a few days ago for \$8,000. Highest price ever paid for an A. R. O. cow. I have her sire, Pontiac Korndyke, the greatest living sire of the breed, and also over 40 of his daughters, sisters to the one that brought the top price, and they are all good ones. Also bull calves by the best sires in the States. Write me, or come and look the herd over. Only seven miles from Prescott, Ont.

### Lyndale Holsteins

Two bulls fit for service, sired by a son of De Kol 2nd's Butter Boy 3rd; also a number of bull calves, out of Record of Merit cows.

**BROWN BROS., LYN, ONTARIO**

### Maple Hill Holstein-Friesians

Bull calves from No. 1 dams, sired by bulls with great official backing. Write for prices.

**G. W. Clemons, St. George, Ont.**

### Grove Hill Holstein Herd

Offers high-class stock at reasonable prices. Only a few youngsters left. Pairs not akin.

**F. R. MALLORY, Frankfort, Ontario.**

G. T. B. and C. O. Railway connections.

### Holsteins and Yorkshires

**R. HONEY, Brinkley, Ont.**, offers a very choice lot of young bulls, also boars and sows to mate.



### LOOK HERE

Have on hand bull calves from choice dams, and sired by son of greatest cow in Canada, Boutsje Q. Pietertje De Kol; 643 lbs. 7 days; 96 lbs. 1 day. His sire's dam and granddam have records averaging over 86 lbs. butter week. Also choice bulls fit for service. Prices right.

**FRED ABBOTT, Harrietsville, Ont.**  
Fairview Stock Farm.

### "THE MAPLES" HOLSTEIN HERD

Is made up of Record of Merit cows and heifers with large records, and headed by Lord Wayne Meethilde Calamity. Bull calves from one to five months old for sale.

**Walburn Rivers, Falden's, Ont.**

### "GLENARCHY" HOLSTEINS!

43 head of big, deep-flanked, heavy-producing Holsteins, many of them milking from 50 to 60 lbs. a day on grass. Have only bull calves for sale now. A straight, smooth lot.

**G. MACINTYRE, Renfrew P.O. and Stn.**

### QUEEN CITY HOLSTEINS

If you would like to purchase a young Holstein bull whose sire's dam has an official record of 550 pounds of milk and 26 pounds of butter in seven days, write to **R. F. HICKS, Newton Brook P.O., York Co.**

### DON JERSEY HERD

Our Jerseys rank second to none in Canada. Present offering. Choice young bulls and heifers, bred from prizewinners and great producers. Write for what you want. Visitors welcome.

**D. DUNCAN, Don, Ont.**  
Duncan Sta., on Canadian Northern Railroad, near Toronto.

### JERSEYS FOR SALE

One cow five years old—fresh; one bull calf five months old, of Island breeding. All choice stock—registered. Write or call on **B. LAWSON, Orumlin, Ont.**

### High Grove Jerseys

2 choice young bulls for sale, 10 months; would serve now. Bred in the purple. Could also spare a few females either young or old. **Robt. Tufts & Son, Tweed, Ont.**

### Ayrshires

3 prizewinning bulls fit for service at reasonable prices. Also younger ones for quick buyers.

**N. DYMENT, Hickory Hill Stock Farm, Dundas Stn. and Tel. Clapton, Ont.**

### SPRINGBURN STOCK FARM, North Williamsburg, Ont.

Ayrshires, both sexes and all ages; Berkshires, both sexes and all ages; Oxford Down sheep, a few choice ones left; Buff Orpington fowls, eggs \$1.00 per setting, \$4 per hundred. **H. J. Whitteker & Sons, Props.**

### SHANNON BANK STOCK FARM

FOR AYRSHIRES AND YORKSHIRES

Young stock of both sexes for sale from imported stock.

**W. H. TRAN, Cedar Grove, Ont.**

### AYRSHIRES FROM A PRIZEWINNING HERD

Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to **WM. STEWART & SON, Campbellford Stn. Menie P.O., Ont.**

### STOCKWOOD AYRSHIRES FOR SALE

All ages, from imp. and Canadian bred stock. Prices and terms to suit purchaser.

