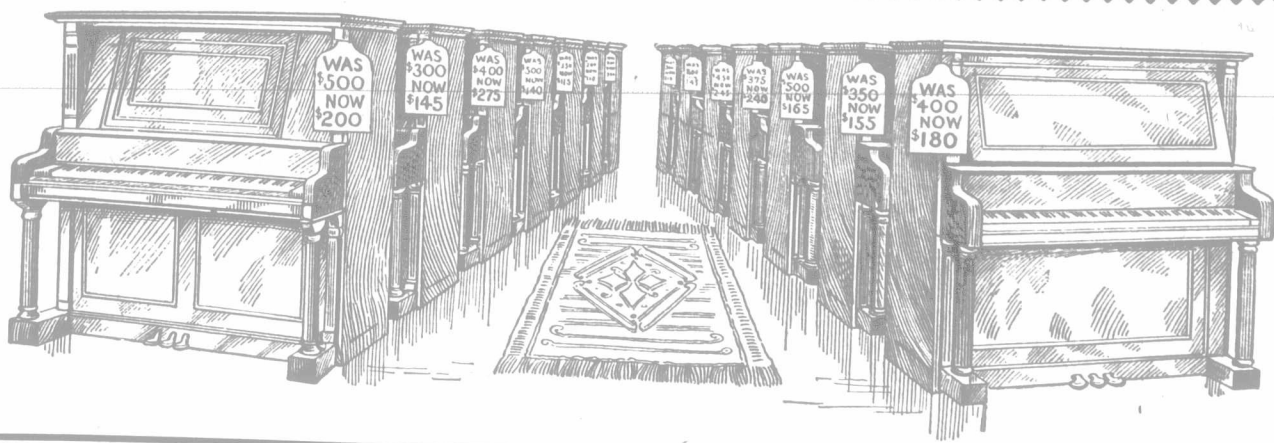


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Weber & Co.—7-octave square piano by Weber & Co., Kingston; handsome rosewood case, with carved legs and lyre, mouldings, etc.; a reliable piano, with full overstrung scale and iron frame. Price when new, \$375; now.....\$113

Dominion—7½-octave square Grand piano by The Dominion Co., Bowmanville; handsome rosewood case, with fine carved legs and lyre, serpentine and plinth mouldings, iron frame, and overstrung scale; a modern square piano. Price when new, \$450; now.....\$135

Thomas—7½-octave upright piano by C. L. Thomas, Hamilton; dark case, with polished panels carved in relief; tri-chord overstrung scale; has been completely re-made, with new hammers and parts of best quality; height, 4 feet 3 inches. Price when new, \$350; now.....\$168

Dominion—7½-octave upright piano by The Dominion Co., Bowmanville; ebonized case, with polished panels carved in relief; tri-chord overstrung scale; in as good order as when new; height, 4 feet 3 inches. Price when new, \$350; now.....\$175

Wormwith—7½-octave upright piano by Wormwith Co., Kingston; walnut case, with full-length music desk, polished panels hand-carved in relief; a nice-toned instrument, like new; height, 4 feet 6 inches. Price when new, \$325; now.....\$192

Karn—7½-octave piano by D. W. Karn & Co., Woodstock; rosewood case, nicely figured and double veneered throughout; has heavily-flanged iron frame, three unisons, overstrung scale, Wessell, Nickel & Gross action; a fine piano; height, 4 feet 4 inches. Price when new, \$350; now.....\$225

Mendelssohn—7½-octave upright piano by the Mendelssohn Co.; handsome walnut case, full-length music desk, polished panel with border of hand-carving, three pedals, muffler, etc., latest design, used less than ten months. Regularly \$340; now.....\$243

Karn—7½-octave cabinet grand upright piano by D. W. Karn & Co., Woodstock; handsome walnut case, double veneered throughout, polished panels, colonial carving in relief, best Wessell, Nickel & Gross action; a splendid piano; height, 4 feet 8 inches. Price when new, \$450; now.....\$245

Gerhard Heintzman—7½-octave boudoir Grand Gerhard Heintzman piano, beautiful mahogany case of simple and artistic design, with full-length music desk, has all the Gerhard Heintzman improvement, and the less than nine months' use it has had but makes it the more delightful to play on. Regularly \$400; now.....\$295

Gerhard Heintzman—7½-octave Gerhard Heintzman piano, cabinet grand scale, very handsome walnut case with beautiful hand-carving in relief. We seldom have a used piano of this style, for it's a more costly style than we care to rent, but this has had a little use as an auxiliary concert piano. Price when new, \$450; now.....\$322

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GOSSIP.

Mr. J. E. Arnold, Grenville, Que., has added to his list of stock horses the fancy Hackney stallion, Ryedale Revival 7976, imported by Mr. Robt. Ness, Howick, Que.

In the list of accepted, recent butter tests, published May 26th, 1904, by the American Jersey Cattle Club, are nine records of cows yielding in seven days from 15 lbs. 8½ ozs. to 20 lbs. of butter.

If you can see no beauty about you, if you can get no pleasure to-day, here and now, you are sadly out of harmony with the true spirit that produces happiness. Wake up and cheer up.

"Consider the porous plaster, my son," remarked the philosopher, "and don't get discouraged. Everybody turns his back on it, yet it hangs on and eventually achieves success by close application."

IMPORTANT SALE OF IMPORTED CLYDESDALE FILLIES.

Graham Bros., Claremont, Ont., give notice that on Monday, June 23rd, they will sell at auction, at Grand's Repository, Toronto, (Mr. Walter Harland Smith, proprietor) 50 registered imported Clydesdale fillies, aged one to three years, specially selected by one of the firm of Graham Bros., who is accompanying the horses across the ocean, and which will arrive here about the 10th of June. These fillies are from such noted sires as Baron's Pride, King of Roses, Prince Thomas, Up-to-Time, etc. Walter Harland Smith and Geo. Jackson, auctioneers. Full particulars in advertisement in "Farmer's Advocate" next week.

"GETTING RICH EASY."

According to the story told to United States Postal Inspector Mehary, by Charles Lester Murphy, the only requisite to the successful operation of a swindling game is to write letters at random from a readymade mailing list, and then sit down and wait the arrival of letters containing money.

Inspector Mehary found Murphy sitting on a rail fence at his home at Berkeley Heights, N. J. The Inspector at first was unable to believe the alleged swindler he sought was the barefooted, gawky and altogether uncouth country lad who responded to his inquiry for Murphy by saying: "That's me. What do you want?"

The U. S. postal authorities have for some time been looking for an alleged swindler, who was sending letters to farmers in various parts of this country and Canada. These letters informed the recipients that the sender, "James B. Murphy," was in possession of valuable stock, which he was ready to sell at ridiculously low prices. To some his stock was Western Union Telegraph, to others he offered Marconi Wireless, but to most he offered "Lunar Oil Company" stock.

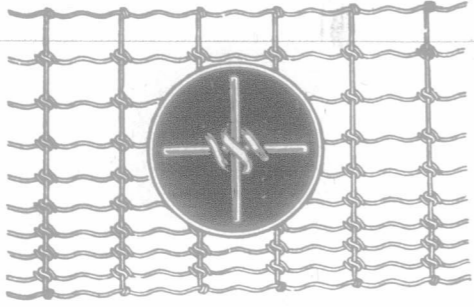
P. J. Robb, of Lima, O., sent \$75 for \$1,000 worth of Lunar Oil stock. When Robb failed to receive his money's worth he complained to the post office authorities, and it was through his complaint that Murphy was arrested.

"You've got me all right," said this youth to Mehary. Then he told the inspector that he had just taken a notion to send the letter after he had got possession of a "mailing list," which had been sent to him by a publishing house, and for which he had paid 25c.

"I didn't think so many answers would come," said Murphy. "But they came in fast. Some had money in them in amounts of \$50 and \$75. I made about \$500 clear on the scheme in a few weeks. I did not send the stocks I promised, because I didn't have any. I just made up the Lunar Oil Company in my own mind. Gee, but ain't some men easy marks?"

Murphy was taken before United States Commissioner Whitehead, and pleaded guilty. He said he did not want no examination, nor nothin', and was committed. He is 21 years old.

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GOSSIP.

Prince of Archers, Bruce of Heatherwick's stock bull for some time, has been sold to Jno. Ross, of Meikle Tarrel. He was a son of the great Scottish Archer, out of Primrose 3rd, by Norseman. The following note we made on his appearance when looking him over a couple of years ago: "A massive roan, well-covered with flesh, deep and thick through the heart, and with a good touch, a bit wide at the hooks, and a little spare back of them."

In the dairy test at the Bath and West of England Show, at Swansea, last month, 19 cows competed for the English Jersey Cattle Society's prizes for the greatest amount of butter obtained by the test of the churn from one day's milk; the period of lactation also being taken into account. The cows were divided into two classes, over and under 900 lbs., and consisted of the following breeds: 15 Jerseys, 1 Guernsey, 1 Kerry, 1 South Devon, and 1 cross-bred; of these, 4 Jerseys, the Devon and the cross-bred weighed over 900 lbs., and in this class, Dr. Watson's Jersey cow, Guenon's Lady, won first prize and gold medal; yielding, 210 days after calving, 32 lbs. milk, and 2 lbs. 9 ozs. butter; ratio, 19.21 lbs. The first prize, in the class under 900 lbs., and silver medal, went to Lord Rothschild's Syren 3rd (Jersey), who gave, 71 days after calving, 44 lbs. milk, and 2 lbs. 7 1/2 ozs. butter; ratio, 17.89 lbs.

DOES DAIRYING PAY?

Our creameries have closed their winter season, and have made between them 47,186 pounds of butter. The market has been in the neighborhood of 25c. all winter. It may be a fraction more or less, so it will be fair to average the price at that figure, which would amount to the sum of \$11,796.50.

The figures are: Innisfail, 27,559 lbs.; Red Deer, 19,627 lbs.

Innisfail had 119 patrons on the books, and Red Deer, 97; but only half, or less than half, of these sent cream in all winter. That means that only about 100 dairymen in the Red Deer district collected that amount of money. You who didn't get any, don't you wish now that you had sent in your cream? And you who have sent in some, would you not be better satisfied if you had sent in more? And why not? That \$11,000 might just as well have been \$20,000, or even \$40,000, if the patrons of our two creameries only say so, and it only results in good all round, for the patrons who have supplied the cream have not only got a good price for it, but their cows have been better looked after, and, therefore, in better condition. They have fewer losses and make more per cow during the summer. You will find that those who make the most out of the business and are the best satisfied are those who push it the hardest and support the creameries all the year round. Almost any patron can send in cream all the year round, if they only will it so. The more you do it the easier it is to do. Any cow can be milked ten months of the year if she is cared for properly; and the cow and the dairyman will both be the better for it, so will the creamery, to say nothing of the storekeeper, implement agent, blacksmith, etc. Now isn't it worth doing your little best to get ready to support your creamery next winter? That money might just as well as not be doubled.

The Government asked the directors of the Red Deer creamery to guarantee a make of 20,000 for the winter. Do you notice how close they came to it—373 lbs. short of the estimate. Ten patrons putting in only 50 lbs. each would have put us over the mark, instead of under it. It may seem a little out of place to think of next winter when we are only beginning the summer season, but the facts are now fresh, and we recollect things that may be forgotten next fall, and the patron who intends to send cream in during the winter season must prepare for it in the summer. Almost any one patron can make up the Red Deer deficiency if he only would, and if all the summer patrons would only try to be that one there would be such a smile on the faces of the people of the Red Deer district that strangers would say, "This must be Sunny Alberta."—[Household Register.

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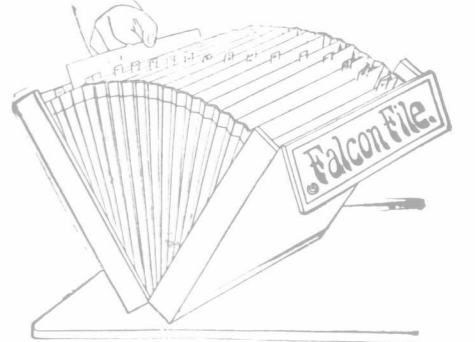
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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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Vol. XXXIX.

WINNIPEG, MAN., AND LONDON, ONT., JUNE 15, 1904.

No. 612

Editorial.

The Live-stock Catalogue at the Shows.

"Many of the live-stock exhibitors are loud in denouncing fair managers for allowing horse racing and vaudeville to bulk so largely at the big shows as 'attractions,' for which condition, they, the exhibitors, cannot be considered free from blame."

Such a statement by a careful observer is worthy of consideration when put in conjunction with the incompleteness of the live-stock catalogue usually found at the big shows. The information intended to be given in the catalogue is of the greatest value to an exhibitor of live-stock, being the cheapest on-the-spot advertising he can get; therefore, from a business point of view, he should give the association every assistance in getting out a reliable, up-to-date catalogue. Too often, the exhibitor thinks it a hardship to have bother with the catalogue. He balks at the stock parade. In fact, this spoiled darling of the shows has, in some cases, got the idea that he is the only person to be considered in the running of the show.

At the Old Country shows, the catalogue is reliable, and is used and appreciated by the visitors, as it is a great aid to locate any animal and learn its breeding, age and ownership, thus assisting in the study of the live stock. The more the visitors study the stock the better for the exhibitor. A catalogue cannot be gotten up by any association, to be of use, unless the exhibitor does his part by carefully filling out the entry form and by sending it in in good time to the show manager or secretary. A catalogue without the color, weight, height, pedigree number or breeding, and correct numbering, is valueless, and if the benefits from this handbook are to be had the stockman must see that either he or his assistant wears the number given to the particular animal in the catalogue when in the showing; not only so, but a duplicate number should be tacked up in a conspicuous place in that animal's stall.

The advantages of exhibiting stock at the big shows are many, especially if one is fortunate enough to be a winner. The advertising obtained, the chances to make sales, and get a share of the prize moneys, all contribute to pay, and pay well, for the effort, and it is up to showmen to do their part by sending exhibits forward in good shape, by being neat in their dress, especially while in the ring, and by giving all the information possible through the catalogue, and those doing so can rest assured that such efforts will return many fold for the exertions made. It is good business to do as suggested. Note how anxious a merchant is to give all information regarding his goods on exhibition, and how neat and attractive exhibits and attendants are. There is no excuse for stockmen being less careful or business-like. The fellow who hangs back from following out the rules of the association, by not furnishing the information for the catalogue, by untidiness, by coming into the ring without his number, or by being late and keeping judges and other exhibitors waiting, deserves to suffer, and should be penalized by the association. Allowing him to go scot free is not fair to other exhibitors who are trying to do what is right. In this connection, any fair of importance should have a salaried live-stock superintendent, armed with proper authority, to compel the observance of all the rules, to see that all are warned out promptly for the classes, and that all get out, as well as the hundred and one other things that

need looking after. It is unreasonable to expect directors, unpaid, to do this work, which is sometimes disagreeable. In this matter, there is room for improvement at Winnipeg and Brandon. The appointment of a man as suggested would aid in the successful, frictionless running of the big attraction—the live stock end of the show. Our shows are past the stage (or should be) when it is, perhaps, necessary or good policy to be lenient with untidiness, lack of business methods, or anything but straight dealing. The visitors to the shows have rights. It is the money they pay at the gates which makes the show possible, and when articles or animals are brought to a show and a fee charged people to see those exhibits, every facility to comfortably see the exhibits should be afforded by the management and the exhibitors.

The University and the Agricultural College Course.

It must have been noticed ere this by the people who have watched the development of things which were making for the establishment of an agricultural college in Manitoba, that there was a strong tendency on the part of the educational authorities to so arrange the studies that the University would be called upon to do part of the teaching, and for the farmers' college to foot the bill. There is no use in mincing words when we say that the University would profit and the agricultural college lose thereby, and that it has not yet dawned upon the University party that their faculty is unfitted to teach the subjects which should be taught in the college. Teachers for agricultural colleges have to be specially trained—a training not obtainable from the departments of universities from whence the faculty of Manitoba University is recruited. The University authorities plead that they should teach botany, chemistry and geology to the agricultural college students, and the reason for such a plea is not that such a procedure would increase the efficiency of the college teaching or make it more practical, for the reverse would be the case, but that by thus dividing the work the burden of expense would fall lighter on the University. In a nutshell, the University authorities would use the agricultural college to help carry the liabilities they have incurred, or are about to incur. We have mentioned three subjects, the teaching of which the University people think they should undertake for the agricultural student, of which one is geology. It would be interesting to know, either from their lips or pens, the reasons why such a subject should be included among the list of subjects to be taught at the farmers' college, especially in the two-year course.

Geology is a non-essential study in the farmers' college. One excuse might be given, viz.: geology has been included in the courses at other agricultural colleges, and, therefore, should be in the curriculum of the Manitoba course, which is no excuse or reason at all. Because educationists, years ago, made the mistake of overloading with theory or subjects of no practical value to the farmers the courses at agricultural colleges, and omitted from such the practical subjects, is no valid reason why others should be allowed a free hand to continue such mistakes, even if it is to be a good thing for the University. It is pertinent to inquire of what use is the study of geology to the farmer, or what place should it occupy in the practical two-years course? If taught at

all, it should be relegated to the four-year courses, and even then it is worth while remembering that geology is a subject more particularly of interest to the mining engineer than to the farmer. For the latter person there is sufficient geological information included in the teaching of agricultural physics—a subject taught by the professor of agriculture—hence, there is no need for a special or separate course, or an expensive university professor on the subject. Geology is defined as the department of natural science that treats of the present constitution and structure of the earth and the operation of its physical forces; also, of the history of the development of this structure in the past, including the causes and modes of physical changes, and the occurrence and development of organisms. In other words, geology is a descriptive history of how the earth is in the condition as now found, and indicates the various stages of evolution through which the animal world travelled up to the beginning of this age. All of which is very interesting, no doubt, the teaching of which would afford the partial use of the time of a high-salaried professor from our opulent university (we say opulent, when an institution can afford to advertise for six professors, at \$2,500 a year each, to teach possibly one hundred students six or seven months of each year). We strenuously object to the teaching of such subject, or to the cost of a professor being foisted upon the agricultural college, or that the farmers' college shall be expected to pay for the teaching of a subject of no practical value to the farmer, but introduced merely to keep a professor engaged so that he may earn his salary, the University otherwise being unable to keep him fully employed.

The study of Geology, to be of any value to the farming interests, calls for a proper classification of the formations, for proper geographical surveys to be made by competent geologists, with maps of the surveys (things hard to get, as yet, in Canada).

THE FIRST FOOT OF SOIL KEEPS THE FARMER BUSY.

As a matter of fact, the first foot of soil is what concerns the practical farmer, who, in locating his farm, did so not on account of its geological peculiarities, but on account of its physical features, proximity to market, fertility evidenced by the growth of trees and grasses, the color and texture of the soil, the depth of which was judged by the use of the spade, the proximity of water and timber, and its freedom from alkali and sloughs. The farmer, then, is here on his land, and is concerned with to-day and with the future, and has to shape his course to make the best of what he has, and it is the height of absurdity to load the curriculum of the farmers' professional school with subjects of no practical value to him. In fact, all the geology necessary for the man to know who has to make his living by farming can be obtained in a very few lectures—half a dozen at the most—from the professor of agriculture (agronomy). The teaching in agricultural physics and agricultural chemistry in the agricultural colleges dovetails pretty well, and includes all the information of a geological character necessary to any farmer. If the farmer or farmer's children are taught up-to-date methods of feeding and breeding animals (animal husbandry), together with dairying, some horticulture, and domestic science, the subject of drifts and schists, syenite and basalt, orthoclase feldspar and gneiss, the hyracotherium and Bos-planifrons and other geological things can safely and profitably be left out of the agricultural college course.

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN MANITOBA
AND N.-W. T.

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12. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—THE FARMER'S ADVOCATE, or
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The Future of Western Wheat Milling.

In a recent issue, a Toronto publication, through a staff correspondent who has been travelling in the West, took occasion to inform its readers that Western wheat millers are never likely to be able to compete with eastern mills, that the quality of the flour made in Manitoba is not equal to that produced in the small mills of Ontario, and that there are reasons for believing that the industry will be rapidly transferred to Eastern Canada.

Assertions of this class coming from an eastern publication, where, unfortunately, a few manufacturers appear to believe that the West was made for the east, are not altogether surprising. It is unfortunate, however, that the author of the article in question did not get close enough to facts to give a fair statement. There is absolutely no reason for believing that wheat milling in this country will not continue to increase in proportion to the increase in population and the increase in wheat growing. As far as the necessary power to run mills is concerned, the development of Lac Du Bonnet will place wheat milling in Winnipeg quite on a par with the same industry in Ontario cities that expect to benefit from the cheap electric power now being developed at Niagara Falls. In the matter of coal, too, Manitoba millers are within quite as easy reach of coal mines as are the millers of Ontario. At the Souris mines in South-western Assiniboia there is an immense supply of coal of a quality quite satisfactory for manufacturing purposes, and as our railway systems continue to develop and cheaper rates follow, coal undoubtedly will be laid down in Manitoba towns at a much less cost than at the present time.

The statement that Manitoba manufactured flour is inferior in quality to that made in the small mills of the east, is little less than slander on the millers of this country. Is it not true that the mills of Manitoba are equipped with modern machinery? Will anyone deny that Mani-

toba wheat is second to none in the world for breadmaking purposes; and are the "dusties" under whose direction the "busy wheels go round" not men of skill quite equal to those closer to the Atlantic seaboard? Is it not true, also, that eastern millers must have Manitoba wheat when they desire to produce a high-grade flour, and is it not equally certain that bakers who have compared eastern and western made flour prefer the latter every time. A comparison of the market prices which Manitoba as against Ontario flour are commanding at the present time show conclusively that the former is of a far superior quality.

WESTERN MILLS ESSENTIAL TO GOOD CROPS.

In the face of these facts, is it not, therefore, apparent that the wheat-milling industry of Manitoba and the West has a brilliant future before it. It is very important to the farming interests that it should be so. First, because the offal, including bran and shorts, will be required in this country for feeding purposes. They are needed, too, because the elements of plant food which have been taken from the soil in the growing of wheat, and which are contained in the bran and shorts, must not be lost to Western farmers, but be returned in the form of manure to the soil after the former have been fed. Farms in the older districts of Southern Manitoba are beginning to show that the virgin fertility is not everlasting, and one way to maintain it is to mill the wheat in the country, and retain the bran for feeding purposes. It is important, too, that wheat milling be encouraged, because we need the increased population which the development of the industry will bring. The construction of mills means large expenditures in any district in which they are located, and the manufacturing of wheat into flour, bran and shorts in any town means a stimulus to its commercial life which should not be lightly estimated.

Horses.

Percheron Horse Registration.

It should be noticed that the Dominion Fair authorities will only recognize as pure-bred Percherons, horses whose owners produce the pedigree certificate from the new Percheron Association, of which Secretary Stubblefield has charge. This is in line with the regulation of the U. S. Bureau of Animal Industry, which recognizes only the record mentioned by the Winnipeg people. Many and loud are the complaints being made to us of fraudulent or misrepresented pedigrees of this French draft breed, and, we understand, several of the so-called pedigree certificates (in many cases only typewritten copies) now being sent by owners of horses to the authorities at Regina will not pass muster entitling the horses to be enrolled as pure-breds. We believe the Territorial Department of Agriculture is determined to do all in its power to stop the wholesale fleecing of farmers with these imported horses, some of which have been sold at treble their value. The dishonest stallion seller and the ignorant buyer are severe hindrances to the successful prosecution of horse breeding in this country. It would do good if the courts were invoked to deal some of the crooks a dose of confinement in the King's hotels.

The Abuse of the Check Rein.

