

48

Library of Parliament Jun 21

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE AND SUCCEED
FOUNDED 1866

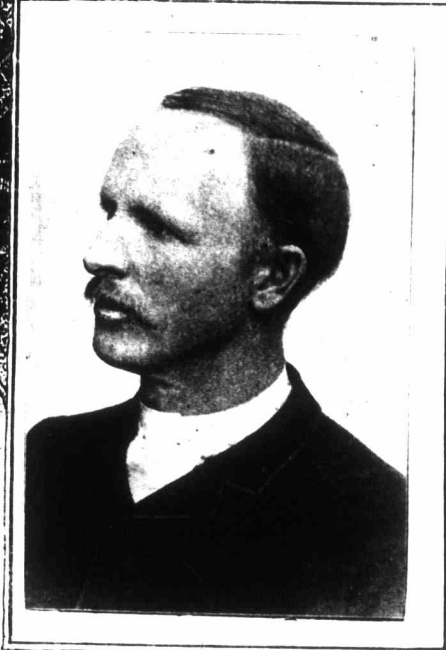
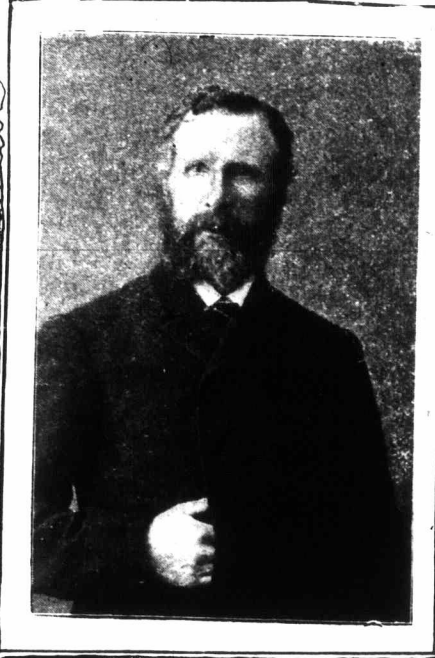
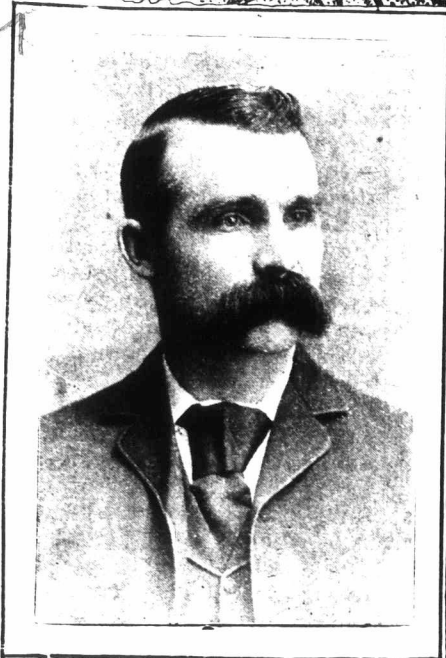
* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.*

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

VOL. XXVIII.

LONDON, ONT., AND WINNIPEG, MAN., AUGUST 1, 1893.

No. 339.



MR. R. E. A. LEECH,
Secretary-Treasurer
Manitoba Central Farmers' Institute.

MR. JAMES ELDER,
President
Manitoba Central Farmers' Institute.

MR. S. A. BEDFORD,
Vice-President
Manitoba Central Farmers' Institute.

EDITORIAL.

The most prosperous farmers are those who do not attempt to farm more land than can be thoroughly cultivated with the capital and help at their disposal.

The farmers who are constantly on the outlook for something new to try are not likely to be heard from as the most successful men. It is better to specialize along one or two lines and secure every thing that is in them.

Keep the spuds, hoes and cultivators going as much as possible at this season of the year, and thereby hinder the weeds from forming their seeds, to be troublesome next year. Cultivation also enables the soil to retain its moisture, as well as to allow a free circulation of air about the roots of the plants.

Prices for rooms in Chicago are now very low. In some parts of the city quite distant from the Exposition, rooms are renting for 50c. per day for two persons. This is in private families. There are many such localities. Farmers would do well not to defer their visit till larger demand stimulates prices.

Many a farmer is going behind financially every year by trying to raise wheat only. The longer he continues the worse he will be, as impoverishment of the land is sure to follow, while dairying is certain in its action, always leaving a quantity of cash in the house, as well as enriching the soil year by year.

Do not allow your cows to be hurried home from the pasture by dogs or thoughtless boys, or the result will be less of milk, which will be wonderfully decreased in cream richness, and is liable to be poisoned by fever brought on by undue exertion and nervous excitement. It is not safe to give such milk to little children.

Separator milk is not quite as valuable for feeding as ordinary skim milk. This is rather a recommendation for it than otherwise, as it shows that its fats have gone into the butter. However, the deficiency when fed to calves can be made up quite cheaply by the use of oil-cake meal made into porridge and mixed with the milk.

The fence problem is one that is receiving considerable consideration. Farmers that have old rail fences—can save off the time of purchasing new material by constructing out of the old a good substantial patent fence, of which there are several good ones to choose from. The old rails that are not fit to go in again will pay for the work of building, if converted into fire wood for the summer season. Every farmer that adopts this plan will experience a period of good nature every time he passes that way.

One of the most convenient methods for a farmer to pack summer eggs for later use is in boxes in some dry substance. The use of salt, bran, oats or dry earth are very good. Coal ashes, wheat, chaff, etc., answer very well. A layer of packing material is put in the bottom of the package, a layer of eggs, set on end, is put in so as not to touch each other, then a second layer of the packing substance is put on sufficiently thick to keep the layer apart, and so on until the box is filled. Nail up tightly, and date package and place in a cool, moderately dry place, where there will be little variation of temperature; turn the package bottom-side up every four or five days, and the eggs when wanted will come out nice and fresh.

In sections where early and short strawed varieties of peas are grown, farmers will find some difficulty in keeping the land clean and rich, because the ground is so thinly covered, and the lack of straw to return as manure. This difficulty can be easily overcome by plowing the pea fields quite shallow as soon as the crop is removed, and sowing two or three pecks of buck-wheat per acre, to be plowed under as soon as it comes into blossom, which will be in a very few weeks after sowing. The land may be plowed deeply this time and left till spring, or just deep enough to cover the green manure, which soon decays sufficiently to be cross plowed. Twice plowing is preferable if time will allow, as the effect on the mechanical condition of the land will be highly satisfactory to those who try it. The plowing in of the crop is greatly facilitated by rolling round and round the piece the same way that the plowing is to be done, and by using a heavy chain hung from the end of the double-tree to the beam where the coulter is attached. It should hang so loose that the loop will be almost covered by the falling furrow.

Institute Workers.

With great pleasure we submit the finely engraved likenesses of the three men to whom, in great measure, is due the success of the farmers' institutes in Manitoba:

The President, James Elder, of Virden—by his clear judgment and unbiased devotion to principle; the Vice-President, S. A. Bedford, Superintendent of the Experimental Farm at Brandon—whose very name is an inspiration to higher ideals in farming; the Secretary-Treasurer, R. E. A. Leech, of Brandon—by his untiring energy and push.

PRESIDENT ELDER.

James Elder, "Hensall Farm," Virden, President of the Virden Farmers' Institute, and who for the past two years has been President of the Manitoba Central Farmers' Institute, determined at the last annual meeting, owing to failing health, to resign from this responsibility and tax upon his efforts. But the unanimity with which the members demanded his service compelled compliance with their wishes, and he was again elected president for the ensuing year.

Mr. Elder is one of the most intelligent and successful farmers in the province, is a clear and practical speaker on agricultural topics, and articles from his pen are always highly appreciated by readers of the ADVOCATE, for which he has been a contributor for some years. He was born on May 6th, 1847, near Hensall, Huron Co., Ontario; farmed on the same place, on what was known as the London road, about half way between Exeter and Hensall; moved to near Virden, Manitoba, in the spring of 1884, and settled on "Hensall Farm," which had been bought without seeing it in 1882 from the C. P. R. Co., broke 160 acres in 1884, and 140 in 1885. In religion Mr. Elder is a Presbyterian, in nationality a Scotchman, and in politics an Independent Liberal, bound to no party, and refusing the dictation of either party's wire-pullers. He is, in fact, a staunch Manitoban, with great faith in the ultimate greatness of this western land.

VICE-PRESIDENT BEDFORD.

Mr. Bedford was born Feb. 1st, 1852, County of Sussex, England. Emigrated to Ontario in 1863, and removed to Manitoba in 1877, and took land near Thornhill, in Southern Manitoba, the same year. In 1880 he married Minnie, daughter of J. F. Bolton, of Newboro, Ontario.

From his arrival in this Province, Mr. Bedford's energies have been directed largely towards encouraging emigration to Manitoba and the Northwest, both personally and in the interest of colonization companies. He was instrumental in settling large numbers in the Pembina and Rock Lake districts.

He has held the position of Inspector for the Scottish Ontario, North British Canadian, and Canada Northwest Land Companies, and for some years had 400 families of different nationalities under his care. Was elected by acclamation a member of the Northwest council for Moosomin district, September, 1885. Mr. Bedford followed farming on his own account in Oxford County, Ontario, and at Thornhill, Manitoba; he also managed a large farm at Fleming and Moosomin, N. W. T.

In 1888 the Dominion Government purchased what is now the Experimental Farm, lying two miles from Brandon on the north side of the Assinaboine river, appointing Mr. Bedford Superintendent; and, as President Elder remarked at the late Institute Convention, "the Dominion Government never made a better appointment." Kind and courteous to a degree, an undefatigable worker, and an enthusiastic experimentalist, Mr. Bedford's efforts have indeed been crowned with success; for where chaos and weeds held possession, now order and neatness prevail; avenues nicely gravelled and lined with trees, experimental plots, systematically laid out, testing the grains, grasses, fodders, trees, shrubs and flowers in all their varieties; and specimens of the several breeds of live stock, all in the pink of condition. But not only in the success of the farm itself, but what is perhaps of more importance, is the interest manifested by the farmers throughout the province in the work of the farm, as attested by the increasing amount of correspondence, and the great number of visitors who annually inspect the farm.

SECRETARY-TREASURER LEECH.

The Manitoba Central Farmers' Institute is to be congratulated on securing for a second term the services of so able and energetic a person, for what is perhaps its most important office, as R. E. A. Leech.

Mr. Leech is a large and successful farmer, owning about 2,100 acres of Manitoba soil, of which 1,100 are under cultivation and 750 in crop this year.

Mr. Leech takes a prominent part in all the public institutions of his district, and is one of the pillars of the Methodist church.

Born in Lansdowne, Leeds County, Ontario, on June 25th, 1859; emigrated to Manitoba in the spring of 1879, with no capital, locating first in the vicinity of Rapid City, but subsequently settling down on his present magnificent farm about four miles south-east of the city of Brandon.

Fighting the Horn Fly.

The farmers of this country are becoming so familiar with the habits and effects of the Horn Fly that comments along this line are unnecessary. By a letter from the pen of C. H. De Lafosse, of Corsicana, Texas, in the Breeder's Gazette, we must conclude that this new, very annoying pest has not by any means reached its worst stages. He says: "I am a native Texan, and have been in the stock business all my life; have seen all manner of cow and horse pests, from the old big black fly down, but have never seen anything to equal these flies. They bite the cattle from daylight till dark, and roost upon them at night. They do not affect the horn, as some seem to think; they bite where the skin is thinnest, where they cannot be reached by the tail. If these flies continue here (and I believe they will) and some way is not devised to destroy them, they are going to be a greater curse to the stockmen than the army worm is to the cotton planter.

One of the most reasonable remedies that has been proposed is given in the Breeder's Gazette. Prepare a stick as large or larger than a man's thumb, whittle a knob at one end, wrap a rag firmly around the end of the stick and tie firmly with a stout cord well wrapped around so as to clinch down behind the knob, and your weapon is a swab to apply the medicine with. An old paint brush will answer as well. Now, the remedy which has been successful in keeping them off for a week at a time is: Crude cotton-seed oil, say one gallon; common pine tar, one pint, thoroughly stirred together over a gentle heat (be careful, it easily boils over and does not stop after it is taken off). Apply this thoroughly, rubbing it well over places where the flies congregate most thickly, and the animal is safe for a week or so, unless washed off by the rain.

Another remedy is given by J. P. Braswill, of Brenton. Take kerosene, spirits of turpentine, sulphur and crysalic ointment, mix them well, and rub or sprinkle the mixture on the animals. I would suggest that a little tar can do no harm and will make it more adhesive.

Whoever does the milking, be it man or woman, boy or girl, can apply either of these preparations whenever needed, and no loss of time or trouble to the farmer need result.

Weaning Lambs.

The season of the year has arrived when lambs should be weaned, and in order that no stagnation in their growth should take place, it will be necessary to give a little supplemental food at this time. A small quantity of bran, oats and oil-cake answers the purpose very well for a grain ration. The lambs should be taught to eat this kind of food before weaning, by constructing a pen in the pasture with creep-hole entrances for the lambs, so small that the ewes cannot go through. The sides and top of the entrances should be provided with rollers, to enable the lambs to pass through without tearing the wool from their bodies. For lamb pasture there is nothing better than second growth clover, which will be in prime condition by the middle of August. If no clover is available, a field of rape joining a grass field will make a good substitute. Care should be taken not to allow them in the rape while it is wet, or bloating is apt to result. The ewes should be placed on rather scanty pasture for a couple of weeks, so far removed from the lambs that the bleating of either may not be heard by the others. The udders should be looked to for a few days, and if noticed to be distended should be milked out, and well rubbed with goose oil if swollen. When properly dried they should be put on good feed to recruit and get in condition for winter.

In marketing farm produce of all kinds, be very careful to offer it in the most attractive and neatest form. There is no part of a farmer's work so remunerative as this. Such finished products as ripe fruits and butter require special attention.

Wm. T. Ault, a farmer living near Hillsboro, Illinois, gives his experience, in the Rural World, in feeding hogs wheat. Having a good supply of the cereal, which was worth 60 cents per bushel on the market, he concluded to test its feeding value. Putting up thirty-six head of good-sized pigs, he had his wheat ground or cracked fine and soaked in water. This was fed until the hogs were fat, when he sold them at market price, and on figuring up he found that his wheat had realized in the form of pork \$1.40 per bushel. Lately conducted experiments have proven that soaking chop for hogs is unnecessary.

Fair Notes.

THE SHERBROOKE EXHIBITION.

to be held on September 5th, 6th and 7th, promises to be even in advance of any held there heretofore. The fact that such men as Wm Crozier, of Northport, Long Island, are engaged as single expert judges on dairy stock, while the judges on Hackneys, standard-breds, beef cattle, etc., etc., are brought from equally long distances, shows conclusively that the directors are determined to secure the best possible talent, and to insure the judging being of the most impartial and high-class standard.

TORONTO INDUSTRIAL.

Although very little has been done towards advertising Toronto's Industrial Fair for this year, the applications for space in all departments are unprecedented in the history of the association. Ever since Mr. Unitt, the superintendent of the main building, came on duty on the 2nd of July, he has been busy receiving the instructions of exhibitors as to the space they require, and the class of exhibits much superior to other years. All musical instruments will this year be exhibited in what has hitherto been known as the Annex, but which will hereafter be known as the Musical Pavilion. Nearly all the space in this building has been applied for. The electrical exhibit in connection with the electricians' convention, which is to be held here during the exhibition, will be something superior to anything ever seen in Canada, and will embrace cooking by electricity and every other use to which electricity has been applied up to date. The new stables and cattle buildings are fast approaching completion, and give a wonderfully changed aspect to the grounds. Manager Hill says that everything promises the best exhibition that has ever been held by the association, and nothing but unfavorable weather can prevent the largest attendance of visitors that the Toronto Fair has yet had. The special attractions will again be numerous, and better, if possible, than last year, with which every one was well pleased. All the refreshment privileges and other concessions, for which there are already numerous enquiries, will be ready to lease about the first of August. A good list of trotting and running races has been prepared by the horse committee. All entries for the regular exhibits have to be made before the 12th of August, but those desiring space for special exhibits should make application at once, or they will find it difficult getting any later on. Manager Hill visited New York, July 21st, to complete arrangements for several new attractions.

WESTERN FAIR, LONDON, SEPT. 14th to 23rd, 1893, celebrate their quarter of a century exhibition. There is a great stir at present in the Western Fair office, sending out invitations to exhibitors and visitors throughout Canada in the shape of prize lists, lithographs, programmes and advertising matter of all kinds.

The Western Fair Association was never in a better position since its establishment, in the year 1868, than at present, from the fact that this is the first time in many years that there is to be no other large fair held on the same dates. This will very considerably increase the number of exhibitors in the live stock classes, as in former years they used to divide between the eastern and western fairs. This year it is as it ought to be, a complete circuit of our Canadian fairs, starting at Montreal, then Toronto, London and Ottawa, giving live stock exhibitors the opportunity of attending all, or as many as they wish.

This exhibition is of personal as well as financial interest to every farmer, owner or admirer of choice animals. An endeavor is being made to secure the prominent breeders with their stock, which will embrace the choicest specimens of every standard breed.

Straw and water are provided by the association, and everything reasonable will be done to supply the wants of the exhibitors. The Western Fair offers unexcelled opportunities for the sale and purchase of live stock.

The Poultry Department, which was the admiration of not only fanciers and breeders, but of visitors as well, at last year's exhibition, will be considerably augmented this year from the fact that London is to be the selecting point for Western Ontario, where specimens for the World's Fair will be chosen, and, as London and vicinity furnish nearly one-half of Ontario's exhibit of fowls, we are not saying too much when we remark that this year's display will be most extensive.

The agricultural and horticultural departments will especially interest those engaged in the science of husbandry. The choicest specimens of grain, seeds, roots, vegetables and plants, comprising the best old and the most valuable new varieties, will be on exhibition.

As London is a great centre of the dairy interests, a large exhibit of cheese and butter is an assured feature of this fair.

A large number of special attractions have been arranged for, consisting of W. C. Comp's Equescence; Professor Buckley's celebrated Army of Trained Horses; Prof. Freyer's Educated Dogs; Imperial Japanese Troup from Tokio, Japan, here by permission of the Mikado; Professor Calverley, the High Wire Walker Champion of Niagara Falls.

CENTRAL CANADA EXHIBITION, HELD IN OTTAWA.

A most successful effort last year has stimulated the managers to renew the forward march, with the expectations that this year can be made to go as much ahead of last year as that was a gain upon anything achieved previously.

Important changes, suggested by experience, have been made in the prize list. It should be noticed by stockmen that a class has been added for coach horses; that separate classes have been made for grade cattle, and the prizes for cattle have been considerably increased, especially in those sections where spirited competition has been developed.

Great care has been taken by the several committees in the revision and the extension of the prize list as a whole. The grounds and buildings have been improved, and the grand stand accommodation doubled.

The electrical exhibit in the main building, which was so novel and attractive last year, will be renewed at the coming exhibition on a much larger and more satisfactory scale, demonstrating the greatest advance yet made in any country in the world in the processes of lighting, heating, cooking, and conveying power by electric current. The exhibition, as heretofore, will be on the last week of September.

A Standard Dictionary.

Books! books!! books!!! "Of the making of many books there is no end." But what shall we say of the book that contains all other books in a language possessing such a rich vocabulary and literature, and of its kind of all others the superior? Such the enterprising Funk & Wagnalls Company promise the public is to be their great work now being prepared for the press, entitled "A Standard Dictionary of the English Language". To read the prospectus alone is a pleasure and a mental tonic; what, then, will it be to have the book itself? The work is to be a single quarto volume—or it will be bound in two volumes, if the subscriber prefers—containing over 2,200 pages, over 4,000 illustrations and 280,000 words, together with an appendix of proper names of all kinds. The editorial staff is composed of nearly 200 of the most brilliant and capable specialists, who are contributing all their wealth of learning and research to make it complete. Its special features are: (1) The Etymology is placed after the definition. (2) The most common definition is given first, in preference to the historical order usually adopted. (3) The use of a Scientific Alphabet prepared and recommended by the American Philological Association, and adopted by the American Spelling Reform Association, in giving the pronunciation of words. (4) The quotations used to verify and illustrate definitions are located, *i. e.*, the book, page and edition from which they are taken are given. (5) Disputed pronunciations and spellings are referred to a Committee of Fifty Philologists from all English-speaking countries. (6) The indication of preferred pronunciations. (7) Pictorial illustrations all executed expressly for this work—4000 in wood, and many in colors—the latter prepared by the Messrs. Prang. (8) An attempt to reduce to a system the compounding of words. (9) The simplification of the spelling of words by a modified adoption of the phonetic system, *e. g.*, the use of "e" for "æ" and "a", and, in some cases, "f" for "ph", as *sulfur*.

Special attention is being paid to definition, so that the meanings may be clear, accurate, concise and full, and so arranged that the various meanings and uses of a word can be easily found and readily applied. Many will be grateful for the lists of synonyms and autonyms, and of the prepositions which may be used with a word. This feature is of special value, as it will greatly assist readers to a correct understanding of a passage, and writers to accuracy of expression.

Into the pages of the "Standard" a vast amount of information is to be crowded, making the work one of encyclopedic value. "To read the dictionary" will be both entertaining and educating. Farmers will find it one of the most useful books in their libraries, as will appear from the large number of specialists who will treat subjects connected with their profession, such as Dr. Gill, Professor of Zoology in Columbia University; L. O. Howard, first assistant Entomologist of the U. S. Department of Agriculture, Washington, D. C.; Ernest Ingersoll, the popular writer on birds; F. H. Knowlton, Professor of Botany, Columbian University, etc., etc.; A. A. Crozier, late Secretary of the American Pomological Society; and W. T. Swingle, assistant in Division of Vegetable Pathology, U. S. Department of Agriculture, Washington, D. C.; and Eadweard Muybridge, who has charge of an interesting series of statements and illustrations on Animal Locomotion.

From published testimonials it appears that many of the foremost scholars of England and America approve the principles upon which the work is being constructed, and heartily commend it, such as Dr. Gregory and Professors Goodell, Skeat, Seelye, Wilkinson, Sayce, and a host of able men in all professions.

Scenes from Every Land.