**D. M. WATT, St. Louis Sta., Que.**

### Hillview Herd of Prizewinning

**AYRSHIRE CATTLE.**

All animals bred and carefully selected for size, constitution, long teats and deep-milking qualities. Select animals of both sexes for sale at reasonable prices. For further information and prices write

**A. KENNEDY & SON, Hillview Stock Farm, Vernon, Ont.**  
Winchester Station, C. P. R.

### GOSSIP.

The scorcher who thinks of nothing but his bicycle caught a cold, which left him with a very sore throat. He decided to see a physician. "Well," said the doctor, cheerily, "what seems to be the matter?" "I can't say exactly," was the reply in a heavy whisper; "but it feels and sounds as if I had a puncture in my inner tube."

McAllister recently returned from abroad with a fellow actor, who was terribly seasick. "One morning," said McAllister, "Blank came out of his state-room and ran into a lady who was coming along the passageway, clad in the scantiest raiment. She screamed and sought a place of refuge. "Don't be alarmed," groaned Blank. "Don't be alarmed, madam; I shall never live to tell it."

An English journal expresses a wonder whether the pronunciation of some of the ignorant classes is the worst. For instance, the groom says, "Arry, 'old my 'oss." But the Curate says, "He that bath yaws to yaw, let him yaw." And the doctor's wife says, "Jawge, please go to Awtah and awdah the hawse; and don't forget to look at the fiah." And the vicar says, "If owah gwacious sovering lady wur-ah to die!"

The late Ambrose L. Thomas, of Chicago, once told a story about two doctors.

"To illustrate my point," he said, apropos of an advertising error, "I'll tell you about my friend, Bones."

Bones was taken ill, and, his family physician being out of town, a specialist was called in.

"But the family physician unexpectedly returned, and he and the specialist entered Bones' chamber together. They found the man in a high fever and partially unconscious. Each put his hand under the bedclothes to feel Bones' pulse, and accidentally got hold of the other's hand."

"He has typhoid," said the first physician.

"Nothing of the kind," said the other. "He's only drunk."

### TRADE TOPICS.

**RELIABLE IN EMERGENCIES.**—Mr. L. Strother, 92 Crescent Road, Toronto, Ont., Canada, writes under date of Mar. 26, 1907: "I have been using Absorbine for the past year or more, and find it everything that can be desired for soft swellings, such as windpuffs, capped hocks, thoroughpins and strains." Many customers write of the satisfactory results Absorbine gives in removing blemishes, curing lameness, etc. You try a bottle. Price \$2, at druggists, or delivered. Manufactured by W. F. Young, P. D. E., 73 Monmouth St., Springfield, Mass. Canadian agents, Lyman, Sons & Co., Montreal.

### EDUCATION OF YOUNG WOMEN.

The education of the daughter of the farm is one of the problems of the modern family. The home is the security of the state. The young women of today are the homemakers of tomorrow. Schooling in the usual subjects and even in domestic science and art is not sufficient. The wise parent sees the need for homelike surroundings and safeguards to character, such as those which Alma Ladies' College, St. Thomas, is prepared to offer to its students. Beautifully situated, with a long and honorable record as an educational institution, it is gratifying to know that under the wise direction of Principal R. L. Warner, last year was perhaps the most successful, educationally and otherwise, in its history. We can confidently speak of the equipment and staff as being most excellent in character. At the recent valedictory exercises, the diplomas were distributed to a large class of graduates by Rev. E. L. Pigeon, B. A., B. D., the medals and prizes being presented by his Honor Judge Colter, and the address given by Principal Merchant, of the London Normal School. We would advise readers who have daughters to educate, to apply to Principal Warner, St. Thomas, Ont., for a copy of the College Yearbook, giving full information.

250,000,000 Sheep Every Year Dipped in

## COOPER DIP

Has no equal. One dipping kills ticks, lice and mites. Increases quantity and quality of wool. Improves appearance and condition of flock. If dealer can't supply you, send \$1.75 for \$2.00 (100 gallons) packet to

**National Drug and Chemical Co., Limited, Toronto and Montreal.**

**ROCK SALT** for horses and cattle, in ion and ear lots.

**TORONTO SALT WORKS, TORONTO**

## HAMPSHIRE SHEEP

"Reserve" for Champion in the Short-wool Classes, Smithfield, London, 1904, 1905 and 1906.