One of the most common cruelties that is practiced on horses is in checking their heads up beyond their natural position. Where the practice originated it would be difficult to say. At any rate, it has come down to modern times and is indulged in by would-be horsemen, with the intention of improving the appearance of our noble friend. To good horsemen, nothing is more distasteful and more readily criticised than the appearance of the check-rein. It is on driving horses that it is to be seen most commonly, but it is with the heavier breeds that there is the least excuse for its use. Not infrequently, a pair of drafters, or an agricultural pair, may be seen pulling a heavy load with the bit pulling strongly on the check-rein. When pulling a load, more than at any other time, a horse needs the free use of his head. If it is desired to have horses that carry high heads, the colts should be trained to do so, and the breeding stock selected for this trait. It is not a difficult matter to train the young fellow to show some style if he is properly handled at the right time.

Hernia or Rupture in Foals.

HERNIA OR RUPTURE is a tumor formed by the displacement or escape of a portion of an internal organ from its natural cavity through an opening in the walls of the cavity. It projects externally, as a more or less soft, fluctuating tumor, enclosed by the skin. Abdominal hernias are divided into reducible, irreducible and strangulated, according to their condition; and into umbilical, scrotal, inguinal, ventral and diaphragmatic, according to their situation.

A hernia is reducible when it can readily be returned into the abdomen. It consists of a soft, fluctuating swelling, unattended with heat, pain, or uneasiness. Its size and consistence varies somewhat, according to the stage of digestion after each meal. When the animal coughs, it becomes tense, larger, and communicates a sudden impulse to the hand of the examiner.

A hernia is irreducible when it is not strangulated, but yet cannot be returned into the abdomen. The causes that prevent reduction are: 1st, the bulk of the protruded organ is out of proportion to the opening through which it would have to return; 2nd, adhesions of the protruded parts to the walls of the sac, through the medium of organizable lymph.

A hernia is said to be strangulated when the contents of the sac, by virtue of ingesta that has passed into them, experience such a degree of pressure as not only to cause them to be irreducible, but also, by compressing their blood vessels, to disturb, impede or suspend the circulation within them. This condition speedily causes serious inflammation in the protruded parts, which extends and involves others within the abdomen.

A hernia is called umbilical when the protrusion of any portion of the bowel takes place through the navel opening; scrotal when into the scrotum; inguinal when the intestine reaches the inguinal canal, but does not pass to the scrotum (this form is not easily recognized); it is called ventral when the protrusion occurs through an artificial opening in any part of the abdomen; diaphragmatic when the diaphragm (the partition between the lungs and the stomach) is ruptured, and a portion of the stomach protrudes into the lung cavity. A hernia is said to be congenital when it exists at birth, and the protrusion is through one of the natural foetal openings which under normal conditions become closed at birth.

UMBILICAL HERNIA.—We wish in this article to discuss umbilical hernia in foals. During foetal life the blood vessels and urachus of the foetus pass out of the body through an opening, called the umbilical or navel opening. This aperture, under normal conditions, closes at birth, when the functions of the vessels mentioned cease, but in some cases this closure does not take place, and hernia is noticed at once, or appears in a few days. In some cases the closure of the opening, while it may be complete, may be lax and weak, and rupture may take place from violent efforts at any time, until the animal is two or three years old.

The symptoms of umbilical hernia are evident. There is a soft, fluctuating tumor, of greater or less volume, from the size of a marble to that of a goose egg, or even larger, on the floor of the abdomen, at the navel. This tumor can be readily returned by pressure into the abdominal cavity, but usually reappears quickly when pressure is relieved. In the majority of cases the animal appears to suffer no inconvenience. When such a condition exists, there is seldom cause for alarm, and it is seldom necessary to treat; at the same time it should be closely watched, and if it is noticed that the bulk of the tumor is gradually increasing, treatment must be resorted to. In young animals, the omentum and mesentery (those portions of the membrane lining the abdominal cavity, in which the intestines are suspended) are looser and longer than in the adult, and gradually shorten, and thereby draw the protruded intestine into the cavity, thereby effecting a spontaneous cure. Of course, where the hernia is either irreducible or strangulated, this cannot take place, and an operation by a veterinarian is necessary. If the tumor is noticed to be gradually decreasing in bulk, or even remaining about the same, it is better to leave it alone, and allow nature to effect a cure, but if its volume be gradually increasing, or if after a few months it is not decreasing, treatment is indicated.

TREATMENT.—There are many modes of treatment, some of which can be given only by an expert, viz., cutting through the skin, exposing the intestine, returning it into the cavity, scarifying the margin of the opening, and stitching with carbolyzed catgut or silk, and then stitching the skin; second, placing the patient upon its back, carefully returning the intestine, gathering up the loose skin, and enclosing firmly in a clam, or passing skewers through it and tying with a cord in the form of the figure 8, so tightly as to shut off the circulation. Whichever method is adopted, care must be taken to not enclose any portion of the intestine. The animal is then allowed to rise, and no further treatment is necessary until the enclosed tissues drop off, which usually occurs in

10 to 14 days; then the raw surface should be dressed daily with an antiseptic, as a 5 per cent. solution of carbolic acid. Either of these operations, if properly performed, is successful in removing the hernia, but the results are not always favorable, as it is not uncommon for lockjaw to result after any operation for this purpose that causes a raw surface.

Another and safer, though often a more tedious mode of treatment, is the application of a truss. This does not produce a sore, hence the danger of lockjaw is avoided. A truss of leather, or strong sacking, about four inches wide, with a protuberance about the size of half a large orange on its surface, is placed around the abdomen, the protuberance being placed over the navel after the hernia has been forced into the cavity; straps and buckles, or strings, are needed to adjust the truss. The tendency is for the truss to slip backwards, and this must be avoided by attaching to the anterior border of the truss, either straps or strings, which come forward between the fore legs and from the sides, and attach to a strap around the colt's neck. A man has an opportunity of exercising his ingenuity in adjusting a truss for this purpose. Care must be taken to not cause sufficient friction to scarify the skin, and close watch should be given, and the truss readjusted if it becomes displaced. In the majority of cases this will effect a cure in from two to three weeks, and in the meantime the colt is allowed to run with its dam. If the abdominal opening be quite large, the truss may fail to effect a cure, and one of the operations mentioned becomes necessary, notwithstanding the risks mentioned. "WHIP."

Stock.

With the Flock.

When the grass comes the sheep are generally the first stock to go out, as the blue grass of the rough places on the farm and in the lanes is generally considered as belonging to the sheep. It is good, too, but does not last long in spring, and when it begins to fail the sheep should have mixed tame meadow to succeed it. Too often sheep are put in a "back run," and kept there all season, and the natural grass is pretty dry and brown in August. At this time the ewes and lambs will be out to grass. In most cases the lambs will all have been dropped. The late ones are sometimes a little troublesome. Ewes turned on the new grass a few days before lambing are frequently troubled with caked udder. The sudden increase of succulent food stimulates milk secretion too hastily. They should be watched.

There is much to be learned at this time of the year from the thrift of the lambs. There are always in every flock of ewes certain old stand-bys that are kept in spite of age, on account of their certain breeding qualities. We have known a certain ewe to bring the best lamb of the flock for season after season. It is a matter of constitution, good digestion, and strong maternal qualities. Others that are well to look at are frequently followed by light, poor lambs. The mothers thrive, but do not milk well. There are contrasts in ewes in this respect as marked as the differences between the beef and dairy breeds in cattle. Sheep are meat animals, but as each sheep has to support a lamb, it is unprofitable to keep a very poor milker. The tendency of sheep husbandry on the farms, and more particularly among the best breeders, is not to develop a milking flock. Fleshy is the chief desideratum, and this is to some extent opposed to heavy milking qualities. The supplementing of the ewe's milk by concentrated foods, almost from the beginning of the life of the lamb, in order to promote rapid maturity, tends to lessen the importance, as it lessens the necessity of heavy milking in the ewes. Total neglect of the milking properties of ewes would be a serious mistake, however, as good milking qualities go along with strong maternal instincts, and these again co-exist with fecundity and readiness to breed.

Prolificacy is a matter that can be improved in a flock by selection, and the spring is a good time to judge of it. A shepherd should know the record of each ewe for each year she has bred. Some always produce twins, and others seldom produce them. This shows that the property is inherent and constant, and the offspring of such ewes will be likely to raise twins also, not only the female offspring, but the males. Many shepherds will not buy a single lamb for a sire. Single lambs, however, are generally better fleshed the first season than twins are, and if a man is selling ram lambs in the fall for breeding purposes, he can put a higher finish on the singles than on the twins. The ewes that raise twins are the best ewes, even though single lambs might be desired for special ends, for the most prolific are the surest breeders and the best mothers. J. McCAIG.

Work has begun at Regina on a waterworks system that will cost a half million dollars.

The Bell Telephone contemplate building into the farming districts around Carman.

The Western Progress, Melita, says: "Mr. J. F. Atkinson brought in a sample of wheat a foot long, and just one month from the time of sowing."

An Old Country Breeder on Our Herd-book Restrictions.

I think the United States and Canada might very well relax their conditions with regard to entry in their Shorthorn herdbooks, and assimilate them to those of the English Shorthorn Society. Of course, if the Shorthorn societies are run for the benefit of the owners of the old stocks, if that is the aim and object of breeding pedigree stock, it may be the right thing to maintain the exclusiveness of the conditions, but if the herdbook is intended for the public benefit, I maintain that it should be run on broad lines. I take it that the really crucial question is whether, for all practical purposes, an animal tracing its descent unbroken on the male and female lines to Vol. 20, or earlier, is any better or more impressive as a breeding animal, than one of shorter registered pedigree? If that were the case, why have not the oldest families maintained their position in this country? As a matter of fact, many of the oldest families are considered to be "played out," but whether that is the case or not, can it be contended that these families are in such perfection, judged from every point of view, as they were, say, forty years ago? The answer certainly would be no. Then, if that is the case, it would appear that it takes some forty years or so to bring a family to its best, and that after that time a deterioration sets in, unless great care is taken in the breeding and plenty of new blood introduced. Then, why are not the families dating from, say, forty years ago (and I am only using this figure for the sake of argument) equally good as those of eighty years standing? I think it should always be borne in mind that the great object of pedigree stock breeding is to level up the general stock; not so much to improve the pedigree stock, but by maintaining the excellence of the pedigree stock to improve the "million." The owners of pedigree stock are quite able to take care of themselves, and will not introduce short pedigrees that are likely to be injurious to their old families, which, so long as their standard of excellence is maintained, will always be worth more than parvenues, but their number must always be limited, and there are millions of cattle capable of being greatly improved by the use of a well-bred bull. Is it better, for the sake of keeping up the imaginary interests of a few, to curtail the general benefit of the many? My own cattle are all qualified for the American or Canadian herdbooks, and my families are among the oldest, but I have always thought it wise to encourage the raising up of new families to be registered in due course. This cannot be done without the use of our pure-bred bulls, but if it were possible for our forefathers to raise up and firmly establish tribes of Shorthorns from the materials so indifferent, so scattered about the country, and so difficult to collect and arrange, why should not this process be far more easily accomplished in these days, when nearly all Shorthorns are more or less purely bred, and when suitable materials are far more easily obtained than formerly? I maintain that it is in the interest of Shorthorn breeders to promote this, and their duty to the community at large. A good animal with a good old pedigree will always be worth more than a good one with a short or new pedigree, but the former is necessary for the production of the latter, and I maintain there is room for both, and that after a family has been established for a certain period, for all practical purposes, it is fully equal, if not superior, to the older families—mere antiquity of lineage is useless—and after a given time, say, five or six generations, if carefully bred, such animals may be used upon ordinary stock with as much success as those of older pedigree. I have long thought

that there might very well be a new classification for new pedigrees, such as an A-and-B classification. All animals dating from, say, 1850, to go into Class A, and subsequent ones into Class B. I think, in conclusion, that it is neither in the interest of breeders of Shorthorn cattle to maintain very exclusive conditions, and certainly not to the advantage of the community at large, that unreasonably severe restrictions should be placed upon the importation of good stock to foreign countries, or in their entry in the breed societies' registers. R. STRATTON.

The Duffryn, Newport, Mon.

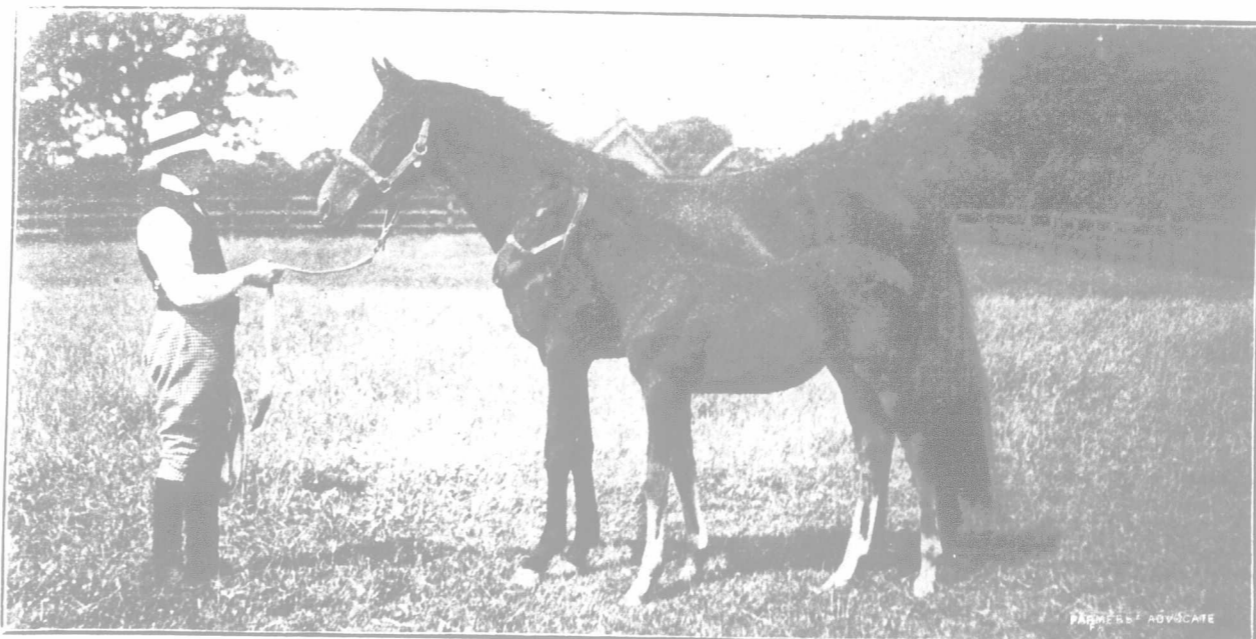
Death of Joseph Culshaw.

A correspondent of the London Live-stock Journal writes:—On Whit-Sunday last, there passed over to the majority, Mr. Joseph Culshaw, of Castle Hill, near Burnley, at the age of ninety-three years. In the fifties there were few names better known amongst Shorthorn stockmen than that of Joe Culshaw, the herdsman to Col. Towneley, of Towneley Park, Burnley, for in that decade was fought what may be called the "battle of the giants" for supremacy in honors at the Royal Agricultural Society of England, in which each and all were in turn successful—namely, Messrs. Bates, Booth and Towneley. It was freely acknowledged that in preparing cattle for the show-ring, Joe Culshaw had no superior in the United Kingdom, and in 1852, 1854, 1856, 1857 and 1860, he had the proud privilege of bringing back from the "Royal" premier honors to Towneley Park, mostly with animals of the Butterfly family. After the dispersion of the late Col. Towneley's famed herd, deceased continued his services as head bailiff at Towneley Hall, spending sixty years in the faithful service of the Towneley family, and only retiring at the age of four-score years; and even after that, so strong in him was the love of cattle, he was never without a cow or two of his own. In his later years he was much in request as judge of cattle at agricultural shows. He retained his faculties to a remarkable degree, and even so late as 1902 he went from Burnley to attend the selection sale of Mr. Victor Cavendish's Shorthorns at Holker in September of that year, when he was the guest of his half-brother, Mr. George Moore, who has for so many years been herdsman to the one-time world-famed Holker herd of the late Duke of Devonshire, and who, although but a decade younger than his deceased brother, still scouts the idea of pensions and leisure, and continues his duties in the herd at Holker. Only last year, at the local shows at Barrow-in-Furness, and the North Lonsdale Show at Ulverstone, George was seen leading his cattle into the rings to victory; he also attended the three Westmorland Shorthorn sales last September, at which he made purchases for the Holker herd. The late Mrs. Culshaw-Moore may thus be said to have given birth to two of the most noted herdsmen known in Shorthorn history.

Stockmen's Transportation Difficulties: An Example.

We had occasion some time ago to refer to the delay and inconvenience the Lacombe cattlemen were put to when shipping to the show and sale at Calgary last month. Not only were delays experienced going to the sale, but lengthy, inexcusable delays were experienced by those shipping away from Calgary after the sale, thus amply demonstrating the need for more railroad competition and other lines out West. One exhibitor had his cattle loaded up over twenty-four hours before the train, that of which his car was a part, pulled out from the yards.

Premier Haultain, of the N.-W. T., was recently entertained by his Alma Mater of Toronto University, while visiting in the Ontario capital.



An English Thoroughbred Mare, Lady Disdain, by Bend Or Maid Marian, with Foal by Mimic.
The produce of Bend Or's mares were remarkably successful on the English turf last year.

Prevention of Milk Fever.

Mr. John Gilbert, of Tolworth Court Farm, Surbiton, in a letter to the London, England, Live-stock Journal, of May 27th, 1904, writes: "I will introduce my plan of prevention by stating that I have milked about eighty cows, and calved quite one hundred a year (as I buy in-calvers), and for the last twelve years without one single sign of a case of milk fever, though previously I had lost many. I may say that I had the tip quite by accident from, in my opinion, without doubt the very best dairy farmer in England. The plan is too simple for many to believe in its effectiveness, but I am open to wager anyone the odds of two to one annually that I do not have a single case. The plan is as follows:

"Every cow coming with her third calf or over shall be liberally fed on usual keep, according to time of year; in winter, she shall be kept in a box (loose) when expected to calve. She shall have one or two pints best linseed oil a day or so before calving, and again twelve hours after calving; bran mash an hour or so after calving, and bran mash, with chaff and hay, for two days. The cow and calf lie loose, but the cow shall not be milked for at least forty-eight hours after calving. In the case of a dead or weakly calf, about a quart may be milked four times in twenty-four hours.

"And this is the whole secret. To many it may seem unnatural, but a heavy-milking cow is an unnatural animal. And is it natural to take from a cow just calved what the calf would not take until a month old? The strain on the system in replenishing the milk supply is, I think, the sole cause of milk fever—together with the neglected state of the bowels.

"If anyone will read this plan through very carefully, and then make up his mind to try it faithfully in every case, and immediately discharge even the best man in his employ who disobeys his instructions in the slightest degree, I honestly believe the odds of my wager given above may be doubled with safety."

A Tribute to Grass.

"Next in importance to the divine profusion of water, light and air, those three physical facts which render existence possible, may be reckoned the universal beneficence of grass. Lying in the sunshine among the buttercups and dandelions of May, scarcely higher in intelligence than those minute tenants of that mimic wilderness, our earliest recollections are of grass; and when the fitful fever is ended, and the foolish wrangle of the market and the forum is closed, grass heals over the scar which our descent into the bosom of the earth has made, and the carpet of the infant becomes the blanket of the dead.

"Grass is the forgiveness of nature—her constant benediction. Fields trampled with battle, saturated with blood, torn with the ruts of cannon, grow green again with grass, and carnage is forgotten. Streets abandoned by traffic become grass-grown, like rural lanes, and are obliterated. Forests decay, harvests perish, flowers vanish, but grass is immortal. Beleaguered by the sullen hosts of winter, it withdraws into the impregnable fortress of its subterranean vitality, and emerges upon the solicitation of spring. Sown by the winds, by wandering birds, propagated by the subtle horticulture of the elements which are its ministers and servants, it softens the rude outlines of the world. It evades the solitude of deserts, climbs the inaccessible slopes and pinnacles of mountains, and modifies the history, character and destiny of nations. Unobtrusive and patient, it has immortal vigor and aggression. Banished from the thoroughfare and fields, it bides its time to return, and when vigilance is relaxed, or the dynasty has perished, it silently resumes the throne from which it has been expelled, but which it never abdicates. It bears no blazonry of bloom to charm the senses with fragrance or splendor, but its homely hue is more enchanting than the lily or the rose. It yields no fruit in earth or air, yet should its harvest fail for a single year, famine would depopulate the world."—[Ingalls.

Value of a Brood Sow.

No animal kept on the farm exhibits greater possibilities than the brood sow. Her value as a producer is almost without limit, and certainly beyond the credit that is usually accorded her.

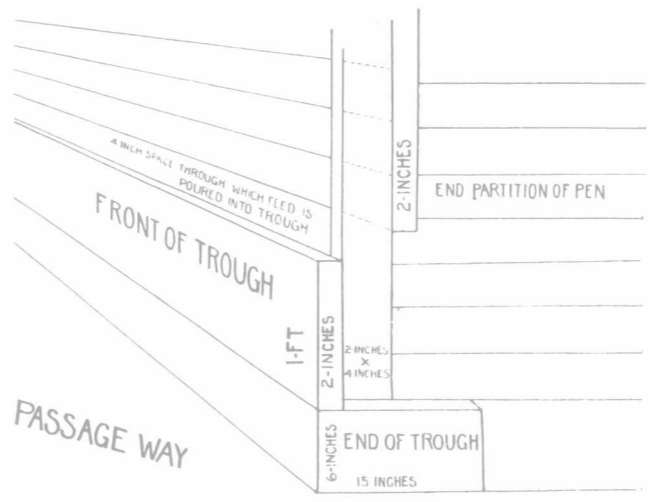
As an illustration of what a good brood sow may yield her owner, under proper management, we cite the very excellent record of a sow owned by J. E. Smith, of Blackhawk County, Iowa. This sow started four years ago this spring, and has produced her owner one of the finest herds of the State, says Nebraska Farmer. The sow in question is the mother of seventy-two swine, that have either passed into the hands of the packer, or have acquired age and size for the slaughterer.

During the past year this sow gave birth to

two litters of pigs, one containing 12 and the other 10 pigs. Of six litters of pigs, each has averaged 12, making a total of 72. The sow has practically stocked the farm, as six of her litter of a year ago were females, which this year produced 52 healthy pigs.

Pigpen Front.

A correspondent writes: "Having tried different kinds of troughs for feeding pigs and different styles of fronts for the pens, I have found that the cement trough is by far the most durable and satisfactory, especially from a sanitary point of view. The swinging front I have tested for several years, but discarded it as entirely unsatisfactory. Last year, I put in a different style, and am so well pleased with it that I feel in duty bound to give stockmen generally, who may not be acquainted with its merits, a description thereof. I send you a pencil sketch, from which an engraving might be made. At each end of the trough stands upright a 2 x 4-inch scantling. On the side of this next the passageway is nailed a two-inch plank one foot wide, which forms a barrier between the triangle and the alley. Then, on the inside, two or three planks or boards are



STATIONARY PIGPEN FRONT.

nailed, the bottom of the lowest one being on a level with the top of the one forming the front. This leaves a clear four-inch space directly above the trough, and through which the food is poured. Thus the pigs cannot crowd the attendant or pail, and the whole arrangement is strong and solid. I have had this plan in constant use for nearly a year, and find it perfectly satisfactory."

Peculiar Breed of Goats.

In his records of his visit to Britain in the years 55 and 54, B. C. (Bellum Britannicum), Cæsar has told of curious animals which he there saw, animals somewhat resembling antelopes, but which possessed the peculiarity of having no joints in their legs, and which, being thus unable to lie down, were compelled to sleep leaning against trees. It has been said that history repeats itself, and verily in this case would it seem to be so. In an article sent to us by Doctors White and Plaskett, of the Nashville Veterinary Hospital, Tenn., we are told of a species of goats which, in this twentieth century, if lacking the constitutional rigidity of the animals described by Cæsar, yet possess the power of attaining to it. These goats are to be found at Ewell Stock Farm, Maury Co., Tenn., and are known as "nervous," "stiff-legged," or "fainting" goats. In the words of Doctors White and Plaskett: "They are easily frightened, and to simply 'Boo' at them will cause them to fall helplessly to the ground, and remain there until the spell leaves them. The mere effect of jumping over a fence or bar, over 15 or 18 inches from the ground, is sufficient to cause them to become stiff and 'faint.' When under these spells, they can be dragged about as if they were dead. They become so rigid that they can be lifted bodily without bending." These convulsions last from ten to twenty seconds, the animals meanwhile seeming to be in full possession of their faculties, though in apparent agony. After the paroxysms subside, they walk off stiffly, their gait then resembling that of a horse suffering from tetanus. The young kids exhibit all the characteristic fainting symptoms of their parents. "The reasons for such a peculiarly high-developed, nervo-muscular system," say the doctors, "we shall not attempt to explain. Suffice it to say that this trait has become so well marked, and so thoroughly established, that we are justified in classing this animal as a new, separate and distinct breed."