The readers of this journal who have once glanced over the pages of that beautiful portfolio volume, "Scenes from Every Land," published by Mast, Crowell & Kirkpatrick, of Springfield, Ohio, will not be content until they have put themselves in possession of a rare and rich source of pleasure and instruction. The work is 14 1/2 x 11 1/2 inches, richly bound and gilt, and contains 400 pages and over 500 engravings in the very best style of the art. All the pictures are from photographs of places, paintings and persons in all parts of the globe, taken expressly for this work. It would be impossible to excel these representations in faithfulness or in execution. Open the book at any place and your wonder and delight are compelled. All that is wanting are the colors, otherwise they are almost faultless. The colossal wonders of ancient Egypt, the wealth and splendor of the Orient, the architectural productions of Christian Europe, the natural scenery of many lands, are before the eyes, and you feel as though you could walk into and among them. Everyone who is acquainted with the scenes presented here testifies to their marvellous faithfulness and great excellence—to the realism of these pictures. We find it difficult to speak truthfully of these productions without seeming to fall into a strain of exaggeration.

The book will serve a great variety of purposes. The children will find great delight in seeing correct and vivid pictures of the places about which they are reading in history, works of travel and the daily newspaper, their taste for pure and noble art being in the meantime cultivated. It will also prove to be very entertaining for company, suggesting countless themes for conversation, and should any person have been so fortunate as to have visited any of these places, he can supply much that will instruct his friends. It will be very welcome to those who have "trotted the globe," restoring the memory of pleasures enjoyed in extensive travel. It is sure to create a desire in the breasts of very many to visit these places and feast their eyes upon their glories.

Are you interested in missions? You will be able to lay before your friends at the missionary concert such centres of evangelistic labor as Hong Kong, and the temples, pagodas and shrub scenes in Japan; the palaces, temples and shrubs of Calcutta, Delhi, Cawnpore, Benares, etc., etc. The S. S. teacher may show his class the charming engravings of such places as Jerusalem, Bethlehem, the Garden of Gethsemane, Jacob's Well, and the ruins of Babylon, Athens, Palmyra, Rome, etc., etc.

The value of the work is greatly increased by the descriptions and histories accompanying the pictures from the pens of such able and well-known writers as Rev. Dr. Washington Gladden, Rev. Dr. R. H. Conwell, Dr. E. E. Hale, Hon. C. W. P. Breckenridge, Hon. H. Waterson, and many others equally able and celebrated. Gen. Lew. Wallace, the author of "Ben Hur," writes the introduction.

We have seen an imitation of this book, which in every respect, whether as regards the letter press, paper, binding or engravings, is inferior, and compared with this a tawdry thing, failing to contain the name of its printers. Again let us say that the publishers of this excellent volume are Messrs. Mast, Crowell & Kirkpatrick, of Springfield, Ohio.

Salting Stock.

At this season when the farmers are exceedingly busy with harvesting, some of the important "little things" are apt to be neglected. Salting the stock may be classed in this important list. It is the practice, and perhaps unwisely so, to salt the stock once a week, which is considered by too many as all that is necessary. If the once a-week system happens to be forgotten occasionally, two or three weeks may elapse, during which time the poor brutes will not only suffer from the want of it, but will fail to give their owners profitable returns. When stock have to go a week or more without salt they eat too much when it is given, which produces evil effects; but when kept constantly within easy access, it acts as a corrective in the digestive function diminishes the dangers that arise from bloat or hoven, while it stipulates a healthy action throughout the system. In the case of the dairy cow regular salting is extremely important, as secretion of milk goes on in best form only when the animal is free from any abnormal condition. If placed conveniently in the form of rock salt, there is no danger of any animal taking more than its necessities require. If the granular salt is to be used, strong boxes should be provided, placed two or three feet from the ground, and have a covering to exclude the rain. A little sulphur mixed with the salt is a good thing. Whenever the cows are noticed chewing bones, a little hardwood ashes mixed with the salt has the effect of satisfying the craving which prompts them to chew the bones.

STOCK.

Experiments in the Feeding of Swine.

Read before the last meeting of the Dominion Swine Breeders' Association by C. A. Zavitz, B. S. A., Experimentalist, O. A. C., Guelph, Ont.]

I assure you it affords me no small amount of satisfaction to be present at this, the Dominion Swine Breeders' Association, not that I am specially pleased to appear before you in the capacity of a speaker, but that I may become better acquainted with the workings of this Association, and also that I may listen to the papers and discussions as presented by its members. It would seem selfish on the part of any of us, whether member or not, if, on being asked to take a place in the proceedings of the annual meeting, we were unwilling to do all in our power to advance the interest of the Association such as this assembled, even though that part be small.

It is difficult to estimate the influence of the various agricultural associations upon the farming of Ontario at the present day, but it is still more difficult to estimate the great influence which these combined forces are able to exert upon the future progress of agriculture in this fair province of ours. The time has been and is not far past when education along special lines of farming was obtained almost entirely from individual experience. Such is not the case to-day. The most successful farmers of the present time, those who get the most out of their land, their crops, their swine, their sheep, their cattle and their labor, are those who think and plan and work most industriously, most skillfully and most intelligently, and who take the fullest advantage of the experience of others.

I wish to call your attention for a short time to a system of co-operation which, I venture to say, is to become one of the greatest powers of influence which the agricultural world has yet beheld. I have reference to that of the Agricultural Experiment Stations. After a brief account of their rise, development and general work, a few of the summary results obtained from experiments conducted in the special line of swine breeding will be considered.

It is only about forty years since the establishment of the first Agricultural Experiment Station. It was located in Germany, near the city of Liepsic, upon a farm of sixteen acres, which belonged to the Liepsic Agricultural Society. The station was assisted at once by all the Saxon Agricultural Societies, under the leadership of Councillor Renning, their secretary, and was soon taken under the charge of the State. There were barns, a house, and some improved stock at the inauguration. Two or three rooms were fitted up a chemical laboratory, a small glass house was erected for experiments with vegetables, and in this way the first Agricultural Experiment Station in Europe was established. Their growth on that continent, however, has been a rapid one since that. In 1857 there were eleven stations; in 1862 there were nineteen; in 1867 there was thirty; five years later there were sixty-two, and to-day there are upwards of one hundred stations to be found in the different countries of Europe. This system of co-operative work was not confined to Europe alone, but it has extended into various parts of Asia, Africa, Australia and America.

The first Agricultural Experiment Station on this side of the Atlantic was the one established in 1875 at Middleton, Conn., in the chemical laboratory of Wesley University. In the following year the Ontario Experiment Station was established at Guelph. The example was speedily followed elsewhere; in 1880 four were in operation, and there are at present sixty-five agricultural experiment stations in the United States, and six in the Dominion of Canada.

The sixty-five American stations now employ 181 trained men in the prosecution of experimental enquiry. The number of officers in the various lines of work is as follows:—Directors, seventy-one; chemists, one hundred and fourteen; agriculturists, forty-six; horticulturists, fifty; botanists, forty-nine; entomologists, forty-five; veterinarians, twenty-four; meteorologists, fourteen; biologists, four; and in other lines of work, one hundred and fifty-seven. The total appropriations to the experimental stations of the United States during 1891 was \$889,408.00. The number of annual reports published was fifty-one, and that of the bulletins two hundred and fifty-five. The mailing lists of the various stations aggregated about 350,000 names.

The great importance of the swine-growing interests of the United States, and the pressing need of more accurate information as to how to feed swine most economically and profitably led to a large amount of experimenting in swine feeding at the stations. No less than twenty-two of the stations have conducted experiments in swine feeding, and eleven of this number have made a specialty of this line of work. The number of tests made in feeding swine now number upwards of two hundred, and about two thousand animals of various ages and breeds have been used. No careful summary of the whole work has yet been made, but there is one at present being compiled at the central office of experiment stations at Washington. Is it not a wise policy on the part of the members of the Swine Breeders' Association of Ontario to keep a close eye to the investigations going on among our American neighbors, who are spending annually about \$1,000,000 in agricultural investigations of various kinds? We are perfectly willing that the

people of the United States watch the doings of our stations with a close scrutiny, but at the same time we desire the same opportunity and privilege of gaining information from their experiments.

The following results relating to a few of the experiments in swine feeding, and which are of special interest and practical value, have been gleaned from bulletins of the stations, and from reports of the central office at Washington.

FEEDING FOR FAT AND FOR LEAN.

A considerable amount of experimenting has been done for the purpose of ascertaining the influence of different kinds of feed upon the carcass of the animal. Foods rich in nitrogenous substances, such as shorts, bran, peas, clover, etc., have been used against foods containing but little of the nitrogenous materials, such as corn. There are some variations in the results obtained, but the whole trend of the work seems to show that the carcass of a pig can be considerably influenced in many important parts by the character of the feed given. Prof. W. O. Atwater, of the Department of Agriculture at Washington, in a report of 1889 says: "By the feeding trials already conducted, especially with young animals, it has been demonstrated that different feeds modify the relative proportion of the different organs of the body, that the blood can be increased or diminished, the liver made larger or smaller, the muscular system increased or decreased in proportion to the rest of the body, even the bones can be made weaker or stronger. These marked differences in results are not produced either by over-feeding or underfeeding, but by difference in the chemical constituents of the ration. Here is a side of live stock management that is practically new to us, and its development must be of the highest interest." A nitrogenous ration shows a much greater difference when fed to young animals than when used with older ones. The reports of the Wisconsin Agricultural Experiment Station for the years 1887, 1888, 1889, 1890 and 1891 contain much valuable information regarding a series of carefully conducted experiments in feeding nitrogenous and non-nitrogenous feeds to swine. The conclusions from these tests are given in the report of 1890 as follows, regarding the points in favor of feeding a nitrogenous ration, such as shorts, bran and corn:

- (1.) A far more rapid growth.
- (2.) A much more economical gain for food consumed.
- (3.) Much more blood in the body.
- (4.) Larger livers.
- (5.) A larger proportion of lean meat (muscle) to fat.
- (6.) A larger proportion of ash to a given volume of bone.
- (7.) Somewhat stronger bones in proportion to weight of body.

In the last report of the Wisconsin Station the results of an experiment is given, in which it is shown that pigs which have received peas possessed about forty-seven per cent. more lean meat than those which had received corn.

INFLUENCE OF AGE AND WEIGHT OF ANIMALS UPON THE ECONOMICAL USE OF FEEDS.

The experiments upon this subject go to show beyond question that the amount of feed eaten to produce one pound of live weight increases with the age and weight of the animal, and as the animal approaches maturity greater is the amount of feed required. The experiments point out most emphatically the fact that for producing cheap pork it is essential to use young and growing animals, and stop the fattening process at the proper time. Our own experiments, along with those of others, tend to show that pigs should be turned off when they reach the weight of from one hundred and sixty to one hundred and eighty pounds.

THE VALUE OF COOKING FEED FOR SWINE.

Upwards of twenty experiments have been conducted in the United States regarding the relative value of cooked and raw feed. In almost every instance the absolute gain in live weight, and the gain in weight per pound of feed consumed, was greater from the raw than from the cooked feed. In nearly all cases, however, the animals consumed a greater quantity of the raw than the cooked food, and this may partially explain the cause of the greater gain in the former case. Even where as much of the cooked as the raw feed was consumed the latter not unfrequently gave the best results. On the whole these results go to show that no advantage was gained by the cooking of the feed, and in fact there seems to be a disadvantage in feeding cooked food as against the raw material. Our own tests agree exactly with the results of these experiments. It should be noted that in most of the experiments the cooked feed was fed cold, thus making it a test of cooked feed and not warm feed.

GRINDING FEED.

A dozen or more experiments have been conducted to ascertain more fully the influence of feeding ground grain as against the unground. The results vary considerably among themselves, owing, no doubt, to the kinds of grain fed, the amount of feed consumed by the animal, and other causes. The results of the experiments carried on at the Ontario station, which lasted for two winters, gave results in favor of grinding when peas and barley were used. Several of the American stations have obtained results against grinding. Where corn is grown to a large extent and used as the principal factor of the feed, the results may be different from those which we have obtained from peas and oats.

PASTURAGE.

A few experiments have given very favorable results as to rapidity and cheapness of growth from the pasture field. Alfalfa has proven to be a very cheap food. Clover has been found to be of much value. Rape has been but little tested as yet, but from our experiments with it this plant promises to be of much value as a food for swine. There is room for much valuable work of an experimental nature with different kinds of pasture crops.

Chatty Stock Letter from the States.

(FROM OUR CHICAGO CORRESPONDENT.)

Northwestern range cattle owners were in a hurry to get the shipping season open, and they sent in a whole lot of cattle that was too thin to kill and not of good enough quality to tempt feeders.

States farmers, as well as Canadians, have lately had the "hay fever," and liberal shipments of western dried grass have been made to the fodder-famine regions of Europe. It ought not to take long to supply the demand at the rate shipments are being made. It has been said that it would be a good thing for our people, instead of worrying about not being able to ship stock cattle, to send them all the hay they want and then prepare to send them a combination of hay and cattle in the shape of beeves. The export cattle trade has lately afforded the shippers little comfort, and losses have been large. There is no wonder exporters are engaging more space for hay than for cattle. The quality of the cattle now being marketed is rather indifferent. While cattle prices are low, they have been low before, and under really less favorable conditions to owners. When the low point was reached last year big fat export cattle and 1200-lb. dressed beef cattle were selling in about the same notch, \$3.75@4.00. Now the "spread" in values is more equitable. Canning cattle, \$1.00@2.30; butcher stock, \$2.20@2.75; green steers, \$3.00@3.50; and good to choice corn-fed cattle, \$4.25@5.00. It denotes a healthier condition of trade to have a wide spread in values than to have no premium on really good stock. It is always demoralizing to have an article that cost 50 per cent. more than another to produce sell at the same price. Distillery feeders have been taking advantage of the situation, and have bought a good many 1000-lb. range steers at \$2.25@2.50 per 100 lbs. They are certainly not taking many chances at these prices. Texas cattle continue to come forward largely in excess of former years. They are selling fairly well, but the low grades have suffered lately. The cause of the great break in low grades is not far to seek. Cattle good enough to sell on the block can be converted into money in a short time, but money in canned beef is apt to be tied up for months, and buyers are not tying up money for months just now unless they can get great big interest. And the interest must be paid in advance by the owner of the cattle.

The late closeness in the money market tended to reduce the growing demand for stock cattle. That demand was coming from unusual quarters in the western country, and there is reason to believe that as soon as confidence is fully restored there will be a bigger demand than for years. Of course it's a big country and there are lots more cattle scattered about than people realize, but there is a dearth of feeding cattle in many quarters.

The hog situation suffered considerably of late, and the best heavy hogs sold about \$2 below the high point of the year, at \$5.75. The best light, however, sold at a premium over heavy of about 10c., showing that farmers are holding backs their pigs to eat the comparatively cheap corn on hand.

Sheep men have been so anxious to realize lately that they have glutted the market very badly. Lately, however, there was some sign of improvement, and prices were as follows: Good to choice natives, \$1.50@5; mediums, \$3.50@4.25; poor to fair, \$2.50@3.00; Texas, \$2@4; grass Western, \$3.50@1; good to choice lambs, \$5@5.90; poor to medium, \$3.50@5.

Economy in Feeding.

The farmer who gets the largest returns for every pound of hay and grain fed is the economical feeder. So says the National Stockman. We hear it and we read it, but how many of us bring the facts home to ourselves and our stock that a certain amount of feed is required to sustain life, and it is only the food consumed over and above this that gives returns in growth, milk, wool, etc. True economy demands that our stock have all the feed they can properly digest and assimilate. Rapid growth is always the cheapest; it also demands that nothing be wasted. Some do not value hay and grain grown on their farms and by their own labor the same as if they purchased with cash. This is wrong, for what a farmer produces on the farm constitutes his living and his bank account. Every bushel of grain and ton of hay fed must be counted at market price, and all it lacks of returning this is a direct loss and is wasted. To avoid this we must provide comfortable quarters, suitable racks and boxes for feeding, and feed well-balanced rations.

AUGUST 1, 1893
THE
THE
JOHN V
1. fifteen
It is handsome the me farmers in Canada
2. Terr
or
3. Adv
tra
4. Disc
not
pap
you
find
is g
5. The
rece
mus
6. The
resp
ord
7. Rem
Reg
risk
8. Alwa
is se
this
9. The
tion
10. Sub
regu
11. We
We
such
prin
Imp
or V
men
and
furn
our
of p
12. Rep
offic
13. No s
atter
14. Lett
side
15. Alle
with
any
Address
EDITORIAL
281—
Fighting
Standard
Stock :—
281—
Letter fr
and Floc
Husband
GARDEN
287—
FARM :—
287—
Depressi
QUESTIO
289—
APHARY :
289—
DAIRY :—
291—
In Dairy
POULTRY
291—
QUIET H
FAMILY
MINNIE
T. SCOT
ADVERTI
STOCK G
NOTICES
In c
give r
of On
have t
are in
their e
value
inform

THE FARMER'S ADVOCATE & HOME MAGAZINE

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

PUBLISHED BY
THE WILLIAM WELD COMPANY (LIMITED),
LONDON, ONT., and WINNIPEG, MAN.

JOHN WELD, Manager. F. W. HODSON, Editor.

1. The Farmer's Advocate is published on the first and fifteenth of each month.

It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners and stockmen, of any publication in Canada.

2. Terms of Subscription—\$1.00 per year in advance; \$1.25 if in arrears; sample copy free. European subscription, 6s. or \$1.50. New subscriptions can commence with any month.

3. Advertising Rates—Single insertion, 30 cents per line. Contract rates furnished on application.

4. Discontinuances—Remember that the publisher must be notified by letter or post card when a subscriber wishes his paper stopped. All arrears must be paid. Returning your paper will not enable us to discontinue it, as we cannot find your name on our books unless your Post Office address is given.

5. The Advocate is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrears must be made as required by law.

6. The Law is, that all subscribers to newspapers are held responsible until all arrears are paid, and their paper ordered to be discontinued.

7. Remittances should be made direct to this office, either by Registered Letter or Money Order, which will be at our risk. When made otherwise we cannot be responsible.

8. Always give the Name of the Post Office to which your paper is sent. Your name cannot be found on our books unless this is done.

9. The Date on your Label shows to what time your subscription is paid.

10. Subscribers failing to receive their paper promptly and regularly will confer a favor by reporting the fact at once.

11. We Invite Farmers to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve the ADVOCATE, Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.

12. Replies to circulars and letters of enquiry sent from this office will not be paid for as provided above.

13. No anonymous communications or enquiries will receive attention.

14. Letters intended for publication should be written on one side of the paper only.

15. All communications in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—
THE FARMER'S ADVOCATE, or
THE WILLIAM WELD CO.,
LONDON, ONTARIO, CANADA.

CONTENTS.

EDITORIAL:—
281 Illustration, 282 Editorial Notes; Institute Workers; Fighting the Horn Fly; Weaning Lambs, 283—Fair Notes; A Standard Dictionary; Scenes from Every Land; Salting Stock.
STOCK:—
284 Experiments in the Feeding of Swine; Chatty Stock Letter from the States; Economy in Feeding, 285 Studs, Herds and Flocks, 286—Sheep in Manitoba; Feeding Hogs, 287—Sheep Husbandry.
GARDEN AND ORCHARD:—
287 Horticultural Breviews.
FARM:—
287 Notes from England, 288 Remedies for Agricultural Depression; Sow Thistle.
QUESTIONS AND ANSWERS:—
289 Veterinary Miscellaneous.
APIARY:—
289 Increase by Dividing; The Apiary.
DAIRY:—
290 The Effect of Changing Foods; Dairy Notes; Success in Dairying; The Economical Production of Butter.
POULTRY:—
291 Poultry on the Farm; How to Raise Turkeys.
QUIET HOUR:—292.
FAMILY CIRCLE:—292.
MINNIE MAY'S DEPARTMENT:—293.
UNCLE TOM'S DEPARTMENT:—294.
ADVERTISEMENTS:—295 to 300.
STOCK GOSSIP:—295, 296.
NOTICES:—295.

Fall Wheat.

In our issue of August 15th, we will give reports from the fall wheat sections of Ontario. Those of our readers who have tested one or more sorts this season are invited to write us at once, giving their experience and impressions as to the value of the sorts tried, and other useful information regarding fall wheat.

Studs, Herds and Flocks.

MR. WILLIAM GRAINGER'S SHORTHORNS.

The farm owned by Mr. Grainger is but a short drive from Londesboro', where a most useful herd of deep milking Shorthorns have been bred up. Mr. Grainger's name has lately come more prominently before the public from the fact that one of his cows has been chosen to represent what Shorthorns can do in the way of milk production at the World's Fair, Chicago. Thus Mr. Grainger has the satisfaction of knowing that through his own skill and energy he is not only helping along his favorite breed of cattle, but is doing battle in the interest of Canada and Canadian stock as well.

It, however, must not be supposed that because this cow was chosen for the test she was the only good one in the herd; in fact, Mr. Grainger declares emphatically that he has better ones left behind, but unfortunately for those the test came at the wrong time of the year, as regards the date of calving, and therefore they were out of the question entirely, while another was considered too young, as she had just calved her second calf. However, this young cow we saw milked and weighed the produce carefully in person, and she, within a week after calving, her udder still swollen, gave 45 pounds of milk in the 24 hours, which we consider exceedingly good; while another cow, which we were told it was almost impossible to dry off, though she was within six weeks of calving was giving 25 pounds of milk per day.

The herd are remarkably uniform in appearance, having large, shapely udders, and every appearance of giving abundance of milk and yet retain feeding quality. In breeding, the cows go back to a cow purchased from Mr. William Miller, of Atha, some fifteen years ago; she was of his well-known Atha family that sold so well at Mr. Miller's sale in 1875. Upon these Mr. Grainger has placed the best bulls obtainable, always keeping an eye on milk production, until he has fixed a type of milkers of extraordinary merit.

Among other methods of increasing the year's production of milk, he has kept his cows milking as long as possible, and has been especially careful with young cows, which he invariably keeps in milk until the second calf is nearly due, and is quite assured he will by so doing continue to increase the flow of milk per year in succeeding generations. That he is already being repaid for his persevering efforts in this line is assured by the steadily increasing demand he has already obtained, which he declares has been much greater than ever during the last year. Among the young calves we noticed a particularly promising young bull from Red Britania, the cow mentioned above, which cannot fail to make his mark upon some herd where deep milking cattle are appreciated.