**SPLENDID MUTTON**  
**GOOD WOOL GREAT WEIGHT**

This highly valuable English Breed of Sheep is unrivalled in its

**Wonderfully Early Maturity.**

Hardness of constitution, adapted to all climates whilst in the quality of mutton and large proportion of lean meat it is unsurpassed, and for crossing purposes with any other breed unequalled. Full information of

**JAMES E. RAWLENCE,**  
Secretary Hampshire Down Sheep Breeders' Association.

**Salisbury, England.**

## South-downs

**ROBT. McEWEN,**  
Byron, Ont.  
Long-distance 'phone.

### Farnham Farm Oxford Downs

We are now offering a number of select yearling rams and ram lambs, sired by imported ram, for flock headers; also yearling ewes and ewe lambs. Price reasonable.

**Henry Arkell & Sons, Arkell, Ontario.**  
Arkell, C. P. R.; Guelph, G. T. R.

SHIP US YOUR

# WOOL

Or write:

**E. T. CARTER & CO., Toronto, Ont.**

### Sheep Breeders' Associations.

American Shropshire Registry Association, the largest live-stock organization in the world.  
G. Howard Davidson, Pres., Millbrook, N. Y.  
Address correspondence to MORTIMER LEBV ERING, Secretary, Lafayette, Indiana.

### Fairview Shropshires

Orders now booked for shearings and lambs of both sexes, fitted for showing or field condition. Don't forget that this flock has produced more winners than any other flock in all America, and stock sold are producers of winners. **J. & D. CAMPBELL, Fairview Farm, Woodville, Ont.**

### SHROPSHIRE

Can sell about 20 Ram Lambs. Mostly by an Imp. Buttar-bred ram.

**GEO. HINDMARSH, Ailsa Craig, Ont.**

**THE only medium which conveys weekly to the farmers of Canada the advertiser's place of business is the Farmer's Advocate and Home Magazine.**

# Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

**Fleming's Spavin and Ringbone Paste**  
Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 45-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of

**Fleming's Vest-Pocket Veterinary Adviser**

Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.

**FLEMING BROS., Chemists**  
75 Church Street, Toronto, Ontario

## LARGE ENGLISH YORKSHIRES

Pigs of the most approved type of both sexes all ages, for sale at all times. We have more imported animals in our herd than all other breeders in Canada combined. We won more first prizes at the large shows this year than all other breeders combined. We won every first but one and all silver medals and Bacon prizes at Toronto and London, and at St. Louis we furnished all the first-prize hogs in the breeding classes except two; also supplied both champion and grand champions. Prices reasonable.

**D. O. FLATT & SON, Millgrove, Ont.**

## Meadowbrook Yorkshires

Young stock of both sexes. A number of sows old enough to breed, all sired by Imp. Dalmeny Topman. Everything guaranteed as represented.

**J. H. SNELL, HAGERSVILLE P. O. & STATION**

## PINE GROVE BERKSHIRES!

Bred on aristocratic lines and from high-class show stuff, sired by the Toronto winner, Willow Lodge Leader. For sale are young animals of both sexes—4 and 6 months of age, of choice bacon type and showing form. **W. W. BROWN-RIDGE, Ashgrove P. O., Milton Sta.**

## ELMFIELD YORKSHIRES

Have 40 young pigs from 2 to 5 mos. Some young boars ready for service; also young sows bred and ready to breed. Pairs supplied not skin. Prices right. **G. B. MUMA, Ayr, Ont.**

**IMPROVED LARGE YORKSHIRES**—Herd headed by the famous Summer Hill Gladiator 9th and Dalmeny Topman 2nd (imp.), and some imported sows of good breeding and quality. Stock for sale at all times. **GEO. M. SMITH, Haysville, Ont., New Hamburg, G.T.R., or Bright on Buffalo & Lake Huron R.R.**

**For Sale**—Ohio Improved Chester Whites, the largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not skin; express charges prepaid; pedigrees and safe delivery guaranteed. Address **E. D. GEORGE, Putnam, Ont.**

Newcastle Herd of Tamworths and Shorthorns. We have for quick sale a choice lot of boars and sows from 2 to 6 months old, the produce of sows sired by Colwill's Choice and Newcastle Warrior, both our own breeding, and winners of sweepstakes and silver medal at Toronto, 1901-02-03-04. Several very choice sows due to farrow in March and April. Pedigree furnished with every pig. Several choice heifer calves and heifers in calf to our present stock bull. All of high show quality. Prices right. Daily mail at our door. **COLWILL BROS., Newcastle, Ont.**

Mount Pleasant Tamworths and Holsteins. **For Sale:** Pigs of either sexes, from 6 weeks to 7 months; pairs not skin; also bull and heifer calves under 6 months. Phone in residence. **BERTRAM HOSKIN, The Gully P. O.**