Farm.

A Noted Agricultural Chemist's Opinion of Wheat Bran.

Under the title, "The feeding value of wheat bran," Prof. Snyder, of the Minnesota Experiment Station, has the following in the Northwestern Miller:

For producing beef, milk, or for general feeding purposes, wheat bran is one of the cheapest and best foods that can be used. Many of the most successful farmers in this country recognize its merits, and use it liberally. While there are other feeding stuffs which contain more protein, none contain their protein associated with other valuable nutritive substances in the same proportion as found in bran. Bran is one of the safest foods that can be fed to farm animals. It does not cause digestive disorders, even when fed in large amounts. It can be combined with and made to improve any kind of feeding stuff. It is alike valuable for beef or dairy animals, and can be fed to all kinds of live stock.

Some of the special characteristics of bran and its merits as an animal food are worthy of consideration. Wheat bran is distinctly an animal food, and not a human food. In the process of milling, the bran is removed because it can not be milled with the flour, and furthermore, its removal is necessary because it is indigestible as a human food. The human stomach is not made or intended to digest bran, but farm animals, as cattle, sheep and horses, have stronger powers of digestion than man, and are able to digest and utilize wheat bran to advantage. BRAN OCCUPIES THE SAME PLACE AS AN ANIMAL FOOD WHICH WHEAT FLOUR DOES AS A HUMAN FOOD.

THE COMPOSITION OF WHEAT BRAN.

Wheat bran consists of the outer layers or epispERM of the wheat kernel, which are removed in the roller process of milling; from 12 to 15 per cent. of the wheat as milled is recovered as bran. The aleurone, or so-called gluten layer, is removed along with the three bran coats, and forms an essential part of the bran. This aleurone layer is not capable of being digested or made available as human food, but is reduced and digested by farm animals, as cattle, horses and sheep.

In chemical composition, bran varies according to the composition and character of the wheat from which it is made and the process of milling employed. Average wheat bran contains about 18 per cent. of protein, which is considered the most expensive and valuable nutrient of foods, 4 to 5 per cent. of fat and 55 per cent. of carbohydrates. Wheat bran contains about 8 per cent. of fiber, from one-third to one-half of which is capable of being digested and utilized by farm animals. The average chemical composition of wheat bran is as follows:

	Bran from spring wheat, per cent.	Bran from winter wheat, per cent.
Water	11.5	12.3
Ash	5.4	5.9
Protein	16.1	16.0
Crude fiber	8.0	8.1
Carbohydrates	54.5	53.7
Fat	4.5	4.0

Almost invariably wheat bran has been found to contain more of protein and fat than is given in this table. As far as chemical composition is concerned, bran is not liable to be deficient in digestible protein, fat or carbohydrates, the most valuable nutrients for feeding purposes. Compared with other grains and farm products, wheat bran contains a larger amount of protein and fat than corn, oats, rye, barley, spelt, or the various varieties of wheat. These grains usually contain from 10 to 14 per cent. of protein, and from 2 to 5 per cent. of fat. Thus it will be seen that, as far as chemical composition is concerned, wheat bran compares favorably with average farm grains.

The digestibility of wheat bran is given as follows:

	Average per cent.	Maximum per cent.
Protein	75.8	82.3
Carbohydrates	68.4	74.6
Fat	68.0	82.6
Fiber	28.6	56.3

These figures show that under favorable conditions from 75 to 80 per cent. of the most valuable nutrients of wheat bran are capable of being digested and utilized by animals. The most successful feeders are those who obtain the largest returns from the foods consumed, and since bran is usually fed in a mixed ration by the best feeders, its maximum digestibility is thus secured. If a sample of bran contains 18 per cent. of protein, there will be from 13½ to 14½ per cent. of digestible or available protein. This protein is associated with from 40 to 45 per cent. of available carbohydrates, and about 3 per cent. of available fat. While there are other feeding stuffs which contain more of some of these nutrients, there are none which contain all three in such a well-balanced form. AN EXCESS OR A SCANT AMOUNT OF EITHER PROTEIN, FAT OR CARBOHYDRATES IN A FOOD IS UNDESIRABLE. In wheat bran this balance of nutrients is well maintained. In all classifications of feeding stuffs, wheat bran is classed among the nitrogenous or proteid feeds which are particularly valuable for promoting

growth in young animals and stimulating the production of animal products.

BRAN USEFUL FOR BEEF AND MILK PRODUCTION.

The value of bran for making beef has been recognized by the Standard Cattle Co., of Ames, Neb. This company is extensively engaged in the fattening of range cattle for the market. From 1886 to 1897 nearly fifty thousand cattle (49,648) were finished and placed on the market. The amount of bran fed from year to year varied, presumably with the market price. The grain ration consisted of about 20 per cent. of wheat bran, and Mr. R. M. Allen, manager of the company, states: "I regard wheat bran as one of the most valuable food products in use." Although the cattle were fattened in the corn belt and corn was extensively used, bran was evidently found both desirable and necessary in order to make a more balanced ration, and to secure larger financial returns from the corn. The use of 20 to 25 per cent. of wheat bran, even in the corn belt of this country, is quite extensively practiced among cattle feeders. Its use results in the production of a better quality of beef, and at a less expense.

In a dairy ration, wheat bran is universally recognized as one of the best feeds for forming the basis of the grain part of the ration. The best results in the feeding of dairy stock, and, in fact, in the feeding of all farm animals, are secured when two or three grains or milled products are mixed and fed in combination instead of singly. Bran can be combined to advantage with any grain or milled product, and in almost any proportion. Corn meal, oats, barley, linseed meal, and all grains and milled products, can be safely combined with bran, and better returns secured than if the bran were omitted from the ration. Wheat bran compares favorably in milk-producing powers with the most concentrated and expensive feeding stuffs.

The most extensive feeding tests which have been made show that, pound for pound, bran is equal in milk-producing power to mixed farm grains.

WHEN BRAN SHOULD BE BOUGHT.

In purchasing feeding stuffs, the safest rule for the farmer or feeder to follow is when wheat bran and other common feeds and grains are selling for the same price per ton, to give the preference to bran because it will produce fully as much milk as any grain and at the same time produce a better quality of product, and return more fertility to the soil. When the most concentrated meals exceed bran in price by more than 20 per cent., then the preference should always be given to bran.

When live stock is fed upon the farm, the manure not only adds new stores of fertility, but it makes the reserve fertility of the soil more active and available. Wheat bran occupies a high place among feeding stuffs, as producing a valuable manurial product.

Wheat bran as offered for sale in the market has never been found to be adulterated when in original sacks. In a few cases bran in bulk has been found to be adulterated.

BRAN FEEDING NECESSARY TO RETAIN SOIL FERTILITY.

In the feeding of bran, its manurial value is an important item, and is worthy of consideration. The best systems of agriculture demand that some live stock should be kept and fed upon the farm in order to conserve the fertility of the soil. The combination of live stock and grain farming furnishes the most rational basis upon which any system of agriculture can be based. When live stock is fed upon the farm, the manure not only adds new stores of fertility, but it makes the reserve fertility of the soil more active and available. Wheat bran occupies a high place among feeding stuffs, as producing a valuable manurial product.

A ton of wheat bran contains 55 pounds of nitrogen, 52 pounds of phosphoric acid, and 30 pounds of potash. If purchased in the form of a commercial fertilizer, the nitrogen would cost fifteen cents per pound, the phosphoric acid and potash each five cents per pound, making the manurial value of a ton of wheat bran worth \$12.90. Lawes and Gilbert estimate that 80 per cent. of the fertility in the foods consumed by live stock is returned to the soil, making a return to the soil of \$10.32 per ton of bran. It has been found more economical to purchase feeds of high manurial value, as bran, for the feeding of live stock than to purchase commercial fertilizers. There is no farm grain which produces as valuable manure as bran. When the feeder purchases bran and feeds it to his live stock, he is adding fertility to his soil. THE SHIPMENT OF WHEAT OFFALS AND OTHER GRAINS OUT OF THE COUNTRY IS A MENACE TO THE FERTILITY OF THE SOIL AND ITS CROP-PRODUCING POWER.

Wheat has from the earliest times been the staple food of man. Its highest value as a human food is secured when the wheat is milled so as to obtain standard white flour, leaving the bran and shorts as valuable animal foods. Wheat bran is one of the most valuable feeding stuffs that can be fed to farm animals; when fed to live stock it produces a valuable manure and adds fertility to the soil. It is not only an animal food of high value, but also a plant food, and, if used intelligently, will assist in producing not only wealth, in the form of live stock and live-stock products, but permanent wealth, in the form of soil fertility, which is "the riches of states."

The Seed Potato Craze in England.

The British public generally, and agriculturists more particularly, have for the last eighteen months been interested in the great boom in seed potatoes. Fabulous prices have been realized, and prices still more fabulous are expected in the near future. A short account of how the boom commenced and proceeded may be of interest to readers of the "Farmer's Advocate," as the facts are not generally known in Canada.

For many years past Mr. Findlay, of Auchterady, Fifeshire, Scotland, has been experimenting in seed potatoes, and has placed many useful and profitable varieties on the British market. In the fall of 1902 came the "Northern Star," the variety which started

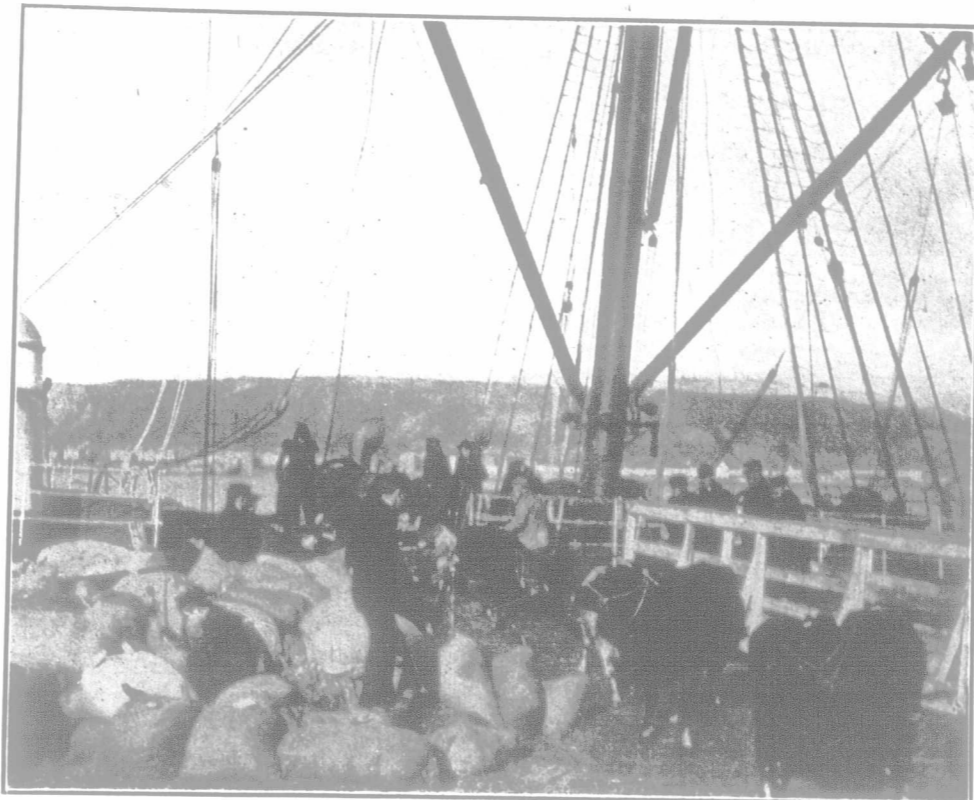
associated with the first great sale of "Eldorados." He obtained \$7,000 for 14 pounds of this variety. For a time one of the sights of the town was a photograph of the potatoes and a cheque for the above-named sum, side by side, which was exhibited in the window of Mr. Massey's store. From that time the price advanced by leaps and bounds, and the chief feature at the last Smithfield Fat-stock Show was not cattle, but the "Eldorado." The excitement was intense, and the talk was all of potatoes, and the extraordinary prices. Shortly after this the high-water mark was reached, when \$1,000 was being asked, and paid, for a single pound of the precious tubers. Mr. Massey had single potatoes for sale, ticketed at \$50 each, and upwards. Spalding suddenly leaped into fame, and Mr. Findlay's name became a household word all over the country. At the present time advertisements are appearing in the agricultural papers, of "Eldorados, the gold-finder—plants, grown from shoots, not cuttings, £4 each." And these plants are said to find eager purchasers. One firm alone had, in April, 10,000 of these plants under glass, and each was valued at the above price. One can imagine that these precious plants are most carefully guarded and tended, when the holding of a single firm is worth \$200,000!

Mr. Findlay says he has other varieties in store for the future, and better even than the "Eldorado"! He says that the high prices do not surprise him, and he expects his newer varieties to reach a still higher figure. One expert, speaking of the fancy figures which the tubers have realized, said that just as much, and more, had often been paid for rare flowers; and that such a useful article of food as the potato should be worth more expense and trouble than a flower.

During the fall of 1903 many other new varieties, raised by various growers in the British Isles and in the United States, were placed on the market. But, though many of them attracted a great deal of attention, none realized the enormous price of the "Eldorado." Two other sorts, of the same name as this golden potato, have already appeared, from Austria and the United States, and it is probable that many growers have these imitations instead of the real article. Of course, none of these new varieties are yet being sold for eating purposes, but all are said to be first-rate cookers. The "Northern Star" will be "on the market" next year; the "Eldorado" not till 1907. Middlesex Co., Ont. WALTER HARGRAVE.

Care of Machinery.

A farmer often has hundreds of dollars invested in machinery, and to leave this exposed to sun and rain any more than is necessary is one of the worst mistakes. It may cost something to build a shed, but this cost will be saved many times over in the longer life of the machinery. Even in a shed the machinery will rust considerably. To prevent this, take a pail of common machine oil and paint with an ordinary paint brush. When treated in this way it never rusts, and is in as good running order when taken out as when put in.—[C. V. Gregory, in Practical Farmer.



Aristocratic Bovine Emigrants Landing at Levis, P. Q.

the famous boom. This potato was described by the raiser as "disease-resisting, and very prolific." By January, 1903, the price was somewhere in the neighborhood of \$5,000 per ton, an altogether unprecedented figure for seed potatoes. The results of the 1903 crop showed that the raiser's claims were not groundless. That year was the most disastrous for potatoes which had been experienced for a long period. At harvest-time many of the fields were under water, and many growers simply plowed them in in the fall, as they were too rotten and diseased to be worth lifting. But the "Northern Star" came out victorious, and yielded an abundant crop, said to be free from disease or blight. This gave an impetus to the sale of the seed in the fall, and several prominent merchants offered large prizes for the best crops of "Northern Stars" grown from their seed. Messrs. Dennis & Sons (one of the latter of whom is on Mr. Chamberlain's Tariff Commission), who claim to be the largest firm of potato merchants in the world, offered a prize of \$1,050 for the best crop grown from 560 pounds of seed supplied by them. Other firms offered smaller prizes for the small farmer and the farm laborer.

However, Mr. Findlay showed that he was not at the end of his resources, for in the fall of 1903 he introduced the famous "Eldorado," which he claimed far surpassed the "Northern Star," both in its power to resist disease, and in its powers of production. Only two lots of this variety were sent out by Mr. Findlay in the year 1902, one to the North of Ireland, the other to the South of England. These, however, were in 1903 distributed over the country, and the name of a Spalding grower, Mr. G. Massey, will always be



At Bird's Hill, Man., Farmers' Institute Picnic and Plowing Match.

The Handling of the Clover Nursery.

Some time ago, we stated in these columns that Mr. Sharpe, of the Experimental Farm, Agassiz, B. C., would furnish inoculated soil to our readers who were desirous of making a start in clover growing. Mr. Sharpe recommends the following as the course to be followed in the clover nursery:

Thorough, careful preparation of the earth, until it is in A1 tilth, then broadcast the B. C. soil; harrow thoroughly, so as to incorporate with new land, and then sow clover, and brush and roll. Have a test plot alongside, on which make an application that would equal 300 to 350 pounds of inoculated soil per acre. I have in several cases advised a light nurse crop, to be cut very high, and stock to be kept off the land this year, and to report to me and to the "F. A." this autumn and again next spring. In one or two cases, I have advised sowing both plots alone. Would try sample at 300 lbs., air dry, 350, 400 and 500 per acre, each with thin nurse crop, say, barley one-half bushel or wheat one-half bushel, some series to have the nurse crop left on to hold the snow, some cut in milk stage, some when ripe, all those cut to be cut as high as possible, so as to leave all stubble possible to hold snow. No cattle to be allowed on in any case, but if clover shows sign of blossoming a mower to be run over, so as to cut the heads off, letting clippings lie where they fall. Would also try a series of plots with nitrate, at rate of 300 lbs. per acre, when the plants were out in second leaf; another at 150 lbs. then, and 150 lbs. later on, say, middle of July. A series with 300 lbs. slag or superphosphate, and a series with both superphosphate and nitrate of soda at rates above. In re the nitrate, clover needs nitrogen to enable it to grow at all, and at first the plant may find no nitrogen available in the soil to feed it until it is sufficiently vigorous to get its supply from the air. I believe that many clover catches are killed out by a feeding-off or baring process in the fall. I know that the native grasses thicken up very much, and also make a more vigorous growth and better pasture, being more succulent, if the grass is not burned off until last of May. I reasoned it out that the grass roots were starved by cold, cold dry winds, and open cracks in winter, and hot sun and cold, dry winds in spring before growth began, the want of cover enabling the sun and dry winds to suck up the moisture from the surface, starving an already enfeebled system of roots. I believe in leaving a cover to the soil in every land. Throw an old blanket, a gunny sack or board, on the ground, and leave it there from only September to May, then plant, and note the better growth; nitrification because of cover to the soil, better supplies of nitrogen for plants, better plants to gather potash and superphosphates from a better conditioned soil.

The new public works building at Winnipeg will cost from \$150,000 to \$200,000, and will be 200x50 feet, accommodating 1,500 people.

The customs receipts at Winnipeg for the month of May show an increase of \$34,446.31 over the same period last year.

Perennial Sow Thistle

(*Sonchus arvensis*).

Farmers who have not yet any perennial sow thistle upon their premises should congratulate themselves. In some districts of Manitoba it has already gained too strong a foothold, and strict enough measures do not appear to be adopted to check, much less eradicate, it. This condition of affairs is unfortunate, because it is one of the most injurious weeds that could get a foothold. It not only grows a big top, crowding out the crop, but it develops a great network of roots, which absorb the water that should be used for useful plants. It is also very difficult to eradicate. This is owing to the fact that it reproduces rapidly from the roots. Cut



THE PERENNIAL SOW THISTLE.

a root in two, and instead of destroying the original plant, two new ones will appear springing up from the ends of the severed root.

In its habits of growth the plant is upright, growing from two to three feet, except in very rich, well-drained soil during a damp season, when four to five feet is not unusual. The stems are rather hairy or bristly, especially the flower stem, and they are also hollow. When ruptured, a milky fluid exudes. The leaves are provided with weak prickles; the blossoms are yellow, and the plant is a great producer of seed, each one of which is surrounded by a feathery or downy appendage, which enables transportation by means of the wind. The plants will be quite noticeable at this season wherever they may be found. They are, however, no respecters of certain crops, but grow anywhere, and usually ripen their seeds before grain crops are ready to cut.

As a means of eradication, read article on "Killing Weeds in Wet Weather," to be found elsewhere in this department.

British Columbia Hops.

A short time ago, when looking over the plant of the Calgary Brewing Co., we found that concern were using hops from the Okanagan. The manager informed us that, although they used hops from other districts in the process of manufacturing their products, none were more satisfactory than those from the celebrated fruit-growing valley of the Upper Country of B. C. The Coldstream Ranch (Lord Aberdeen's place) is where the hops seen were grown.

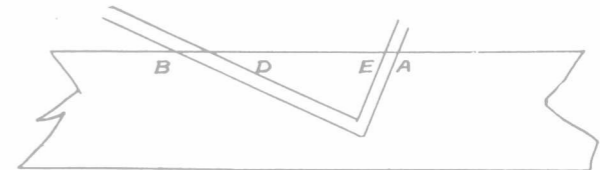
Killing Weeds in Wet Weather.

If a dry summer confers no other benefit upon the farmer, it at least enables him to kill weeds at a minimum of cost for labor. In fact, there are some weeds that cannot be managed by tillage with any degree of satisfaction unless the summer be dry. These are of the perennial class that reproduce by creeping roots. Perennials are so called because they live from year to year, producing a plant from the same root. The perennial sow thistle is a prominent and, unfortunately, too frequently in some districts of Manitoba, example of the creeping perennial. Couch grass comes in the same list, as does also the Canada thistle. These weeds are sometimes mentioned when it is desired to show how necessary it is to know the habits of growth of a weed before a successful course of eradication can be carried out. A little experiment with a vigorous specimen of one of them will show that if a root be severed while the soil surrounding it is moist there will spring up from both ends a new plant. For this reason many who have had serious trouble in eradicating couch grass claim that cultivation in moist weather appears to increase rather than diminish their numbers. The same is the case with all plants of this class. Cultivation in wet weather is of little value in wiping them out. It is, nevertheless, always a good thing to cut off the tops, and thus prevent them weathering through their leaves, but to go down deep enough to cut the roots in two will bring no good returns for the labor expended.

In a wet year, the only effective means of checking these intruders is through smothering them out with some such crop as rape. The latter appears to have some majestic power as far as exterminating thistles is concerned. We have known reliable farmers to make the statement that they cleaned land completely that was badly infested with thistles with one crop of rape. Where there is a very large area in which thistles or couch grass has got a very strong foothold, it will take considerable rape to sow it sufficiently thick to smother the weeds, but it will pay in succeeding crops, and if there is a reasonably large herd of live stock about the farm, the fall pasture from the rape will also more than pay for the seed. When rape is being sown for the purpose of killing weeds, from three to four pounds seed per acre should be used.