SPRINGHILL FARM.

A length of time has elapsed since our last visit to the stock farm of Messrs. Richard Rivers & Son, whose names have long been identified with Shorthorns and Berkshires. It was quite easy to mark an improvement in the cattle here; it is quite evident that the Messrs. Rivers are among the number who have a firm conviction that whatever is worth doing is worth doing well, and that if there is money in breeding cattle it is among the best where readiest sales and highest prices are obtained. The present stock bull is Brampton Chief, a son of Brampton Hero; that he is doing good service in the herd, one only has to inspect the very excellent crop of calves he has left this season. Brampton Chief is a rich roan, with capital top, well sprung-rib, and is a very stylish-looking fellow. Several useful cows have recently been placed in the herd, among which is a thick-fleshed roan bred by Mr. Jos. Crearar, Shakespeare, got by the Kinnellar Ruby Hill bull, Laird of Kinnellar. Over in another pasture we were shown eight very useful heifers, most of which had been bred to Brampton Chief. These were well-grown, displaying good adaptability for feeding, and will be quite an acquisition to the breeding herd later on.

Among the calves we noticed some exceedingly promising bulls, two of which were well advanced in age, having been dropped early in the winter. The first of these is very much like his sire, Brampton Chief, his dam being by Duke of Hamilton, while another in the same pen was a trifle thicker, and evidently had the benefit of a good mother. He was also by Brampton Chief.

The Berkshires are a nice lot, the breeding boar being one of Mr. J. C. Snell's breeding. We also noticed several sows that should play their part in supplying the trade with the kind of pigs now required, as these had plenty of length and depth, good thick and deep hams, and sufficient smooth, even quality to insure ready sale.

HORSES AND CATTLE AT CAMDEN VIEW.

The name of Mr. Carson Shaw has for many years been known in connection with improved stock, and many farmers in the rich corn and hay producing district of which Mr. Shaw's post office town is the centre, have derived benefit from the stock that has been introduced by him.

Mr. Shaw has not been satisfied with breeding well one department of farm stock, for horses, cattle, sheep and swine each claim their share of attention. In horses, Cleveland Bay or Yorkshire Coach are the sort preferred, and in this line only the best imported stallions have been used in the stud. The mares, as well as the colts and fillies, appear to be of the class that are equally well adapted for per-

forming necessary farm work or heavy carriage work on the road, as required; and again we could not help thinking another vast advantage in this class of horses that the the mares may be bred to thoroughbred or hackney stallions to great advantage, thus producing the most suitable horses to meet the present demand. Dalesman 1st, Disraeli, Volunteer and Dalesman 2nd had each in turn been used, and the steady determination to pursue one course in breeding the horses for the farm and stud has resulted in as uniformly useful a lot as can be seen on any farm.

The Shorthorn herd is perhaps the most important department on the farm. At the head of this is the bull Daisy Chief, bred by Mr. Arthur Johnston, Greenwood, and sired by the imported bull, Indian Chief. Daisy Chief is a useful, smoothly finished bull, with plenty of natural flesh, and when coupled with such cows and heifers as we were shown at Camden View one would expect more than ordinary results. In selecting the bulls for his herd Mr. Shaw has exercised good judgment, but with this alone he does not rest satisfied, as he has purchased cows of equally good breeding and individual merit from time to time whenever such were to be procured.

As this part of the County of Kent is noted for producing large quantities of pork, some excellent Berkshires have been bred, and it appeared to us that just as much attention had been paid to this department as either of the foregoing.

MR. CAIRNS' CHESTER WHITES.

Mr. Cairns, who is carrying on a mercantile business in Camlachie, and is especially fond of agricultural pursuits, finds time to pay considerable attention to stock breeding.

He recently had a herd of Hereford cattle, but these he has sold out to a gentleman who purchased them to place upon a large ranch in the West, and now Mr. Cairns is devoting his principal attention to breeding pigs, for which he finds a ready sale and steadily increasing demand. Chester Whites are the variety that he appears to favor, and of these he has some very good individuals. Among these we noticed a particularly good two-year-old sow, bred by Mr. R. H. Harding, of Thornedale. She was sired by Broadbrim, and is therefore half-sister to Mr. Harding's champion sow at the Guelph fat stock show last winter.

A yearling daughter of the above, sired by Silver Chief, is a particularly smooth sow. She is very deep and long in the ribs and smoothly finished, and was in fine condition, considering a litter of seven capital pigs had just been weaned from her. This sow and her dam have deep, thick hams, and carry their weight well back, and show a disposition to put on flesh easily.

The stock boar now in use is Zola, which was bred by Mr. Abraham Gehl, of Preston, Ont.; he also is of the type required by the trade.

Some very nice pigs were on hand at the time of our visit, but if we may judge by the manner in which orders were being received, these will not be long in seeking customers. Mr. Cairns has been shipping in all directions, several having gone down to Quebec.

BROCKHOLME HOLSTEIN-FRIESIANS.

Among the successful prize-winning herds of Holstein cattle is that of Mr. R. S. Stevenson, Ancaster, Ont., who by judgment in selection and care in management has aimed at that enviable position where there is no difficulty in the disposition of his surplus stock. At the time of our visit the cattle were all out at pasture with the exception of the stock bull Netherland Romulus, a portrait of which appeared in (1891) September issue of the FARMER'S ADVOCATE. This bull retains his form in a high degree, and is a splendid type of dairy bull. He combines plenty of size with wonderful smoothness and quality, and retains all the points of a dairy bull so desirable for improving cattle for milk and butter production. Netherland Romulus, was bred by Messrs. Smith, Rowell and Lamb, Syracuse, N. Y., of whom Mr. Stevenson purchased him. Several exceedingly fine imported cows have also been selected from time to time, which have strengthened the herd most materially, and have placed it among the most desirable from which to select bulls to head herds, especially as a number of the cows are recorded in the advanced registry. Among the matrons of the herd are such cows as Johanna Tensen, Antje Houter, and Ideal, all of which were imported from Holland. The first-mentioned belongs to a family that have had several representatives that are prize winners, and this cow has all the appearance of being a heavy producer, together with the neat frame for which her family is celebrated. Antje Houter and Ideal have quite as much promise; the milk of the former gave 61 per cent. butterfat during a test held at Toronto, and she gave 12 lbs. of butter in seven days, as a two year-old, when tested in Mr. Stevenson's hands. Many other good ones are to be seen, but we have no space to give any individual notice, except in the case of two most promising bull calves, both from cows of the Tensen family, that are good enough to be placed at the head of herds of pure-breds. Mr. Stevenson also breeds Improved Large Yorkshires, of which we noticed some exceedingly good breeding sows that retained all the character of the breed, and were evidently quick feeders that would grow great weights for their age. A lot of growthy young pigs were particularly good, and evidently will not be long in finding purchasers.

MR. CRESSMAN'S BERKSHIRES.

Among those who have recently entered the arena as a breeder of improved stock is Mr. Israel Cressman, New Dundee, Ont. Living in a locality where breeding and feeding large quantities of swine form one of the most profitable departments of the farm, he soon became convinced that much of the success depended upon the kind of pigs which are raised.

For this two points have to be studied, first, that pigs must mature early and feed kindly, and secondly, that when finished they are of the sort to meet the wants of the present trade. To accomplish this it is necessary to possess the best strains of one of the latest improved breeds. In making his selection from the breeds he fixed upon the large, improved Berkshire, that has been so popular for many years, and in which the most skillful breeders of the day have found a type that has found as many friends among pork producers and farmers as any other sort.

Mr. Cressman started his present herd some four years ago. Since he has continually been adding a few superior individuals, with a view of possessing as good a herd as can be formed. At the head of the herd is Dorset Chieftain, a three-year-old boar, bred by Mr. N. Benjafield Dorset, England. This pig was imported in his dam, Luxurious, by Mr. J. C. Snell, Edmonton. Dorset Chieftain is a pig of great length of side, good depth, smooth and full of quality.

Fanchetta, bred by Mr. J. C. Snell, is by the imported boar, Enterprise, which was a Royal winner. Her dam, Royal Duchess 2nd, by Warrior 2nd, was also imported. Fanchetta is a handsome sow farrowed last May. She has good length and depth, good hams, neat, short face.

Mary Dundee is a very useful three-year-old sow, bred at the Ontario Experimental Farm, Guelph. She was sired by Royal Saxon, her dam being Lass of Riverside. She has a litter of good pigs. Linda is a neat yearling sow that is due to farrow shortly to Scott, a boar of a different line of breeding. Cressman's Belle, a six-months sow by imported Dorset Chieftain, is a neat good sow that is a sample of the choice lot of this age that are now for sale. Princess of Maple Leaf is a large and very long sow of good quality; sire, imported Dorset Chieftain; dam, Springbrook; g. dam, Princess. In the herd are three sows, nine months old, of the same breeding as Princess of Maple Leaf; all possess admirable length and depth of body—qualities imparted by Dorset Chieftain to his offspring. Mr. Cressman is determined to get together a lot of good ones, and in order to get to the top as quickly as possible is making an importation that he expects will be landed by one of the earliest ocean steamers entering Quebec, and hopes to have them home some time in July.

BRIERY BANK STOCK FARM

Is situated close to the village of Orchardville, and within a short drive of Holstein station, on the Palmerston and Durham Branch of the G. T. R. Messrs. Caldwell Bros., who are the proprietors of this establishment, are engaged in a lucrative mercantile business in Orchardville, but devote the largest share of their attention to their farm and the very superior lot of pure-bred stock, of which road horses, Ayrshire cattle and Yorkshire and Tamworth swine all find a place. We have not space for full particulars, or we would gladly speak individually of the beautiful road horses we were shown, with Chicago King, a son of Chicago Volunteer, at the place of honor in the stud. The Ayrshires consist of a large and select herd, which were purchased in 1887 from Mr. A. P. Ball, Rock Island, Stanstead, P. Q. Messrs. Caldwell Bros. selected no less than fifteen cows and heifers at one purchase. Among these are several noted families that were imported at different dates and by different gentlemen, there being at least seven families having representatives in the herd. With strict attention to a large production of milk, together with careful feeding, we found a thrifty lot of cows, with udders that gave promise of large milk yields, while the younger things displayed careful breeding. The calves by the stock bull, Albion Chief, were particularly good, which we should expect on finding he was bred by Messrs. David Proctor & Sons, Hamilton, and is sired by their imported Royal Chief, his dam being that grand cow Maggie Brown, of Barmoor Hill; with two such illustrious parents it would be strange indeed if he did not give an account of himself, and what makes him still more valuable is that he appears to be an almost exclusive heifer producer. In swine, Messrs. Caldwell are breeding both Tamworths and Imported Large Yorkshires, both of which had some exceedingly good representatives. The former had been purchased from the herds of Mr. Bell, Amber. This breed is fast becoming popular in many parts of the country, proving most satisfactory when used to cross with other sorts, and right here we may say we have recently seen both Yorkshire and Tamworth crosses upon Berkshire sows that would surprise farmers for feeding adaptability. In fact, we are more and more strongly impressed with the superiority of stock obtained by crossing the pure-breeds for profitable feeding for the block, but at the same time we are just as strongly of the opinion that the breeds must be kept absolutely pure, and the first cross fed for slaughter.

Mr. Jonathan Carpenter is the proprietor of INGLEDALE STOCK FARM.

Whose Jerseys have obtained a reputation far beyond the locality in which they are bred, as many

a good one has gone to build up the reputation of crack herds both in Canada and the United States. Here for a length of time was the home of the famous Ida of St. Lambert, who afterwards held the world's milk record, and was such a star in the herd of Miller & Silby, of Franklin, Pa., and of whom so many encomiums have been written. She is the granddam of the bull now in use on the herd, and many of the excellent cows and heifers are descendants of hers, and a beautiful lot they appeared to us, as we had the pleasure of inspecting them out in their pastures. We could not help thinking, now that the value of milk is being estimated by actual test, that a bull from one of these cows should have a desired effect when building up a herd rich in butterfat is the object sought.

Breeding and developing trotters occupies quite a large proportion of the attention of the proprietor. That Mr. Carpenter is thoroughly impressed with the value the Canadian horse has been in forming the staunchest trotting families, is proved by an analysis of the breeding of the excellent class of brood mares that are to be found in this stud, and to this circumstance doubtless is due the handsome form and good size of many of the specimens we were shown. The wisdom of keeping form, handsome appearance and quality in the foreground in breeding trotters we have already often discussed. By breeding in the most popular trotting lines only a percentage of race horses are produced, but if they fail on the track they should at least be a type that would make good road horses; yet how many breeders have entirely ignored this point. Now, the first thought that strikes the beholder when viewing the Ingledale stud is the handsome form, good size and quality of colts and fillies, while the many promising horses now being worked on the track are a particularly handsome lot. While inspecting the stud we could not help remarking that from the youngest foal to the fastest horse being developed the larger proportion were exceedingly handsome. General Stanton, who has thirteen horses in the 30 list, has been freely used, and if appearances do not deceive several in this stud will also add to his credit. There are also some eight or nine that are sired by Almont Wilkes 2.19, which are also full of promise. However, we unfortunately have no space to particularize, as there are such a number of real good ones to look at that the only plan to adopt is for those interested to pay a visit to this stud, and all we can promise to the horse-loving public is a hearty welcome and a rich treat.

WOODLANDS TERRACE FARM.

Whose proprietor is Mr. C. G. Davis, Freeman, is situated within a short distance of Burlington station, on the Toronto and Hamilton branch of the G. T. R. The farm is beautifully equipped with buildings and fences, both being complete and new, while there are many appliances for labor saving that are well worth a call from those passing who desire to pick up useful ideas in assisting to perform farm work easily. The farm is partly devoted to fruit production. Mr. Davis being of the opinion this department cannot be successfully carried on without live stock to furnish farm yard manure, which he considers necessary to fertilize the ground devoted to this profitable branch of his operations, he therefore keeps a small but choice herd of Shorthorns. Several of these were purchased at the dispersion sale of Mr. J. T. Reid, of Paris, Ont., a few years ago, while others have been bred from a family that has been on the farm for a number of years, as Mr. Davis' father was breeding Shorthorns in early days. Mr. Davis is striving to breed the useful sorts in order to supply the demand from farmers or others who may wish to improve their stock.

Sheep in Manitoba.

In these days when the advantages of mixed farming, as opposed to wheat growing alone, are admitted by all who are interested in agriculture, no apology is necessary for again drawing the attention of readers of the ADVOCATE to the importance of sheep raising as a branch of mixed farming.

The abundant woolly covering with which Nature has provided it, indicates that the sheep is adapted to withstand the severe cold of our winters, and this is amply proved by the experience of those who have been engaged in sheep farming in the Canadian Northwest. Indeed, the climate of the summer as well as the winter months seems to suit them, as they are remarkably free from the diseases which are prevalent among flocks in older settled countries.

To those who have had experience in the old country in fattening sheep with the help of oil-cakes and other expensive artificial foods, the rapidity with which sheep take on flesh and increase in weight in summer, upon the prairie grasses alone, comes as a sort of revelation.

As to the question of profit, there is no doubt that a flock, large or small, managed with care and attention will pay well; indeed there is no branch in farming that at present prices will yield such a large and certain percentage upon the capital invested.

In making this statement we refer to sheep reared for the butcher, and not to pure-bred flocks kept for ram breeding. In the former case, probably the supply of these latter is in excess of the demand, although by and by, when the industry spreads, and the prairies of the Northwest are stocked with flocks numbering millions, there will be ample de-

mand at paying prices for all the pure-bred rams that are raised.

For butchers' sheep it is not necessary to have pure-bred ewes. Good ewes of almost any cross will do to start with, but it is imperative to have pure-bred rams. The particular breed of ram is a matter of opinion, and it is scarcely safe to indicate a preference. He should be a good sheep of his kind, and that a kind reaching a heavy weight at an early age. By the continued use of superior rams, a flock of originally very indifferent ewes will soon be graded up to a pretty fair level.

In Manitoba abundance of food for sheep is found ready to hand, or can be grown at little expense. The prairie grasses in summer, and the same converted into hay for the winter use, are the mainstay. Failing a supply of the latter, sheep will thrive during winter on the straw and chaff of the grain crops, supplemented by a little oats or light grain of any kind.

On a mixed farm a flock of any number from twenty to three hundred ewes would be found profitable. Where settlement is not very close, and a run on the prairies can be got, the oversight of the latter number would occupy the attention of a careful man throughout the year. In more closely settled districts, where the area under cultivation is greater, it is necessary to have inclosed pastures of an extent suitable to the number of sheep. It will be found advantageous to divide the pasture into two enclosures, so that the flock may be changed from one to the other every two or three weeks, as the grazing will thus be kept clean and sweet. The pasture should be on dry land where there is mixed herbage, and not low-lying land of a marshy nature.

Some previous experience in handling sheep is an undoubted advantage, but the want of this should not discourage any one who is anxious to have a flock, and who is prepared to take some trouble with them and give them the necessary care and attention. That is really the point that determines the difference between success and failure.

It would seem to argue a lack of enterprise among the farmers of Manitoba, that Winnipeg has frequently to draw her supplies of mutton from Ontario, Nova Scotia, and even pay the duty of three cents per pound or thirty per cent. on the living animal brought from St. Paul. It may be that this arises from a want of capital, rather than a lack of enterprise. If so, we hope that the Farmers' Provincial Loan Company, whose prospectus we have just had the pleasure of perusing, and which is backed by men of position, will make it a feature of their business to lend money to farmers for the purchase of sheep. The farmer could, from the profits of his flock, repay his loan in three annual instalments, with interest at 10 or 12 per cent., have half as much annually for himself, and at the end of three years have a flock of his own equal in number and quality to that with which he started. This presupposes careful attention and good management, and fair average success.

Feeding Hogs.

In answer to an enquirer, who is in doubt as to whether he is correctly feeding his hogs or not, and who says that "the feed has been ground three-quarters oats, balance shorts and corn," the editor of the "Swine Breeders' Journal" gives the following reply:

"If for breakfast, dinner and supper each day, for the time you have been feeding your herd, the rations have been three-quarters ground oats, balance corn and shorts, then there is a 'big' doubt as to the correctness of your method. But if your three-quarters feed has been supplemented with a change on an average of three times a week, then your ration will do. It is not so much what you feed a hog as it is when and how you feed it. You can kill pigs and worry matured hogs on the ration mentioned, if you keep them at it long and hard enough. The science of feeding is to know what is the best to feed at the proper time. A good feeder can tell when a change should be given, and an experienced feeder the best feed to give at that time. The rotation of feeds by schedule is better than feeding a mixture of all the grains forever. But the best plan is to feed a seasonal variety, also a seasonal management. Breeding boars, old sows in pig, old sows with suckling pigs, young sows in pig and with pig, and fall gilts, is the assortment on nearly every breeding farm in the country to-day. To obtain the best results, each and every one of these classes require a special management in some respect. The breeding boar must sustain vitality and vigor, without making fat; the aged brood sows must be kept healthy, strong and vigorous, and just fast enough to prevent suckling down, yet successfully raise the pigs; the young sow, to farrow, must be built up in bone, muscle and vital forces, and carry as much fat as possible without injury to her; the fall pigs must be making pounds every day, or they are losing money. If a three-quarters perpetual rotation can do this, then there is very little to learn in feeding hogs."

We would be pleased if hundreds of our readers would write the ADVOCATE, giving briefly their method of feeding hogs, presenting the separate management of all classes to be found in a herd. The good to be derived from letters of that character would be invaluable. The feeding of hogs is a simple thing, if a profit is not desired; but feeding hogs to make the best results (the most money) is a problem that has been correctly worked by a very small number of feeders.

Sheep Husbandry.

[Read before the last meeting of the Dominion Sheep Breeders' Association, by Henry Arkell, Teeswater, Ont.]

The principles upon which the breeding and general management of sheep should be conducted are subject to such modifications as are necessary to the peculiarities of soil and climate, and other surroundings. In the long run the best results are obtained by breeding sheep really good of their kind, whatever that kind may be.

I propose to touch upon what I conceive to be some of the weak points in the management of sheep in this country, both by the ordinary farmer, and also the breeder of pure-bred stock. By the ordinary farmer sheep are treated a good deal like what is termed in husbandry a "catch crop"; instead of being provided for under a regular system of management, no particular provision is made to insure their producing the largest amount of wool and mutton within a given time, which would make them render to their owner the largest amount of profit, and also show the excellency of the breed or flock, and the owner's skill in the management of same.

If the farmer would give even as much attention to his sheep as he does to the ordinary rotation of his field crops, and as carefully select his sires as he does his seed grain, I am safe in saying he would be able to keep four times as many sheep on his farm as he does now, with a corresponding profit, without diminishing the amount of other stock on the farm. For instance, when summer comes, instead of turning his sheep on the highways, as many do, or into the pasture fields and have his wife complaining that "those sheep are eating all the grass from the cows," I would suggest that he sow the land intended for turnips with fall rye, and by the middle of May he will have the very best feed ever found for ewes and lambs; and after his rye is finished, which should be before it comes out in head, or in time to put in his turnips, a patch of oats and tares should be ready, which may be grown on the summer-fallow, if he does summer-fallow—if not, on land set apart for the purpose—followed again by tares sown at intervals of two weeks apart till his clover is fit for feeding to the lambs, which should be weaned by the first of August, when the ewes can run the stubble field. After the clover rape should be provided for the lambs, which should be finished by the middle of November, and the lambs be fed white turnips or swedes, as the case may be, with a little grain.

In feeding the above-mentioned crops I have no doubt the question will be asked, How will you do it? Answer—Use a portable fence, a portion of which is so constructed as to allow the lambs to have access to the portion of the field where the ewes are to be fed on the morrow, where they can be fed a little grain if desirable; this, of course, is optional.