Yorkshires and Tamworths—Either bred any age, both sexes; sows bred and ready to breed. Yorkshires bred from imp. sire and dam. Tamworths from Toronto winners. Pairs not skin. As good as the breeds produce. **CHAS. CURRIE, Schaw Sta., C.P.R. Morrison P.O.**

## LARGE ENGLISH BERKSHIRES

Choice young pigs from March and April litters. A few fall pigs and two young Shorthorn Bulls. **JOHN RACEY, Lennoxville, Quebec.**

## CHESTER WHITE SWINE

and SHROPSHIRE SHEEP. Right in quality. Pig at in price. Come and see, or apply by letter to **W. E. WRIGHT, Gleanworth, Ont.**

When Writing Please Mention this Paper

### GOSSIP.

The prodigal had returned. "Father," he said, "are you going to kill the fattest calf?" "No," responded the old man, looking the youth over carefully, "no, I'll let you live. But I'll put you to work and train some of that fat off."

Mr. Fred Abbott, of Fairview Stock Farm, Harrietsville, Ont., writes: "Since advertising in 'The Farmer's Advocate,' orders for Holsteins have been numerous, coming from Ontario, Quebec, and Maritime Provinces. The recent sales are to Mr. J. W. McIntosh, London, a very choice five-year-old cow; to Mr. Alex. McCallum, Mossley, a yearling bull, and to Mr. Wallace Mosier, of Wolfe Island, an extra fine yearling bull. Still have some choice bulls, one fit for service."

Bill Jones is a country storekeeper down in Louisiana, and last spring he went to New Orleans to purchase a stock of goods. The goods were shipped immediately, and reached home before he did. When the boxes of goods were delivered at his store by the drayman, his wife happened to look at the largest. She uttered a loud cry, and called for a hammer. A neighbor, hearing her screams, rushed to her assistance and asked what was the matter. The wife, pale and faint, pointed to an inscription on the box, which read as follows: "Bill inside."

A Kansas correspondent of the American Sheep-Breeder writes: "I have had an unusual experience with black lambs this season, and wonder whether anyone can account for it. The buck and most of the ewes are of Shropshire breeding (it is not stated whether they were pure-bred). There were no black lambs last season in the flock on which the buck was used, and only one in my flock. This season, one each of two sets of triplets and five pairs of twins and five singles are black, making twelve 'niggers' in a bunch of sixty lambs—most of the 'niggers' being as black as tar. Besides these, there were several black-and-white spotted lambs. The only black sheep in the flock dropped white lambs."

### SAME OLD GIRL.

The late Hon. Andrew G. Blair, ex-Premier of New Brunswick, and probably the ablest Minister of Railways that we have had since Confederation (says United Canada), was essentially a serious man. The only humorous story I have ever heard him relate was in discussing the number of Canadians—like Newfoundlanders—who are aspirants for any and all sorts of titles. Most of the men say they would not accept titles, but their wives and families are anxious about such honors. Mr. Blair used to tell a story of a prominent New Brunswick lawyer, whose estimable wife was known in political circles at Fredericton, N. B., to be indiscreetly ambitious.

One evening, her husband came home and announced: "Jessie, I have a new title, just received a wire from Sir John Macdonald, and I am Judge—to-night!" His wife hurriedly asked: "What am I?" The new judge replied: "You are still, the same silly old girl as ever."—[Saturday Night.

### NEW FEATURES IN CHICAGO INTERNATIONAL.

The International Live-stock Exposition, always desirous to adopt plans that might imbue the breeder with new and greater ambition, have offered all championship winners in the draft-horse classes at the 1907 Show, to be held November 30th to December 7th, handsomely-engraved cups.

Breeders of Suffolk sheep are said to be manifesting unusual interest in the coming Exposition, and are endeavoring not only to have their Association make a liberal appropriation for the 1907 Show, but also for the purpose of stimulating further competition, to have the English Suffolk Society put up an additional amount of money for prizes.

The five thousand dollars donated by J. Ogden Armour, which is to be distributed among the agricultural colleges whose teams do the most efficient work in the Students' Judging Contest, and to the institutions which win the most money in the open classes, will be competed for at the 1907 Exposition.

### JUDGES FOR THE WINNIPEG EXHIBITION.

Clydesdales and Shires—Arthur S. Gibson, England.