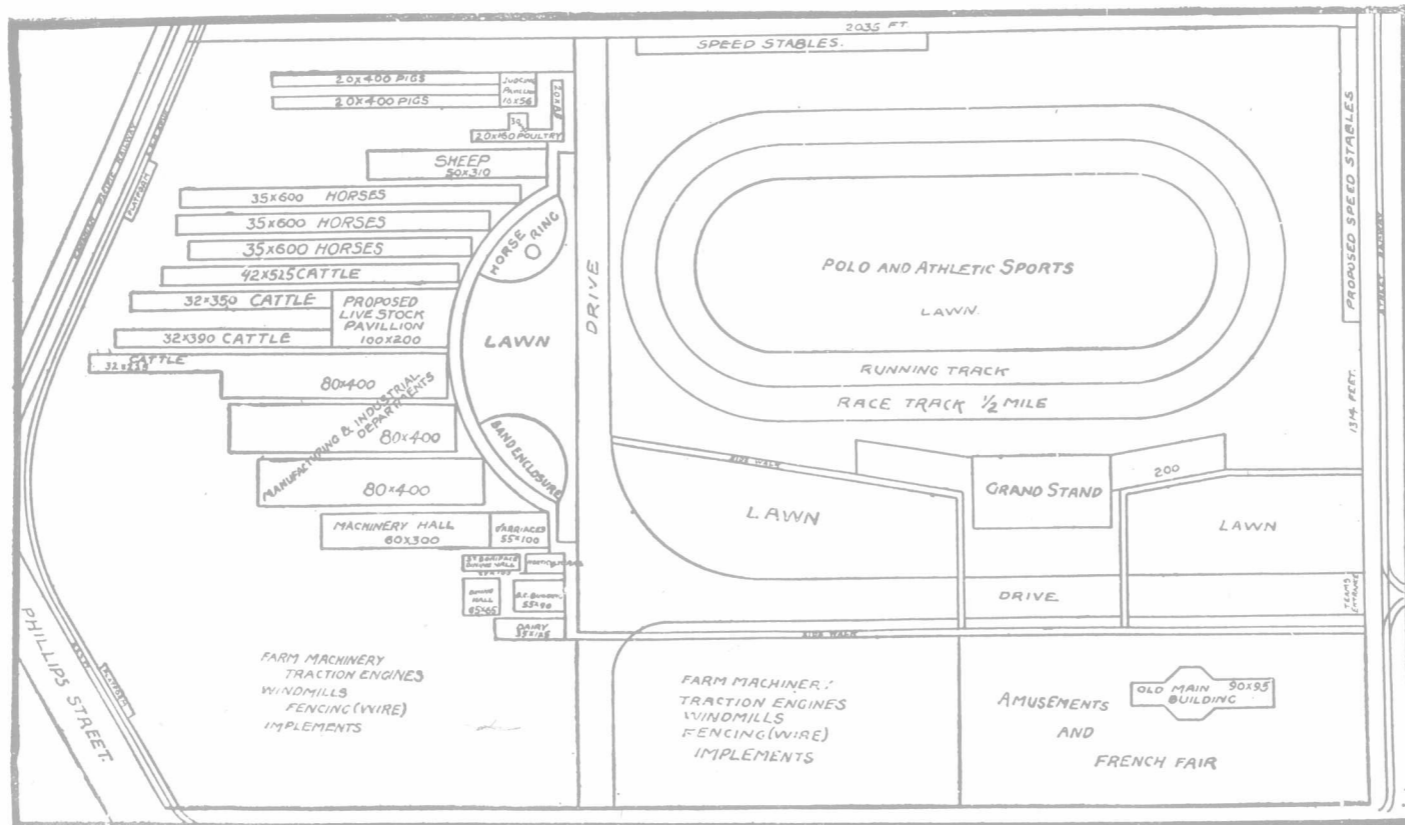
The Cutting of Roof Rafters.

The erection of new buildings is something that engages the attention of many farmers during the summer-time, and while all are not as handy with tools as they would like to be, yet a little study will render many a man capable of doing odd jobs at carpentering. One



THE USE OF THE SQUARE IN CUTTING RAFTERS.

of the difficulties that confronts many an amateur carpenter is the cutting of rafters so as to get the right levels. The first thing to decide is the pitch to be given the roof, whether a third, one-half or three-quarters, the last being the steepest pitch (the inclination of the roof). The pitch of a roof is described as quarter pitch, one-third pitch, half pitch, depending on the inclination, the amount of the pitch being obtained by dividing the spread of the roof (or width of the building) by the height of the roof; hence for a building 24 feet wide, the roof to have a pitch of one-third would mean the peak (highest point) of the roof would be 8 feet above the level of the eaves or sides of the building, a quarter pitch calling for a height of 6 feet to the peak. The common slopes or pitches for farm buildings are the quarter and third, houses and churches generally being given steeper pitches. The pitch being decided upon, the length of the rafters and the bevels at each end will need to be arrived at, which is done quickly and accurately by the use of the steel square, as shown in the accompanying illustration. We will suppose the building to be 30 feet wide, and that the roof is to be one-third pitch, which will mean a rise of 10 feet. Take your 2x4 intended for a rafter, and lay upon it the steel square, placing long side of the square 15 inches (half the width of the building, on a scale of one-twelfth) from the edge of the 2x4 scantling, and the short side 10 inches from the edge. The angle at D will be the bevel of the foot of the rafter; the angle at E the bevel of the upper end to meet its opposite. The length of the rafter will be the length from B to A, multiplied, of course, by the scale into which the



Plan of Dominion Exhibition Grounds, Winnipeg, Man.

square is divided. If divided into twelfths, and the length from B to A on the scantling's edge was 20 1/2 inches, then the length of the rafter to be cut would be 20 feet 6 inches.

Our School Question.

To the Editor "Farmer's Advocate":
 In your issue of April 27th there is an article on "Our School Question." With your permission I would like to offer a few remarks on same, as it appears to me the conclusions you arrive at are not in line with the facts, at any rate, not as I see them. As an Old Countryman, I don't believe for one moment that the Old Country educated youth of fifteen is superior in any way to the youth of this country of the same age. Boys and girls who have kept steady at school, say in Winnipeg, Brandon or Portage, would compare most favorably with their cousin on the other side from towns of the same size and educative facilities; and as regards salaries, I have a niece, a B. A., teaching in the Potteries in England, and if her salary was offered to our Canadian girls they would have little ambition to enter the teaching profession. I do not think it is fair to our teachers, raised and educated in Manitoba, to allow outsiders to come in from Ontario or any other Province without complying with the regulations laid down by the Advisory Board of Manitoba, and in saying this I do not wish to reflect on the system in force in the Sister Provinces. They are doubtless carefully considered and adapted to the wants of each particular part of the Dominion, but from actual experience in this locality, I must heartily agree with the barring out, as you name it, of teachers from any part of the Dominion, unless they pass the examinations for professional and non-professional teachers laid down by our education authorities. If this were not so, our Province would be the dumping-ground for a lot of "n'er-do-wells." As it is, with permits occasionally, on account of the shortage in teachers, we have foisted upon us individuals who long ago should have quit the profession and taken up something more adapted to their abilities.

The great trouble, to my mind, does not rest with the teacher; it is the lack of interest in education generally by the farming community. It is marvellous how the trustees will wrangle over the question of salary, and get the cheapest teacher available. And then the attendance will average, at the outside, 10, so that the cost per scholar runs in the neighborhood of between \$40 and \$50 per annum. I was in the vicinity of two schools recently; one had three attending, and the other six, and yet in those school districts, I am satisfied if all the children of school-age had been in their places, the attendance would have been nearer twenty in each building. This question of education in our rural schools is one of the most important to be dealt with by our authorities, and unless something is done speedily, the majority of our children will grow up in ignorance. This is what the Hon. C. H. Campbell, Minister of Education, said recently at a meeting in Winnipeg, as reported by the Free Press: "Nearly fifty per cent. of the children in rural districts have received no education at all; 65 schools where the attendance is 5 and under; 105 less than 5; 206 less than 10; 164 less than 12, and 200 fourteen and under." This is staggering. The Government should make consolidation of the smaller schools and the attendance and conveying the pupils to and from school compulsory. If the cost is in excess of our present system the parents would be getting value for money expended. At present, in the 400 schools with an average of less than 10, the greater part of the expense of running these schools is simply wasted. We want a better system of inspection. A flying visit once a year is not inspecting, and in many instances is simply a farce.

Your paper circulates amongst the very people who are allowing their young people to miss the golden opportunity of their lives, and I would urge them to take hold of this question. Consolidation, which carries in its train better buildings and surroundings, a higher grade of teachers, and a chance for the youth of Manitoba to be on an equal footing with their competitors coming in from all parts of the world to this great Northwest. JOHN R. DUTTON.

With the Summer-fallow.

Where summer-fallowing is being done, it ought to be done well. There is absolutely no use in plowing once in the springtime and then allowing the weeds to grow up and seed. To farming of that class belongs the discredit of fields polluted with mustard, French weed, sow thistle, etc. If the weeds are not kept in check, it should not be called a fallow.

Before haying starts, it should be in a good state of cultivation. As pointed out in a recent issue, one good plowing may be found quite sufficient, provided the harrow or cultivator be used at the proper time afterward. For couch grass, sow thistle, or other weeds that reproduce by the roots, the harrow will have little effect. For these the shear cultivator or the gang plow must be used. The practice of sowing some kind of grain on the fallow after it has been plowed and well cultivated is growing in favor. If the weeds are very bad, however, this is not always a good plan, as it prevents cultivation to meet them.

The last of June is not too late to sow a patch of rape on the fallow. Some good farmers, too, believe in sowing a peck of wheat and harrowing it in. It affords the cattle a nutritious bite late in the fall, and does not injure the fallow very materially.

Clean up Scrubby Corners.

A trip of inspection through some of the older districts of Manitoba will show a variety of scrubby corners on certain farms. When the virgin sod was broken there were a few acres here and there on the homestead, and the ragged and zigzag edges where they touch the cultivated land still remains.

An occasional bluff on the farm is ornamental, but the presence of numerous scraggy patches of poplar, oak and brushwood is unsightly. The new settler may not have time to spend in clearing up wooded patches scattered throughout a field he intends to cultivate. His time can be more profitably occupied in breaking the land already cleared. In old settled districts, however, there is little excuse for not having the scrubby corners cleared up, and the farms thereby made more beautiful. The writer not long ago drove over a farm that has been under cultivation for over twenty years. It was all good land, but nearly half of it had never been cleared of scrub, which was scattered in patches of five acres each at frequent intervals over the entire homestead. It pays to beautify the farm when an opportunity presents itself, and it even pays to search for an opportunity.

Report of the B. C. Agricultural Department.

The report of the Department of Agriculture for B. C., although a little late in appearing, is voluminous, and contains a lot of information regarding the Pacific Province. It is beautifully illustrated, and should be of considerable value to the intending settler in that country. It contains reports from a number of correspondents, some of whom state their opinions with a breeziness that is refreshing; others advocate spoon-feeding for the settler by the Government, to which we cannot subscribe. It is not done elsewhere in Canada, and considering the fine climate out there, no demand for government pap should be entertained. Many men are going into that country with money, and no sane person doubts that B. C. is all right. The influx of new blood, more capital and energy will do it good, as the natural resources and climate are there. The introduction by the Deputy-Minister, J. R. Anderson, shows that expert judges are being used for the fairs, and that the department is keeping in touch with advanced agricultural thought. The volume contains a list of the provincial breeds of live stock, divided into four sections, horned cattle (under which heading we find Red Polls and Aberdeen-Angus—it would be better to drop the term "horned"), horses, swine, and sheep. In a publication of this kind, more or less educational in its nature, it would be better to omit from the list such as grade cattle, running horses; at least, we submit the above changes would be more in keeping with the teachings of animal husbandry up-to-date.

Dairying.

What is Standard Milk?

This question is one that frequently agitates the mind of the city purveyor of the lacteal fluid, especially when the milk inspector takes a sample from his wagon or dairy, and of the farmer selling milk for city consumption or to a cheese factory. The average of a large number of analyses of European and American samples shows the total solids to be 12.83 per cent., and water 87.17, the fat content amounting to 3.69 per cent. of the whole. Milk up to that standard is to be considered good (omitting germ impurities from the consideration), and it is quite possible that the average from farm cows is away below the figures given. During April, May, June, July, August and September, the solids are lessened, but even then milk containing less than 12 per cent. total solids, or less than 3 per cent. of fat, cannot be considered as good milk, or the best for animal or human consumption. Without any adulteration some milk may be below the standard, and it is here where the farmer can profitably do a little testing of his cows. A few years ago Agriculturist Grisdale, of the Central Farm, Ottawa, outlined a method to be followed by farmers in testing their herds, with a view of finding out the unprofitable cows. To produce standard milk, the farmer must select cows whose individual products will blend to make an average quality of milk. The different breeds of cattle vary in the quality of their milk, as is well known. The New Hampshire Experiment Station publishes the following averages:

Averages.	Ayr-shires.	Short-horns.	Guern-seys.	Jer-seys.
Total solids.....	12.55	12.8	14.6	14.00
Fat	3.88	3.45	5.11	4.18

And states the Holstein breed is especially apt to fall below the standard. Some time ago Prof. Carlyle stated that if he had to take a breed with a view of developing it, he would choose the Holstein, as he considered by careful selection and breeding the disadvantage of a low per cent. of fat could be overcome. The breeders of pure-breeds can safely be left to look after their herds. Where the improvement is needed to benefit the greatest number, is in the grade herds of the country, and we recommend our readers to become familiar with the Babcock test, and follow out Mr. Grisdale's suggestions, namely, to have a standard for each cow of 5,000 pounds of milk per year, to weigh the milk each day with a spring balance, and where practicable to test the milk to determine the present butter-fat. The Central Farm furnishes blank forms for records; there's money in it—try it.

The C. P. R. will hereafter have a regular station at the stock-yards, for the convenience of stockmen when shipping.



In the Chilliwack Valley, B. C.

Barn and part of herd of Ayrshires and Jerseys, property of A. C. Wells, Sardis, B. C.

Produce Tips.

Some buttermen advise using less butter color, and when the cows have been on grass for some time to leave out the artificial coloring entirely.

The best milking machine is, we believe, a stout boy or girl, man or woman, properly instructed, and given some financial interest in the result.—[N. Y. Produce.

The Russian army is using milk-powder imported from England. It must be the milk of human kindness John Bull has sold the Bear, as the Japs keep coming on the run.

Washed eggs do not keep well. The great thing is to limit the production of dirties.

New York Produce said, recently: "The indications are that butter will be considerably lower than for several years past, and we may have to come down to an export basis, which may mean 17c., or even 16c., in New York. Even if this happens, dairying will prove quite as profitable as any other branch of farming, and it would be foolish to get discouraged and go out of dairying on that account." We do not look for a lowering of prices in Manitoba, as in another month the big flush of grass milk will be over, and the price in Winnipeg is firm at this date for a good article.

Run the hand separator at an even rate, and separate the milk before it cools.

Give the milk cellar or butter-room a thorough good coating with whitewash.

If you are bound to use nest eggs, do not use the real article, unless it has been boiled hard. China nest eggs are better. Egg-eating cannot be learned on the china egg, and such do not soil the nest if broken.

Plan your poultry-house now, so that it, when built, will be warm in winter.

Gypsum (and plaster) makes a nice deodorizer to spread around on the dropping-board and in the cow stable during summertime. Gypsum prevents the volatile ammonia carbonate (the valuable nitrogen-holding substance) being lost by going off in the air. Lime renders the ammonia unavailable for plant use.

Shall we Abandon Cream Ripening?

J. H. Monrad, the noted dairy expert, has the following to say on "a cream-ripening experiment" reported by Prof. Dean:

"If the result is to be accepted as conclusive, it ought to revolutionize the art of cream ripening. Two lots of butter made from pasteurized cream were judged. One of these was cooled immediately after separating, culture was added, and it was churned at once; the score for flavor was 42 out of 45. The other lot was ripened the usual way, and scored 41.5 for flavor. It was another illustration of the practicability of omitting the ordinary process of cream ripening, and yet securing good flavor."

"In spite of the indication given by Prof. Dean that this was the second test along this line, it seems to me a little hasty coming from an investigator. If it had been reported by a layman, I should have read it with interest and passed it, but coming from Prof. Dean, I must call for more facts and proofs, in order to accept the dictum that it is practical to get as good or better flavor (as indicated by the score) without the ordinary process of ripening."

"Have we all wasted our labor in watching the ripening of the cream, not to speak of testing the acidity so as to churn at the most favorable moment? If so, I propose that the younger generation of buttermakers erect a statue to the honor of Prof. Dean!—just think of the convenience of being able to churn just after separating and cooling the cream, and get the butter from the morning's milk into the refrigerator by 3 or 4 p. m."

"The extractor, accumulator and radiator advocates did not go quite so far, as they wanted to soak the butter granules in the starter for some hours, but even they do not seem to have conquered the market. It remains to be seen what the Prof. Dean method will do, but, pending a more exhaustive line of experiments, with close commercial scoring of the butter, I must advise my readers to continue the orthodox method of ripening."

Nearly a million bushels of wheat are still in the C. N. R. elevator at Port Arthur, and a great deal has already been shipped out.

A States View of the Buttermaking Business.

While fluctuations in prices must be expected in all kinds of produce, the fluctuation in butter is relatively less than in most other farm products, and while our best grades of butter always have had, and will have, the best market at home, we must be prepared for the necessity of reducing the strain of the increased production chiefly of medium grades. Even now Danish butter is quoted in London at 19c. to 20c., and fine colonial butter at 17c. to 18c.; and possibly these figures may be still further reduced.

If the Danish farmer can produce butter at this low level of values on land worth from \$200 to \$300 per acre, and buying corn from our northern States, and cotton-seed meal from our southern States, it is simply "up to us" to produce the butter cheap enough to meet that competition. This cannot be done, even on land worth \$75, \$50 or \$25 an acre, and with the base of corn supply near at hand, unless we systemize the work and use business methods.

And curiously enough, we must come back to our old refrain, "the testing and keeping a record of each individual cow, the providing of soiling crops or summer silage to eke out pastures and winter silage or roots for winter roughage." If this is done, we have no doubt that our farmers can meet any and all competition, be it from Siberia or Denmark, from Chili or New Zealand.

But even if our milk-producing readers should not agree with our assertion that butter can be made at a profit at sixteen cents per pound, it will not pay them to give up dairying, as the low price is not likely to rule long, and, on an average, no other branch of farming pays as well as intelligent dairying.—[N. Y. Produce.

The Influence of the Hand Separator on Dairying.

A dairyman of note, well known to many of our readers, Prof. G. L. McKay, of the Iowa Agricultural College, has the following to say in the Drovers' Journal regarding this important and timely topic:

The introduction of the creamery system has largely done away with buttermaking on the farm, as greater quantities of a uniform quality of good butter are made at creameries or central places, hence better prices can be paid. The introduction of the little hand-separator on the farm promises to bring about additional changes; it has already greatly depreciated the quality of creamery butter. This is largely due to the unfamiliarity of patrons with the new conditions that confront them, as well as to the practice that some creamerymen have of requiring the cream to be brought in but two or three times a week. If the cream had been properly cared for it could be delivered every other day in good condition.

One of the first considerations is to thoroughly cleanse the separator every time it is used. The desirable and undesirable bacteria growth depends upon the cleanliness observed. The putrefactive species, or those that cause ordinary decay and undesirable flavors, are commonly associated with filth. In cleaning the separator, first thoroughly cleanse the tubes and intricate parts with warm water. After all the milk has been removed, thoroughly scald all parts that come in contact with the milk. When purchasing a hand-separator, simplicity of construction should be one of the first considerations in influencing the buyer.

Cream should be aired and cooled as soon as separated; fat is a poor conductor of heat or cold, and must necessarily be stirred while cooling. If cream has been treated this way it will keep sweet in a cool place for two or three days. Warm cream should never be added to cold cream until it has been reduced to the same temperature.

Cream will keep sweet much longer than milk, if properly cooled, as it contains less milk serum or food for the action of bacteria. It should be kept where the surrounding atmosphere is pure, so as to prevent it from taking up flavors by absorption. If cream is kept in a cellar the walls should be whitewashed a couple of times a year, as lime is a great purifier. Vegetables should never be put in the same room with cream. It is well to ventilate the cellar during the night, and close it during the heat of the day.

The writer WHEN SCORING BUTTER IN VARIOUS PARTS OF THE COUNTRY HAS FOUND THE

MOST COMMON FAULT WITH DAIRY BUTTER IS THE LACK OF GOOD FLAVOR.

Most of the flavors are those acquired by absorption, taken up from foods and decaying vegetables kept near the cream. There is no reason why as good or better butter cannot be manufactured by the individual dairyman on the farm as in the creamery. The little separator, if properly cared for, will greatly facilitate the work.

I would advise skimming about 30 per cent. and cooling it immediately, as recommended above. As soon as sufficient quantity is obtained for a churning, the entire lot should be warmed to 65 degrees F., and about five per cent. clean flavored sour milk added to it. The cream should be held at this temperature until it begins to thicken and has a pleasant acid taste. It should then be cooled to churning temperature, preferably 52 degrees or 54 degrees, depending somewhat on the locality.

If the cream is very thick it should be churned at a lower temperature to insure a good firm body. Butter should gather in about twenty-five or thirty minutes, and should be churned in granules about the size of wheat. The buttermilk should then be removed, and the butter washed once with water at about the same temperature as the cream. About the same amount of water should be used as you had of cream. As soon as the butter has been drained, an ounce of salt, or three-quarters of an ounce, as market requires, should be added for each pound of butter.

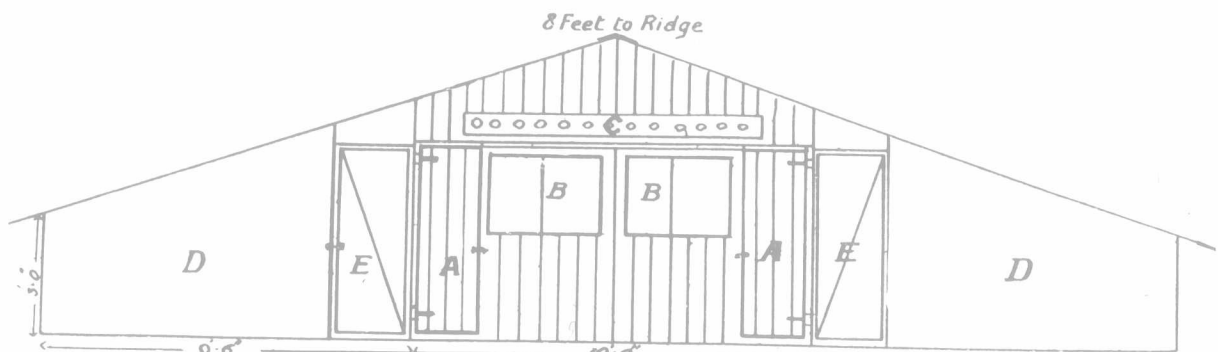
If the butter is in granular condition, as it should be, the churn can be revolved a few times to thoroughly mix butter and salt. The butter should be permitted to stand in this condition from thirty minutes to an hour, so as to permit the salt to dissolve. Butter should then be worked until all the loose moisture is expelled and it loses its gritty feeling, or assumes a massy condition, and then it is ready to pack.

Poultry.

Poultry Houses and Runs.

Those who are about to build poultry-houses will find it a great benefit to have a covered run attached, so as to provide shelter for the birds in wet weather, and also some place where they will be protected from the hot sun in summer. We must also provide light and ventilation free from draughts. The following are the details of a pair of houses which will be found to meet these requirements, and which can be kept clean with but little trouble. The building is twenty-nine feet long, and ten feet wide, eight feet high at the ridge and three feet at the eave. It will be found economical to build a framework for the boards to run vertically, and the sheeting from the eaves to the ridge, so that no rafters will be necessary. The houses are each five feet by ten feet. The covered runs, D in the sketch, are nine feet six inches by ten feet. The front of the covered runs should have wire netting stretched over the front, with a doorway, E. A is the doors into the houses; B the windows, two feet square; C the ventilator, which can be made by taking two pieces of wood three feet long by about one and a half inches square, then nail a thin piece half an inch square along the edge, so as to form a rabbet on each; then take a piece of board four inches wide and one inch thick, two feet nine, nail the pieces with the rabbets on against the front of the house, with the board between, so as to slide easily from side to side; place a small block at each end, leaving the board one and one-half inches play; then bore one-inch holes, one and one-half inches from the centers, through both the front of the house and the board.

For the floor, nothing, in my opinion, equals the earth itself, well beaten down, with a little sand sprinkled over it. The partition between the houses should be boarded up five feet, and the remainder with battens, three inches apart. The perches should be about three inches wide, with the edges rounded off, and free from cracks, etc., so as not to form a breeding place for vermin and the accumulation of filth. The nest-boxes should be fourteen inches square, and if manure-boards are used, only need the partitions to be fixed together by a batten nailed at the bottom in front and one at the top of the back. The manure-boards are eighteen inches wide, and slope to the front, the perches being fifteen inches from the



End View of B. C. Poultry House.

partition, resting on sockets nailed to the front and back of the house. All inside fittings are best made so as to be readily taken out for cleaning. A hole is cut in the side of the house far enough back to allow the door, E, to be fastened back when the fowls are allowed out. In addition to the covered run, an open run, not less than fifteen by thirty feet to each house, should be provided, it being boarded up two feet, with four feet of wire netting on top.