Give your sheep each day what they will eat after the rye is finished, and as the weather gets hot provide a field where they can run, having access to water and shade through the heat of the day, say from ten o'clock in the morning till four o'clock in the afternoon, when they return to their allowance of tares, oats, etc. By this means your land is regularly manured instead of the fence corners or the highways, and your sheep will be healthier and grow more wool of a better quality, and your lambs will take well to their winter feed on coming into the yard, if you keep them for fattening. A very small quantity of land will, under this system, keep twenty or thirty ewes and lambs through the summer and not interfere with your other stock, besides leaving on the land the manure, worth at least ten cents per week per ewe and lamb. The food consumed will by this plan be grown on land that otherwise would have lain idle for a great portion of the summer.

If farmers will only take pains to save well their pea straw, this, with a few turnips, will winter well ewes until lambing season approaches, when good clover hay will be required. Much has been said about giving water to sheep in winter. My experience of thirty years in Canada is that sheep do not require water when fed a sufficient quantity of turnips, viz., from seven to eight pounds daily in two feeds for a ewe in lamb. Feed young sheep nearly all they will eat, with salt always before them. Keep them in a suitable building provided with a yard to feed in, divided off according to age and size. Place them where they cannot be molested by other stock.

As intimated in the beginning of this paper, I wish to notice what to me seems the weak points in the breeding and management of our established breeds of sheep.

The first which presents itself to my mind is the want of uniformity in the flock; this is a great weakness and drawback to our success as breeders, and the question arises, why does this exist? First, I think from want of more careful and judicious selection of sires, for, as one of your members has stated in a former paper, "the sire is half the flock." I have said careful and judicious selection of sires, for if is a pretty well-known fact that as a general rule the first cross between an inferior and superior animal is very successful, producing, in many instances, animals equal to the improved breeds used; but the judgment and skill of the breeder is called forth in raising the standard of his pure-bred flock. This has been done, and what has been done can be repeated, but it requires great care and shrewd judgment to bring about the de-

sired results. One reason why failure in this direction is often experienced is, I think, in introducing a sire into the whole flock, without first testing his suitability by using him on a few ewes selected with great care, the breeder having in his mind a well-defined ideal of the proper type to be established in his flock. Continued perseverance on these lines will be a great factor towards bringing about that uniformity of character so much to be desired. The second point I notice is a lack of sufficient weeding out of the flock all animals which do not come up to the proper standard of the breed; also all young and breeding animals are not sufficiently induced to lie out of doors by providing for them sheltered, well littered, roomy yards, where they can lie down through the day—in fact, you will find many will prefer lying outside during the night, except in stormy weather. This I consider very conducive to the raising of vigorous, healthy stock, and the development of robustness of constitution, which, combined with large growth of fleece and aptitude to fatten, symmetry and fecundity, should be the flockmaster's aim and ideal. Tups of this class and character will find a ready sale anywhere, and the breeder will find he cannot afford to breed or sell poor specimens of his breed. Carefully bred stock will bring millions of money into the pockets of the farmers of this country, and furnish healthy, delightful and profitable employment for the young farmer who now seeks employment in towns and cities.

The third weak point I wish to name is breeding from excessively fat animals, which have been got up for exhibition purposes. If you will exhibit, and I suppose someone must exhibit to keep the different breeds before the public, I unhesitatingly say sell such animals and not breed from them to the injury of your flock, producing, as they do in many instances, a lot of poor, weakly, scrubby lambs, and these are bred from simply because they are pure-bred. In place of this let the breeder select the quantum of ewe lambs for his own use, and set them aside, and let no price tempt him to dispose of them, when in a few years the whole of his flock will be uniform and the best. This line of management being persevered in, there will be no necessity of running home to the Old Country to import either ewes or rams, except as an occasional change. The time has come when I think the sheep breeders of this country should set to work in earnest to breed sheep of such a type, and of such excellency of form and character, that they can, not only supply the whole farming community, but each other, with such different breeds of sheep as may be required. We have a country and climate well adapted to sheep raising, and thousands of acres of land which to-day would be vastly more remunerative to the owners if turned into sheep farms and conducted somewhat on the lines here laid down, instead of being rooted over with the plow in a vain attempt to grow wheat at a profit. In conclusion, let me say, gentlemen, breeders, farmers, try to introduce into sheep husbandry better management, better sheep, and more of them.

GARDEN AND ORCHARD.

Horticultural Brevities.

1. Stir the soil to conserve moisture and promote plant growth, as well as to kill weeds.
2. Use hardwood ashes liberally on all garden truck, small fruits and orchard trees.
3. Apply liquid manure to force rapid and full maturity of choice crops.
4. Nitrate of soda can be used with benefit on all crops. It is immediately available, and should therefore be only employed in connection with plants in their active stage of growth.
5. We must spray with Paris Green and copper compounds to produce sound, marketable fruit.
6. There is far too little mulching done. Small fruits, trees and garden crops are given a most favorable opportunity for attaining the highest perfection and development when their roots are covered with a thick mat of leaves, wet straw, or other suitable material.
7. A good mulch keeps down weeds, and renders the soil loose, moist and porous at all times, and that, too, with little labor of cultivation.
8. Be sure and commence early to thin fruit on trees and vines that have set the same too freely.
9. Remember that oftentimes by the removal of fully half the fruit, the remainder produces as much bulk and sells for more money than the whole would if all had been left on.
10. When fruit is thinned, the parent plant is exhausted far less than when the entire crop is permitted to remain.
11. Let the sheep and poultry run in the orchard to consume the wormy fruit and insects.
12. Sort all fruit very carefully, and send same to market neatly packed in attractive packages. This must not be neglected.
13. In making sales, get as near the consumer as possible. Many commission and middlemen's profits leave little for the producer to receive for his products.
14. Live off the best your land produces. Do not stint yourself for the sake of having more produce to sell. Get all you can out of life.—E. E.

FARM.

Notes from England.

Sir Chas. Tupper expects to leave Liverpool for Canada, by the "Parisian," on August 17th, on a visit concerned, we understand, with private business.

We learn from the Canadian Gazette some important matter concerning the Canadian exemption of live cattle. Though the British Board of Agriculture has given its decision denying the Canadian cattle admission into this country, it is evident that the question is not to be allowed to rest in its present unsatisfactory position. That Canadian herds are free no one can deny. Equally indisputable is it that since the arrival of the suspected cases in 1880 and last year, many thousand head of Canadian cattle have been received in this country and been subjected to the most rigorous inspection, with the discovery of only one case of suspicion, as to which the experts entirely disagree. Did contagiouspleuro-pneumonia really exist in Canada, not one, but hundreds of cases of undoubted disease must have occurred among British herds, as well as among the herds of Canada. Such facts as these have been persistently pressed upon the President of the Board of Agriculture by Sir Chas. Tupper, but despite their admitted force Mr. Gardner felt compelled to abide by the opinion of his veterinary advisers, contradicted though it was by equally high expert authorities; and Canada, the British consumer and the British grazier have, for the moment, to bear the consequence. The Board has issued an order, which takes effect forthwith, cancelling the orders of April and June, which secured the segregation and slaughter of Canadian cattle at British ports of landing, under special supervision, and Canadian cattle now stand on the same footing as cattle from the United States, and are subject to the same slaughter regulations. This action of the Board is based upon one case out of 30,000 received since last autumn—part of the cargo of the steamer Lake Winnipeg, which left Montreal on May 10th, and arrived at Liverpool May 22nd. The animal in question was fed in and shipped from Manitoba, where a close examination took place by veterinary surgeons, who failed to discover a single case of disease or even suspicion. The 250 animals which formed the cargo of the steamer Lake Winnipeg travelled under conditions favorable to the development of contagious disease. Had the disease really been contagious pleuro-pneumonia, the confinement of it to one animal would have been impossible under such circumstances. Animals in Canada do not doubt suffer occasionally from inflammation of the lungs and pleura, and extremes of temperature and long journeys may set up a condition of the lungs in which the appearances are somewhat similar to those of contagious pleuro-pneumonia, but in the present case the animal showed no symptoms of distress, and nothing suspicious was discovered until the examination of the lungs took place.

The Earl of Aberdeen has again evinced his interest in child emigration. He is a prominent supporter of Dr. Barnardo, and has now placed at the disposal of the Young Colonists' Aid a sum of £1,000 to enable this association to begin work. The first party of lads sent out to the colonies left London last week for Manitoba, in charge of the director, Mr. John T. Carrington. These boys, it is explained, are not waifs, but respectable lads of the lower, middle and artisan classes, and were chiefly selected from the eastern counties. In Canada they will be apprenticed to farmers for a term of years. When the whole cost of their establishment has been deducted from their wages, they receive the balance earned on completing their indentures. A party, chiefly of girls, will leave at the end of August also for Manitoba.

Estimates of the wheat crops have already been given, not only for England, but also for France. So far as England is concerned we do not think it likely that the crops actually gathered in will much exceed 500,000,000 bushels, which is 10,000,000 bushels less than last year, 24,000,000 bushels less than 1881, and 32,000,000 bushels less than 1884. In France the wheat crop this year is expected to reach about 275,000,000 bushels. This is below the average yield of the country, which has been for the ten years, 1881-1890, 300,400,000 bushels. The trade with Canada seems to be steadily increasing. For the eleven months ending May 31st, the imports were valued at \$100,500,000, an increase of more than \$10,000,000 compared with last year's figures. Up to May last the exports were nearly \$102,000,000, an increase of over \$5,000,000 compared with 1882.

The value of animals other than horses exported from England during the six months ending June 30th was £60,521, against £32,000 last year. The gratifying increase is doubtless due to the number of sheep and pigs bought for exhibition at Chicago.

Swine fever has reduced the number of pigs kept in England 25 per cent.; in Wales, 27 per cent.; in Scotland, 20 per cent.; and in Ireland, 18 per cent., or a total reduction for 1891-92 for Great Britain, Ireland and the Channel Islands of over 1,000,000, or 21 per cent.

A bill prepared by the Hon. Horace Plunkett, after consultation with some of the best dairy authorities and representatives of the Chambers of Agriculture, has been printed. Its title is the "Margarine Act and Sale of Food and Drugs Act Amendment Bill." It proposes to repeal certain portions of the two Acts referred to, in order to make the Act relating to margarine more effective than it is. Its most important provision is the prohibition of the coloring of margarine, or the mixing of margarine with colored butter; and it further proposes that this commodity shall be sold by retail only, in brick-shaped blocks of 1 lb. or 1/2 lb. each, while every package, large or small, containing margarine, is to be marked with that term. Every person who sells margarine is to take out a license, which the local authority is authorized to grant, and he must affix prominently to his premises a notice stating that he is licensed to sell margarine. A false invoice or description applied to margarine is made penal, in which cases heavy fines will be imposed.

Scotland is to have a national dairy school.
THE EFFECTS OF THE DROUGHT.

Now that the great drought of 1893 has broken up, it will probably be found that its effects are not so disastrous as was anticipated. It has been very general in all parts of the kingdom. The root and corn crops in Scotland, North of England and in Ireland are a fair average, while the hay crop everywhere is very short, and in many places a complete failure. This is a serious matter, as it has caused a great many lean cattle to be disposed of at very low prices, making the summer grazing unprofitable, with no prospect of recouping the loss in the winter months.

The deficiency caused by the hay failure is estimated at 15 cwt. per acre under a fair average crop, and taking the area as 6,000,000 acres, this at £1 a ton means a loss in value of £18,000,000 sterling. We have no doubt, however, that the present rapid growth will bring on a heavy second crop, by which much of the deficiency will be made up.

The number of visitors who passed the turnstiles at the Royal Show at Chester was 115,000, which is the largest total since the show held at Windsor in 1889.

According to an official despatch from Aleppo (Turkey), the vilayet of Adana has recently suffered from an attack of cattle plague, which caused a heavy mortality amongst the live stock, and inflicted serious losses among farmers and breeders. Indeed, it is stated on good authority, that in some districts farmers lost about two-thirds of their cattle in consequence of this disease. Naturally great difficulty was experienced in replacing the animals thus unfortunately lost, and in many cases replacement could not be effected through lack of funds. It is estimated that the losses in the Adana vilayet from the cattle plague amounts to £500,000, which indicates the severity of the visitation.

At the Chester meeting of the Royal Show was conducted a contest between the various dairy breeds of cattle, to ascertain by actual test with the churn which breeds produce the most butter per day. The contestants were divided into two classes, viz., those weighing 1,100 lbs. and over, and those weighing less than 1,100 lbs. Of the heavy class, Shorthorns proved themselves to be superior to all others, taking first, second and fourth prizes, while the third was won by a cross-bred Shorthorn and Red-Poll. The average yield was 33 pints of milk; being separated and churned made 1 lb. 6 1/2 oz. butter. In the light weight class, the Jerseys came out ahead, taking all the prizes offered. The average milk yield was 29 lbs., yielding 2 lbs. 3 1/2 oz. butter.

Sir Adolph Caron found opportunity, before he sailed for Canada a few weeks ago, to meet Mr. Arnold Morley, the British Postmaster-General, and Sir Arthur Blackwood, the Secretary of the Post Office, to discuss various postal matters with them. He also met Mr. Hermiker Heaton in the lobby of the House of Commons, and had an interesting discussion with him and other members of Parliament on the subject of Imperial Penny Postage and other questions of Canadian interest. May those discussions bear good fruit at Ottawa.

CANADIAN HAY IN BRITISH MARKETS.

The unprecedented drought in England this summer has brought Canada to the front as a source of supply for the fodder now so sorely needed in this country. Especial interest attaches, therefore, at this moment to the references made to the Canadian hay trade with Great Britain in the commercial reports of the High Commissioner and the Canadian agents in this country. The trade practically had its origin last year, when the home supply was very scarce and prices ruled much higher than usual. This year the home supply is much scantier; provided freights are reasonable, there should be a fair margin of profit to the Canadian shipper. It is to be hoped, however, that last year's mode of shipping will be improved on this season, as just complaints were made by extensive dealers here about the shipments there as being irregular and slovenly, and if the trade is to assume any dimensions attention must be paid to these points. The quality that commands the best sale here is timothy well mixed with clover, and bright and green. Bales weighing from 100 to 130 lbs. are preferred to larger ones. The present prices in the London and Liverpool markets for Canadian hay are £5 for inferior, £7 and £8 for the best, for 2,240 lbs. (not 2,000 lbs. as in the Dominion).

Remedies for Agricultural Depression.

BY WALLACE RATHBUN.

Much has been said and written of late concerning agricultural depression throughout our fair country. Various reasons have been presented as being the cause of the present extremely low prices of all kinds of farm produce. Certain it is, at all events, the farmers of this country have had to cut down expenses pretty close in order to make ends meet, leaving little or no margin as profit for his hard year's toil. Practical farmers, in giving their views on this all-important subject, are united in stating that the only remedies lie in lowering the cost of production and strict economy in every detail. Taking it as such, we are forced to the only alternative—that this is the only true solution of the present difficulty. The cost of production and true economy, then, lie to a great extent in our hands, and can, without doubt, be lessened.

A united combine of the farming community could not in the least effect an advance on the market price of our produce, as it is self-evident that this is solely regulated by the supply and demand. Before digressing further, however, we might dwell on a few of the outgoes that, to our mind, might be avoided. We should adopt as the basis of our economy these words, "Curtailed the expenses." In doing so, we might avoid being pushed to fill obligations that might just as well have been left over for a few years longer.

The system of employing the nomadic agent of to-day, we doubt not, has, to a certain extent, handicapped the farmers more than all others in inducing them to buy implements that they could just as well have done without, and thus he incurs liabilities in the present which he is unable to meet in the future. But, by a nice, plausible story, in which the agent of to-day has become an adept, and in view of a promising crop, the unwitty toiler of the soil becomes so fascinated with the sleek-tongued gentry that he is easily induced to sign an article, the payment of which means cash, accompanied by hard toil in fulfilling the obligation.

These liberal terms, and others of a similar nature, make annually quite an inroad upon our small margin of profit, and this leads us to the thought that we should let them severally alone, until, at least, necessity draws us toward them.

Our object at the outset in writing this article was to discover, if possible, some way out of the agricultural depression that exists in so marked a degree throughout the country; and in attaining this end, even in the least degree, we shall not have written in vain. In the first place we should strive to make our farms more productive, and utilize to more advantage and profit the waste products. It is an established fact that we, as farmers, are not raising anything like the amount per acre that we once did, and this of itself, to our mind, clearly proves that our soils have become deficient in the elements that go to form a crop.

In discussing fertilizers, farmers should become better acquainted with the elements, termed in agricultural science nitrogen, phosphoric acid and potash. These ingredients are found in all fertile soils. Intensive methods have to a certain extent been advocated through the columns of the agricultural press these few years back, and we are glad to note, not without beneficial results to those farmers who took an interest therein. Intensive farming is a term usually applied to methods of agriculture as have for their final outcome the securing of the greatest possible product from the smallest given area of land. All this calls for careful consideration in every detail concerning the farm proper, and is necessary in order that we may make the best use of our intensive farming. A successful farmer, therefore, should know the effect that the above elements have in producing crops. The farmer has at his command three classes of fertilizers in order to bring the farm up to its primeval standing. The classification is as follows: First, general manures; second, green manures; and lastly, specially prepared fertilizers. General manures come under the heading of compost and barnyard manures. Thousands of dollars are annually lost of this valuable element by the utter carelessness on the part of the farmer by making no adequate provision for its keep. This is a crying sin, and should be remedied. How oft do we find the barnyard situated on a hillside, exposed to the outer elements that are continually washing away the most valuable ingredients, in their soluble form, that go to make up the plant-food. This great waste, which means dollars and cents in the farmers' pockets, is annually going on throughout the country, while, perhaps, the "persistent grumbler" is at the village store keenly discussing politics and occasionally making the assertion (with a frown on his brow) that farming has become a poor business. In fact, it don't pay.

Arise, brother farmers, shake off those slothful habits that go far toward breeding discontent with our avocation, and bringing with it a long train of evil in the form of hard times, shiftlessness, and pinching poverty. A few days with plow and

scraper, during a slack time on the farm, would so improve that leaching barnyard so as to retain those liquids which are necessary in restoring those worn-out lands. We repeat: cast aside those lethargic habits that have become so fixed in your vocation; cultivate thrift and business habits.

We, as farmers, have in too many instances stuck to the old style of farming, which was adapted to the conditions of market and life forty years ago, the inevitable outcome being financial embarrassment, if not utter loss of capital and heart. It will, of course, be admitted that the ordinary conditions of agricultural work are not favorable to hasty alterations; but new and better methods must be found, and now is our opportunity.

Green manures for light and heavy soils are most excellent, as they increase in a marked degree the power to hold manurial ingredients in the soil. Plants that grow quickly and absorb mostly their nutriment from the subsoil and atmosphere, such as buckwheat, clover, etc., are very valuable for green manuring. Artificial fertilizers are composed of one or more ingredients, and will supply what is lacking in the soil, and are doubtless most valuable to the market gardener. However, so far as the farmer is concerned, we doubt the wisdom of their extended use, as we are convinced that by a careful preservation of his general manures, and largely aided by extensive seeding of clover, he will not require much from artificial manufacture.

General suggestions only in so short a paper can be given, and if we expect to grow paying crops in the future, we must gain practical knowledge of the elements of growth as sent out from time to time through the bulletins of our Experimental Stations.

Lastly, we might sum up by adding these necessary enunciations:—(1) Economy; (2) avoid debt; (3) persevere; (4) know thoroughly your business and attend to it.

Sow Thistle.

Mr. W. A. Brodie has sent us a weed for identification, and asks for a successful plan of eradication.

On examination we find the weed to be the worst of the several varieties of Sow Thistle (*Sonchus arvensis*), sometimes known as the Corn Sow Thistle. It is a creeping perennial. The plant has an upright habit of growth, and often reaches the height of three feet, or may be much less, according to the conditions to which it is subjected. Like the "Canada Thistle," it is somewhat branched towards the top. The stems are rather hairy or bristly, especially the flower stems. The prickles upon the leaves are harmless. The stems are hollow, and when wounded a milky juice is exuded. The flowers are yellow. A plant produces many seeds. This plant makes its appearance in May and continues to grow until autumn. It blossoms and matures seed in July, August and September. It will grow in any kind of soil, but is most at home in rich, moist loams, and it gives the least trouble in stiff clays. It is propagated by means of the seeds, which float about in the air, owing to the downy attachment which they possess, and as these are very numerous the plants increase very fast when allowed to mature. This plant also propagates rapidly by means of its numerous rootstocks, which contain a very large number of buds.

The following are the modes of dealing with this intruder:

1. Drop out of the rotation so far as practicable all such crops as allow the thistle seeds to ripen before these are cut, until infested fields have been dealt with.

2. Plow the land immediately after harvest, shallow enough and narrow enough to cut the thistles off clean without breaking off the creeping rootstocks. Keep the thistles from breathing above ground until the late autumn plowing, which should be deep for the sake of the crop which is to come after. In the spring keep the thistles under by the use of a suitable cultivator until the time of planting a crop of corn, roots or rape. Give the crop thus planted sufficient horse-hoeing to keep down all weed growth, and also keep the thistles cut out of the line of the rows by hand-hoeing. Go over the crop once or twice after the horse cultivation ceases, and the thistles will be pretty well subdued; but it will be necessary to keep a close watch on the next crop or two, using the spud or hand pulling whenever they appear.

The writer has succeeded in entirely cleaning a field that had several patches, which were spreading rapidly, by summer-fallowing as follows:

The land was plowed in the fore part of June, after which buckwheat was sown at the rate of five pecks to the acre; this was plowed under as soon as it came into flower. The field was then harrowed and rolled, and after decomposition had done its work sufficiently, was plowed again and left till the following spring, when a light coat of manure was given. The land thus treated was sown to turnips and well cultivated. Since that time, which was two years ago, not a single sow thistle has made its appearance.

The November number of FARMER'S ADVOCATE, 1892, page 331, gives a pretty full description of this weed.

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Veterinary.

ANSWERED BY W. A. DUNBAR, V. S., WINNIPEG, RINGBONE.

J. D. GRAHAM, Carman, Man.:—"A six-year-old mare has a ring bone on one hind foot; it came on when she was two years old, and was blistered at the time; was not lame till about a year ago, but has been getting worse since. The first blister took the hair off; and the place is quite hard now. Please let me know what can be done?"

[The case being of long standing, the only remedy that will be of probable benefit is *fring*, which should be performed only by a properly qualified person.]

SWELLED LEG.