Other heavy horses—W. J. Rutherford, Manitoba Agricultural College.

Light horses—Alex. Galbraith, Brandon. Shorthorns—Arthur S. Gibson, England.

Other beef breeds—Leslie Smith, St. Cloud, Minn.

Dairy cattle—W. B. Richards, Agricultural College, N. D.

Sheep—John Jackson, Abingdon, Ont. Swine—Thos. Teasdale, Concord, Ont.

Poultry—S. Butterfield, Windsor, Ont. Pigeons—A. P. Mutchmore, Winnipeg. Dairy products—H. H. Dean, Guelph, Ont.

Field grains—D. Horn, and S. Spink, Winnipeg.

Field seeds—C. J. Turnbull (Steele Briggs), Winnipeg.

Fruits and flowers—Professor Baird. Honey—E. B. Nixon.

Domestic manufactures—Dunwoody, R. J. Whitla Co., Winnipeg.

Preserves, pickles, etc.—Mrs. Hample and E. B. Nixon.

School exhibits—D. McIntyre.

Racing—Nat. Royd, Carberry, Man.; J. A. Mitchell, Victoria, B. C.; Ald. Sam. McBride, Toronto, Ont.

### PINK-EYE AND THE FOAL CROP.

One of the bad effects of this form of equine influenza is the detrimental effect on the horse-breeding industry. Where the disease is rife, the number of expulsions of the half-incubated uterine contents is very great. Pink-eye in a breeding stud generally means that the in-foal mares abort at varying periods. But that is not all. Mares which have aborted are hard to settle again, despite the use of most virile and energetic stallions. Evidently the soil on which the male seed is to be deposited is not in a properly receptive condition, and it would appear to be advisable to give some local treatment in such refractory cases. Mares may visit the horse time and time again with unfruitful results. In such cases, we would suggest the yeast treatment referred to in these columns some time ago, or injections of a permanganate of potash or boracic-acid solution. It has been stated that this disease may be communicated from one stud to another through the medium of the horse. Whether a stallion may be infected now, and, in turn, infect a mare, and cause her to, later on, abort is not definitely known. Stallion owners will be well advised to refuse the use of their horses to mares from stables in which pink-eye is rife, until a period has elapsed long enough that the contagion may have become dissipated.

### MARES CARRIED FOALS WELL OVER TIME.

Some rather noted brood mares have contributed to our knowledge on the periods that the equine species may carry a foal to birth. (1) Hyeres, the mother of the Derby winner and great stallion, Hagen, and other famous running horses, as Huitah, Hutschachtel and Hans Sachs, gave birth to a stallion foal on March 4th, in Frederick William's stud, by the sensational stallion, Ard-Patrick. The mare was barren during the three previous years, and this time gestation extended to 368 days. (2) Unorna, one of the less-fortunate Thoroughbreds in breeding, also in Frederick William's stud, foaled on March 9th, a brown colt, by the original Arabian horse, Dziaf-Amir. The mare had been covered repeatedly in January, February, March, 1904. She was successfully served on March 22nd. On June 4th, 1904, the mare showed symptoms of heat plainly while at pasture, and allowed herself to be covered the same day; she refused the stallion on the 5th inst. In November, pregnancy was confirmed by movement of the foetus. On March 7th, 1905, her udder enlarged, and she foaled a healthy colt on the 9th. Hence, according to the last date of coition (June 4), the period of gestation occupied only 278 days, so that it can be accepted with certainty that the mare became pregnant after being covered on March 22nd, and consequently the duration of pregnancy was at least 352 days. It appears, therefore, although it rarely occurs, that a mare which already had been pregnant 74 days, once more showed symptoms of heat and took the stallion.—[Berliner Tier, Wochen.

## SUFFERED FROM HEART and NERVE TROUBLES FOR the LAST TEN YEARS.

If there be nerve derangement of any kind, it is bound to produce all the various phenomena of heart derangement. In

### MILBURN'S HEART AND NERVE PILLS

is combined treatment that will cure all forms of nervous disorders, as well as act upon the heart itself.

Mrs. John Riley, Douro, Ont., writes: "I have been a great sufferer from heart and nerve troubles for the past ten years. After trying many remedies, and doctoring for two years without the least benefit, I decided to give Milburn's Heart and Nerve Pills a trial. I am thankful to say that, after using nine boxes I am entirely cured and would recommend them to all sufferers."