Shingles make a very satisfactory roof, and if the house be double boarded, with an air-space between, and the top of the house is filled loosely with straw supported with battens, it will be found the birds are warm and comfortable in winter without any stove. The best way to keep fowls warm is by suitable feeding. E. T. B.
Coquitlam, B. C.

[Ed.—For Manitoba and Territorial conditions, it would be necessary to make the house a little warmer than would be required in B. C. This could easily be done by using building paper and an extra ply of lumber wherever required.]

Fatten Your Chickens Before Marketing.

The Reliable Poultry Journal says in its last issue that it believes that the crate fattening of chickens for market is to become an important factor in the improvement of table fowl in this country. Crate fattening, briefly described, consists in penning in crates fowls that are intended for market, keeping them confined for two weeks in such a manner, and feeding them special, easily-digestible foods, with the object of quickly increasing their weight, softening the flesh and improving its grain and flavor.

While crate fattening is producing satisfactory results and increasing in popularity, the machine method of cramming fowls is growing less popular, even in the European countries where it was practiced extensively a few years ago. We are reliably informed that English market poultrymen who tested thoroughly the enforced fattening of fowls by the use of the cramming-machine have one by one abandoned it in favor of the more natural method of crate fattening. The experiments made thus far in this and other countries have not borne out the claims of the cramming-process enthusiasts. On the other hand, crate fattening can be practiced conveniently and without much additional expense by market poultrymen and farmers generally, and as the results seem satisfactory, we look for a rapid growth in the popularity of this plan of improving table fowl.

A common complaint of buyers of poultry is that the birds are deficient in flesh-covering, a fault which the crate method will tend to overcome. The market is almost unlimited for dead poultry, properly fed and dressed.

Denmark's Egg Trade.

The egg trade in Denmark is a very flourishing one, and constitutes one of the principal sources of revenue in that kingdom, increasing from year to year. In 1900 the exports were 332 millions of eggs, representing a value of over a million sterling, which shows an increase of 50 per cent. since 1898; while in 1870 the value of the eggs exported was little more than a thousand pounds. The increase in the production, as well as the high prices realized abroad, is due to the co-operative societies for the sale of eggs, principally to the Danish Society for the export of eggs, founded in 1895, which numbered in 1901 thirty thousand members, and exported more than sixty millions of eggs. The principle of this society is to export only eggs that are guaranteed fresh, each egg destined for export being marked with the number of the member, and bearing the date of laying. Any member who commits a fraud is severely punished. In this way the society has gained a very good reputation, so that the Danish eggs are sometimes sold in England for a higher price than the English eggs.—[EX.]

High Prices for Poultry.

The New York Produce is the authority for the following:

George H. Northup, of Raceville, Washington County, New York, recently sold Geo. H. F. Schrader, of Berlin, Germany, nineteen Rose-comb Black Minorca fowls for \$3,400. The flock included "Victor," "Headlight III," and "Captain," three prize cocks at \$1,000, \$500 and \$200 respectively, and fifteen hens and one pullet at \$1,700.

In addition to this, the buyer paid all expenses, and also cabled to Germany for an expert to come on and watch and study the methods of care and feeding at Mr. Northup's plant, so that the total cost of these birds to Mr. Schrader will be much above these figures.

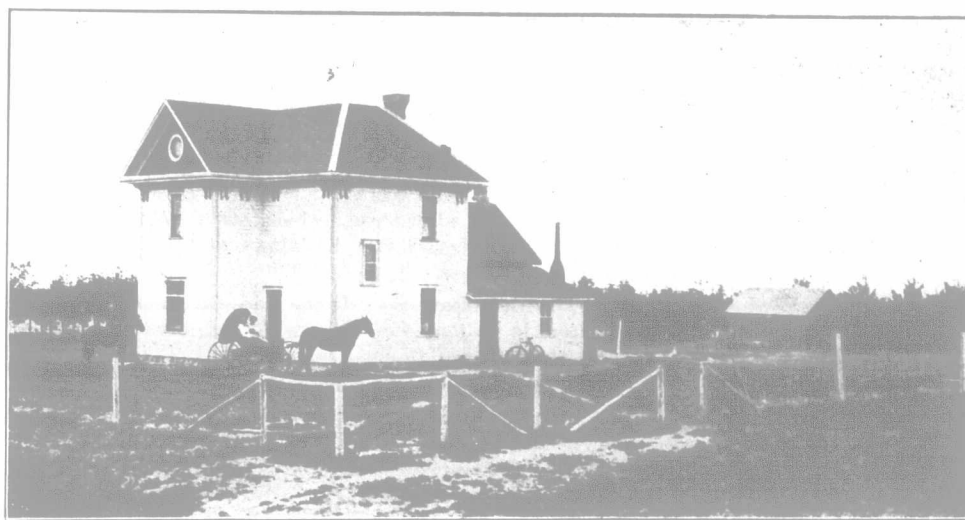
Chickens Need Water.

Chickens cannot be grown until they are five or six weeks old without being supplied with water. Expert poultrymen in general agree that even from the very start they ought to have water supplied liberally. If by any means, however, they have been allowed to become very thirsty, they should not have full access to very cold water; if so, cramps or chills are likely to be caused by drinking too freely. When there is danger in this respect the chill should always be taken off the water, but it should never be forgotten that to obtain rapid growth they should always have plenty of pure water.

Horticulture and Forestry.

Planting Evergreens.

A very large proportion of all the evergreens that are transplanted by amateurs in the business die the first summer, simply because they were not rightly handled while the roots were out of the ground. We planted evergreens every week during the growing season last year, and made them live and grow as well in June as we did in April. However, the greatest care must be exercised, when the weather is hot and dry, to save them. The man who plants an evergreen must



Residence of Robt. Moffit, Fairview Stock Farm, Elgin, Man.

continually bear in mind that he is handling a tree in full leaf, which will rapidly lose its moisture through the leaves if it is exposed to sun or wind. Again, remember, the sap of an evergreen is unlike that of other trees in this respect: it has in solution a large proportion of pitch, which becomes solid and insoluble in both root and branch very soon when the tree is out of the ground and exposed to the air, hence the roots should be kept in mud or water, and the tops covered to furnish sun protection. We succeed best with transplanting when the weather is damp and the sun obscured with clouds.

Where it is possible to use a plow, we prefer to use it in planting all of the large trees, by opening wide and deep dead furrows, in the bottom of which the roots are well spread, and the soil worked amongst them by moving the tree "churn dasher fashion," while an assistant shovels in the mellow surface soil. This should be so firmly packed about the roots that it would be quite impossible to pull up the tree by hand after the operation is completed. Don't fill the furrow at once with the plow, but do so gradually during the summer, by using a cultivator when needed to destroy weeds and maintain the earth mulch.

Our experience in handling thousands of evergreens every year, leads us to believe that cultivation is necessary for two or three years after planting into the permanent homes. Mulching may be substituted with fairly good results, but the shape and growth of the trees are never entirely satisfactory if they are not cultivated until well rooted and a good vigorous growth commenced. Don't use heating barnyard manures about evergreens for mulch, because it is quite sure to kill their root and branch. Keep the roots of the evergreens wet, or covered with earth, every minute they are out of the ground, and you can make them live through the operation of transplanting with very few failures. Don't attempt to handle them when the sun shines and the wind blows, but rather select the wet, cloudy days or nights for such work, when success is quite sure to follow rather than disappointment.—[N. W. Agriculturist.]

Just at this season the weeds will be appearing quite freely in the kitchen garden, unless the hoe or sculler has been kept going. It costs less to kill a weed when it is young than at any other time, and hence no time should be lost in introducing the hoe. It is imperative, too, that the sculler or horse-hoe be kept going, not only because of the weeds which it will destroy, but because of the importance of forming a mulch or loose surface, which will assist in retaining moisture. At this season, too, insects will be making an appearance, and should be promptly attended to.

Life of the Cutworm.

Persons who have not had an opportunity of giving the study of insects (entomology) some attention, are inclined to regard most insects as coming in one of three classes, i.e., bugs, grubs, and butterflies or moths. The student of entomology, however, in tracing the life-history of a so-called grub, for example, soon learns that the worm-like condition is only a transitional stage, and that later the imago, moth or full-grown stage is arrived at. One of the commonest intruders of the insect kingdom in this country is the cutworm. We find him at this season in the form of a greenish-gray, greasy looking worm, from an inch to an inch and a half in length, and about the thickness of a slate pencil, or smaller, preying upon wheat, oats, and barley, or depriving some useful shrub of its foliage. He hides during the day at the base of the plants at which he feeds, and at night comes out to eat. Damage from cutworms in this country is mostly done in June. When July has come they enclose themselves in a shield-like case, called a cocoon, from which state they emerge in about ten days as grayish-brown colored moths, measuring about three-quarters of an inch when wings are extended. These moths are rarely seen in the daytime, but are very active at night, being attracted by the light. They are usually seen in August and September, during which months they fly into the house at night, and cluster around the lighted lamp. At this stage they are very commonly called "millers."

The female moth usually lays her eggs in grassy or weedy land, after the middle of summer. The eggs are rarely laid on or in the ground, but on some small plant. They require only a short time to hatch, and the young worm-like larvae come forth to feed upon such vegetation as may be found.

It is scarcely practicable to check the ravages of cutworms on a large scale, but where they appear in gardens, a favorite and cheap remedy is found in placing poisoned bait, made of bran and

Paris green, here and there in the garden. One pound of the poison is sufficient for fifty pounds bran. This should be thoroughly mixed dry, and water with a little sugar added, until thoroughly wet, but not sloppy.

British Columbia Fruit.

ESTABLISHMENT OF FRUIT CANNERY IS ASSURED.

The growing commercial importance of the fruit industry of British Columbia is evidenced by the increased shipments by freight and express, as the following figures show: There were carried by the C. P. R. during 1902, 1,469 tons of fruit, while in 1903, 1,987½ tons were carried; an increase of 35 per cent. The Dominion Express Co. carried in 1897, 70 tons of fruit; in 1901, 378 tons; in 1902, 483 tons; in 1903, over 676 tons. The establishment of a fruit cannery in New Westminster is assured, which will employ forty to fifty hands during the season. This will give growers a market for their surplus fruit.

At the present time British Columbia fruit practically rules the market as far east as Calgary. The markets of the Northwest, though vast and valuable, are very scattered; Winnipeg is the great wholesale center, and is of such importance that it enters into the calculations of fruit-growers all over the continent, consequently the competition there is keen. Orders are being received from Australia, Hawaii, China and Japan, and efforts were made last fall to get a foothold in Britain. On Oct. 16th last, Messrs. Stirling and Pitcairn, of Kelowna, shipped the first carload of British Columbia apples, consisting of Spies, Baldwins, Ontarios and Canada Reds, to the British market. They arrived in Glasgow on November 9th, in first-class condition, and were sold at an average price of about 6s. per box, while Eastern Canada apples were selling in the same place at about one dollar per barrel less, figuring three and one-half boxes to the barrel. However, when the extra freight charges to Montreal were deducted, the net returns were hardly satisfactory. Enquiries are now being received from other firms who saw the British Columbia fruit and learned that it gave first-class satisfaction, so that it is thought that if more and larger shipments were sent forward, better prices would be realized.—[Columbian.]

There are a number of apple trees in town which present a beautiful appearance. They are heavily-laden with snowy blossoms, which promise a bountiful harvest of choice fruit.—[Portage Graphic.]

Events of the World.

A tremendous free-trade demonstration, held at the Alexandra Palace, London, June 4th, marked the Cobden centenary. Eighteen thousand people were present at the meeting.

An American syndicate has obtained from Menelik, King of Abyssinia, an important preliminary concession for the construction of railways and exploitation of mines in Abyssinia.

The Germans are having more trouble in Africa, this time owing to a dispute over the German and Belgian boundary in the vicinity of the Congo. German troops took possession of Kutchuru, and turned out the Belgian officer in charge. In retaliation, Congo troops have been despatched, and a conflict is feared.

A cablegram from Berlin, says the existence of a secret personal compact between the Czar and the Kaiser, whereby the monarchs have bound themselves to prevent war between Germany and Russia as long as they and the present Crown Prince of Germany live, has been admitted by the President of the Reichstag. The announcement has made a sensation in political circles.

The Tibetans have rejected every overture made by the British. It is reported that they are now in possession of one thousand modern rifles, supplied to them by the Russians, and that they are enlisting help from the Mongolians, who are described as expert horsemen, familiar with the use of lance and gun, and much resembling the Cossacks in their methods of warfare. The British are still in the neighborhood of Gyantse.

The ship Godthab, which arrived in Denmark recently from Greenland, brought letters from Dr. Erichsen, leader of the Danish Literary Society, Greenland expedition, which went to Greenland some time ago for purposes of investigation along literary lines. The doctor and his companions are living among the Eskimos, and have succeeded in gathering a rich store of Eskimo legends and fables. The party is now at Upernavik, but will visit other coast colonies before returning to Denmark.

The Portuguese town of Setubal, which contains 80,000 inhabitants, is threatened with an epidemic of hydrophobia. A mad dog bit thirteen others, which in turn went mad, and bit 200 goats and cows that supply the town with milk. All of these were killed, and 600 cheese were destroyed, but not until two days after the biting had occurred. Much alarm exists in the town, and the medical authorities are exercising the strictest lookout for development of hydrophobia symptoms among the people.

Important naval manoeuvres, based on the experiences of the contesting fleets in the Far East, are to be carried out this month in British waters, by British fleets. The successes of the Japanese navy, especially in torpedo work, have been watched by British naval experts with the keenest interest, and experiments along similar lines will be made. Many experiments will also be carried on with submarines, which the Japanese have not used. Notwithstanding the fate of the Albatross, in which eleven men were drowned, the Admiralty has at present over one thousand names of naval men eager to take part in these submarine exercises.

The situation in Morocco does not improve. Mohammed el Torres, the Sultan's representative for foreign affairs, is appealing to the tribes to capture Raisuli, stating that this alone can save Morocco from invasion, the presence of American war vessels in the harbor seeming to have but little effect upon the brigands, who feel quite secure in their mountain fastnesses. The demands of Raisuli, one of which calls for the deposition of the Pasha of Tangier, are exceedingly difficult to deal with, and it is thought that powerful European intervention may be necessary before the trouble is settled.

Owing to the peculiarity of the situation which has developed on the Liaotung, it is little wonder that the peninsula has become the center of the keenest interest, not only to the contestants themselves, but also to the outside world, which follows daily the events transpiring in the Far East. Although the several skirmishes which have recently taken place north of Polantien signify nothing, yet, almost hourly, the situation becomes more tragic. Port Arthur still remains in isolation, the Japanese at her doors, her fleet practically useless in the harbor, her rations decreasing, and with little probability of immediate aid to encourage the desperate men whom Gen. Stoessel harangues each week, until the shout rises over and over again, "We will never surrender!" Not many miles away the enemies of the beleaguered city swarm, busy as bees, putting forth every effort which will tend ultimately to its reduction. Along the one hundred miles of the peninsula which have come into their hands, they are reconstructing, with all possible despatch, the railway which they themselves destroyed.

In Tallenwan Bay they are also busy, dragging the waters with steel nets, to clear it of the mines scattered by the Russians, and employing for the same purpose many divers, whose paraphernalia is so complete that they may remain under water half a day at a time. All this forbodes trouble for Port Arthur, for when Tallenwan Bay is once cleared there will exist nothing to hinder the Japanese from landing the siege artillery, which will be used in attacking the town. . . . Further northward is the great Russian army, seized recently, it would seem, by uneasiness and vacillation. The main body, consisting of 200,000 men, is still at Liaoyang, but it has been stated that Gen. Kouropatkin, yielding to official pressure, is sending troops southward, and it is surmised that, being convinced at last of the mistake in overrating the ability of the Port to resist siege, he will make some attempt to relieve it. Owing to scarcity of food in Manchuria, the sending of soldiers from Russia has been temporarily discontinued, and the Great Siberian is taxed to its uttermost in the transportation of supplies. To-day, fortune is wholly in favor of Japan. Nevertheless, as has been observed, Russia has great "staying power," and the Little Empire's spurs have not all been won yet.

Field Notes.

The Canadian Pacific Railway Company has decided to make its new Winnipeg station and hotel fireproof.

In consequence of labor troubles at Sydney, C. B., the Dominion Company's steel plant is practically idle.

Ten members of the Northwest Mounted Police have been dispatched to Hudson's Bay, to strengthen the police contingent sent there last year.

The Hon. Edward Blake has decided to discontinue his law practice, in order that he may remain in Parliament as the representative of Longford, Ireland.

A terrific windstorm, which struck Brandon on May 28th, wrecked the fair buildings and other structures. The loss will be about \$15,000.

The Department of Trade and Commerce of the Dominion is calling for tenders for a monthly steamship service between Canada and Mexico. There will be both an Atlantic and a Pacific service.

The Royal Commission, appointed in London, Eng., in August, 1901, to inquire into the relation between human and bovine tuberculosis, have reached the conclusion that the disease is practically identical.

The question of taking steps for keeping out undesirable immigrants and affording more assistance to desirable ones has been made a matter of attention in the House at Ottawa.

According to statistics recently made public regarding the immigration to Canada since January 1st of this year, 24,000 of the immigrants were English, 8,000 Galicians, 3,200 Scandinavians, 1,100 Italians, and 3,500 Russians, Germans, Jews, and others; the total number thus aggregating 39,800.

Mr. T. D. Schreyner, of Auckland, N. Z., the representative of the Canadian Manufacturers' Association at the Antipodes, arrived in Montreal on May 25th. His mission to Canada is the important one of interviewing the Dominion Government regarding the establishment of a direct line of steamships between New Zealand and Canada.

Money orders from all over the U. S., aggregating so far \$30,000, are pouring into the general post office at New York, for a concern known as the "Eastern Trade Company." A month ago the postal authorities became suspicious, and ordered a mail sent to this address to be held, examined, and sent back to the senders. One clerk is kept busy re-mailing the letters at the rate of 1,000 a day. It would seem that the multitude never learns the lesson of paying no attention to fake advertisements wherein much is offered for little.

The Medicine Hat News furnishes us with the following: "Several fruit trees covered with bloom have been attracting attention this week. W. E. Porter has apple trees covered with blossoms, and has also a bed of strawberries in blossom, and with prospects of a good crop of fruit. Thos. McKay has apple trees in bloom. There are several plum trees in blossom in the C. R. R. gardens. At Maple Creek, Mayor Dixon showed the editor of the News several plum trees in bloom. The experiments made in fruit culture in this district look rather promising.

Brandon Fair.

The lists are out for the W. A. A. Association Fair, to be held at the Wheat City, August 9th to 12th. Prizes for live stock are increased, the stallions (aged) getting over \$100 extra this year, and in the cattle classes, Shorthorns and Herefords receive equal money, \$500 each; the Doddies offer \$550 to be competed for, which ought to bring out a big exhibit of this grand beef breed. This show ought to be a favorite with the swine breeders, as separate classes for Chester Whites and Poland-Chinas have been added, the opposite to the Winnipeg people, who have grouped the two breeds mentioned together. The poultry entry is usually strong at the Brandon show, many up-to-date fanciers residing there, and from the prizes offered, the exhibit of turkeys, geese, ducks and chickens should be bigger and better than ever. In other lines similar

progress has been made, and to appreciate it you must plan to get to the show and take the family, or to use the association's pet phrase, "If you miss it, you'll regret it."

Agricultural News from Canada's Capital.

(Special correspondence.)

Hon. Sydney Fisher will introduce a bill in Parliament this session to restrict the sale of seeds. It will contain many modifications of the act of last year. One of the changes in the new measure will be provision for defining a maximum and a minimum grade of seed, instead of undertaking to define different grades. The Minister is altering the law in compliance with the requests of seed merchants and Farmers' Institutes. The maximum grade corresponds with No. 1 variety, and the minimum grade the lowest quality of seed permitted to be sold. The recommendations came to Mr. Fisher in response to the 29,000 copies of the act of last year distributed throughout the Dominion. The intention of the Government is to maintain a seed inspection bureau or laboratory in Ottawa, to which seed samples will be sent. The report of the officers will be held as evidence as to the quality of the seeds. The dealers will make the first grading. Mr. Fisher intends that the act shall come into force on July 1st, 1905.

In his evidence before the Agricultural Committee of the House of Commons last week, Mr. A. G. Gilbert, poultry manager of the Central Experimental Farm, gave an account of a feeding test, which showed that flesh had been put on chickens at 4.7 cents a pound. The chickens were two months six days old when the fattening began. At that time they weighed two pounds six ounces. They were fed to the weight of four pounds twelve ounces. Some members of the committee commented on the fact that no turkeys and geese were kept on the Central Experimental Farm. Mr. Gilbert said the present quarters were not large enough to include all the kinds of poultry, and the birds mentioned required much space. Mr. Uriah Wilson, Lennox, and Mr. Richard Blain, Peed, expressed the opinion that space should be provided for these two classes of poultry. Mr. Gilbert said that hens over two years old should not be kept for winter laying. Concerning best breeds for laying, he said selection of types of birds were just as important.

Duplicate St. Louis Prize Money.

On June 2nd, in Parliament, in considering the estimates for exhibitions, Hon. Mr. Fisher, Minister of Agriculture, announced that in order to encourage the exhibition of Canadian live stock and poultry at the St. Louis Exposition, the Government was prepared to duplicate the prize-money awarded them.

In a letter to the Dominion Live-stock Commission, dated June 3rd, Mr. Fisher writes: "I have decided to make the following arrangement: That wherever any Canadian wishes to exhibit horses, cattle, sheep, swine or poultry, I will, over and above the ordinary services which we grant to any exhibitor, pay to each such exhibitor, a sum equal to the prize money which he secures in the competitions for which he enters. In these competitions, the St. Louis Exhibition authorities have asked that our Commissioner shall countersign or endorse the certificates of registration of pure-bred stock. We will there undertake to receive the entries or applications for space for live stock, addressed to Mr. Hutchison at the Canadian building in the St. Louis Exhibition, will examine the certificates of registration, and endorse such as we feel we can recommend to the Exhibition authorities; and we will see that these entries and applications are properly attended to, and the intending exhibitor duly notified as to the conditions of the Exhibition in regard to their particular classes.

Grain Inspection Act at Ottawa: The Cloven Hoof Shown.

Grain-growers will be interested in knowing that the only clause in the amendment to the Manitoba Inspection Act now before the House of Commons, Ottawa, in which any particular change is suggested, reads as follows: "The certificate of inspection given by inspecting officers, shall in all cases accompany the grain to its destination. No certificate shall be issued east of the Manitoba inspection for Manitoba grain, whether such grain goes forward in bulk or in cars, provided, however, that should any person interested in such grain have reason to believe that it has gone out of condition, or has deteriorated in quality since it was originally inspected, any inspector may at his request inspect such grain, and in case he finds that it is out of condition or has become deteriorated in quality, he may issue a certificate in accordance with the facts." No one will take objection to the first two sentences of this clause. If it ended there it would suit all Westerners who desire that our Manitoba hard should go forward to its destination without any tampering. The last section of the clause, however, shows the cloven hoof of the Eastern dealer, who has been making easy money from grading and sampling. It seems improbable that any Government could be induced to so forget the interests of the Western grain-growers as to allow such a clause to pass. The grain-growers will not tolerate for one moment any such infringement of their rights, through dictation coming from Eastern Boards of Trade, directed by selfish manipulators.

Coming Events.

Agricultural societies, farmers' institutes, grain-growers' and other organizations in which farmers are interested, may have the date of any important events to be held under their auspices included in the following list by addressing a post card containing the information to this office:

Table listing various agricultural events including Thos. Greenway's sale, Blyth Plowing Match, Brandon Plowing Match, and various fairs across different regions like Manitoba and the Territories.