W. B. FRY, Valley P. O., Moosomin:—"Kindly let me know what would be good for a mare with a swollen leg; it is very hard and sore; it swelled off and on all winter. I think there is something in it. Also what is good for worms?"

[You do not state what part of your mare's leg is swollen, nor do you mention whether she is lame or not. The swelling may be due to an inflamed condition of the lymphatic vessels, proceeding from an external or constitutional cause. If the mare is not pregnant, feed her on bran mash alone for sixteen hours and then give purgative dose as follows:—Barbadoes aloes, one ounce; ginger, two drachms; soft soap sufficient to form a ball. Continue the bran-mash diet while the medicine is operating. When purgation has ceased, give morning and evening, in bran mash, for ten days:—nitrate of potassium, two drachms; sulphate of iron and powdered gentian, of each one drachm. If the swelling is between the hock and foot of the hind leg, or between the knee and foot of fore-leg, apply the following lotion morning and evening:—Acetate of lead and sulphate of zinc, of each one ounce; methylated spirits, six ounces; fluid extract of belladonna, one ounce; water, one pint. Hand rub the leg downward when applying this lotion and apply a bandage. Give moderate and regular exercise. Feed light when animal is not working. For worms, give on an empty stomach:—raw linseed oil, one pint; turpentine and sulphuric ether, of each one ounce. Follow up by giving, in bran-mash, every morning for one week, nux vomica and sulphate of iron, of each one drachm.]

LAME FOWLS.

A. McLEOD, Portage la Prairie:—"I should like you to give me an opinion as to what to do with my fowl. About the 1st May a game rooster in his third season took lame in his right leg, which was gradually grown worse, until now he has no use of the limb. The claws are doubled right under. The comb is a healthy color and he eats well. A young cockerel took it some three weeks ago and is now in about the same state. No hens have as yet been affected. The roost is dry and warm?"

[Your roosters are possibly suffering from arthritic gout, brought on by heavy feeding and, by not having to *scratch for their living*, insufficient exercise. Examine the feet and see if there are any *nodules* (small hard lumps) upon the under surface near the junction of the toes. Is your hen-house large enough for the number of hens that occupy it? You have stated that the roost is dry and warm; is it *clean* and large enough so that the birds can sit upon it without having to grasp it with their feet? Have you a dry yard with ample scratching and dusting facilities in it? Please answer the above questions.]

ECZEMA.

A FARMER, Lorlie, Assa.:—"A five-year-old horse had scratches very bad last summer, were very hard to heal, and were *staked* until winter; gave gentian and iron sulphate, which partially reduced swelling. The scratches are getting bad again, worse before rain, and there are small sore spots all over leg from fetlock to hock. What is wrong, and how can I cure it?"

[Your horse's system is out of condition, and the legs manifest a tendency to become "greasy." Feed exclusively on bran mash for sixteen hours, and then give the following purgative dose:—Barbadoes aloes, seven drachms; calomel, one drachm; ginger, two drachms; syrup or soap, sufficient to form a ball. Continue the bran mash diet until the physic has ceased to operate. After this give every morning in mash for two weeks:—Hyposulphite of soda, half an ounce; powdered gentian, two drachms; and, during the same period, give every evening iodide of potassium, one drachm. While the legs remain swollen bandage them at night, and apply to them once or twice a day the following ointment:—Boric acid, iodoform and carbolic acid, of each two drachms; vaseline, four ounces; mix. Give regular exercise. Feed very moderately of grain when not working.]

J. WORTLEY BELLHOUSE, Marringhurst, Man.:—"Some three-week-old pigs of mine took sick, seemed to get weak in the back and hind legs, and in a few days, though otherwise apparently in good condition, died. I have other pigs just born, and should like to know the cause and cure, if there is any, for the above complaint?"

[The symptoms are those of indigestion, resulting in constipation and partial paralysis, due, probably, to a faulty condition of the sow's milk. Give the sow a purgative, consisting of from four to six ounces of Epsom salts, according to age and size of sow. Dissolve the salts in one pint of hot water, and add a teaspoonful of ground ginger. Give small pigs a dessertspoonful of castor oil, and rub belly and back with a liniment composed of spirits of camphor, three ounces; soap liniment, four ounces; fluid extract of belladonna, one ounce. Give good attention to the sanitary condition of your pig house, and see that your young pigs have dry shelter from the hot rays of the sun.]

ANSWERED BY DR. MOLE, M. R. C. V. S., TORONTO, SPECIFIC OPHTHALMIA.

LYNDEN:—"Will you kindly inform me what is wrong with my horse? Last spring he had a severe attack of influenza, which I fancy has made him deaf, and when leading him into the stable he is disinclined to enter. When driving him along the road, he will go right up to any object and then suddenly shy away from it. I would like to know what to do with him, as he is a valuable animal."

[This is a serious affection of the eyes, and very often the result of an attack of influenza. It runs its course with considerable rapidity, and often apparently subsides without treatment, returning, however, after a short interval, each attack leaving the eyes weaker than before until a "cataract" forms, when blindness results. When due, as may be in this case, to paralysis of the optic nerve, it is known as "amaurosis" amongst veterinary surgeons. It is rarely attended with that swollen condition of the eyelids, or excessive secretion of tears, which accompanies the more common form of ophthalmia. Probably due to hereditary predisposition, with the attack of influenza as the exciting cause. The pupil of the eye will be seen to be fully dilated, but will not respond to the influence of light. There is no treatment likely to be of service; warm fomentation and a lotion of a soothing character may be used. Take acetate of lead liquid, two drachms; tincture of opium, twenty drops; water, one pint; and bathe the eyes night and morning.]

Miscellaneous.

STERILIZED MILK.

JOHN PEARCE:—"1st. What is sterilized milk? 2nd. How is it sterilized? 3rd. Where, and for what price is it usually sold? 4th. Is it true that sterilized milk will keep for some length of time? Much longer than otherwise? 5th. With a herd of from fifteen to twenty cows, could it be made to pay?"

[1. Milk which has been heated to a temperature of about 175 degrees Fahr., is popularly called "Sterilized Milk."

2. The heating may be effected in a vessel over a fire or by the use of steam or hot water under the milk pan or milk can.

3. Such milk is sometimes sold in the large cities of Canada and the United States. The price is often one cent or two cents per quart higher than that charged for ordinary milk.

4. Sterilized milk, if protected from contact with ordinary air, will keep sweet for a day or sometimes several days longer than ordinary milk which has not been so treated.

5. The question of profit would depend entirely upon whether the purchasers were willing to pay an increased price for the product.]

APIARY.

Increase by Dividing.

On account of the slight percentage of increase, a number of bee-keepers appear to have become anxious to increase the number of colonies by artificial means. I have been requested by letter to give my views as to the advisability of dividing colonies after the honey flow, and lately have come across a man who had actually done so. The argument is, that the hive after the upper story has been on it appears crowded, and a good strong colony should still remain for winter after dividing. My advice would be, not to divide; it will be found when cold weather comes there are none too many bees, and dividing late in the season lessens the chance of successful wintering. Then nothing is to be gained by dividing a colony after the honey flow, from a dollars and cents standpoint: the hive, combs and stores for winter, added to the risk of winter loss ordinary, is greater than the price of a colony in the spring, to say nothing of the queen that should be purchased to put with the queenless divided colony.

PRICE OF HONEY.

Readers of the FARMER'S ADVOCATE will be interested in the price of honey. The season throughout Canada has been a rather poor one for honey, the crop is probably slightly better than last year, and prices should be about the same as last year. There should be a fair margin between retail prices to consumers and prices to storekeepers; if this is not given, the storekeeper will not handle our produce, and we lose a portion of our market, as he is able to reach many we fail to sell to. It is a serious mistake to sell for less retail sooner than wholesale; for instance, suppose 10 lbs. of honey are retailed at 12c. per lb., and the

wholesale price is 10c. per lb., too many will cut prices, and retail at 11c. in preference to wholesaling at 10c. Such an action has the effect of driving storekeepers from handling honey, and injures the bee-keeper. There should be a business-like distinction between wholesale and retail, and the rule not departed from.

NOTES.

Comb honey should be properly graded, light honey well filled being number one, light honey not well filled number two, and dark grades of honey number three; it does not pay to mix them.

Now is the time to see that every colony has at least thirty pounds of honey for winter stores. An eight-frame Langstrath hive, consisting of bottom board, body, eight frames, with combs and lid, should weigh with bees and stores sixty pounds. If you know what the hive you use weighs with combs in, it is not a difficult matter to find out when the colony has thirty pounds of stores; yet the weight of the combs vary considerably, old combs weighing very much more than new. I allow 30 lbs., for bees, hive and combs in a Langstrath. If a colony is short of stores, the more quickly it is fed the better. A good feeder (by that I mean a feeder so constructed that the bees can take the honey from it rapidly, the bees will not drown, and the syrup can be put into it without coming in contact with the bees), such a feeder should be used, and it should never be empty day or night until the required amount is fed; by such a method there will be less waste than if a small quantity only is fed each day. We should not make the mistake to think when 20 lbs. of syrup are given to the bees they will gain 20 lbs.; from repeated tests the best that can be expected is a gain of 15 lbs., and often very much worse—they might not gain more than 5 lbs. It is yet an unsolved problem what is done with this quantity lost in storing; that the results are such is, however, sufficient—the scientific explanation we will leave to our professors. If there is still honey uncapped in sections, they should be spread in the supers; the bees will then carry the honey below. To do this quickly a quilt may be put between the comb honey super and the brood-chamber, with one end of the quilt turned up; this gives the bees a chance to come up and carry down the honey. If there is honey in the extracting supers they should be removed, a quilt, as in the comb honey, placed in position, and the extracting comb spread after uncapping all sealed honey. Of course, if there is plenty of honey below in the hive, this is not necessary. A few combs of sealed stores should then be kept for colonies which may be short in the spring. For stimulative feeding they are far better than anything else, and worth more than the price of the honey which could be extracted. As with farm stock, cattle, horses, &c., it does not pay to starve bees, and it is well to look a long way ahead of us.

Syrup for feeding should be made of two parts granulated sugar to one of water, the mixture brought to a boil; syrup should be put into the feeder when about blood heat.

Avoid exposing sweets to the bees; feed at night and early in the morning, and wash away carefully any honey you may spill in pouring into the feeder. Do not attempt to feed up weak colonies—give it to the stronger, and after the syrup has been stored in the combs give them to the weaker; this prevents robbing.

The Apiary.

CONDUCTED BY ALLEN PRINGLE.

ONTARIO HONEY AT THE WORLD'S FAIR.

As in every other department, the honey exhibit from Ontario at the World's Fair is attracting attention by its excellence and extent. No state in the union, or other exhibitor, has anything like such a display of extracted honey as Ontario, and only one (New York) has more comb honey. The Chicago press has spoken highly of our exhibit, and while it might be naturally expected that the Canadian press would not underrate our exhibits in any department, we may be equally sure that the American press will not overrate them. The Chicago papers more than one of them have spoken in high terms of the exhibits in my charge. The *Inter-Ocean* is a leading paper of this city, and has a high and wide reputation. In a late issue it had the following:—"Up in the east end of the agricultural building, under charge of Superintendent Allen Pringle, there is an exhibit which makes the heart of the small boy sigh for cold weather and buckwheat cakes. This is the Ontario honey exhibit, and here again excellence seems to have been the rule in selecting the exhibit. An experienced grower of honey himself, Mr. Pringle takes more than ordinary interest in the product of these industrious little workers. The various grades are all set apart and labeled. For instance, this dark honey down on the lower shelf of the cabinet Mr. Pringle says is made from the buckwheat blossom, and does not rank in flavor with the honey made from the Linden tree flower, or from the flower of the thistle. The honey taken from the clover blossom is regarded as about the best, both in color and flavor."

A New York gentleman, who inspected the exhibit a few days ago, wished to sample a fifty pound cake of granulated thistle honey, which Mr. D. Chalmers, of Poole, Ont., contributed. With pen knife I got him the taste. He declared it was the finest flavored honey he had ever tasted, and that was saying a great deal.

DAIRY.

The Effect of Changing Foods.

The above subject was discussed at length in the FARMER'S ADVOCATE for April 15th, wherein conclusions were given, drawn from the chief authentic investigations up to date. Since then a bulletin has reached us from the Colorado Experiment Station, where last year a lengthy trial occurred with two sets of cows, in order to test the comparative effect of oat chop and wheat bran, fed along with all the alfalfa hay they could eat and all the water they would drink. The following general conclusions are drawn from the experiment:—

"From a study of the tabulation we learn that the quality of milk was quite perceptibly influenced by the change of food given these cows. It will be also observed that in every case, by the Babcock analysis, the wheat bran produced the best results; and that the gravimetric analysis exhibited two cases as good or better, with the other two but slightly lower. It must be remembered that in the two cases which showed a lower per cent. when the cows were on bran, the samples were from the two longest in milk; and, further, that if there is any advantage from this fact it was given the oat chopped ration, which was fed first. Three of the cows lost in the yield of milk, which might be due to some extent to the same cause, but more likely to natural fluctuations or the condition of the weather at that time. This is the most likely, since there is sufficient evidence extant that bran causes a better flow of milk than oats; while they gained in weight on the oat chop, each lost a few pounds on the bran ration. The difference in either case could have been caused by the difference in the water drunk at a single time."

"From daily analysis and close observation, we ascertained it to be a fact that a longer time is necessary for securing an even yield of butterfat from some cows than others. While with some the per cent. may be influenced by a change in the ration in forty-eight hours, and such cows become regular in that length of time, with others we find the per cent. influenced for better or worse, according to the quality of the ration, and grow regular in sixty-four to seventy-two hours, and still others (exceptions) requiring even more time. As should be expected, this is governed to a great extent by the appetite of the cow. Those animals that might be termed good feeders, and that will eat one ration with about the same relish as another, exhibit in quality of the milk the results of the change in feed the sooner, and in every case under our observation a steadier flow, with more uniform per cent. of butterfat. Naturally, then, we would expect and do find that the sly or dainty feeder shows a greater variation in both quality and quantity."

Dairy Notes.

In these days of co-operative dairying every error that is being made whereby profits are lessened should at once be rectified.

A separator in perfect working order will skim milk so close that not more than one-twentieth of one per cent. of butterfat will be left in it. A separator bowl out of balance will not do nearly as good work, and invariably leaves two-tenths of one per cent. of butterfat in the skim-milk, or almost the same as the deep-setting system. This amount of fat lost in a creamery receiving 10,000 lbs. of milk per day, is equivalent to 21 lbs. of butter wasted per day, or about \$2,000 per annum—rather a heavy price to pay for carelessness. Separators and engines that run them must not be carelessly handled. They are as delicate as watches, and require constant, intelligent supervision. Keep them clean and well oiled, and see that the bowl gets no hard knock nor fall.

Farmers may have owned cattle for a score of years and learned but very few facts about caring for dairy cows and dairy products. He may think he knows, but he don't know. It not only requires special study, but it requires careful study of the nature and functions of the dairy cow, and the conditions and properties of the dairy products, before either the cow or the products are understood, and I assure you before a profit can be realized they must be understood. To this understanding must be carried out the programme 365 days in the year. Do not go into the dairy business unless you intend never to give it up. There is no subject whose study requires more extended observation or careful thought. It is true there are cases where men and women have grown up in the dairy business and know from experience that certain causes produce certain effects, never asking how or why, but these succeed to a certain degree. A new beginner does not enjoy this knowledge; most persons get it by study. Successful dairying has its foundations on years of careful and special study. The man who will not submit himself to be educated and developed in dairy knowledge will most assuredly fail. Study and preparation come first. The dairyman must be educated to be in sympathy with the comfort and happiness of his cows, and take delight in everything that conduces to their welfare. He must know the causes that produce the irregularities and deficits, or he will never avoid them.

AVERAGES FROM THE WORLD'S FAIR BUTTER CONTEST.

Divided into periods of seven days, the following figures show the amount of butter credited to the several breeds. The Guernseys and Jerseys each had twenty-five cows in the contest, but the Short-horns had only twenty-three cows for the first nine days and twenty-four for the remainder of the time.

POUNDS OF BUTTER CREDITED.			
	GUERNEYS.	JERSEYS.	SHORTHORNS.
June 1-7	303.32 lbs.	357.39 lbs.	235.78 lbs.
" 8-14	286.17 "	350.00 "	243.58 "
" 15-21	280.31 "	341.35 "	249.31 "
" 22-28	274.49 "	328.78 "	239.78 "
" 29-July 5	278.38 "	337.68 "	226.54 "
AVERAGE PER COW.			
1st Week	12.14 lbs.	14.38 lbs.	10.22 lbs.
2nd "	11.45 "	14.03 "	10.27 "
3rd "	12.21 "	13.65 "	10.40 "
4th "	11.98 "	13.15 "	10.00 "
5th "	11.14 "	13.50 "	9.08 "
AVERAGES FOR THE DIFFERENT BREEDS UP TO JUNE 15TH ARE:			
For milk	29.2 lbs.	33.2 lbs.	23.84 lbs.
For butter	1.6 "	1.94 "	1.42 "

Success in Dairying.

Success in dairying depends in a very large measure upon the individual effort of the dairyman. Unless he puts skill and intelligence into the business by selecting the proper cow, providing her with the proper food, and giving her his best attention, he cannot expect to reap a very large profit out of his investment. Too many patrons of our cheese factories carry on the dairy branch of their farming operations in a sort of haphazard way, and then condemn the business because it does not return them a handsome profit.

It pays to keep a good cow or none. It is surprising how many poor cows are kept in some of our oldest dairy districts by men of long experience. In many factories last season where one patron would realize \$45.00 per cow for the season, his neighbor would only realize \$25.00. This is due nearly altogether to the good judgment and superior intelligence of the \$45.00 man in selecting and feeding his cows, as compared with the lack of good judgment and carelessness on the part of the \$25.00 man.

It costs on an average about \$28.00 or \$30.00 to keep a cow during a year, and about half of the cows kept by the average dairyman give in return for this expenditure about \$30.00 per annum, and a great number come far short of this amount. This means that there are numbers of cows that might as well be taken to the butcher's "block," for all the benefit they are to their owners. If it were pointed out to a farmer that his hired man, for example, was not worth his board or the wages he was receiving, the farmer would simply rise up in his wrath and get more work out of that man, or give him the G. B. Why should notas much good sense and superior judgment be shown in dealing with the cow that does not pay for her keep?

The profit in any business is not always at the market end of the concern, but at the home end. The profit depends upon the difference between the cost of production and the price obtained. Therefore, the man who can produce goods the cheapest is going to reap the largest profit. This logic will apply especially to the business of farming, and particularly dairying, as the market price of dairy products does not vary considerably in comparing one season with another.

It is wonderful how world-wide is the influence and success of the Babcock Milk Tester. Lately we received a copy of a bulletin, issued by the Department of Agriculture, New South Wales, giving a detailed account of experiments carried on in testing the different percentages of butterfat in milk by this machine. Truly, the Babcock Tester may be said to be one of the greatest inventions of this nineteenth century. Its power to show up dishonesty and the true value of milk is felt in every branch of dairying, and is the true friend of the good cow and the upright dairyman. "Justice and correct payment for value received," is the motto with which it is revolutionizing the dairy world.

During the month of August the cheese which is shown at our fall exhibitions is usually made. Patrons can assist the cheese makers very much in this regard, by giving particular attention to the care of the milk, and have it sent to the factory in as good a condition as possible. The good flavor of a cheese has considerable to do with the number of marks it will score when submitted to the scrutinizing test of an experienced judge of cheese. It also pays to have the cheese as neat and clean as possible, without any projecting edges or unsmooth fringes. Frequently cheese have been prevented from taking first-place because of some little unsightliness in the appearance.

The Economical Production of Butter.

BY JAS. W. ROBERTSON, DAIRY COMMISSIONER.
(Continued from Page 151.)

It is never economical to produce poor butter. A pound of butter which will not fetch more than 11 cents has cost somebody just as much as a pound of butter which will sell for 25 cents. It is always economical to help the cow to produce a large quantity of butterfat in her milk; because five-sixths of the butter is fat, and one-sixth water and curd. Now, you will not forget that the elaboration of milk by the cow is a most mysterious and exhausting process. It means exhaustion of the nervous force. If you have a cow that is abused, kept out in the cold, ill-fed and uncomfortable, she will give you less butterfat invariably than one that gets better attention. In butter-making it pays always to be a gentleman. Our folks in Canada are getting to "size a man up" by the clothes he wears. That is a poor plan to discover a man's gentleness or greatness. I believe in the meaning of the word in dairying and elsewhere—a man who is gentle and tender and strong. Now, if you will be harsh and cruel with the cows, you are no gentleman; and you will get only a rough man's pay from them.

Then, after the milk is made by the cow, it is always economical to have the best process provided to get the butterfat out of the milk. After the milk is set, if left at rest, its globules of fat which are held in suspension easily rise to the top. Stillness and coolness are two conditions required. Because many of the patrons of cheese factories use the cheese factory cans for setting milk in, after the factory closes, so as to get a large share of the cream for butter-making, I have had some tests made to discover their suitability for that purpose. I have found the loss from deep setting in common factory milk cans to be six per cent. greater than when the milk was set in ordinary shot-gun cans. Then, I set the milk at temperatures from 98 degrees down to 78 degrees, putting the cans in ice water, and found no appreciable difference when milk was set immediately after milking. I have set the milk immediately after milking and one hour later, and have not been able to avoid losing 11 per cent. additional of the butterfat by the delay of one hour in setting. The slowness of a man is contagious—it affects the fat globules in his milk. Then, we have set the milk for periods of 11 and 22 hours respectively; and in the 11 hours' setting there was an additional loss of 8 per cent. We have added water at different temperatures, from 160 degrees down to 60 degrees. I have found no appreciable difference from putting water in the milk in deep-setting pails. Then in setting tests with cows at different periods of lactation—nine, six and two months—we found by the use of the deep-setting pails we recovered only about two-thirds of the butterfat. For four days we set the milk pails in water at 38 degrees, with the milk, when set, at a temperature of 78 degrees; and the loss from milk of cows that had calved nine months, was 28 per cent.; from that of those that had calved six months, 26 per cent.; and from those which had calved two months, 13 per cent. of the butterfat unrecovered. For four days the milk was re-heated to 98 degrees, and set in water at 38 degrees, the loss from the milk of cows which had calved nine months being 31 per cent.; from the milk of those that had calved six months, 24 per cent.; and from that of cows which had calved two months, 12 per cent. of unrecovered butterfat. These are the average losses in deep-setting pails. Now, in shallow pans we obtained better results from the milk of cows calved more than six months than by any other method of setting. Many farmers say, that by the whirling process of a centrifugal cream separator you cannot get all the butter out. If a cow has calved more than six months, by the use of the centrifugal machine you will get over 25 per cent. more butter from the milk than by the ordinary deep-setting method. If she has not calved over two or three months, you will get about 10 or 12 per cent. more butter.