Price 50 cents per box or 3 boxes for \$1.25, at all dealers, or mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

### FOR SALE: PURE-BRED Chester White Pigs

Ready to wean in two weeks. Price for single pig, either sex \$4; pairs, \$7. Also thoroughbred Shorthorn bull 10 months old, and one 3 years old. Two Ayrshire bulls, one 16 months and one 2 year; past. All registered and highly bred. I have also a number of high-class Holstein cows Ayrshires and Shorthorns all ages. Everything in the herd for sale.

**D. ALLAN BLACK, Kingston, Ont.**

### Willowdale Berkshires

Young boars and sows, 3 and 6 months of age, out of imp. sows, and sired by Imp. Polgate Doctor, Royal Masterpiece, a son of the \$3,500 boar, Masterpiece, and some of them imp. in fact. Satisfaction guaranteed. **J. J. WILSON, Milton P.O. and Sta.**

### Glenhodson Yorkshires!

A few choice young sows in farrow; also young pigs from three to six months old. Satisfaction guaranteed. Long-distance phone at farm.

**GLENHODSON COMPANY, Lorne Foster, Mgr. Myrtle Station, Ont.**

### Maple Grove Yorkshires

are among the leading Canadian herds for size, quality and truthness to type, and are prizewinners all around. For sale are both sexes. All ages. Bred from imp. and home-bred stock. There are none better.

**H. S. McDIARMID, Fingal P. O., Sheldon Station, Breeder and Importer.**

### Fairview Berkshires

Are second to none. My herd has won high honors wherever shown. Am now offering sows bred and ready to breed, and 70 or 80 other ones of both sexes, the get of Masterpiece and Just the Thing. An exceptionally choice lot.

**JOHN S. COWAN, Donegal P. O., Killerton Sta.**

### SUNNYMOUNT BERKSHIRES.

Sunnymount Berkshires are unsurpassed for ideal bacon type and superior breeding. For immediate sale: A few choice boars from 5 mos. up to 15 mos. old.

**JOHN McLEOD Milton P.O. and Sta., C.P.R. & G.T.R.**

### Fairview Berkshires

Bred from imported and Canadian-bred sires and dams, and bred on prize-winning lines. My brood sows are large, choice animals. Young stock of both sexes. Some sows bred to imp. boars.

**HENRY MASON, SOARBOS P. O. Street cars pass the door.**

### MAPLE LEAF BERKSHIRES!

Large English breed. Now offering King of the Castle sows, and Polgate Doctor sows, bred to British Duke (imp.). Also young boars and sows for sale, 10 and 12 weeks old. **Joshua Lawrence, Oxford Centre P. O., Woodstock Station.**

## How Drugs Wreck the Nerves

Every dose of drugs that you put into your stomach weakens your nerves. Every time you kill a pain or an ache by unnatural means—by stupefying the nerves with poisonous drugs, you are hurting them, and any one can see that in time, by steady dosing, your nervous system will be broken down completely.

Drugs not only weaken the nerves, but they upset the stomach, rendering it unable to supply the nourishment for the nerves and organs of the body. Drugs destroy the digestive juices of the stomach; therefore you do not get the proper nourishment from your food. You may eat heartily, but your digestive apparatus is out of order you won't get much good out of your food.

So many people are doping their stomachs with drugs trying to overcome some chronic disease or weakness, and wonder what makes them so nervous, restless and unable to think clearly. They naturally blame the disease for it, but the trouble is really caused by drugging.

The life of the nerves is electricity. If they are weak it is because they lack electricity. Electricity is the nourishment which the stomach generates for the support of the nerves and organs, and when it is unable to generate this force it must have artificial aid. This electricity—artificial electricity as applied by Dr. McLaughlin's Electric Belt.

My method of curing disease is to go down to the very foundation of the trouble and remove the cause. When I have removed the cause Nature will do the rest. If your nerves are weak I restore to the stomach the power it has lost, which in turn gives the necessary strength to the nerves.

Electricity is a relief from the old system of drugging. It does by natural means what you expect drugs to do by unnatural means. It is nature's way of curing disease, for it gives back to the nerves and organs the power they have lost, which is their life.

My Belt is easily and comfortably worn next to the body during the night, and gives out a continuous stream of that strength-building, nerve-feeding force which is the basis of all health.