The following dates have been selected for holding various fairs throughout Manitoba and Territories:

Butter at the Dominion Fair. The Secretary of Manitoba Dairy Association, Mr. G. H. Greig, has sent out a circular, dealing with the exhibition of butter at the Dominion Fair, reading as follows:

Table-Of-Contents listing various sections such as ILLUSTRATIONS, EDITORIAL, HORSES, STOCK, DAIRYING, FARM, POUALTRY, HORTICULTURE AND FORESTRY, FIELD NOTES, and MARKET.

A Reply to Our School Question.

To the Editor "Farmer's Advocate": Dear Sir,—In your issue of April 27th you published an editorial about our school question. There are some things in this editorial I do not think quite right.

No doubt the Canadian teacher is very young, but if young teachers were not employed there would be many schools without teachers. Forty dollars per month is perhaps good wages, but some third-class teachers are getting forty-five per month, and the opinion of many teachers is that their wages should be increased.

Perhaps many of those who have come from Ontario are dissatisfied with Manitoba teachers. I think Manitoba teachers can hold their own with Ontario teachers in the matter of education and ability to enforce discipline.

I like the "Advocate" better and better the more I read of it. Northern Alberta. KENNETH McLAREN.

Continue Reading.

Markets.

Western Markets.

Wheat—Thompson, Sons & Co. report as follows on the staple cereal of the prairie: "Notwithstanding the very small exports from America, the American visible supply shows about the same decrease for the week as it did the corresponding week of last year.

land all crops but the wheat crop are doing well. The wheat had such a poor start that a fine spring has not helped it much, and this year's wheat crop in Britain is going to be the smallest on record.

Cash Wheat—No. 1 northern, 88c.; No. 2 northern, 85c.; No. 3 northern, 82½c.; No. 4, 74½c.; feed, 60c.; July supplies, 95½c.; September, 82c.; December, 80c.; Winnipeg, July, 88½c.; October, 79½c.

Oats—Few offerings; a car of No. 2 brought 40c., Winnipeg. No. 2 white are worth on track here, 39c. to 41c.; farmers' loads in the country, 33c. to 35c.

Hay—Baled car lots, \$15 to \$17; for wild grass, timothy, \$19; supplies more plentiful.

Flour and Feed—Flour, No. 1 grade, \$2.55, sack of 98 pounds; No. 2, \$2.40; No. 3, \$1.80 to \$2.10.

Butter—Prices for dairy are quoted at 15c., 17c. net Winnipeg, which must be for inferior stuff. Retailers have sold no good butter in Winnipeg for months at less than 25c., and plenty at 30c. for a good article.

Eggs—Coming forward more freely, at 13c. to 14c.

Wool and Hides. Some coarse wool coming forward at 7c. to 8c. Eastern woollen mills are said to be in a state of great depression, due doubtless to inability to raise the tariff, and are being used to bear the prices for raw wool.

LIVE STOCK. Prices for cattle are firm, at 5c. off cars here, down to 3½c. for inferior stuff.

Chicago Markets. Chicago.—Cattle—Good to prime steers, \$5.60 to \$6.50; poor to medium, \$4.75 to \$5.50; Texas steers, \$5 to \$5.95.

Montreal Markets. Montreal.—Prime beefs, 5½c. to 5¼c. per lb.; good medium steers, 4¼c. to 5c.; ordinary mediums, 4c. to 4¼c.; shipping sheep, 4c.; others, 3¼c. to 4c. per lb.

British Cattle Market. London.—Canadian cattle are firmer at 11½c. to 12¼c. per lb.; refrigerator beef, 9c. to 9¼c. per lb.

CONTENTS OF THIS ISSUE.

Detailed Table-Of-Contents for the issue, listing articles such as "Clean up Scrubby Corners", "What is Standard Milk?", "An Excellent Roofing", etc., with corresponding page numbers.



"A little bit of patience often makes the sunshine come,
And a little bit of love makes a very happy home;
A little bit of hope makes a rainy day look gay,
And a little bit of charity makes glad a weary way."

Miss Vivian's Legacy.

"They say in the Highlands that 'the open hand shall be filled the fullest,' but I don't think the proverb has come quite true in our case, Carrie."

The speaker was a young man who was leaning rather dejectedly against the window sill, with his face turned away from the young woman who was working at the table. It was plain that the pair were husband and wife, and the newness of the furniture and the brightness of the girl's wedding-ring betrayed that they had not been very long married. In point of fact only six months had elapsed since Robert Vincent had brought his bride home, only to a humble abode, but one of which Carrie at least could cry "My house, my house, although thou'rt small, thou art to me Escorial."

Carrie Ainslie had been left an orphan in early childhood, and brought up by the rather grudging charity of a friend of her mother's; to whom in consequence the girl felt herself bound by ties of gratitude, so that when the old lady was selfish enough to bid her "wait till I am gone, child, don't leave me alone in my old age," Carrie agreed to postpone her marriage with the young bank clerk who could have given her a happy, if a humble home; and "waited" patiently—more patiently than did Robert—for five weary years; during which the girl was a patient drudge and souffre douleur to a peevish invalid; worked and worried by old Miss Vivian, and looked upon with no little jealousy by the old lady's relatives, who, although they would have been very reluctant to have filled the "companion's" situation themselves, were constantly hoping that "that girl, artful of course, as all these quiet people are, will not influence Aunt Deborah to make a will in her favor, and cut out her own flesh and blood."

Indeed, as Miss Vivian grew older and more failing in health, the increased attentions of her relatives attracted the notice of the old lady, who, with the cynical frankness of the rich member of the family who knows that her expectant legatees dare not quarrel with her, would say brusquely, "Now, why are you all hanging about me in this way; I'm not in a dying condition yet. Oh, yes, I know what you are going to say, you 'hope I'll outlive you all'—well, perhaps I may," and the old lady would sink back in her easy-chair with a spiteful chuckle.

For, to tell the truth, Miss Vivian was not a very amiable individual; selfish, suspicious, miserly; yet, after her fashion, she had been kind to Carrie, and the girl's strong sense of duty now forbid her to leave the lonely and aging woman who had benefited her when a child. "Staying for what she expects to get, of course," sneered Miss Vivian's relatives, but this was far from the truth. No hope of a legacy would have tempted Carrie to delay her marriage; Robert was able to give her all the comforts her simple tastes required.

"But Miss Vivian, who was a school-fellow of my mother's, was very good to me when all our troubles came." Carrie would plead to her lover. "You know all the story; how father lost all his money by the dishonesty of his partner, and how, when he and mother were travelling up to London, they were in that dread-

ful railway collision at X., and both were killed. Then Miss Vivian said she would pay for my education until I was sixteen, when she would take me as her companion."

"And now you have been her white slave for nearly ten years, doing three servants' work for a kitchenmaid's wages," said Robert, rather indignantly, for he was longing to take his love away from the trials of her present life.

The two had met and become engaged during the one brief holiday which Carrie had known since she came to Miss Vivian; a happy month during which the old lady had been persuaded to travel with some of her relatives, and Carrie had been sent to stay with some friends of her parents. Here Robert Vincent was also spending his holidays, being a cousin of Carrie's hostess. He had heard the girl's story, was greatly attracted by her gentleness and sweetness, and before the month was over the two were troth-plighted, and would have been married almost immediately had it not been for Miss Vivian's protests. But the old lady so wept, and lamented, and implored Carrie to "wait awhile," that the girl was persuaded to do so, and five years sped away—years of patient unselfishness on the part of the young couple—of persistent exaction on the part of the elder woman.

"But I feel I am doing right, dear," Carrie would urge; and Robert sighed and assented.

After all, the delay would enable him to lay by more for his "little woman's" comfort when they did marry.

The waiting time ended at last; Miss Vivian failed greatly. She grew very tender to Carrie during the last weeks of her life; so tender that her relatives became visibly alarmed, and made things so unpleasant for the poor girl, by their hints and sneers, that only a sense of duty kept her to her post in the sick room.

"Working on poor Aunt Deborah's weak mind," the greedy cousins, and nephews, and nieces sighed to each other—and hinted pretty plainly to poor Carrie.

"Child, you'll find I've not forgotten you at last," said Miss Vivian suddenly one day to Carrie. In the presence of her expectant legatees.

"You have many members of your own family who love you dearly, darling auntie," cried one of the nieces, "relatives who would willingly come and wait upon you—if they were permitted," and the group glanced significantly at the unhappy "companion."

Miss Vivian grunted sardonically; she often took a malicious pleasure in thus tormenting the relatives whom she did not love.

"Give me the satin cloak that hangs in the wardrobe," she said to Carrie. "Put it on, child, and remember that I give it to you for your own. Hester, Sarah, Maria, you are all witness that the cloak is Caroline's. Remember, Doctor Martin," as the doctor entered, "I give this cloak to my young companion, my devoted young companion, and no one else has any claim to it."

"Nobody wishes to interfere with your generosity to Miss Ainslie, dearest auntie," cried the relatives in chorus, with forced smiles on their lips and hatred in their hearts.

That evening Miss Vivian was taken with a "stroke" which left her mind clear, but deprived her of the power of speech. Hastily summoned, her relatives gathered round the dying woman, but it was to Carrie that she clung to the last, Carrie's arms in which she passed away. A little before her death Miss Vivian had pointed to the cloak, still

hanging on its peg, and made some signs and gestures, but the power of voice was gone.

"Yes, dear; I will keep the cloak and wear it for your sake," whispered the girl, yet the dying woman still seemed unsatisfied—but the end came on apace, and before morning Carrie's work was ended.

Much to everyone's surprise no will was to be found, and there was no evidence that Miss Vivian had ever made one. Among the old lady's many eccentricities was a rooted distrust of lawyers, also a dislike to investing money. Her income, a very comfortable one, was regularly paid over by her trustee, and what Miss Vivian did not expend she hoarded by her in the house.

Large sums of money were discovered in notes and gold secreted in various places among her possessions; and in a strong box, parcels and bank-notes addressed to each of the servants, for whom the old lady thus provided instead of bequeathing them legacies. But not a line, not a thought for Carrie. All Miss Vivian's possessions were, of course, now divided among the "next-of-kin," and both the doctor and the lawyer hinted that these might very properly make some recognition of Carrie's long and devoted services to the old lady, but the relatives unanimously scouted such an idea.

"We may be sure that the girl got plenty out of Aunt Deborah in her lifetime," was the cry; and Carrie took away nothing from the house, save the old satin cloak.

"I am sure she meant to do something, and I thank her for the kind thought," said Carrie gently to her lover; and Robert answered:

"Well, little woman, we have each other, and want no one's money now."

But, unluckily, some months after their wedding (which took place as soon as possible after Miss Vivian's death) the young couple did want money very badly. A commercial "crash" occurred in which Robert's bank was involved, and he lost his situation. The young couple were brave and patient, but—now, too, that fresh expenses were in prospect—the outlook seemed gloomy enough, and Carrie sighed as she sat at table beginning to alter and rearrange the last—indeed, the only gift—she had ever received from her patroness.

"It is a handsome cloak, only a little old-fashioned," said the girl, as she ripped away part of the lining. Why did she suddenly drop the work, with a wild scream?

"Robert!—look—oh look!"

Between the wadding and the satin was a crisp £20 note, not a solitary one. With careful, trembling fingers Carrie removed the lining, to find, simply quilted underneath, notes of varying value, from £20 to £50—the whole cloak was full of them, and, when all were removed and counted, £3,000 to £4,000 lay on the table.

Carrie burst into a flood of thankful tears.

"That was what she wanted to tell me, to explain where she had hidden the legacy she meant for me! Oh, Robert, things have turned out well after all, you see."

In truth the eccentric old lady had taken this odd method of rewarding her companion—and saving legacy duty. Brighter days soon dawned on the young couple. Robert speedily obtained another appointment, and the "cloak lining" made them in their views rich.

Mrs. Vincent still cherishes, laid up among her special treasures, the black satin which once covered so rich a gift.

FORGET-ME-NOT.

Travelling Notes.

What I have to tell must be sandwiched in, as space permits, between what Nell has written and Eleanor promises to write of our joint experiences in sunny Italy.

Our stay there of nearly eight weeks is about finished; three weeks we spent in Florence and three in Rome. It has all been most delightful; the weather generally fine and sunshiny and not at all cold, so that we have been able to go out sight-seeing every day. We are told that this we might continue to do for the next three years and still not have exhausted Rome, so much is there to see and study in this wonderful ancient city. But we are travelling for health and pleasure, and not for the study of archæology, etc., as so many come here to do.

We three are quite content to read, mark and learn, hoping that we may manage to digest and assimilate at least some of the mental pabulum which daily falls to our share. We cannot fail to learn something from visiting such historic scenes as the Colosseum, the Forum, Obelisks, Aqueducts, Architecture, Columbarium, Appian Way, Catacombs, tombs, fortifications, and Walls of Rome. My cousins may be more clear-headed than I, but I must confess to being terribly mixed up, for once, when asked if I had seen such and such a place, I positively replied "yes" and "no" in the same breath, much as one would after an hour spent in gazing at a canvas on which appear and fade away swiftly a series of dissolving views.

The Colosseum, the one thing every visitor is certain to see, no matter how limited his stay, covers seven acres of ground, and must have been one of the most magnificent buildings ever erected. Two-thirds of the original building had disappeared. After the ruin had been converted into a fortress in the middle ages, it supplied the Roman Princes for nearly two hundred years with materials for their palaces. It was built of the finest and strongest stone, then faced with marble, the corridors and seats of the amphitheatre being also of marble. It was four stories high, and was capable of holding a hundred thousand people. The gladiatorial spectacles of which it was the scene for nearly four hundred years are matters of history. We read that at the dedication of the building by Titus, 5,000 wild beasts were slaughtered in the arena, and the games in honor of the event lasted nearly one hundred days. In later times, during the persecutions of the Christians, the Amphitheatre was the scene of fearful human barbarities. The traditions of the church are filled with the names of martyrs who were purposely thrown into the arena to be devoured by wild beasts.

To visit the Colosseum by moonlight being the "correct thing," Eleanor and I, under the escort of a Harvard College graduate, made the usual excursion. It certainly was a fine sight, and one which we might more thoroughly have appreciated had our eyes been less sleepy or our limbs less weary.

Out of the four hundred churches of Rome, I will only make mention of two or three. The Cappucini

built by Cardinal Barberina, a member of the Capuchin Order, contains a celebrated picture of the Archangel Michael, by Guido Rene, but the most curious thing to me was to see the cemetery of the Friars under the church, consisting of four chambers. The earth was originally brought from Jerusalem. The walls are covered with bones and skulls of some four thousand monks, fantastically arranged; several skeletons are standing erect in the robes of the order. Whenever one of the Friars dies, he is buried in the oldest of the graves, from which the bones of the last occupant are removed to this gruesome cemetery.

THE SCALA SANTA.

Upon entering this church one is confronted by three flights of steps. The center stairs, called Scala Santa, consist of twenty-eight marble steps, stated by tradition to have belonged to Pilate's house, and to have been identical with those which our Saviour descended when He left the judgment seat. These stairs are only allowed to be ascended by penitents on their knees, and the multitude of these have been so great, that it was found necessary to protect the original steps by planks of wood. Twice have I watched with astonishment large numbers of old men, women and children, high and low, rich and poor, upon their knees, praying, and even kissing the steps as they moved slowly upwards. At the top is a handsome gothic chapel, which contains a large collection of relics. No woman is allowed to enter it. There are parallel flights of stairs, down which the penitents may return on foot.

THE AQUEDUCTS.

No monuments of Ancient Rome are more picturesque and stupendous than its Aqueducts. The oldest of these was constructed by Appius Claudius, 311 B. C., after the completion of his Appian Way. Aqua Claudia pursued a course of more than forty miles in length. For about thirty miles it was subterranean; for the remaining ten miles it was carried over arches. Of this magnificent work, a line of arches no

less than six miles in length still bestride the country, forming the grandest ruin outside the walls of Rome. It is difficult to form a true conception of the skill to conceive and the labor and patience to carry out a work which once provided ten or eleven such aqueducts to convey to Rome its water supply from the distant mountains, and which to-day still exists to continue the same beneficent office for the Roman people. Truly there are many lessons we may learn from those days of old.

THE CATACOMBS.

We only once managed a visit to the Catacombs of Rome. They have been too frequently described for me to enter into details. We will try to explain their effect on our minds. The Catacombs number about sixty, and cover several miles. They consist of an immense network of subterranean passages, which once served as places of refuge and of worship to the earliest followers of our faith during the persecutions they had to suffer under the predecessors of Constantine, and of repose after death to many thousands from the earliest period of Christianity to the sixth century of our era. The bones and dust of these departed thousands are still to be seen down in the Catacombs of Rome.

Lack of space forbids my telling you of the men, women, children, markets, shops, costumes, the way we had to drive bargains for our conveyances, and the thousand and one comical situations in which, from time to time, we found ourselves.

We have still Pisa and the Riviera to visit, and one of us may have something to relate of both. Both Naples and Pompeii were rich treats to us all, and it is probably of these that Eleanor may write when next the "Home Magazine" can spare us a corner.

MOLLIE.

We become heavenly minded by living to make others happy. If it is the aim and work of your life to be a blessing to others, you are living already the heavenly life.—E. H. Sears.

"The Last Load."

The home-going with the last load is a charming little picture, needing perhaps the coloring of the original painting to bring out all its beauties. Of the six girls walking in the forefront, with hand linked in hand, the painter has probably given to one a crimson skirt, to another a dark-blue blouse, to another a bright-spotted kerchief, to relieve the gray homespun of the petticoats and the somewhat sombre surroundings of rock and heather. In the faces of the two sisters on the left there is just a touch of sadness, a far-away look, marking them as somewhat out of touch with the merry chatter of their comrades. It is the older workers who are apparently joining in the hip! hip! hurrah! started by the man waving his cap in the background, whilst at the back of the load walks "His Reverence," who, on his evening stroll, has overtaken the heavily-laden wagon, and will have a word of congratulation and greeting for his people presently. Substituting prairie for hill, might not our picture, with slight alteration of costume, be as true a representation of a scene in the wide harvest-field of our own Northwest as of any upon the other side of the Atlantic, for is not the bringing in of "The last load" an hour of merriment and rejoicing all the wide world over? H. A. B.

Kings of the World.

When the boys and girls were asked to write an essay on "Kings," a quick-witted one handed in the following little gem: The most powerful king on earth is Wor-king; the laziest, Shir-king; a very doubtful king, Smo-king; the wittiest, Jo-king; the leanest, Thin-king; the thirstiest, Drin-king; the slyest, Win-king; the most garrulous, Tal-king; the most inquisitive, As-king; the most useful, Ma-king; the most unstable, Sha-king; the most destructive, Brea-king; the most dissolute, Ra-king; the meanest, Snea-king; the most corrupt, Fa-king.

If I Can Live.

If I can live
To make some pale face brighter, and to give
A second lustre to some tear-dimmed eye,
Or e'en impart
One throb of comfort to an aching heart,
Or cheer some wayworn soul in passing by!

If I can lend
A strong hand to the fallen, or defend
The right against a single envious strain,
My life, though bare,
Perhaps, of much that seemeth dear and fair
To us on earth, will not have been in vain.

The purest joy,
Most near to heaven, far from earth's alloy
In bidding clouds give way to sun and shine,
And 'twill be well
If on that day of days the angels tell
Of me: "She did her best for one of thine."

—Helen Hunt Jackson.

If I Knew.

If I knew the box where the smiles were kept,
No matter how large the key
Or strong the bolt, I would try so hard
'Twould open, I know, for me.
Then over the land and sea broadcast,
I'd scatter the smiles to play,
That the children's faces might hold them fast
For many and many a day.

If I knew the box that was large enough
To hold all the frowns I meet,
I would like to gather them, every one,
From the nursery, school and street;
Then folding and holding, I'd pack them in,
And, turning the monster key,
I'd hire a giant to drop the box
To the depths of the deep, deep sea.

"If the dog's prayer were heard, there would be a shower of bones from heaven."



The Last Load.

Tobacco and Liquor Habits.

Dr. McTaggart's tobacco remedy removes all desire for the weed in a few days. A vegetable medicine, and only requires touching the tongue with it occasionally. Price \$2.

Truly marvellous are the results from taking his remedy for the liquor habit. Is a safe and inexpensive home treatment; no hypodermic injections, no publicity, no loss of time from business, and a certainty of cure.

Address or consult Dr. McTaggart, 75 Yonge street, Toronto.

For a Time

Constipation and indigestion may give rise to nothing more serious than a distressed feeling or discomfort due to an overworked or impoverished condition of the Digestive Organs. A dose or two of

Beecham's Pills

will easily put this right, but if neglected what a burden of illness may be the consequence.

Sold Everywhere. In boxes 25 cents.

Evaporated Apples at Wholesale.

We have sold an immense quantity of evaporated apples this spring to our patrons all through the Canadian West, and always with satisfaction. We have now only a few dozen boxes left, so this will be our last offer this season.

The fruit is new and of good quality, put up in 50-lb. boxes. To minimize the freight it is advisable to order two or three boxes at the one time.

You can get these apples from us after paying freight at least two cents per pound cheaper than the local price. Try us with an order.

In 50-lb. boxes,
\$3.95 per box.

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For 20 days' trial. We send out all machines on 20 days' free trial before we ask you to accept or pay for them. If not satisfactory, send them back at our expense. We sell a 5-drawer, drop-head sewing machine, handsome oak woodwork, for \$17.50; a better machine, same pattern, guaranteed for 20 years, sells for \$21.50; machines with ball bearings and extra fine woodwork cost a little more, but only about half what others charge. Our sewing machine catalogue, fully explaining our different styles, will be sent on application.

Windsor Supply Co., Windsor, Ont.



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affords. Drop a post card, and the booklet will be sent free.

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LONDON, ONTARIO.

ADVERTISE IN THE ADVOCATE.



God's Messenger.

I chanced one lovely day in spring,
To walk through a woodland glade:
New life was showing all around
In tender bud and blade.
Majestically, above my head,
Towered the grand old forest trees,
From which the songs of happy birds
Were borne upon the breeze.

In the soft glow of the setting sun
All nature seemed to smile,
I paused to drink its glories in,
And well 'twas worth the while.
Yet even while I gazed, a sigh
Went up to nature's God,
For all that day my troubled heart
Had borne a weary load.

The cares of life were pressing hard,
My sky was overcast;
And still around, perplexing clouds
Seemed gathering thick and fast.
To the chaos reigning in my heart,
Of anxious fear and doubt,
This contrast, peaceful and serene,
Had nature spread without.

As I turned to leave the lonely spot,
In heaviness I sighed:
When just before me, as I walked,
A sweet wild flower I spied.
A tiny flower, so fresh and bright,
Above its mossy bed,
Fanned by the gentle evening breeze,
It reared its lovely head.

As, stooping with a tender hand,
I plucked it from the sward,
Like a flash light came to my mind
The word of Christ our Lord.
"If God so clothe the fading grass,
Doomed to an early death,
Will He not much more care for you,
Oh ye of little faith."

Sweet, silent messenger of God;
By it I stood condemned,
Yet felt, the while, a thrill of joy
Which I could not comprehend.
New hope sprang up within my heart,
And to my eyes the tears;
"Oh Father dear," I humbly cried,
"Forgive my doubts and fears."

"And, oh! When dark clouds dim life's
sky,
When Thy hand I cannot see;
Help me to ever feel that still
That hand is leading me.
Help me to learn the lesson well,
Taught by this little flower:
And in this life, through good or ill,
To trust Thee evermore."
M. CARRIE HAYWARD.
Corinth.

This little sermon in verse was written by one of our readers—"A farmer's wife"—and I have great pleasure in giving it a corner of the Quiet Hour, as it not only shows true poetic insight, but is also a proof that the "lilies of the field" are still preaching to burdened souls, still pointing silently to Him who only can give rest to the "weary and heavy-laden." HOPE.

A quiet home; vines of our own planting; a few books full of the inspiration of genius; a few friends worthy of being loved, and able to love us in turn; a hundred innocent pleasures that bring no pain or remorse; a devotion to the right that will never swerve; a simple religion, empty of all bigotry, full of trust and hope and love—and to such a philosophy this world will give up all the empty joy it has.—David Swing.