Then, we have been trying the effect of heating milk, to try and remove that offensive odor which is caused by the feeding of turnips. When we heated the new milk to 150 degrees, we have not been able to quite eliminate the odor. Then we have heated the cream to 150 degrees. A few years ago it was thought that if you heated the cream above 90 degrees you would burst the globules of fat and spoil the butter. That is not the case, and by heating the sweet cream to 150 degrees we have quite eliminated all the odor of turnips. The butter seems to keep better, and we got one pound of butter from one pound less of milk than we got by not heating the cream. A common complaint that comes to us by mail is that "the butter won't come." Well, the butter will come, if the cream be churned at a proper temperature. I have put the limit of time for churning at thirty-five or forty minutes. I heat the cream just high enough to make the butter come after about thirty-five minutes of agitation.

I find some people complain that there are specks in the butter. If you allow the vessel containing the cream to be exposed to the action of the atmosphere a part of its moisture will evaporate, and a scum or skin will be formed on the top of the cream. That will be broken up by the churning, and you will have merely small portions of thickened dried cream in your butter. Prevention is better than an attempt at cure. Let the cream vessel be covered, or by frequent stirring prevent the formation of the skin of dried cream. The straining of the cream into the churn is also a good measure for keeping specks of thickened cream or curd from finding their way into the butter.

Occasionally, butter makers find the butter full of streaks. That condition may come from the retention of portions of the butter-milk in the mass of the butter. The addition of a quart of water for every two gallons of cream, after the granules of butter begin to appear and before the churning is completed, will help to bring about a speedy and full separation of the butter-milk. When the butter-milk has been removed the granular butter should be washed with cold water. In summer the temperature of the water should be about 55 degrees, and in winter about 60 degrees. For the washing, the churn should be revolved a half faster than for the churning. A streaky condition of the butter sometimes results from an imperfect mixture of the salt with the butter. Re-working after the salt is dissolved will correct that. Fine-grained salt only should be used. The presence of the salt should be perceptible to the taste, but not to the sense of touch. Attention to these few points which I have mentioned will assist you to produce butter economically; and, if the butter be produced under the direction of skilful men in creameries, the labor will be very much reduced, and the profits of every farmer may be increased.

POULTRY.

Poultry on the Farm.

BY MRS. IDA E. TILSON, WEST SALEM, WIS.

Solomon said, "A righteous man regardeth the life of his beast"; and a famous poet has written, "Cleanliness is next to godliness". If we combine these two, we must show our love and mercy by keeping our poultry quarters tidy and comfortable, and we will find cleanliness saves more lives than physic does. There are good reasons for cleaning hen-houses in the autumn, and as good for cleaning in spring. If uncertain which arguments are stronger, clean both times. My principal overhauling is in late spring, just before I teach my young chickens to live in the hen-house, because I wish to give them a chance, as it were, and be sure no parasites are draining their tender, half-grown bodies. I also wish to clean after my hens set, since a setter attracts parasites to herself as a magnet does iron filings, wise midgets soon learning that hen is there all the time, without chance or disposition to run away. Besides my main cleaning I do a great deal of "slicking up" all through the year, and every day. Some ladies visiting here found, when getting into their buggy for the homeward drive, they had brought along a setting hen which had stolen her nest under the seat, behind its curtain. I have often thought of that biddy, and how many another fowl has set, hatched, and afterward lived in a quite different kind of buggy place. Last spring a man said he had not cleaned his hen-house all winter. Those hens better "strike," for if they continue to lay he may continue the same old state of affairs, and never clean their premises. I was once told of a man in whose office tobacco juice had accumulated till he swam about and then took to spitting overhead, and I suppose there are hen-houses where, with less exaggeration, dirt is well-nigh universal. Red mites and other insects frequent wall crevices, doing their biting at night, and not usually living by day on any except some setting hens. Fumigation with brimstone is good. Get every fowl out, sweep down cobwebs, remove nest fillings and all rubbish, close doors, windows and every opening; then, on an old stove-top or in a kettle set within an old dish-pan, place quite a lot of real live coals, put on them two pounds or so of brimstone broken in pieces; "get out of there" speedily, but stay faithfully by, at least two hours, to watch for any signs of fire of which, however, there is not much danger, so I was told by a doctor who had practiced fumigation against contagious diseases. I had this done regularly several years, and smoke would pour out under eaves and seem to permeate the whole hen-house; but strong, hot whitewash, well "sloshed" on walls and into every crevice, has proved fully as good. Keep adding fresh hot water, and put in some turpentine or sulphur. "I don't care whis and a little of bese," as an uncle, when a child, answered a lady who asked his choice of two kinds of cake. It is said that Cologne city has seven hundred smells, and probably the

more pungent odors about a hen-house, the more hope there is of offending each and every bug; hence I often lay tobacco, cedar or elder sprigs about, too, and have read that Queen Victoria's royal hen-house is kept well-decorated with heather and other evergreen branches. As white is a good reflector, whitewashed walls make hen-houses much lighter inside—quite a valuable consideration during winter. It is apparent that a patient, careful man will conduct fumigation best, while a swift, reckless one is better adapted to whitewashing. I have a large paint brush by which I easily and quickly cover roosts with kerosene. Roosts wound with woollen rags, kept saturated in this oil, and kerosene foot baths have been recommended by poultry journals, till found too severe, as many fowls were thereby made weak-legged. Such a painting of roosts as recommended above, I have harmlessly practiced for years. No scaly legs have appeared in my flock during a long time, as I early "weeded out" every such specimen, but I remember occasionally applying kerosene successfully to their legs by means of cloth or tooth-brush; still, coal oil is very penetrating, and, as I have written before, needs careful use. Soapsuds for scaly legs, and pyrethrum for other relief of hens, are safest. My movable nests are taken out doors on cleaning day, brushed off and out, then have kerosene poured from a can into every joint and crack, and finally receive new fillings, with clean, washed nest-eggs. About this time windows are removed and laid away, to be washed and replaced in autumn.

I have read that road-working and repairing are little practised in parts of China. Their beasts are still driven one behind another, and, in time, such a groove is made that a person standing on an adjoining field might see a row of donkey-backs apparently plowing through the earth; stepping to the edge of the public way and looking down, he would discover, treading their time-worn rut, the legs under those backs. This illustrates a tendency sometimes seen in work and business. Successful poultry culture requires that we keep out of ruts, and use the best and quickest methods. Windy and rainy weather should not find us ventilating our hen-houses and feeding our flocks just the same as in mild, still times. I intend, every night, to observe the wind's direction, the sky's appearance, and the thermometer's record, and, though one cannot always tell what a night may bring forth, I believe my fowls are thus made more comfortable than if I ignored these weather indications. A south wind promises a warm night; a north wind will reduce the temperature before morning; a breeze chills more than does still air of the same temperature, and our breezes here usually come from the west. So there are many practical points and plain signs easily learned by each for her own locality. A while ago I read a novel way of cleaning. Said its author: "When the outside of hen-house is thoroughly wet by rain or hose, then throw lime all over the inside, into every crack, and the lime will stick on account of this dampness." The paper was northern, that writer southern. Now, a single-boarded building, through which water could so penetrate, is probably all right for the south. I had such a hen-house myself in Florida, but very different plans must be made on our northern prairies, where cold winds travel ever so many knots an hour. Top ventilation may be a fine thing somewhere, as so many architects put cupola ventilators into their plans, but it will not answer here—north, where fowls so easily get roup. Try yourself, without additional covering, sitting under an open cupola some breezy night, when the mercury in the thermometer is going way down cellar, but first engage your physician, or have some reliable croup and gripe medicine handy. The son of a woman having a large flock of fowls once came to view mine, and, after his survey, said, "I told mother I knew your hens weren't sneezing and snuffling around like hers, and why is it?" The familiar diamond-shaped openings in gable ends, now boarded over, and the closed cupola, were pointed to as silent witnesses of my progress in making things comfortable, and, I afterward learned, my example was followed with happy results. The young man said in extenuation that their hen-house already smelled strong enough; then I advised reducing the number of inmates, but he took the equally good course of building another house. Those who have read, observed and experimented, know what a change has come in amount of ground space allowed for each hen. Three-square feet was a standard calculation, or forty fowls to a 10x12 house; now some poulterers recommend even ten square feet. I know, by actual trial of reduced and increased numbers, that my birds do better with an average space of at least four or five feet each.

I chanced on another article which literally said: "Always set hens on the ground," but my March brooders could hardly take that prescription unless they should "set to rise no more." Whenever such strong words as "never" or "always" are used in directions, I am reminded of that passage in "Pinafore": "What! Never?" "Well, hardly ever." I mentioned to you a woman who could not find time to feed her little chicks over two or three times a day, and forty died; yet, I did

not intend to intimate that all chicks thus treated would die, for that would be placing poulterers in a very deep rut. I do believe little chicks thrive best fed often, and lack of attention will surely show; but seasons vary, and breeds and surroundings differ. The active Leghorn forages sooner and farther than the lazier Plymouth Rock or phlegmatic little Brahma. A large grass run takes the place of food otherwise needed. An active mother will provide more for her brood than a lazy one does. An old, fat, pet hen of mine, named "Butter," once permitted to hatch out some chicks, was never seen scratching, nor did she pretend to do a thing but station them early and continuously under our dining-room window. During warm, pleasant weather, we need not feed so much as in stormy, windy times, when fowls cannot get about. At such times, too, droppings quickly dry into a sort of peat, and do not need removal so often as when it is rainy or foggy, and everything soaks and steams. Indeed, the text of this whole article is—we should not do things simply because our forefathers or others have done so, nor because we did so yesterday and have formed a habit, but, instead, ought to cultivate our own powers of original thought and observation, and know whether their ways are applicable to our cases.

How to Raise Turkeys.

BY M. MAW, WINNIPEG.

In reply to your request for a few notes on "how to raise turkeys" with success, I send the following:—The desideratum is to get strong, healthy breeding stock. The best adapted for this climate is the Bronze, or a cross between the wild and the Bronze. Never in-breed; if you do your trouble commences, the product being a weak, small boned specimen, liable to disease. You can always get good, young, healthy Toms in the early spring from any reliable breeder for a few dollars. It is false economy not to get one, as by doing so you are laying the foundation of a good, strong, healthy flock, that will return you a big percentage in a few months. Set all the early eggs under hens, and when the turkey hen wants to set shut her up for a few days, and she will commence laying again without delay. Set her next time. By so doing you will secure a double clutch of young turkeys. When they hatch dust the mother under the wings, vent, breast and neck with "Persian insect powder" (you can get it at any drug store), and she will distribute it over the chicks. Lice make the young turkeys appear heavy and weak, and they soon die. There are two varieties of lice: one a small, active fellow that travels all over the body; the other locates back of the neck, is hard to find, but a terrible blood sucker. A drop of hot lard on the end of your finger well rubbed into the fluff on the neck will generally kill the lice, but be careful not to use much or you will kill the turkey. The first food, when they are thirty-six to forty-eight hours old, is dry bread crumbs or stale bread soaked in milk and squeezed dry. They are very fond of green onion tops chopped up small, also dandelion leaves. If you plant a lot of refuse onions in a patch of your garden, you will have a plentiful supply of green tops all summer. I never feed hard boiled egg; it binds the bowels. Rolled oats, cooked corn meal (never feed it raw), scraps from the table, are acceptable. Don't feed more than the birds will eat up clean; it sours and spoils their appetite. Give clean water in a small, flat dish—a sardine tin does well, and see they have plenty of small, sharp gravel and a good dry dust bath. Shut the whole family up at night in a building, if possible—if not, in a waterproof coop—and don't let them out till the grass is perfectly dry. They will object and do a lot of talking, but remember, a young turkey once wet through is stunted for life and may as well die, if it doesn't. They soon begin to feed themselves on grubs and flies. They are very fond of the green caterpillars that destroy the leaves on our maple trees; if the young turks are allowed to run under these trees they will soon destroy every caterpillar. Be sure and keep young turkeys in a place where they get plenty of fresh air; I lost my whole flock one year through putting them in a building at night that was windproof. The old turkey will keep them warm, all they want is protection from wet. I have no trouble with Bronze Turkeys either when first hatched, or when they "shoot the red" at from six to eight weeks old, but had lots of trouble from swelled head caused from overheating and crowding at night, and breathing hot, foul air. Let them roost on the top of the building when grown up; last winter I kept mine in a loft that had lots of openings but a good roof, and they did well, kept healthy, enjoyed their food and were quite fat in the spring. One of the most successful breeders in Ohio wintered a flock of two hundred turkeys in a grove of trees and only lost two. I shall be glad to give any information in my power to any of your readers who write me and enclose stamp for reply.

MINNIE MAY'S DEPARTMENT.

Minnie May offers a prize of \$5.00 for the best article on the "World's Fair." All communications to be in our office by the 8th of September.

Our Irish Letter.

DEAR CANADIAN SISTERS AND BROTHERS:

I am having such a high time in Wales that I cannot resist sharing my pleasures with you all, so now start to give you a description of my trip so far. We are settling down for a little, and I hope to send you another letter next month written from "Old Ireland." I take copious notes of all my seeings and doings.

Our party crossed last Tuesday week. We had a bright passage, though roughish, but enjoyed every mile of it thoroughly. We came on to Bangor from Holyhead, straight as a die, and were safely housed by five o'clock, having left Dublin at nine. We devoted the day after this housing—to getting rid of our most unbecoming sunburnt faces, or rather, trying to. We utterly failed. My nose was a show for several days. Nevertheless, I've seen, oh! such heaps of wonderful places. (Sunburn does not affect one's eyes.) There are two Bangors, Upper and Lower. We are staying in the former, and it is a labor of necessity (not of love) to find ourselves climbing towards home—if we have been touring in the Lower, of which we can only see the roofs and chimneys from our windows. The Menai Strand runs right up past this terrace, only a tennis ground and road between us and it. As I write in my window I can count 27 boats, two steamers and one man-of-war lying underneath me in the strait. It is simply lovely. This man-of-war is now used as a training ship for the youngsters who wish to crown themselves with glory in the days to come, serving in our navy. To the left—far up the strait—nearly two miles away, I can see, by standing at said window, the wonderful "Menai Bridge," and the tubular railway bridge a quarter of a mile further up. Through this tube the train ran which brought us to Bangor from Holyhead. It seems too wonderful to believe, but such is a fact, it is supported by massive pillars built up from the bed of the strait. The Menai Bridge swings right across, supported by such massive, iron chains as one can only imagine until seen; and they are so beautiful as well as massive, hanging in festoons, so to speak, from one side to the other. There are three stone arches supporting the bridge at either side, also built into the bed. I am afraid I fail to describe the beauty of the bridge. I really cannot do it justice. One must pay toll going across, but not returning. At the opposite side is Anglesea, an island literally studded with lovely places, and wooded from one end to the other. A road runs right round the island, each turn of it pointing to newer beauties than the preceding one. Wales is certainly an exquisite country. One of these days we went to Carnarvon, and a lady friend joined me in climbing—or rather clambering—up three of the seven towers which form part of the old castle wall—the walls of the very rooms in which Edward the Sixth played as a child. The view from the top of the towers was something to be remembered all one's life; and to descend in spirit (as we did shortly in body) from the sublime to the ridiculous, underneath all this old historical splendor, in the market square of the town, not 300 yards from us, there was a horse fair being held, and we could see the buying and selling going on from this magnificent old ruin. Such is life.

We went another day to Beaw-Maris, and gloated over the old castle there. More picturesque, in a way, than Carnarvon it is, but one has not the same creepy feeling that you must have when you tread on the pathways where our kings and queens have been. Both of them, though, were most interesting. Round and inside the walls of Beaw-Maris Castle there are tennis courts and croquet grounds. We saw these games being played, while sitting on the walls, and heaps of tourists, like ourselves, only a degree more greedy, were displaying their luncheon baskets on the grass inside the walls. I dare say we should have done the same, had we been as wise as "Taffy," but being very Irish in our ways, we had not supplied ourselves with these pleasant adjuncts, contenting ourselves with sandwiches instead, which we enjoyed on the top of the "Queen's Tower." I do not know why it should have had this particular name, but the fact remains. We returned in a steambot, as we went. These excursion steamers seem never to cease plying in Wales. On Sunday we went again to Anglesea, over the Menai Bridge, to afternoon service in a Methodist church, conducted by an old minister in the language of the country—Welsh. We did not understand one word, but he seemed most earnest, and held a large congregation enthralled. The singing was delightful; everyone joined. I doing the same, without trying to pronounce a word, but as my neighbors were singing too, the deficiency of language was not noticeable.

This morning my friend and I went for a short climb, but found ourselves at Penrym Castle before we stopped. Such a very magnificent place as it is I have never seen before—never. Most beautifully kept. Not one blade of grass unkempt, nor one leaf of the grand-looking trees seeming as if they could blow crooked. It is much grander than Beaw-Maris could ever have been, though perhaps not so large as Carnarvon, but it is so ex-

quisitely kept that it is a delight to remember it—not the same kind of delight one has in remembering the other historic places, at the same time my eyes were greatly rested, seeing everything so beautiful. There was an atmosphere of wealth from one entrance gate to the other, which the beautiful ruins of the others certainly had not. I am afraid this sounds too practical, but it was true. Your Irish friend,
S. M. STUDDERT-KENNEDY.

Scenes in the Northwest.

BY A FARMER'S DAUGHTER.

Calgary's four days summer fair is at an end, and it is needless to say, the fair was a success—or rather the races were, for somehow or other the turf offers more attractions and is a better drawing card to the people of the "Woolly West" than any number of fine horses and cattle on exhibition. The two together, however, were a very happy combination, as testified by the large crowd in attendance on the four successive days. To an Easterner the crowd itself would be one of the attractions. Imagine Indians by the score, nay, by the hundreds, in all the glory of colored blankets, feathers and paint, many of them literally loaded down with bead-work and brass jewellery. Here a group of splendid looking Blackfeet, on horseback, there the lithe, agile Stoney and the equally fine looking Blood; a little further on, the less splendid Cree, and the stolid, ugly-faced Sarcee, their bright colors and gay trappings forming a pretty background to the more sober coloring of their white brethren. Here, too, the western cowboy, in spurs, leather straps, flannel shirt, gray sombrero, cartridge belt and pistol, never absent from his horse and lariat. Mingling with all, and giving just the touch of coloring needed to complete the whole, are the mounted police in their gay red uniforms and gleaming white helmets. Horse racing is the same all the world over, so a description would be superfluous, but each day there was something on the programme particularly unique and interesting, which I only wished some of the readers of the *ADVOCATE* could have been there to enjoy. The first day there was an Indian polo match and pony race, both of them very interesting and amusing. The polo match was between the Blackfeet and Stonies; time to play, two hours. The Stonies first succeeded in getting a goal, then the Blackfeet, then again the Stonies, and when time was called, with the ball again up very near the Stoney goal, the umpire declared the game a draw and the money was divided. In the pony race there were twenty-four starters, and the helter-skelter way they rode was very amusing. Many of the ponies ridden were really very fine, and some of the Indians quite jockeyfied in appearance. I noticed one or two in pale-blue jerseys elaborately trimmed with beads and skins, while several were in tights of brilliant-colored sateen, &c. They all rode bareback, and when the word "go" came for a few seconds nothing could be seen but dust, then gradually the stronger drew away from the weaker and the spectators breathed freely once more. From post to finish it was a race for blood, and when a young Sarcee on a pretty buckskin pony passed the flags a winner, the cheering and enthusiasm was intense. The race was repeated each successive day, barring out the winners of the preceding one. Tandem races, polo races, hurdle races, cowboy races, athletic sports, and foot-races, occupied the programme until the last day, when the cowboy roping contest—looked forward to by everybody as the crowning event of the week—took place. This was the lassoing, throwing and tying up of wild steers ready for branding in the shortest possible time, and the crowd awaited with breathless interest a spectacle so novel and interesting. There were three entries only but they were old cattlemen who thoroughly understood the handling of a lariat. The first man threw and tied his steer up in good style; time, 1 min. 55 sec. John Weir, a colored man, then took the field and he accomplished the work in such an astonishingly short time that the spectators were hardly aware it was begun till it was over; time, 51 seconds—the shortest, I believe, on record. The third competitor also made good speed, tying his steer up in 2 min. 51 sec., closing the event, which was thoroughly enjoyed. I have since heard a whisper that the agricultural society is likely to send these same men, with their horses and a number of wild steers, to the Toronto Industrial, and should the rumor turn out to be correct I would advise all who can to be there to see.

Caroline Gage and her company of artists were at the opera house during the exhibition, and each night played to bumper houses. The last night was particularly interesting, as the prizes won at the races were presented very gracefully by Miss Gage, between the acts, and when the great, brawny negro John Weir, who had once been a slave and is now a most-respected rancher in Alberta, went forward to receive his seventy-five dollar saddle, the audience for a few seconds forgot its dignity and cheered enthusiastically.

How time does go, like everything else in this western country. For the last week I have been trying to snatch a quiet hour to complete this article, but it has been one continuous round of

sight-seeing and pleasure, such as can only be enjoyed on a ranch in the Canadian Northwest, and here I am back again in Calgary with nothing accomplished, but with very grateful remembrances of the many pleasures enjoyed and the hospitality and kindness generally of the settlers of the Cochrane Valley. Some kind friends drove in for me ten days ago, taking me out to their ranch and creamery at Big Hill Springs, twenty-four miles west of Calgary, and, needless to say, every hour from my departure to my return was enjoyed. We left town at 10 a.m. with a team and democrat, stopping half-way at Burnmore Hackney Ranch, to rest and have dinner, and there I had my first peep into bachelor's hall in Alberta. It was remarkably cosy, and we enjoyed the comforts of a good dinner none the less because it was prepared by a man cook. The way out was very beautiful, one minute up the top of a hill, the next down in the green valley; all the way the most luxuriant grass and the most brilliant prairie flowers. Now catching a magnificent view of the mountains, for there happened to be a mirage that day, and we sometimes almost imagined we were driving at their very foot; then again down in the depths, where all we could see was the green tops of the hills. At five in the afternoon we reached our destination.