If you haven't confidence in electricity, let me treat you at my risk. I will give you the Belt on trial, without one cent of risk to yourself. Give reasonable security and I will take your case, and you can

## PAY WHEN CURED

Dr. McLaughlin— W. G. ARNELL, Poplar, Ont.  
Dear Sir.—This is to certify that I was cured of a sore, weak back, which bothered me a great deal at times especially after heavy lifting. Your Belt cured me completely, and my back is perfectly strong now, and I can do heavy lifting without any bad after-effect.

Dr. McLaughlin— J. H. MIKEL, Mapleview, Ont.  
Dear Sir.—I have worn your Belt for several months and it has cured me of Rheumatism and Piles. I would not take \$100 for the benefits I have received from it so far and be without it. I can recommend it to any one suffering from any troubles for which it is recommended.

## I GIVE IT FREE

Get my 84-page book describing my treatment, and with illustrations of fully developed men and women showing how it is applied.

This book tells in plain language many things you want to know, and gives a lot of good, wholesome advice for men. I'll send this book in plain wrapper, prepaid, free, if you will inclose this coupon.

I want to convince every sufferer that he can get benefit from my treatment. Nobody should be without it, for it is cheap enough, far cheaper than a course of doctoring, and I want everybody to try it. Let every sufferer who can do so call at my office, and make a full test of my belt free of any charge.

If you can't call, send this coupon for my book.

DR. M. S. McLAUGHLIN,  
112 Yonge St., Toronto, Can.

Dear Sir.—Please forward me one of your books as advertised.

Name .....

Address .....

Office Hours: 9 a.m. to 5.30 p.m. Wednesday and Saturday till 8.30 p.m.

### Large White Yorkshires



An offering at the present time a number of choice boars and sows of breeding age, also some imported sows in pig. Also young pigs of spring farrow direct from imported stock. Pairs and trios supplied not akin. Write for what you want.

H. J. Davis, Woodstock, Ont.  
Breeder of Shorthorns & Yorkshires



### MONKLAND Yorkshires

Imported & Canadian-bred

We keep 35 brood sows, and have constantly on hand between 100 and 200 to choose from. Our supply pairs and trios not akin. Quality and type unsurpassed. Prices right.

JAS. WILSON & SONS,  
FERGUS, ONT.  
G. T. R. and C. P. R. Long-distance Phone.

### Glenburn Herd of Yorkshires

Winner of gold medal three years in succession. Young boars and sows of different ages. Also a grand good Shorthorn bull (roan) 7 months old, fit to head any herd.

David Barr, Jr., Box 3, Renfrew, Ont.

### Duroc Jerseys

Sows ready to breed. Young pigs, either sows, ready to ship. Canada Boy (imp.) 19997 heads our herd. MAC CAMPBELL & SON, Harwich, Ont.

### YORKSHIRES of Choicest Type and Breeding.



I have on hand 75 brood sows of Princess Fame, Cinderella, Clara, Minnie, Lady Frost and Queen Bess strains. My stock boars are true to type and richest breeding. For sale are a large number of sows bred and ready to breed, boars fit for service, and younger ones of both sexes. Pairs and trios not akin. J. W. BOYLE, P. O. Box 563, Woodstock, Ont.



### Woodstock Herd of Large English Berkshires

For sale: Boars fit for service. Sows ready to breed. March and April pigs supplied in pairs and trios not akin; bred from my imported and home-bred sows. My pigs are all bred on prizewinning lines, and true to type. Come and see, or write for prices. DOUGLAS THOMSON, Box 1, Woodstock, Ontario. C. P. R. and G. T. R. stations.



### ROSEBANK BERKSHIRES

Present offering: Boars fit for service. Sows ready to breed. Choice young stock ready to wean, sired by Maple Lodge Doctor and Sallie's Sambo (imp.), a Toronto winner.

Lefroy, G.T.R. JOHN BOYES, JR., Churchill, Ont. Long-distance phone



OAKDALE BERKSHIRES Largest Berkshire herd in Ontario. Imported. For sale: Sows bred and ready to breed, boars ready for service, and younger ones, all ages, richly bred on prizewinning lines and true to type. Everything guaranteed as represented. Long distance phone. L. E. MORGAN, Milliken P.O., Co. of York.

### Elmhurst Berkshires

Motto: "Goods as Represented."