Find your purpose and fling your life out to it, and the loftier your purpose is, the more sure you will be to make the world richer with every enrichment of yourself. Phillips Brooks.

"Be Strong and of a Good Courage."

"I do not pray for peace,
Nor ask that on my path
The sounds of war shall shrill no more,
The way be clear of wrath.
But this I beg thee, Lord:
Steel thou my will with might,
And in the ring of battling
Grant me the strength to fight."

"I do not pray for arms,
Nor shield to cover me;
What though I stand with empty hand,
So be it valiantly?
Spare me the coward's fear,
Questioning wrong or right;
Lord, among these mine enemies
Grant me the strength to fight."

Three times in one chapter does Moses give this charge to Joshua and all Israel: "Be strong and of a good courage," and we all have good reason to take that charge to heart. Life is not an easy thing, and we are all cowards sometimes. I wonder if there is any special meaning in the expression "good" courage. Certainly there is a kind of brute courage possessed by a very low type of man, and there is also a courage which might well be called "good," often startlingly displayed by very timid women: a courage which can endure pain with a smile, or face awful peril without a thought of personal danger.

A man who possessed plenty of rough, brute courage, once said to a young officer who was in the thick of his first battle, "Why, you are afraid!" The shells and bullets were falling like hail as the young fellow answered, "That's true, and if you were only half as much afraid as I am you would run away." He was brave enough to own that he was afraid—and it must have taken some pluck to do that—and he was also brave enough to stick to his post in spite of fear. "Good" courage is surely not the kind of daring that takes pleasure in foolhardy exhibitions of bravado, risking one's life without sufficient reason; but rather the quiet, steady, sticking to one's duty all the year round. It may be monotonous sometimes, and again it may be almost too exciting and grand to be pleasant, but the people we have good reason to admire for dauntless courage are not trying to establish a reputation for heroism, but simply doing what they consider their duty. A little more than a year ago a mine in B. C. was filled with deadly gas. A miner named McLeod went down six times at the risk of his life to rescue his comrades. When all were saved he collapsed, and another man then ventured down, to make sure that there were no more men in the mine. He failed to come up, so McLeod again descended, and brought him out in safety. Such a call to "be strong and of a good courage" nearly always comes suddenly, and until a man is tried, neither he nor anyone else can be sure whether he can stand the test. Perhaps such an opportunity may never come to you, and yet everybody is called to "be strong and of a good courage," to-day, and every day. When volunteers were wanted for South Africa, they eagerly responded to the call to the post of danger. Were all those would-be heroes really filled with "good" courage?

"Any common man may face a cannon, but how many men dare face the sneers and calumny of their brethren?" so says a modern writer, and he adds: "Those of us who consort much with people in humble life often see bold men submitted to trials that test their essential courage to the last degree. Does anyone

ever give a thought to the sufferings of a workman in a rough shop when he leaves off drinking and takes to religion? Life is often made bitter for him, and it is the more bitter in that he is almost always accused of hypocrisy. Daily he is told that the feelings and beliefs which are the breath of life to him are shams and worse; he may even be obliged to brook violence, which his principles will not suffer him to return. It is cruel work, and yet how many fine fellows go through the ordeal proudly and gravely! These obscure and modest folk are the true heroes." The world may heap honors on the soldiers who have killed or wounded their fellow men; but if we look with God's eyes, perhaps we may give higher praise to the men and women who stay at home and go cheerily on with "the trivial round, the common task"—plowing, sowing and threshing, cooking, washing and sewing, year after year. Some people may admire the dashing courage of a general who forces his way to victory, utterly careless of the lives sacrificed that he may win success—"an excellent general at ten thousand men a day"—but I think General Gordon showed far greater courage in his open, unabashed loyalty to his God. It is said that in the journey through the Soudan a handkerchief was spread before his tent for half an hour every morning. This was a warning to the whole camp that he was having his daily meeting with his Captain, and must not be interrupted. No man, white or colored, heathen or atheist, dared to enter the tent while that token lay outside. A frank and fearless loyalty to Christ, like this, is sure to win the respect of all; for God always makes good His own words: "Them that honor Me I will honor, and they that despise Me shall be lightly esteemed." Then there is another kind of courage deserving the name of "good"—the patient, cheerful endurance of long-continued pain. The "noble army of martyrs" still praises God in the furnace of affliction.

"For earth hath martyrs now, a saintly throng,
Each day unnoticed do we pass them by;
Mid busy crowds they calmly move along,
Bearing a hidden cross, how patiently!
Not theirs the sudden anguish, swift and keen,
Their hearts are worn and wasted with small cares,
With daily griefs and thrusts from foes unseen,
Troubles and trials that take them unawares;
Theirs is a lingering, silent martyrdom,
They weep through weary years, and long for rest to come.
They weep, but murmur not; it is God's will,
And they have learned to bind their own to His,
Simply enduring, knowing that each ill is but the herald of some future bliss;
Striving and suffering, yet so silently
They know it least who seem to know them best,
Faithful and true through long adversity,
They work and wait until God gives them rest;
These surely share with those of by-gone days,
The palm-branch and the crown, and swell their song of praise."

Dr. Arnold says that his sister, who was the victim of hopeless disease, "suffered a daily martyrdom for twenty years, during which she adhered to her early-formed resolution of never talking of herself; thoughtful about the very pins and ribbons of my wife's dress, or about the making of a doll's cap for a child; but of herself, save only as regarded her ripening in all goodness, wholly thoughtless; enjoying with the keenest relish everything lovely, graceful, beautiful, high-minded, whether in God's work or man's; inheriting the earth to the very fullness of the

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BRING your Blue Ribbon Coupons when you come to the Exhibition.

The Premiums will be on view at our exhibit in the Western Section, so that you may examine them closely and see that they are really of excellent quality, such as you would be glad to have in your home. Courteous attendants will assist in selecting premiums for your coupons.

The value of your coupons between now and Exhibition time may more than equal the cost of your fare, if you begin saving them at once.

1 to 10 coupons in each package of Blue Ribbon TEA, COFFEE, BAKING POWDER, EXTRACTS, JELLY POWDER, etc.

Write for Premium List, BLUE RIBBON, Dept. F. A., WINNIPEG.

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USE OGILVIE'S "Royal Household" FLOUR

THE **Whitest**
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THE OGILVIE FLOUR MILLS CO., LTD.

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Maple Leaf on every tin.

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THE COWAN COMPANY, Limited, TORONTO.

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Towns, villages and homes are all lighted by Acetylene Gas. It is cheaper than coal oil or any other kind of light.

It is safe. Insurance Companies, in many cases, give a ten per cent. preference in favor of Acetylene. It is nearer the sunlight than any other. Send for catalogue "C" for town lighting, and catalogue "K" for the lighting of individual buildings.

ROBT. M. MOORE & CO., 174 PRINCESS ST., WINNIPEG.



Dear Friends,—Possibly now that your house-cleaning is all over, there is something about the general "effect" that does not exactly suit you. You go through the rooms wondering what is the matter. They are all beautifully clean, and they smell so sweet and fresh. You know there is no dust anywhere in the crevices or under the carpets, and you feel glad to know that everything is so nicely ready for the summer—and yet, and yet—you are not wholly satisfied. You think of someone else's house, which looks more artistic somehow, and you wonder how it is that you can't make things look as well. Women are sometimes heard to say: "Oh, I never can make things look nice; I don't know how to." Now, then, don't you think that the very fact of your knowing that things do not look just right, proves that you do know what is artistic, and that you are capable of making them look so, if you will just set about it? You know no one is hopeless save the one who has nothing to learn, in this as in other and deeper things. Sometimes just moving the furniture about a bit, and getting it into just those positions which are most pleasing to the eye, makes such a difference. Of course, "the men" will laugh at you for changing things, but let them laugh. After all, where is the man who doesn't admire a cozy room, and who is not secretly proud of the clever little woman who is able to make it so?

So if your house doesn't suit you, and you feel a little disappointed after all your work of house-cleaning, I would say, "go at it" again. Rearrange things until they suit you. It will take a little time, to be sure, but you will be better satisfied in the end. Of course you will want a whole "heap" of new things—that goes without saying—but, well, don't worry about them until you can afford to get them. You will have all the more time for planning and deciding upon what will look prettiest. Last of all—and this brings me to the real point of what I started out to say—look to your pictures, so much depends upon your choice of them, the arrangement of them, and the light in which they are hung.

I remember visiting once at a very fine house, whose whole appearance was utterly ruined by the pictures that had place on its walls. I recollect the parlors particularly. They were large rooms, carpeted with the best of Brussels carpet, in a pleasing green tint; the furniture was good, and well enough chosen. But—and here comes the skeleton, alas, not in a closet—upon the walls were the tawdriest of so-called oil-paintings, glaring crude affairs that would have rendered any room "common." Worst of all, at the very spot where the light was best, hung a hideous carbon print of the grave of Lincoln! Of course this was an "American" house, and hero-worship of Lincoln runs high in the United States, as it well may; yet it did seem like carrying hero-worship to a fine point, to have a great print of any hero's tomb placed in the most conspicuous part of one's parlor. At first it seemed inexplicable that such monstrosities should be permitted in rooms otherwise tasteful; then it suddenly dawned upon me that these were very old pictures (not masterpieces) which had been in the house so long that the inmates had simply become used to them, and so failed to see their incongruity. After all, it is such an easy matter to get used to things, and to forget that occasionally it may even be commendable to make a bonfire of things which may

have become too passe. And just here mightn't one philosophize a bit, and say how desirable a thing it is too, sometimes, to get rid of other old things as well as old pictures and fancywork—old notions, old ideas about things which should give place to the keener, fresher ripple of thought that glimmers ever brighter and clearer as the century grows? But, no,—for to-day, no philosophy. Beginning on that strain, one would be tempted to "go on and on forever," like Tennyson's brook, and then where would the picture be?

I believe it is not now considered artistic to have very many pictures on the walls, although, personally, I am so very fond of good ones, that I could stand a great many of them. Walls papered or painted in soft shades of solid color, or at least without pronounced patterns in either figure or tint, suit pictures best, olive green, soft gray, dull buff and rich "cigar" being usually to be depended upon as safe background tints.

In the disposal of pictures, these points should be remembered. Water-color paintings or delicate prints should never be placed close to oil paintings in rich or deep tints. If so, the delicate pictures will appear faded, and the paintings coarse, by contrast. As a rule, delicately-colored pictures should be placed in the best lighted part of the room, unless relegated to a dark corner for the express purpose of brightening it up. Small pictures are often most effective when arranged in groups. Heavy gilt frames are not now considered indispensable, the natural wood being really prettier and more easily kept clean. Family portraits should always be placed in the dining-room, or in the library, if there is one, never in parlors.

Last of all, as to the pictures themselves, it really seems a pity, in these days of good cheap engravings, that poor or tawdry ones should ever have a place on our walls. If you have never heard of the Perry, Cosmos or Brown pictures, I am glad to tell you of them. These firms issue prints of the great masters, at prices ranging from 2 cents to 25 cents each—higher than that, I suppose, if you want. All you have to do is to cut off the white rim from the prints, mount them on cardboard of some soft tint (plain wall paper in the right shade will do nicely), then frame them as you choose; narrow wood frames are quite pretty, and are not expensive. Many mount these prints, then frame them in passe-partout, by placing glass over the mounts, then pasting all around the edge the passe-partout binding, which may be got already coated with mucilage for that purpose. Small hooks and rings are fastened at the back for suspending the pictures. As may be imagined, these passe-partout prints are very inexpensive, yet they are seen everywhere in the best houses. Photographs or pictures from magazines may be treated in the same way.

DAME DURDEN.

"Farmer's Advocate" office, Winnipeg, Man.

PRACTICAL HINTS FROM ANNIE LAURIE.

Dear Dame Durden, and girls of the Ingle Nook, did you ever try to press wild flowers, and suffer the mortification of seeing them shrivel up into mere shadows of themselves?

This spring I am using absorbent cotton, and it works like a charm; in fact, better than some charms I know of.

New Ontario Boy.—Some time when you are out of preserves, and don't want to bake a dessert, try boiling two cups of sugar and four cups water into a

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Nature Study.

(Continued.)

By J. B. Wallis, Winnipeg.

FIELD WORK.

As in all nature study, the best work in bird recognition is done through an outing into the fields or woods. This does not necessarily mean that the teacher must know all the birds, though, of course, that is well; still she may go out as a learner with the children. Some book on birds, preferably with colored plates, is indispensable. Such a book as "Bird Neighbors" will give much assistance. Armed with something of this kind, and a pair of opera-glasses, go out with the class and try to learn to recognize two or three of our commoner birds. If it is not convenient to take a bird book out, get a good mental picture of the birds seen, and on the return to the schoolhouse look them up. The colored plates published by Birds and Nature Co. are excellent for the purpose, and have the additional advantage of being just what one requires, for one can select before buying just those plates needed. They are cheap, too: just a cent each in quantities, I believe.

SPECIAL STUDY.

Having obtained a speaking acquaintance with some birds, the next thing is to make a special study of certain convenient ones. As aids to this study, bird boxes will come in useful. These may be set up at various heights and of various sizes, according to the different birds—sparrows, bluebirds, martins, wrens—it is desired to attract. In connection with these boxes, it is well to remember that fresh water and trees are a great consideration, the former at any rate to all birds, the latter to many. Other birds should be watched by individual pupils, the nesting habits being of special interest. All the habits of the birds should be carefully noted, and sometimes little experiments made, for instance, the kinds of material the mother bird prefers for her nest, preference, if any, for certain colors in materials, food of adults, of young, etc. After the young have left the nest, it may be taken, and, with a record of the observation work done, placed in the school collection.

INCIDENTAL WORK AND OBSERVATION.

As the knowledge of our birds increases, attention should be drawn to the adaptation of the birds to their place in life; the various shapes of the birds, of their wings and tails and of their heads; the texture of their feathers, their coloring, and the coloring of male and female; the relation of the bird to man: should all receive notice.

Then, too, there is certain observation work which only the lover of birds can do. This cannot be classed under any head, for it is really an entering into the life, into the emotions of the birds. It cannot be taught; but I believe it can be developed. It is the feeling which we share with the meadow lark as he gushes forth his song; with the bob-o-link as he springs from off a twig and sails through the air, deluging his little gray mate with a flood of melody; with the woodpecker as he hangs below the row of holes he has bored in the maple, waiting for them to fill with sap, and, as we come too near, dodges behind the tree trunk, too lazy to fly away; with the crane as he awkwardly dances around his spouse, by way of showing her polite attention; with the plover as she tumbles away with apparently broken wing to draw us away from her nest of babies; with the sparrow as he fights over some choice building site or a particularly fascinating helpmeet. Exactly what that feeling is I cannot say. It is one of interest and sympathy with all the ways of the feathered folk. You

cannot teach it, but if you have it yourself, your pupils will have it too, for it is very contagious. If you haven't it, read Thompson-Seton's "Overland Route," "Randy and Bidly," Long's "Whitoweeek, the Hermit," "Kookoo-coos," "Kingfisher's Kindergarten," or any of Roberts' delightful bird stories, and then, best of all, go and see for yourself.

SUITABLE BIRDS FOR STUDY.

It will be found very convenient to have a certain standard of size to which to refer birds, and probably the best standards are the English sparrow and the robin. I have used these to indicate size in the birds below mentioned, when there was any likelihood of the bird not being known.

Among birds suitable for study, either as migrants or else as a nesting species, are:

The junco: These familiar little birds are to be found in early spring and late fall in all parts of Manitoba. They are about the size of the English sparrow, but are more trimly built. The male has an almost black head and neck, slate-colored back, white or almost white breast, and two conspicuous white feathers in its tail. The female is less bright. The junco is usually seen on or near the ground, among trees or brush.

The ruby-crowned kinglet: A beautiful little bird of spring and fall; a dull olive green on black, lighter with a yellowish tinge underneath, a dull stripe across the wings, and a crimson patch on back of head; about the size of an English sparrow; usually seen diligently hunting for insects on either evergreens or deciduous trees.

The white-throated, song, and chipping sparrows: The two former delightful songsters, the latter a dear little bird. The white-throat is a trifle larger, the song sparrow about the same size, and the chipping sparrow considerably smaller than the English sparrow. The white-throat is easily distinguished by its striped head, white throat and grey breast; the song sparrow by its more dully-striped head and spotted breast, with a brown blotch in the center, and chippy by its smaller size and chestnut crown with white line on each side.

The yellow warbler: A good bird to study as to nesting habits; easily recognized; a little smaller than the sparrow, and apparently yellow with a greenish tinge.

The king bird, crow, cat-bird, killdeer, plover, any hawk, horned lark, robin, house wren, purple martin, Baltimore oriole, etc., are too well known to need description, and form excellent studies, both for their individuality and their nesting habits.

Courage.

Talk happiness. The world is sad enough
Without your woes. No path is wholly rough.

Look for the places that are smooth and clear,
And speak of those to rest the weary ear
Of earth, so hurt by one continuous strain
Of human discontent and grief and pain.

Talk faith. The world is better off
Without
Your uttered ignorance and morbid doubt,

If you have faith in God or man, or self,
Say so; if not, push back upon the shelf
Of silence all your thoughts till faith
Shall come.

No one will grieve because your lips are dumb.

Talk health. The dreary never-ending
Tale
Of mortal maladies is worn and stale.
You cannot charm, nor interest, nor please,
By harping on that minor chord, disease.

Say you are well, or all is well with you,
And God shall hear your words and make them true.

FARMERS!

Why not save the enormous profits that are being made by the middlemen and buy your goods direct from the manufacturer?

The Farmers' Wholesale Buyers Association of Winnipeg, Ltd.

are now operating throughout Manitoba, opening branch stores in all thickly-settled districts, and will furnish you goods at wholesale.

We charge you a small annual fee to buy from this Association, saving you many dollars that you are now paying the middlemen.

If our promoters are not operating in your district, and you have not had an opportunity to have our methods explained to you, write for particulars. No matter what your wants may be we can lay all goods down to you at wholesale prices, and much cheaper than you can buy as individuals.

We are incorporated under the laws of Manitoba, and our capital has been placed at \$100,000 for the present need of the Association.

Address all correspondence to

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ANNOUNCEMENT



CANADIAN NORTHERN RAILWAY
June 19th.
DAILY PASSENGER SERVICE BETWEEN
Winnipeg and Port Arthur

Schedule THE STEAMSHIP LIMITED Schedule
Leave Winnipeg 16.50k, arrive Port Arthur 8.30k.
Leave Port Arthur 18.50k, arrive Winnipeg 10.30k.

Connecting at Port Arthur in both directions with the steamers of the Northern Navigation Co., the Canadian Pacific Steamship Line and the Canadian Pacific All Rail route, to and from all points in Eastern Canada and the United States.

GEO. H. SHAW, Traffic Manager.

**Ship Your Hides, Furs and Senega Root to
THE LIGHTCAP HIDE AND FUR CO., LTD.**



Largest exporters of Furs and Senega Root
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Wool, Tallow, etc. Write for circular.

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If you wish to find a steady cash market for your butter, at good prices, write us for particulars.

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Limited. MANITOBA.

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LAMB FENCE AND GATES

Lamb Fence will fit the ground in any place, and can be erected in less time than it takes to get ready to weave a hand-made fence.

It is made of the very best High Carbon Steel Wire, which has much more tensile strength than the hard steel wire or common soft wire.

Lamb Gates are efficient as well as handsome.

THE H. R. LAMB FENCE CO., LTD., LONDON, ONTARIO, WINNIPEG, MAN.

QUESTIONS AND ANSWERS. Legal.

NO DOWER IN FAVOR OF WIFE.—Will you kindly inform me in next week's issue of your "Farmer's Advocate" if a man can sell property without his wife's signature, and what is the wife's share?

Ans.—There is no dower in favor of the wife in the Northwest Territories, and if property is in the husband's name, he may sell it and give a deed for it without reference to his wife. A wife may hold property, however, in her own name, over which her husband will have no control.

TRAIL MAY BE CLOSED.—There is a road through center of quarter section made by neighbor ten or fifteen years ago, and used by others to get to neighbor's place. There is a public road a quarter of a mile further on that he can use, but he chooses to use this one as a short cut. Can he travel said road after being told not to, it being seeded? Can the public travel a road so many years, without being stopped, and then claim it as such, or can the road be stopped any time by sign or notice? Can neighbor claim this road after having used it so long?

Kenlis, Assa. **SUBSCRIBER.**
Ans.—No one has a right to travel across your land without your permission, and if they do so after being notified, they are liable to an action for trespass and damages. The fact of the trail being used for a number of years does not make it a public highway, or give the public any right to travel over it. Put a fence across the trail, simply to call people's attention to the fact that they are not allowed to travel across, and they must take the road allowance.

Miscellaneous.

IMPAIRED MOVEMENT IN HEIFER.—Have heifer three years old, which has never had a calf. Hind legs give down, and trouble seems to be in back; when laid down has difficulty getting up, and when walking swings her hind leg forward, and seems stiff; appears in healthy condition. T. H.

Ans.—Failing other symptoms or further information in your inquiry, would assume that this heifer has stifles partially dislocated. Would advise calling in a veterinarian from your nearest town, and follow his advice.

USING UNREGISTERED STALLION.—I have a Percheron stallion for my own use. Is it against the law for my neighbors to use the same, for which they seem to prefer, and is it lawful for me to make a charge? W. J. R. B. Weyburn, Assa.

Ans.—You may use the stallion yourself, and your neighbors may do so too, but if you make any charge for his service, you are liable to prosecution, unless he is properly registered at the Territorial Dept. of Agriculture, showing whether pure-bred, cross-bred or grade. We would advise you to have him registered, by all means; the charge is only \$2 for pure-breds, and nothing in the case of the other two.

TESTING MILK—A GOOD BOOK.—1. Would you please let me know in your next issue the amount of acids and milk to be used in finding the percentage of butter-fat in the milk, either by the Gerber or Babcock tester? 2. What book would you recommend on milk and its products, also on testing for butter-fats? ENQUIRER.

Brandon.
Ans.—1. In testing milk by Babcock test, 17.6 cc. (cubic centimeters) of milk are used, and to it is added 17.5 cc. of sulphuric acid. With the Gerber test, amyl acid is sometimes used, but this method of testing is not general in Canada. 2. One of the best and most simple books on milk and its products is entitled "Milk and Its Products," by Wing; and on milk testing, a favorable publication is "Milk Testing," by Farrington & Wolf; price, \$1.25. Both these books may be had through this office.

Last Mountain Valley

PRICE, \$9.10 PER ACRE. EASY TERMS.

Railroad now being constructed.
SIXTY TOWNSHIPS TO SELECT FROM.

WRITE FOR PARTICULARS.

WM. PEARSON & CO., 383 Main St., Winnipeg.

WISE FEEDERS USE

Clydesdale Stock Food

For HORSES, CATTLE, SHEEP and HOGS.

Carrol, Man., May 4th, 1904.

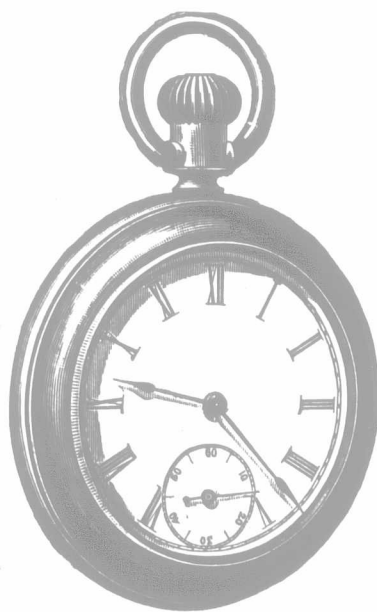
The Clydesdale Stock Food Co., Toronto, Ont.:
Gentlemen,—I have fed your CLYDESDALE STOCK FOOD to my Aberdeen Polled cattle, and found it excellent in keeping them in a good thriving condition. I also used it on some brood mares, and I could see it made a great improvement in them. I can recommend other breeders of cattle to give it a trial.

Yours truly, JOHN TURNER.