Big Hill Springs ranch and creamery is situated just at the first foot hills; the buildings in a lovely green glen, with hills rising to two hundred feet on either side. It has the most perfect natural water supply of any place I have ever seen. Half a mile up from the house is the head of numberless springs, from which the place takes its name, and in the ascent many miniature Niagaras are passed, which are remarkably beautiful. At the foot of the valley the water is utilized for the power in connection with the creamery, then flows on through the glen, twisting and turning and doubling up over and over a beautiful stream of cold, clear water, fresh from the mountains, which even in the depth of winter never freezes over. To lovers of horses and cattle ranch life must be particularly attractive. There is a peculiar fascination about the wild, free life for many people, and the fact of having horses innumerable at your command, where distance is of very little importance, is an additional charm; but, like everything else, it has its drawbacks, and the lonely, isolated life led by many of the ranchers in Alberta must be very trying.

I hear vague rumors, which I hope will materialize of a riding and driving party to Banff, eighty miles away, for the first of next month, camping out on the road going and returning, and while there for a week or two, and keeping our own horses to explore the mountains around and in the vicinity. If it does materialize, I hope to be able to tell you many interesting things of the trip; if not, we will just have to go as others go, by train, and even then there will be "big heaps" as the Indians say, to see and write about.

Days Gone By.

BY JAMES WHITCOMB RILEY.

Oh, the days gone by! Oh, the days gone by!
The apple in the orchard, and the pathway through the rye;
The chirrup of the robin, and the whistle of the quail,
As he piped across the meadows sweet as any nightingale;
When the bloom was on the clover, and the blue was in the sky,
And my happy heart brimmed over in the days gone by.
In the days gone by, when my naked feet were tripped
By the honeysuckle's tangles, where the water-lilies dipped,
And the ripple of the river lipped the moss along the brink,
Where the placid-eyed and lazy-footed cattle came to drink,
And the tilting snipe stood fearless of the truant's wayward cry,
And the splashing of the swimmer in the days gone by.
Oh, the days gone by! Oh, the days gone by!
The music of the laughing lip, the lustre of the eye;
The childish faith in fairies, and Aladdin's magic ring,
The simple, soul-reposing, glad belief in everything,
When life was like a story, holding neither sob nor sigh,
In the olden, golden glory of the days gone by.

A good and simple remedy for ear-ache, caused by exposure to cold, is a flannel bag filled with hops, and dipped into hot vinegar, which must be carefully wrung out. Lay this as hot as can be borne over the suffering ear, cover it with dry flannel, and change the hop bag as often as it gets cool. This usually comforts the child, and induces sleep. Fomentations with flannels simply wrung out of hot water often do a great deal of good, and the best way to manage them is to have boiling water in a narrow jug, roll up the flannel, put in first one end and then the other, and then, holding the roll by each end, to twist and wring it over a basin. The heat remains in the flannel for a long while if kept rolled up to the last minute before opening and laying on the affected part.

Is it any wonder, says the *Philadelphia Times*, that men grow less sentimental as wives grow more careless? The little details of dress that were so taking before matrimony are quite as attractive afterward, and the wife who desires to retain her husband's affection, and the loyal admiration of those who visit her home, should look to it that she is just as daintily appointed after as before marriage. It is our solemn duty to keep our homes and ourselves up to the highest degree of perfection, remembering always to keep within the limit of our means. Yet by ingenuity the smallest income can be made to produce pleasing effects, even though in an humble way, and the woman whose aim is to put the best foot forward always, both before the world and her own family circle, will be the one to reap the reward of affectionate admiration and esteem for the efforts made to always keep up appearances.

UNCLE TOM'S DEPARTMENT.

MY DEAR NEPHEWS AND NIECES:—

Yes, the dog days are here, and up to their usual record. The wheat and barley are changing from green to gold under their powerful presence. I wonder why the ancients called Sirius "the dog star," for some of you already know it is the time Sirius is above the horizon at the same part of the day with the sun, which is called "dog days". It is the brightest of the fixed stars, and the principal star in the constellation. "Canis Major." You are interested in the stars, for do I not remember how we together watched for the evening star to appear, followed by one and another, till the whole canopy overhead seemed dotted with diamonds, and as we walked down to the shore we saw the reflection in the water there. We knew some of the constellations, and the name of some of the stars you remember we quoted from the Book of Job: "Canst thou bind the sweet influence of the Pleiades, or loose the bands of Orion." And as we looked at what Tennyson called the tangle of "silver braid," and at the familiar stars of Orion, with his belt and sword, we felt how small we are, even as we do among mighty mountains. These have since Job's time—since formed by the hand of God—gone on, and will go on, till time shall be no more, while generation after generation has passed away. "All that tread the globe are but a handful to the tribes that slumber in its bosom." We are on the stage to act our little part, then follow them—how short our part, how quickly lost among the many thousands!

But we must call a halt. We have been meditating. Oh, yes, we were at the heavens. What a pity we cannot read its face in the starlight as we read a book, naming each star as quickly as we do a familiar face.

There is a man, an American too, who tells a simple story of the change such a study made in his life. He was at his daily work, not thinking of changing it, when one evening while waiting for a friend he picked up a book on astronomy to pass away the time. He read, grew interested, and read on, and finally bought the book and used it. When refused admittance to the observatory among the astronomers of his town he made one for himself, and when the learned men of his city went to consult in Germany they found this unknown man was ahead of them. To-day he is on the west coast of America. His name is known, and his fame as one of the first astronomers of his time is established. But I must remember that, as I write, the harvest sun is beating down on my nephews, and that my nieces, too, are busy with fruit and flowers, so I must just close, wishing those of you who go to Chicago a most pleasant and instructive visit, and those who are at home a happy, happy harvest time. UNCLE TOM.

Harriet Beecher Stowe was eighty-one years old on June 14. She lives in a pretty but unpretentious gray stone cottage in Hartford, where she is cared for by her daughters. Notably active of body, for her years, she is ever on foot, and her bent, slight figure, with its white hair crowning the dark, wrinkled face, is a familiar sight in the neighborhood. She wanders in and out, and is fond of slipping across the street to the home of her sister, Mrs. Hooker, and one of her delights is to hear music sung and played.

A London critic once went all the way to Manchester to see Beerbohm Tree play "Hamlet." It was agreed that he should lunch with Tree after the performance, and so he did. Tree was mightily disturbed because his guest made no reference to the play. So, as the guest was departing, Tree followed him through the door and called to him as he descended the stairs: "Oh, I say, old man, what did you think of 'Hamlet'?" To this the departing guest answered: "Wonderful play, old man—most wonderful play ever written."

A gentleman whose taste inclined him to haunt "old curiosity" shops, where he picked up many antique and—in some instances—valuable articles for what is termed a "mere song," was one day rewarded by a singular stroke of luck. He purchased a stuffed cat—a large, beautiful black Persian, heavy and sleek-coated, as in life. It had belonged, he was told, to an old miser, who must have loved his deceased cat, or he would not have gone to the expense of having it stuffed. Examining his new purchase, he discovered that one of its eyes was loose; pursuing his investigations further, he removed the artificial eye, and from the interior turned out some hundred sovereigns, each wrapped up separately in wool and tissue paper.

NOT THE FIRST TIME.

A two-hundred-pound old lady the other morning entered a West End street car, and found it full. Hanging by a strap, she cast black looks at an inoffensive but angulant male beauty, who sat sucking the head of his cane.

A sudden lurch of the car flung the lady upon him with great force.

"I say, darn it, don't you know," exclaimed the youth, "you've crushed my foot to a jelly!"

"It's not the first time I've made calf's foot jelly," was the answer.

And all the other people grinned, and were glad because it had not happened to them.

Prize for Selected Poetry.

ADA SMITHSON, GREYSTOCK, ONT.

James Hogg.

James Hogg was born in 1770. He was a Scotch peasant poet of considerable genius, and was familiarly known as The Ettrick Shepherd, for in his early life he followed the occupation of a shepherd. In 1801 he made the acquaintance of Scott, and assisted him in collecting ballads for the Minstrelsy of the Scottish Border. His finest poem is The Queen's Wake, a collection of ballads and tales. He was a contributor to Blackwood and other periodicals, and also wrote songs of much beauty. He died in 1835.

The Skylark.

Bird of the wilderness, Blithesome and cumberless; Sweet be thy matin o'er moorland and lea! Emblem of happiness, Blest is thy dwelling-place— Oh, to abide in the desert with thee!

Wild is thy lay and loud, Far in the downy cloud; Love gives it energy, love gives it birth. Where, on thy dewy wing, Whence art thou journeying? Thy lay is in heaven, thy love is on earth.

O'er fell and fountain sheen, O'er moor and mountain green, O'er the red streamer that heralds the day, Over the cloudlet dim, Over the rainbow's rim, Musical cherub, soar, singing, away.

Then, when the gloaming comes, Low in the heather blooms, Sweet wilt thou welcome and bed of love be! Emblem of happiness, Blest is thy dwelling-place— Oh, to abide in the desert with thee!

Lucy Larcom.

The literary career of Lucy Larcom has been an interesting one from certain points of view peculiar to herself. "Hannah Binding Shoes" is a good ballad and deserves its popularity; but the religious poems of her later life rise to a strength and enforce a respect far surpassing that shown by, or shown to, her folklore. These last are enviable for their dignity, their symmetry and their usefulness. Many of them rise to inspiration as unquestionably as anything in our devotional literature. Her most human poems—those on "Friendship," which we all know, have a serious and a sacred touch.

"A friend, it is another name for God. Whose love inspires all love, is all in all. Profane it not, lest lowest shame befall! Worship no idol, whether star or clod! Nor think that any friend is truly thine, Save as life's closest link with Love Divine."

The Flying Years.

As a dream when night is done, As a shadow flees the sun; As a ship whose white sails skim Over the horizon dim, As a life complete of days Vanisheth from mortal ways, As a hope that pales to fear— Is the dying of the year.

As the first gold shaft of light Shivers through the wreck of night; As the thrill and stir that bring Promise of the budding spring; As new thoughts of life that rise Mirrored in a sick man's eyes, As strange joys to hearts forlorn, So another year is born.

Glad or sad, a dwindling span Is the little life of man, Love, and hope, and work, and tears, Fly before the dying years; Yet shall tremulous hearts grow bold All the story is not told, For around us as a sea Spreads God's great Eternity.

Two Lovers.

BY GEORGE ELIOT.

Two lovers by a moss-grown spring, They leaned soft cheeks together there; Mingled the dark and sunny hair, And heard the wooing thrushes sing, O budding time! O love's best prime!

Two wedded from the portal step; The bells made happy carollings, The air was soft as fanning wings, White petals on the pathway slept, O pure eyed bride! O tender pride!

Two faces o'er a cradle bent; Two hands above the head were locked; These pressed each other while they rocked, Those watched a life that love had sent, O solemn hour! O hidden power!

Two parents by the evening fire; The red light fell about their knees, On heads that rose by slow degrees, Like buds upon the lily spire, O patient life! O tender strife!

The two still sat together there, The red light shone about their knees, But all the heads by slow degrees Had gone and left that lonely pair, O voyage fast! O vanished past!

The red light shone upon the floor, And made the space between them wide; They drew their chairs up side by side, Their pale cheeks joined, and said "once more" O memories! O past that is!

Puzzles.

1-CHARADE.

This morn the postman unto me A photograph did bring; A happy family, I must say, They make COMPLETE the ring.

Dear "Uncle Tom's" the centre piece, "Miss Armand's" at his right; Upon his left "yours truly" stands, Though LAST a sorry plight.

Sir "Henry Reeve" and "Lily Day" Right hand supporters, too; With "Charlie Edwards" on the left, And "Geo. Blythe" full in view.

"Miss Smithson" and our friend "Devitt" In the front ranks bold stand, Guarded well by "Mary Morrison" And "Geo. Rogers" on each hand.

"Friend Bobier" and "A. B. Pickett," "Miss Clara Rillance," too, "Miss Graham" and the "Snider" boys, Are taken PRIME the crew.

"A Borrow(ed) man" stands at the head, Commanding one and all, And now, dear friends, a kind good-night, And into bed I'll crawl.

St. Paul, Minn. FAIR BROTHER.

2-PENTAGON.

1-A letter. 2-A boy's name. 3-A person who cultivates nature. 4-Resembling the poetry of Homer. 5-A variety of sheep having very fine wool. 6-Circles. 7-Value. ADA SMITHSON.

3-TRANSPOSITION.

A merry boy one summer day Within a garden fair was found; His heart was full of childish play, While sunshine beamed on all around; When o'er his head a bird he spied, Alighting on a branching tree, And, picking up a FIRST, he said, "Now, swift and sure my aim shall be!"

Just then there came a gush of song So sweet, the boy grew hushed and still He heard the SECOND in LAST so strong, Which seemed the summer air to fill, His arm fell down, his heart was stirred, He felt he could not harm the bird.

Geo. W. Blyth.

4-DECAPITATION.

In our mystic circle, Another friend has come To try his hand at posing, And aid us in the Dom.

Our souvenir was a great success, And I would to you say— If you have not received one, Send for it—without delay!

What nice perception has been shown By our good Uncle Tom, In so tastefully arranging the portraits Of those who are in the Dom.

This prattling talk I now must stop, And ALL this at once to the mail; My rhyme has come to a ONE, and may To London now set sail.

ADA SMITHSON.

5-ENIGMA.

I am a word of eight letters. My 1, 2, 3, is to fondle. My 8, 7, 3, is cunning. My 3, 8, 1, is to touch lightly. My 3, 2, 8, is a plant. My 3, 2, 8, 7, is to lacerate. My 1, 6, 3, is a deep vessel. My 4, 6, 3, is a small bed. My 2, 8, 3, is to take food. My 2, 4, 5, 6, is a sound reflected. My 3, 8, 1, 2, is a narrow fillet. My 3, 8, 7, 2, is a weed. My 4, 8, 7, 3, is a carriage with two wheels. My 3, 6, 7, 4, 5, is a light. My 3, 6, 1, is a toy. My whole is a river in Russia.

IRENE M. CRAIG.

6-RIDDLE.

Tho' I'm not very large I play a great part In cottage and mansion, and in every mart; But I'm very intractable, often 'tis said That, though you may drive me, I cannot be led; I boast of no beauty, but I'm in great demand, And wherever you are I am always on hand.

ADA ARMAND.

7-DIAMOND.

1-In the ADVOCATE. 2-To wrap up in a veil. 3-A sort of mushroom. 4-An ornamental head-dress. 5-To insnare. 6-To suffer. 7-In the ADVOCATE. ADA ARMAND.

8-TRANSPOSITION.

An innocent man was condemned to die At the first ONE of the bell, With face all TWO he made a THREE, But fruitless his words all fell, The scaffold he mounts—ah! will he thus die, So guiltless, brave and proud? Ah, no; for see, he has made a FOUR And is lost in the surging crowd.

ADA ARMAND.

9-CHARADES.

(A). First, three-fourths of a pole. Second, used in summer. Third, an animal. Total, a guardian of the peace. (B). First, a house of entertainment. Second, to harden. Third, masticated. Total, passionate. (C). First, equal. Second, a title. Third, strong. Total, venial. H. REEVE.

Answers to July 1st Puzzles.

1-Parasol. 2-Inherit. 3-Light-house. 4-Read, dear. 5-Misanthrope. 6-A fish. 7-Charlie Edwards.

Names of Those Who Have Sent Correct Answers to July 1st Puzzles.

Henry Reeve, Oliver Snider, Addison Snider, Josie Sheehan, Geo. W. Blyth, I. Irvine Devitt, Ada Smithson, Joshua Umbach, Morley Smithson, A. R. Borrowman.

Pat had been suffering from a severe and prolonged attack of la grippe. "Well, Pat," said a friend meeting him on the street, "I hear you've been having a pretty hard time of it." "Faith an' I have," said Pat. "An' it's the right name they give to it, too, for when it takes hold of a man it's no mind to let go. It took me throa wakes to fale better after I was entoirely well."

THRESHERS' SUPPLIES!

We are headquarters in Canada for all kinds of Threshers' Supplies. Our American Amber Machine Oil at 25c. per gallon, in barrels of 45 gallons, is, without any doubt, a fine, heavy-bodied oil. Our Rubber Drive Belts are made by the well-known Canadian Rubber Co., of Toronto, the best and most successful of all the Canadian rubber companies. Our terms are cash with the order, and our prices as follows:—

STANLEY MILLS & CO., WHOLESALE HARDWARE MERCHANTS, Hamilton, 336-y-om Ont.

AUCTION: SALE OF FARMING WOOD LANDS

VILLAGE LOTS, CATTLE, HORSES, FARM IMPLEMENTS, LUMBERING PLANT. The undersigned are instructed by...

MOSSOM BOYD & CO. (dissolved by the death of a partner), To offer for sale by auction, at the office of the firm in the village of Bobcaygeon, on

WEDNESDAY, SEPTEMBER 6th, 1893

a number of good farming and wood lots in the Townships of Verulam, Harvey, Somerville, Snowdon and Glamorgan, including the farm in Verulam worked by the firm, and Big Island in Pigeon Lake, containing 1300 acres, and well known as the Big Island Stock Farm. Also village and park lots in Bobcaygeon, including a number of SITES FOR SUMMER RESIDENCES. Also all their herd of pedigree Polled-Angus cattle, and all the remainder of their horses not sold at Toronto. Also farm implements, and second-hand lumbering tools, such as axes, saws, chains, waggons, sleighs, etc., etc. For particulars, apply to MOSSOM BOYD, Bobcaygeon, or to

WICKHAM & THOMPSON, 337-d-om Canada Life Building, TORONTO.

SHEEP BREEDERS' ASSOCIATIONS.

American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to MORTIMER LEVY-ERLING, Sec., Lafayette, Indiana. 337-1-y-om

ELMWOOD STOCK FARM, LENNOXVILLE, P. Q. The home of DODGER 22281, record 2.24 (over half-mile track), by Arminius 22280, he by Raveller 3109, by Satellite 2500; and GROVELAND 1223, three years old, sired by Alcander 6917, record 2.20, by Alcantara 729, record 2.23. FORT SALE—Wager, bay stallion, with black points, foaled June, 1891; sired by Boston Globe 2.281, by Red Wilkes 1749; dam City Girl, record 2.35 (dam of Dodger 2.24). Wager will make a horse of 1100 lbs., with the best of feet and legs, and is very speedy. He is well broken and a sure trotter. For all particulars, address J. SHUTER, Lennoxville, P. Q. 339-1-f-om

ROBERT NESS, WOODSIDE FARM,

Importer & Breeder of Yorkshire Coachers, French Coachers, Clydesdales, Shetlands and Ayrshire Cattle. Prices to suit the times. ROBERT NESS, Woodside Farm, Howick P.O., P. Q. 329-y-om

VALENTINE FICHT, Maple Leaf Farm, Oriel, Ontario,

Offers for sale at reasonable figures and on liberal terms, 30 head of well-bred Shorthorn bulls and heifers, yearlings, and two-year-olds—also a three-year-old shire stallion from imported sire and dam (2nd prize, Toronto), and a grand lot of Cotswold sheep. STATION: Woodstock, on C. P. R. and G. T. R. 335-1-y-om

REGISTERED SHORTHORN BULL FOR SALE.

One year old. Good color. Sired by a Cruickshank Bull. Price, \$50.00. J. C. STOCKWELL, 339-a-om DANVILLE, QUE.

H. & W. SMITH, Hay, Ont., have a few choice heifers and young cows sired by silver medal bull, Prince Albert, and from prize-winning dams of the best Cruickshank blood.

Exeter Station, G. T. R., half mile. 337-1-y-om

IF YOU WANT A WELL-BRED SHORTHORN BULL for use on Grade Cows, or a Heifer to start a herd with, at a price that your pocket can stand, write me. I can suit you. C. G. DAVIS, Woodlands Terrace Farm, Freeman P. O., Ont. 337-1-y-om

FOR SALE.

One choice young Bull sired by a Sussex bull, by Dryden's Imp. Sussex; dam Crimson Flower, by Imp. Royal Hampton. The accompanying cut is a half sister bred by me. Also a few fancy show Heifers of the same breeding bred to young Indian Chief Bull. Some fine Road Horses for sale. 331-1-y-om J. MORGAN & SONS, Kerwood, Ont.



M. I. ELLIOTT, Riverview Farm, Danville, P. Q. Breeder of Scotch Shorthorns. Representatives of the most noted Scotch families: Duchess of Gloster, Lovely, Claret and Nonpareil. Herd headed by the imported Cruickshank bull, King James. 337-1-y-om

FOR SALE - A FEW - SHORTHORN HEIFERS AND HEIFER CALVES

AT REASONABLE PRICES. R. RIVERS & SON, Springhill Farm, Walkerton, Ont. 324-1-y-om

FOR SALE.

A good Shorthorn show bull calf. Also some other thrifty young stock of both sexes. Some fine, young Berkshire boars on hand, one ready for use. John Racey, Jr., 341-1-y-om LENNOXVILLE, P. Q.

MEADOW-LAWN SHORTHORNS.

I will sell bull calves from my stock bull Royal Sovereign at prices to suit the times. Come and see me or write. M. J. IRELAND, Copetown, Ont. 339-1-y-om

H. CARGILL & SON, Cargill, Ont.

SHORTHORNS. Two imported bulls are now at the head of our herd. Stock of both sexes and different ages from the best imported and home-bred cows now for sale. 335-1-f-om



HOLSTEINS & YORKSHIRES

None but the best are kept at BROCKHOLE FARM, Ancaster, Ont. R. S. STEVENSON, Proprietor. Write me for prices if you want first-class stock at moderate figures. Holsteins in the advanced registry. Yorkshires all recorded. 337-1-y-om

WRITE F. A. FOLGER, RIDEAU FARM, KINGSTON, ONT.