With our recent importation, personally selected from the best herds in England (some of them prizewinners), we have the most select herd of Berkshires in Canada. A grand group of breeding and show matrons. Our new imported boar, Stall Pitts Middy won 1st under 1 year at Oxford, 1907, also Compton Duke, Imp., and Compton Swell, Imp., head the herd. Mail orders receive careful attention. Brantford shipping station. H. M. VANDERLIP, Cainsville P. O., Brant Co., Ont.

PLEASE MENTION THIS PAPER.

### GOSSIP.

#### FAIRVIEW BERKSHIRES.

Three miles from Atwood Station, G. T. R., and six miles from Milverton, G. T. R. and C. P. R., is the home of Mr. J. S. Cowan, one of Ontario's leading Berkshire breeders, whose large and well-selected herd of Berkshires are just now looking exceptionally well. Mr. Cowan has been breeding Berkshires for many years, and takes great pride in caring for his favorites, with the result that clean pens and abundance of feed shows in the nice, smooth, thrifty condition of the herd in general. Another potent factor in his success is the great care he exercises in the selection of breeding stock, for when he sees what suits him, the price never stops him from adding the particular animal to his herd. A number of them are the get of such noted show and stock hogs as Imp. Polgate Doctor, Imp. Perfection, King of the Castle, etc. For sale are both sexes and all ages, and pairs not akin. Parties purchasing from Mr. Cowan can depend on getting exactly what is represented, which means a great deal to outside buyers. Mr. Cowan has also a real nice flock of Leicester sheep of up-to-date type and right breeding. For sale are a number of shearing rams and two-shear ewes, and this year's crop of lambs of both sexes. Write him, to Donegal P. O., Perth Co., Ont.

#### MAPLE GROVE SHORTHORNS.

One-half mile from Wallenstein Station, C. P. R., on the Guelph-Goderich branch, is the home of Mr. L. B. Powell, the well-known breeder of Shorthorn cattle. On his splendid farm, Maple Grove, just now are about 30 head of Scotch and Scotch-topped Shorthorns, representing such well-known Scotch strains as the Sittyton Amaranth, Myrtle, Cruickshank Lovely, Sanspareils and Floras; and such well-known dairy strains as those tracing to Imp. Beauty, Imp. Pansy, Imp. Snowdrop, and Imp. Lily. Some of these are massive, thick animals, others showing their heavy-milking qualities. At the head of the herd is the low-down, thick, mellow quality bull, Lord Mysie =59627=, bred by H. Cargill & Son, sired by Imp. Lord Mistletoe, and out of Imp. Beauty 20th, by Golden Gift. Lord Mysie is proving a profitable investment for Mr. Powell, his calves being an exceptionally choice lot, built on showing form, and wonderfully good doers. His predecessor, and the sire of all a year old, and up to two, was Capt. Mayfly 2nd =49532=, by Imp. Capt. Mayfly, and out of a daughter of Captain Watt, a son of the great Imp. Royal Sailor. Prominent among the many good females is the big, thick roan cow, Roan Daisy, Vol. 19, descended from Imp. Snowdrop. Bred strictly on dairy lines. As might be expected, she is an exceptionally heavy milker. This, coupled with her thick, beefy conformation and grand-doing qualities, makes her one of the most desirable cows in the country. She will now tip the scales at 1,800 lbs., and is only in fair condition. Just now, she has a rare good five-months-old heifer calf of show-ring type, by the stock bull, and another, a year old, by Capt. Mayfly, a mighty good kind. Red Lady =33464= goes back to Beauty (imp.). She, too, is a grand good milker, and an exceptionally good breeder, having now a red heifer calf, by the stock bull, that will certainly make a show animal. Besides these, of heavy-milking strains, there are several others, big, heavy cows; and out of them are a number of one- and two-year-old heifers, rare good ones, and exceptionally desirable for anyone wanting to start a herd of dairy Shorthorns. They can be bought at very moderate prices. In pure Scotch females, there is Lovely of Pine Grove, by Imp. Marquis of Zenda, dam Imp. Lovely Maid. This cow has a red bull calf that will certainly make a show bull. Amaranth C. 4th, by Imp. Golden Drop Victor, dam Imp. Sittyton Amaranth 4th, has a red bull calf a foot. Choice Lady, by Imp. Choice Koral, dam Imp. Pretty Lady, has a red bull calf at foot. Both these heifers are grand milkers. Isabella Waterloo 5th is a Flora, by Grandeur. She has a real nice red yearling heifer. There is also a red yearling bull, dairy bred, for sale. All the herd is in nice condition. Anything is for sale, and no fancy prices are asked.