Northwest representative—GEO. BEWELL, care of Fairchild & Co., Winnipeg.

CLYDESDALE STOCK FOOD CO., TORONTO, CANADA.

BOYS, DO YOU WANT IT?



A Good Watch

with genuine Elgin or Waltham 7-jeweled nickle movement, in 14-karat gold-filled, twenty-year guaranteed, open-faced, screw back and bezel case.

You Can Have It

without it costing you one cent. Write for particulars to

Circulation Dept.,

Farmer's Advocate
WINNIPEG, MANITOBA.

ADVERTISE IN THE ADVOCATE.

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CAUSE OF WARBLERS.—What causes the appearance of grubs in the hides of cattle? What is the cure for same?

Alta. **MILLET.**
Ans.—See recent articles on "Warbles" in issue of March 30th and April 27th.

BONE DUST WANTED.—Please give the address of a firm who deals in bone dust. S. C.

Newdale, Man.
Ans.—Address the Steele, Briggs Seed Co., Winnipeg, Man., and mention this paper.

USING GRADE STALLION—GRAZING LAND NOT FREE.—1. I have a fine grade stallion. Have I a right to travel him, and, if not, have I a right to breed mares that come to my stable? 2. Is all vacant land free grazing land, or, in other words, are cattle allowed to run at large? **HARD SCRABBLE.**

Ans.—1. See answer to similar question in this issue. 2. Vacant land is not considered in the eyes of the law as free grazing land. Cattle may run at large in unorganized districts, but their owner is liable for any damage they may do.

ABOUT GASOLINE ENGINES.—Is a gasoline engine as durable as a steam engine? Can it be operated by a man not having an engineer's certificate? Is there any danger from fire? Would they be injured by drawing them from place to place for threshing purposes? How much gasoline will one burn per horse power per hour? Are they the coming power for threshing purposes? **Medicine Hat. SUBSCRIBER.**

Ans.—There is a great deal to be said in favor of gasoline engines for threshing purposes. Most of the firms handling them issue elaborate catalogues containing much valuable information. We would advise consulting our advertising columns for their addresses. An engineer's license is not required of a person operating a gasoline engine. There is little danger from fire. They can be drawn from place to place without injury, and are probably quite as durable as a steam engine.

NEW HOOF AND ITS CARE.—I have a horse that lost his hoof on March 10th by stepping on a rusty nail; four years old; a healthy horse. How soon can I work him while his new hoof is growing, am in need of a work horse? J. K. Pincher Creek.

Ans.—The application at intervals of two weeks of a mild blister (fly blister, strength one to eight) to the coronet (top of the hoof) will stimulate the growth of the horn. Watch it carefully, so that the new hoof grows in the proper shape. Apply clean, sweet grease, or hoof ointment, around the top of the hoof every third day after using the blister. Tie his head up for twelve hours after the blistering, so that he will not bite it. Get the blister from your local veterinarian, or druggist. Cannot say without a personal inspection how long it would be before the horse can be worked; if the hoof is growing well, probably in a month or so on soft ground. Keep off the road entirely this summer.

PRESERVING EGGS.—I always kept your issue of Sept. 20th, 1898, on hand, for the purpose of keeping your recipe for egg pickling. It reads as follows: Take 24 gallons of water, 12 lbs. of un-slacked lime, 4 lbs. of salt; stir frequently every day, and let stand until clear; draw off the clear liquid, leaving the sediment in the bottom. Then pulverize five ounces each of baking soda, cream of tartar, saltpetre and borax, and one ounce of alum, and add to 20 gallons of the clear lime water. Will you please advise me if you add 20 gallons of pure lime water, made separate to the first 24 gallons, in adding soda, borax, etc., or if the latter is only put in the first 24 gallons of water. It appears that 44 gallons of liquid, if put together, would not leave much space for the eggs in an ordinary large barrel. J. E. D. Makinak, Man.

Ans.—It is intended to mean 20 gallons lime water only to the mixture of borax, soda, etc. This, with as many eggs as it will cover, will fill an ordinary barrel. Since publishing the above recipe, in 1898, the use of water-glass as an egg-preservative has come into prominent use. The solution consists of one part water-glass (sodium silicate) to seven parts water. It is used as the above, and is a very satisfactory preservative.

Important Auction Sale at the Repository, Toronto

THURSDAY, JUNE 23, 1904,

50 Imported Registered Clydesdale Fillies

PROPERTY OF GRAHAM BROS., CLAREMONT, ONT.

Personally selected by one of the above firm from the best Clydesdale establishments in Scotland. Sired by such noted stallions as Baron's Pride, King of the Roses, Prince Thomas, Up to-Time, etc.

LARGEST AND MOST VALUABLE CON-SIGNMENT OF CLYDESDALE FILLIES EVER BROUGHT INTO AMERICA.

These fillies are one, two and three years old, and the two-year-olds and three-year-olds have been served by the very best sires before leaving Scotland. A most important opportunity for farmers to secure first class, young, imported breeding mares.

Apply for catalogues, which will be ready in a few days, to

Graham Bros., Proprietors.

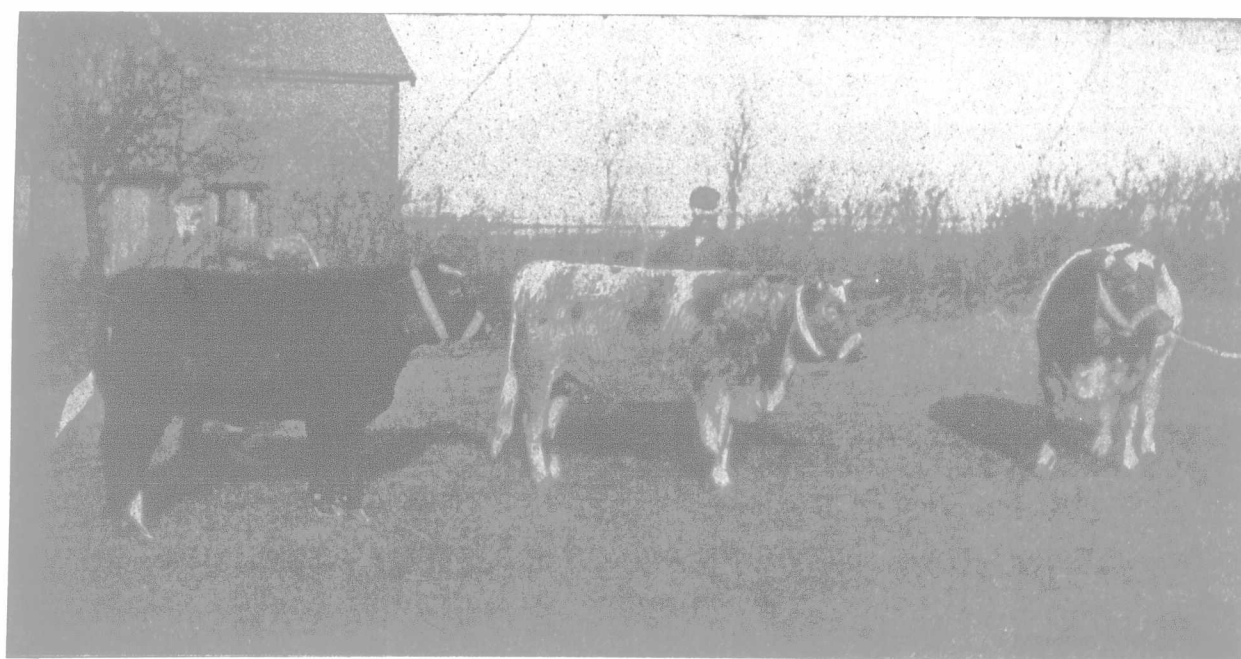
Walter Harland Smith,
AUCTIONEER, THE REPOSITORY, TORONTO.

GRAND COMBINATION SALE

IN SALE PAVILION, STOCK-YARDS, HAMILTON, ONT., ON

TUESDAY, JUNE 28.

**62 HEAD
IMPORTED
AND
CANADIAN-
BRED
SHORTHORNS**



**56 FEMALES,
6 BULLS.**

CONTRIBUTORS:

W. C. Edwards & Co.,
Rockland.

A. D. McGugan, Rodney.

Chas. Rankin, Wyebridge.

D. Milne, Ethel.

T. E. Robson, Ilderton.

Hudson Usher, Queenston.

A choice collection of high-class individuals in type and breeding. For catalogues and all information, address

Auctioneers: CAPT. T. E. ROBSON, THOS. INGRAM.

HUDSON USHER, Queenston, Ont.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE

QUESTIONS AND ANSWERS. Veterinary.

SEROUS ABSCESS ON KNEE.

Cow has a soft lump, as large as my fist, on the front of her knee. M. S.

Ans.—This is a serous abscess, caused by the cow lying on her knee on hard floors. A plentiful supply of bedding will remove the cause. As it does no harm, treatment is seldom given.

BRONCHOCELE.

When born, my foal had a lump the size of a small hen's egg on each side of its throat, close to the jaw. The lumps seem hard, but are movable.

Ans.—These are enlarged thyroid glands. The condition is called bronchocele, or goitre. In foetal life, these glands are large, and in some cases they do not become reduced in size for some time after birth.

PARTIAL DISLOCATION OF PATELLA. Yearling colt went wrong two weeks ago. The stifle bone slips in and out with a snap. T. H.

ABSCESSES. Mare foaled April 18th. The foal was all right, except one hind leg was crooked. At about ten days, this leg swelled at the hock, and the swelling extended to and involved the mammary gland.

Miscellaneous. HONEY EXTRACTOR. Where can I get a honey extractor?

It is occasionally difficult to realize that a man is deaf till something suddenly makes us apprehend it. I think of the clerk of a country church, who was once much exercised at the appearance of a strange old gentleman, who, when the sermon was about to begin, took a trumpet (in two parts) out of his pocket and began screwing them together.

FREE TO MEN UNTIL CURED.



The effect of Electricity upon the weak, debilitated man is the same as rain upon the parched field in summer. He may be debilitated from varicocele, losses, impotency; may have confusion of ideas; fear to act and decide; gloomy forebodings, timid and fretful; avoid friends and company; without confidence in himself to face the slightest responsibility, and let him properly apply Electricity for but a few hours and all these symptoms vanish.

Dr. Sanden Electric Belt Free Until Cured.

Not one cent is to be paid me in advance or on deposit. Call or write and get the belt, and use, say, for sixty days, and if cured pay me price of belt only—most

DR. C. F. SANDEN, 140 Yonge Street, Toronto, Ont. Office Hours: 9 to 6. Saturdays until 9 p.m. (516) Largest and Oldest Electric Belt Establishment in the World.

cases low as \$4; if not cured return the belt and the deal is ended. But I know what the belt will do, and will take the risk of my pay when you are cured. I also give my belts on same terms in Rheumatism, Lamé Back, Stomach, Kidney and Liver Complaints, etc.

Merit Cream Separator. Gets ALL the Cream. Its continuous circulation of cold water gives much more Cream than other low priced machines.

A Live-stock Market NOW ESTABLISHED at Calgary. Commodious horse stables, cattle sheds and open corrals have been erected adjoining the C. P. R.

HICKORY GROVE Herefords. Oldest Established Herd in America. Grand champion bull, Prime Lad 108911, heads the herd.

LITTLE BOW Herefords. Alberta's Prizewinning Herd. Always a nice lot on hand for sale. Write for what you want.

POPLAR GROVE HEREFORDS. Western Canada's leading herd. Young Bulls and Females for Sale.

SUNNY SIDE HEREFORDS. For sale, cheap: 20 bulls singly or in car lots, good thrifty, low-down, beef type from 7 to 20 mos. old.

I Cure Rupture. No Operation, Pain, Danger; no Loss of Time from Work. Why wear a truss when you can be cured so as not to require one?

The CENTRAL CANADA INSURANCE CO. BRANDON, MANITOBA. Fire, Hail & Live Stock Insurance.

The Alberta Stock-yards Co., Ltd. P. O. Box 846, or Room 24, Herald Block, Calgary.

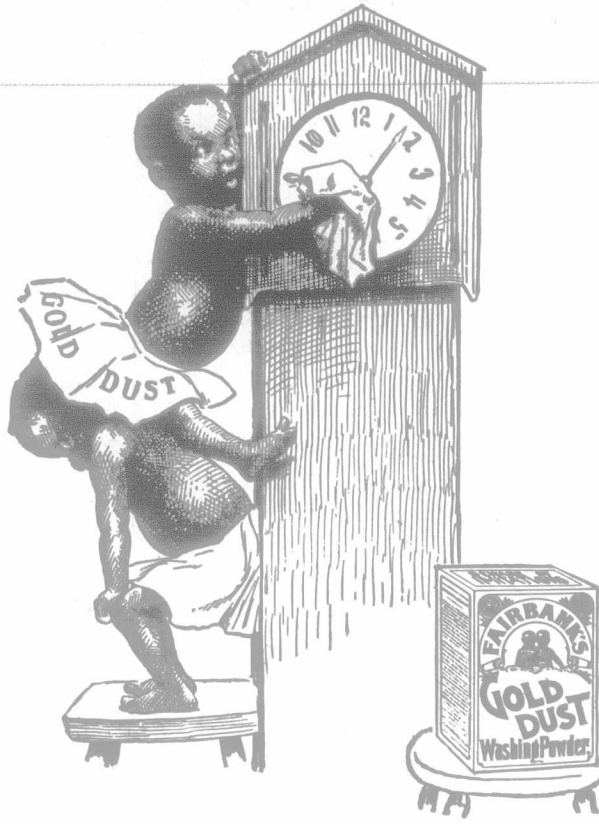
TORONTO CO. ENGRAVING CO. 92 BAY ST. CUTS BY ALL PROCESSES. LIVE STOCK A SPECIALTY.

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"Let the **GOLD DUST TWINS** do your work"

Cleaning Time

Gold Dust is the first aid to the housewife at housecleaning time. It just about halves the labor, does the work better and saves a deal of time. You really can't afford to be without



GOLD DUST

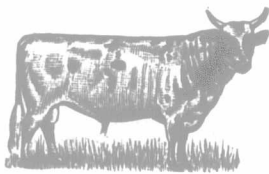
at any time.

OTHER GENERAL USES FOR GOLD DUST

Scrubbing floors, washing clothes and dishes, cleaning wood-work, oilcloth, silverware and tinware, polishing brass work, cleansing bath room, pipes, etc., and making the finest soft soap.

Made by THE N. K. FAIRBANK COMPANY, Montreal—Makers of FAIRY SOAP.

GOLD DUST makes hard water soft



Ogilvie's Ayrshires

A herd of 85 head, composed of cows and heifers, prizewinners at the leading shows. The cows are imported from the best Scottish herds. Imported Douglasdale, champion at the Pan-American Exhibition, and imported Black Prince, champion at Toronto and Ottawa, 1903, head the herd. Choice stock of both sexes for sale.

Robert Hunter, Manager, Lachine Rapids, Que. One mile from electric cars. Farm near Montreal.

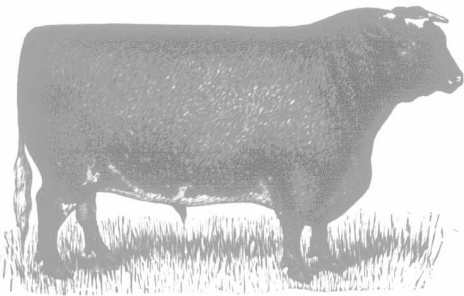
H. J. Davis, Woodstock, Ont.

Breeder and Importer of SHORTHORNS AND YORKSHIRES.



"Imp. Bapton Chancellor No. 78286"

A fine lot of imported and Canadian-bred heifers, with calves at foot by Bapton Chancellor, Imp. for sale at reasonable prices; of the best Scotch families. Also some good yearling heifers, nicely bred.



High-class Shorthorn Bulls For Sale

3 imported bulls.
4 bulls from imp. cows and by imp. bulls.
The others from Scotch cows and by imp. bulls.
21 Scotch cows and heifers, including 9 imp. animals.

ARTHUR JOHNSTON, Greenwood, Ontario.

Spring Grove Stock Farm

Shorthorn Cattle and Lincoln Sheep.



HERD prize and sweepstake at Toronto Industrial Exhibition, three years in succession. Herd headed by the Bruce Mayflower bull, Prince Sunbeam, Imp. Present crop of calves sired by Imp. Wanderer's Last, sold for \$2,005. High-class Shorthorns of all ages for sale. Also prizewinning Lincolns. Apply on

T. E. ROBSON, ILBERTON, ONT.

JERSEY CATTLE & Reg'd COTSWOLD SHEEP

Some very fine heifers, all ages; 2 bull calves, 14 months and 8 months. Also some very fine ewes. WILLIAM WILLIS & SON, om Pine Ridge Farm. Newmarket, Ont.

JERSEYS For quick buyers, we are going to sell 15 bulls and 25 females. Owing to the natural increase of our herd and so many heifers coming into milk, we make the above offer. Stock of all ages. State what you want and write to-day to B. H. BULL & SON, om C. P. R. and G. T. R., Brampton, Ont.



COOPER SHEEP DIP

Standard of the World

for 60 years. Used on 250 millions annually. One dipping kills Ticks, Lice and Nits. No smell. Keeps flock clean a long time. Increases growth of wool.

Dipping Tanks at cost. Send for Pamphlet to Chicago.

If local druggist cannot supply send \$1.75 for \$2 (100 gal.) pkt. to

Martin Bole & Wayne Drug Co., Winnipeg, Man. Bole Drug Co., Winnipeg, Man. Wm. Cooper & Nephews, Chicago, Ill.

GOSSIP.

The attention of our readers is drawn to the change in Alex. Galbraith & Son's advertisement in this issue. They are offering for sale some choice young stallions, and also booking orders for pure-bred mares.

This spring has been most favorable to the extermination of wild oats. Farmers who plowed lightly last fall land that was infested with the pest say the oats germinated early and grew so luxuriantly that they are now able to plow them under and sow the land in other crop. Plowing under is claimed to kill the young plants of the wild oats quite effectually, and the rapid growth and perfect germination is believed to have left little or no seed lying in the ground that is not germinated.—[Dufferin Leader.

VOTING FOR PROVINCIAL FLOWER.

The Natural History Society has received a large and representative vote on the selection of a flower to be adopted as the floral emblem of Manitoba. The three flowers in the lead are in order: The spring anemone or crocus, the orange lily and the wild rose. It has been decided to extend the time for voting up to Wednesday, June 15th. Votes are now restricted to the three flowers mentioned, and may be sent to J. B. Wallis, Secretary Manitoba Natural History Society, Winnipeg, by either letter or post card. Each voter should give flower preferred and their own name and address, and if children, age.

When a final decision is reached the popular vote will be made known throughout the province.

The Society intend offering a prize of ten dollars at the Dominion Exhibition for the best drawing of a design, incorporating the flower selected, to be used as the floral emblem of Manitoba.

A MANITOBAN ON BABY BEEF.

Mr. David Jackson, M. P. P., Hamiota, is a Manitoba farmer, who believes in getting away from old systems of farming and stock-raising far enough to investigate the new. He has been lately experimenting in the production of baby beef, and his experience was recently given a representative of the Free Press as follows:

"In the spring of 1903, I began operations with 25 calves, all high-grade Shorthorns; in fact, they are nearly pure-bred. These calves, as they were dropped, were allowed to run with their mothers; the cows being well fed until there was plenty of grass. When the grass came, they were turned out with the cows, on ordinary prairie pasture, and allowed to run all summer. In October, they were put into stalls, and fed with a small quantity of chopped grain, and as much brome and prairie hay mixed as they would eat. The grain used at first was oats, with a little wheat; later we changed it to wheat alone, the wheat being slightly frozen. As soon as possible, we increased the allowance of grain to six quarts a day, divided into three rations. This was kept up all winter, but this spring we increased the grain to eleven quarts daily, divided into three rations. The roughage remain the same. These calves are now a year old, and about half of them weighed 900 each, and the others 750. They will be shipped to the city on the 15th of June.

"I cannot tell just yet what will be the percentage of profit, but this I do know, the calves will bring me \$30 to \$35 each, and my neighbors this spring have sold yearling stockers for \$14 and under. As soon as I have disposed of the cattle and made up my books I shall be pleased to let you know just the percentage of profit. With a portion of the calves dropped this spring, I shall try letting them run with the cows all summer, promote their growth as much as possible, and then grain feed them for another year, as I am anxious to test which is the most profitable—'baby beef' at two or one year old? We have kept a most careful record of the cost of food and attendance, and will be able to tell to a fraction just what the production has cost."

The result of Prof. Grisdale's stall-feeding test, at Ottawa, during the past winter, showed that it cost \$5.22 per hundred pounds of added flesh to a three-year-old steer; \$4.30 for two-year-olds, and \$4.50 for yearlings.



MILBURN'S HEART AND NERVE PILLS FOR WEAK PEOPLE.

AND THOSE TROUBLED WITH

Palpitation, Throbbing or Irregular Beating of the Heart, Dizziness, Shortness of Breath, Distress after Exercise, Smothering Feeling, Spasms or Pain through the Breast and Heart, Morbid Condition of the Mind, Partial Paralysis, Sleeplessness, Nervousness, Anemia, General Debility, After-Effects of Grippe, Loss of Appetite, etc.

Remember Milburn's Heart and Nerve Pills cure the worst cases after other remedies fail.

Laxa-Liver Pills cure Constipation.

W. W. CHAPMAN,

Secretary of the National Sheep Breeders' Association.

Secretary of the Kent or Romney Marsh Sheep Breeders' Association, and late Secretary of the Southdown Sheep Society.

Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered.

Address: MOWBRAY HOUSE, NORFOLK ST. LONDON, W. C., ENGLAND.

Cables—Sheepcote, London.

Are you thinking of going in for

YORKSHIRES?

If you are, get good foundation stock. We have some young Yorkshire boars and sows by our new boar, S. H. DALMANY TUBK 2nd (Imp.)—1245—, and shall be glad to quote prices. We have also some good young Shorthorn bulls left.

Walter James & Sons, Rosser, - - - Manitoba.

MOUNT FARM BERKSHIRES

CHOICE-BRED STOCK

now for sale;

PAIRS SUPPLIED NOT AKIN.

Inspection requested, and correspondence invited and promptly answered.

C. G. BLUSTRODE, Mount Farm, SOUTH QU'APPELLE, ASSA.

Lakeside Herd of Large ENGLISH BERKSHIRES and SHORTHORNS.

The most select herd of Berkshires in North-western Canada. My brood sows are all prizewinners at Winnipeg Exhibition. Headed by the diploma boar Emperor, an extra large, long, smooth hog. Boars and sows of August, September, October and December litters. A few first-class sows to farrow in April, May and June. Booking orders for spring pigs. Order early and get the pick.

JAMES M. EWENS, Lakeside Stock Farm, Minnedosa, Man.

BERKSHIRES AND YORKSHIRES.

For Sale—Boars fit for service; sows in farrow and ready to breed, and younger stock, all of the ideal bacon type. Pairs not akin. JOHN BOYES, Jr., Rosebank Farm, om Churchhill, Ont.

FOR SALE: Yorkshires and Holsteins

Best type and quality. Young stock constantly on hand. Prices right. R. HONEY, om Brickley P. O., instead of Warkworth.

REGISTERED SHORTHORN BULL

ready for service: CHESTER WHITE BOARS, ready for service; also DORSET SHEEP, various ages. Write to

E. H. HARDING, Mapleview Farm, THORNDALE, ONT.

MAPLE LODGE BERKSHIRES.

Having left Snelgrove and secured Maple Lodge Farm, Brampton, I am prepared to supply pigs of the best bacon type and breeding, with fresh blood added, and in as large numbers as ever. Have a few good young boars ready for service and fine sows ready to breed. Spring pigs have come strong, and we can supply pairs not akin.

Address: WILLIAM WILSON, Box 191, Brampton, Ont.

T. E. M. BANTING, Banting, Manitoba,

Breeder of prize TAMWORTHS. 1903 litters all sold. Orders for spring litters booked now.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.