FOR PRICES ON Holstein -:- Cattle. 331-1-y-om

Ross-shire Holstein-Friesians.

I intend to sell, at public auction, date not yet fixed, the whole of my herd of pure-bred Holstein-Friesians, chiefly of Aaggie and Netherland blood. All bred from an importation of my own. Catalogues later. H. L. ROSS, Georgetown, Ont. 339-f-om



GUERNSEY: BULL FOR SALE.

A choice animal, three years old, well marked, and of imported stock; bred by Wm. Davies, of Toronto. Send for particulars.

JOS. B. SNYDER, Waterloo, 339-1-b-o Ontario.

JERSEYS AND TROTTERS.

At the head of herd is Nell's John Bull, grandson of Ida of St. Lamberts. Females from \$75 to \$150. Our stud is principally composed of the get of Almont Wilkes 2.191 and General Stanton, the sire of more horses in the 30 list than any sire in Canada. Jonathan Carpenter, 337-1-y-om WINONA, ONT.

HILL HOME STOCK FARM SHROPSHIRE.

The highest type of imported and Canadian bred Shropshires. Special attention paid to character and quality. Choice young stock for sale. Telegrams—Burford: R.R. Station, Brantford; P. O., Mount Vernon. 337-1-y-om D. G. HANMER & SONS.



SHROPSHIRE AND SHORTHORNS.

Shearing rams and ewes by imp. Thomas ram, and lambs by imp. Bradburn ram. Both these rams were first prize winners in England and Toronto. Also bulls and heifers of choice breeding and quality. Freeman P. O. W. C. PETITT, Burlington Station, G. T. R. 337-1-y-om

SHROPSHIRE FOR SALE.

My whole flock of 60 head of Imported Rams and Ewes, a few home-bred Shearing Rams, and a choice lot of lambs of both sexes. Come and see them, or write me at once. T. H. MEDCRAFT, Sparta, Ont. 1-y-om

IMPORTED SHROPSHIRE

My stock was selected by myself, and consists of Shearing Ewes and Ewe Lambs from the leading flocks of England, and of the highest quality and breeding. Stock of all ages for sale. C. W. GURNEY, Paris, Ontario. 327-y-om



W. S. HAWKSHAW, Glanworth Post Office, Ont., 7 miles south of London. 326-y-om

80 SHROPSHIRE EWES & LAMBS For Sale! BY J. K. CRAWFORD, Stamford Tp., Welland County. 338-c-om Address THOROLD P. O., ONT.

SHROPSHIRE.

A fine selection of Shearing Rams and Ewes by Royal Uffington, also Ram and Ewe Lambs from imported ewes and sired by Royal Marquis, 150 head to select from. Address— J. & J. SMITH, Paris, Ont. 331-y-om



HOLSTEIN -:- CATTLE.

I intend to sell, at public auction, date not yet fixed, the whole of my herd of pure-bred Holstein-Friesians, chiefly of Aaggie and Netherland blood. All bred from an importation of my own. Catalogues later. H. L. ROSS, Georgetown, Ont. 339-f-om



STOCK GOSSIP.

In writing to advertisers please mention the Farmer's Advocate.

Our readers desiring high-class poultry should notice the advertisement of C. W. Eckardt, Ridgeville, Ont., in this issue. He is making special offers in Plymouth Rocks.

Mr. T. H. Medcraft, of Sparta, Ont., is offering, in this issue, his entire flock of imported and home-bred Shropshires. Parties requiring some good Shrops should write him at once.

A splendid trio, a boar and two sows, of the improved large white breed have been shipped from Liverpool for Mr. Greenfield, of Isaleigh Grange Farm, Quebec, Canada. They are, says the Canadian Gazette, to be exhibited with several other pigs bred by Mr. Spencer at the Columbian Exposition.

Mr. J. C. Snell, Edmonton, who makes a change in his advt., has a grand lot of shearling ram and ram lambs, shearing ewes and ewe lambs, fitted for show purposes, also young boars and sows, and Jersey heifers and calves. A new importation is expected early in August, selected from the best herds and flocks in England.

We received from Wm. Thompson, of Uxbridge, Ont., the following:—My lot of imported Cotswold sheep, comprising rams and ewes, are now in quarantine and will be home about August 5th. These are fit for either breeding or show purposes. I have also a well-fitted flock of Canadian-bred Cotswolds of both sexes and of different ages.

John Racey, Jr., Lennoxville, P. Q., reports: Our cattle and pigs are looking fairly well; the former have had a hard time since going on grass, owing to the flies, which have been most troublesome, but are now disappearing. Berkshires have been in good demand. We still have a few choice boars left; one of them, a fat boar, is ready for immediate use. We have a fine bull calf from Duchess of Halton 4th, and sired by our stock bull Strathroy; both sire and dam of this calf are prize winners. Hay is an excellent crop; roots and grain look very promising.

Mr. Walter James, of Rosser, has recently purchased from Mr. Geo. Clements several head of pure-bred Shorthorns:—Prairie Belle 4th = 17991 = and cow calf, Lallcen Arkwright = 17986 = and cow calf, Muriel = 17990 = and calf. These cattle were bred by Greig Bros., of Otterburne, and the young things are sired by their Duke of Lyndale, and will make, along with those already owned by Mr. James, bought last fall from John E. Smith, Brandon, a splendid foundation for a Shorthorn herd. Mr. James has also done remarkably well with his Yorkshire pigs, having sold nearly all he can spare. His son is now importing some Berkshires from Snell, of Edmonton, Ont.

Through the courtesy of the secretary, Mr. J. H. Petrell, Chicago, we have received from the American Shorthorn Breeders' Association a copy of their herd book for 1892. This book contains all the pedigrees recorded during the past year, which include the bulls numbered from 110731 to 114179, and more than double the number of cows, or altogether a total of over 12,000 animals. The secretary is well-known as a prominent man in American Shorthorn circles, while the assistant secretary, Francis W. Wade, is a Canadian, being the son of Henry Wade, Secretary of the Agricultural and Arts Association of Ontario; he is well and favorably known to all our stockmen, through his having been, for seven years previous to his entering upon his duties in Chicago, chief clerk in his father's office, where he made himself very popular by his obliging disposition and marked business ability.

Mr. Peter Lamarsh & Bro., importers, breeders and shippers of thoroughbred Duroc-Jersey swine, under date of July 24th, 1893, wrote us:—The advertisement I have running in the ADVOCATE has brought me hosts of letters of inquiry and many sales. From Manitoba, Quebec, and all over Ontario, I have received letters from parties wishing to buy or know something about the Duroc-Jersey swine. I have had to refuse upwards of fifty orders for sows bred, as my stock was sold so close last fall I had very few sows to breed for sale. My spring pigs have done well—have had the finest lot I ever had. The most of them have gained a pound a day from farrowing. I sold an exceptionally fine boar to ex-Ald. John Turner (of Toronto), of Lakehurst Stock Farm, Oakville, Ont. At nine weeks old piglets weighed sixty-three pounds, and a good one all over. Mr. Turner also got a couple of fine sows. I also sold pigs to E. H. Morgan, Stanbridge Station, Quebec, a pair not akin; a trio to Robt. Rose, Glen Morris, Ont.; a pair to Edward Hughes, Salford, Ont.; a pair to F. W. Terhune, Brantford; a pair to Peter Richards, Quinn, Ont.; a boar to Tape Bros., Hidgetown, Ont., besides a number at home. Have a few good pigs to spare yet. Home affairs may prevent me from showing at the Western and Industrial fairs this fall, but if all is well I expect to be with the boys in '94. All the parties to whom I have sold, that I have heard from, express themselves as well satisfied and pleased with the big little Durocs sent them.

NOTICE.

FURNACES.—In this issue will be found an advertisement of Messrs. Clare Bros. & Co., of Preston, Ont. The business of this firm in furnace manufacturing is one of the largest in Canada. We recommend our readers requiring furnaces to write them for price list and information before placing their order.

HAY BALING MACHINE.

Owing to the extreme shortage in the English hay crop, due to the summer's drouth, there is sure to be a ready market for this product in that country, which cannot be transported otherwise than in pressed bales. In this issue is advertised what we consider one of the best hay presses on the market. We refer to the Ertel Victor Baling Presses, manufactured by Stevens & Burns, London, Ontario. Members of our staff examined these presses while working and also in the shop, and found them possessed of all the merits claimed for them by the manufacturer. The many testimonials given by reliable men that have come to our notice, speak of the machine as having characteristics sufficiently desirable to insure the presses to do extremely good work, with little power, expense and time.

ADVERTISE IN THE ADVOCATE

IT PAYS TO ADVERTISE : : FARMER'S ADVOCATE

READ THE TESTIMONIALS : - sent us by patrons : -

Gentlemen, - It is a decided pleasure to express our experience in advertising with you during the last nine years. In starting our business we advertised quite largely through the leading daily and weekly papers of the Dominion, and after watching closely and tabulating as far as possible, the ADVOCATE shows an advantage of 70 per cent. over all other papers, and 90 per cent. better than the majority. We believe there is no means by which we can speak to the farmers of Canada so well as through the columns of the ADVOCATE. Wishing you a continuance of your success, we are, sirs, THE WORTMAN & WARD MFG. CO., London, Ont.

Sirs, - I have been a continuous advertiser in the ADVOCATE during the whole of the past seventeen or eighteen years; not for love of it alone, but because I have always found that it paid me exceedingly well to do so. Indeed, I think it quite out of the question to do any considerable amount of business in the pig and stock line without advertising in the ADVOCATE. Much as I have found it to my advantage to advertise with you in the past, I find it still more so at present. ARTHUR JOHNSTON, Breeder and Importer of Shorthorns and Clydesdales, Greenwood.

If you have anything to sell, SEND AN ADVERTISEMENT to The William Weld Company LONDON, ONTARIO.

STOCK GOSSIP. In writing to advertisers please mention the Farmer's Advocate.

J. Y. Ormsby, manager of Isaleigh Grange Farm, writes as follows: - "We have now in quarantine the imported Guernsey bull, purchased from the well-known herd of Sir Henry Tichborne, Alverstoke, Hants, Eng. This bull has won fourteen first and second prizes in England, being defeated at the last dairy show only by that wonderfully good bull Finchley Beau, and also has defeated the first prize bull at the Royal Guernsey Show on the island. We have also just loaded per Lake Winnipeg a boar and two sows from the famous herd of Sanders Spencer. Our Shropshires are looking remarkably well. We have on hand between eighty and ninety lambs, which are a very even and well-covered lot. We have also added to our flock this spring a shorn ram and four ewes, selected in England by Mr. W. S. Hawkshaw. The ram is from the well-known Bearmb House flock of Mr. W. Flowers, being sired by that wonderful ram Blue Blood. Two of the ewes are from the flock of Mr. Bowen Jones, President of the English Shropshire Association. The other two are from the flock of A. E. Darby, Esq., of Little Ness, Salop. Our sales this year have been very satisfactory, shipments of Yorkshires having been made to various parts of Canada, including Ontario, Quebec and New Brunswick, and as far south as Tennessee, a very choice ram having been shipped to T. B. Carney, Musfreesboro, Tennessee, U. S. A., who expresses himself as more than pleased with his purchase. We have decided, owing to various considerations, not to make an exhibit of sheep and hogs at Chicago, but are sending the aged bull, Ontario's Pride 1929, and our extra choice bull calf by the above wire, to represent us in the Guernsey class."

The Canadian Government had on exhibition one of the most prominent stands at the Royal Show held this year at Chester. The evidences of Canada's fertility were acting under the instructions of Sir Charles Tupper, the High Commissioner, before a large representative company of English agriculturists. A number of specialists from various parts of Great Britain, and also from the Continent, examined the magnificent specimens of natural grasses of the Canadian Northwest. A specimen bale of Canadian timothy hay attracted considerable attention. Amongst callers interested in Canada were: Mr. Dalton McCarthy, Q. C., M. P.; Mr. Robert Miller, Brougham, Ont.; Prof. Long; Mr. Robt. H. Percival, Salsburgh, Manitoba; Mr. James Biggar, Dalbeattie; Mr. George Wilkin, Waterside of Forbes; Mr. C. J. Douglas; Mr. Richard Main, Trafalgar, Ontario; Prof. Fream and Prof. Sheldon; and the Hon. H. M. Holbrook, formerly of British Columbia. The principal purchaser of stock at the Royal was Mr. Robert Miller, Brougham, Ontario, who bought the following: First prize shearing ram, Oxford-Down, never beaten, winner of all champion prizes wherever given; 1st ram lambs, Oxford-Down, never beaten; 1st shearing ewes, Oxford-Down, never beaten; 1st Shropshire shearing ewes, not beaten; 3rd Shropshire shearing ewes, twice first before. Every first prize-winner in female classes, Oxfords and Shropshires, at seven principal shows, bought; Oxford ram lambs and shearing ram same; also most successful Shropshire ram. Mr. James Main, Milton, Ont., was a large purchaser, he having secured several first prize Cotswolds, Oxford-Downs, and other sheep, as well as a most valuable consignment of pigs. Altogether about 100 sheep were secured for Canada. There were several Canadian exhibitors in the machinery department, the Massey Harris Company being the most prominent, with their excellent display of agricultural machinery. Mr. Howes, of Mark Lane, London, made a capital display of Canadian-built carriages from Gananoque and Brockville, Ont. - [Canadian Gazette, June 29,

W. C. EDWARDS AND CO'Y IMPORTERS AND BREEDERS. PINE GROVE STOCK FARM, Rockland, Ont. ELMHURST STOCK AND DAIRY FARM, CLARENCE, ONT. Shorthorns, Shropshires and Berkshires. Laurentian Stock and Dairy Farm, NORTH NATION MILLS, P. Q. Ayreshires, Jerseys and Berkshires. Imported Emperor at the head of a grand lot of Imported and Canadian-bred Ayreshires; also St. Lambert Jerseys and Imported Berkshires. 331-1-y

THORNCLIFFE STOCK FARM! SHROPSHIRE. Orders can now be booked for Shearing Rams, Ram Lambs and Ewes, sired by the celebrated prize-winning English ram, Bar None. Also Rams and Ewes of this year's importation. Montrose, The Ruler, Carruchan Stamp, Knight Errant and other celebrities. My stock in the above lines were very successful at all the large shows last year. Call and examine our stock before purchasing elsewhere. 322-1-y-om ROBERT DAVIES, Proprietor. P. O., Toronto.

NONE BUT THE VERY BEST ARE KEPT AT ISALEIGH GRANGE. This is what we claim and our customers endorse. GUERNEYS, SHROPSHIRE AND IMPROVED LARGE YORKSHIRES. Seventy-five beautiful ewes in lamb to our imported rams, winners at England's greatest shows. In Yorkshires we imported last year the cream of the English winners at the Royal, the Liverpool and Manchester, and the Royal Cornwall and other large shows, including the first-prize boar at the Royal. Do not forget that like produces like, and send in your orders for young pigs early. Address, 333-y-om J. Y. ORMSBY, Manager Isaleigh Grange Farm, Danville, P. Q.

The Most Celebrated Stud of Clydesdales and Hackneys in Canada is owned by GRAHAM BROS., CLAREMONT, Ont. The choicest animals that money and experience can buy, and well qualified to maintain the reputation of our stud for importing. More first prize and sweepstakes winners at the leading shows in Canada and the United States than all other establishments of its kind in the Dominion. The Clydesdales have immense size, large flat bone, with style, quality and choice breeding combined. The Hackneys have fine colors, style, quality, high knee action and choicest breeding. The home of the Champion Hackney stallion, Firefly, Own, and the Champion Hackney stallion, Firefly. Parties wishing the best animals at reasonable prices are cordially invited to examine our stock. Catalogues free. 327-1-y-om

MAPLE SHADE FLOCK OF SHROPSHIRE. Ram Lambs of 1893. I am now prepared to supply choice Ram Lambs at reasonable prices. Also a limited number of Yearling Ewes. PRICES ON APPLICATION. JOHN DRYDEN, Brooklin, Ont. 313-1-y-om

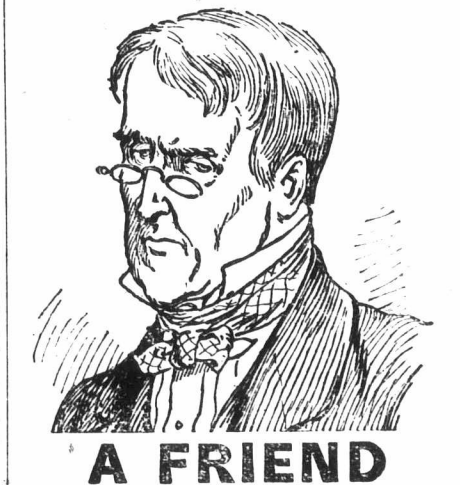
Ample Shade Stock Farm. LEICESTERS - Ten first-class Shearing Rams. The pick of our last year's crop of lambs; also Shearing Ewes, Ram and Ewe Lambs. Choice Shorthorns of both sexes on hand and for sale at reasonable prices, breeding and quality considered. Will be pleased to have intending purchasers see our stock, who will be met by appointment at station and driven to farm. E. GAUNT & SONS, St. Helens, Ont. Lucknow Station, G. T. R. 337-1-y-om

T. W. HECTOR, Importer and Breeder of Dorset Horn Sheep. The oldest flock in Canada. P. O., Springfield on the Credit. Stations: Springfield and Cooksville, G. T. R.; Port Credit, G. T. R. 329-1-y-om

GOTSWOLD RIDGE FARM. The largest breeding flock of pure bred Cotswold sheep in Ontario. Shearing Rams and Ewes from imported sires and dams. A grand lot of Ram and Ewe Lambs also from imported sires & dams. Shearers either bred or imported by myself. Also several Durham and Berkshire swine. Call, apply pairs not akin of my own breeding. J. W. WARD, Marsh Hill P. O., Uxbridge Station. 333-1-y-om

H. GEORGE & SONS, Crampton, Ont. E. D. GEORGE PUTNAM, Ont. Importer and Breeder of Ohio Improved Chester White Swine. The largest and oldest established registered herd in Canada. I make this breed a specialty, and furnish a good pig at a fair price. Write for prices. 334-1-y-om

AYER'S PILLS. Prepared by Dr. J. C. Ayer & Co., Lowell, Mass. Every Dose Effective. ADVERTISE IN THE ADVOCATE



A FRIEND. Speaks through the Boothbay (Me.) Register, of the beneficial results he has received from a regular use of Ayer's Pills. He says: "I was feeling sick and tired and my stomach seemed all out of order. I tried a number of remedies, but none seemed to give me relief until I was induced to try the old reliable Ayer's Pills. I have taken only one box, but I feel like a new man. I think they are the most pleasant and easy to take of anything I ever used, being so finely sugar-coated that even a child will take them. I urge upon all who are in need of a laxative to try Ayer's Pills. They will do good."

WESTERN FAIR

LONDON, ONTARIO.

SEPTEMBER 14th to 23rd, 1893.

Canada's Favorite Live Stock and Agricultural Exhibition!

ESTABLISHED 1868—OLDEST FAIR IN THE DOMINION—INCORPORATED 1887.

MAKE YOUR ENTRIES EARLY. FIRST COME FIRST CHOICE.

HORSES, CATTLE, SHEEP, HOGS, POULTRY—

Entries close Sept. 14th.
The best specimens of pure-bred animals in the country will be on exhibition. No better market for purchase and sale than the Western Fair.

AGRICULTURAL and HORTICULTURAL PRODUCTS—

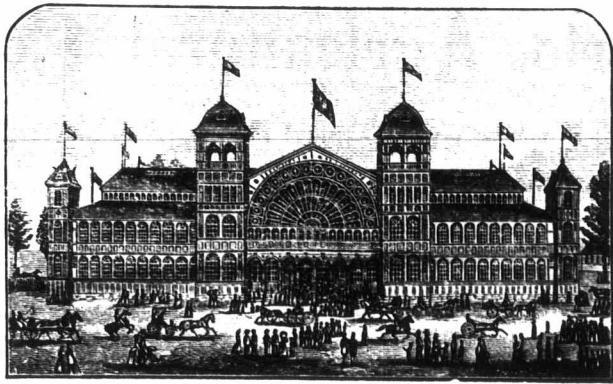
Entries close Sept. 7th.
Choice grains, seeds, and other cereals. A multitude of edible roots, vegetables and plants, consisting of all the valuable old and new varieties.

DAIRY & APIARY DEPT.—

Entries close Sept. 7th.
The principal prize winners in cheese at the Columbian Exposition will be among our exhibitors. The new refrigerator insures a large butter exhibit. Honey and apiary appliances will excel former displays.

MAIN BUILDING—

Entries close Sept. 7th.
Textile fabrics of choice and delicate patterns, valuable etchings, drawings, paintings and engravings, will decorate the walls. Musical instruments, sewing machines, furnaces, stoves and cooking utensils; elegant and costly merchants' displays will be seen on every hand.



SPECIAL ATTRACTIONS.

W. C. COUP'S EQUESCURRICULUM—
16 celebrated horses, \$100,000 offered for the production of their equals. Selected for perfection of form and intelligence. These human animals give a realistic battle scene, and feats even more wonderful.

IMPERIAL JAPANESE TROUPE—
Here by permission of the Mikado, from the Royal Palace, Tokio, Japan. Marvellous performances of novel and sensational acts, not equalled by any other troupe in the world. Japanese daylight fireworks which are wonderful, curious and amusing.

PROFESSOR FREYER'S EDUCATED DOGS—
Hold high court session, consisting of judge, lawyer, jury and prisoner. They try, convict, hang, and bury one of their number, besides performing numerous other intelligent and astonishing tricks.

PROFESSOR CALVERLEY—
The high wire artist and champion of Niagara Falls, will give exhibitions day and night during the fair.

CAPT. A. W. PORTE, President.

THOS. A. BROWNE, Secretary.

EQUALLED BY FEW! EXCELLED BY NONE!

CANADA'S GREAT INDUSTRIAL FAIR

TORONTO, ONTARIO,

THE GREAT LIVE STOCK AND AGRICULTURAL EXPOSITION OF THE DOMINION,

SEPTEMBER 4th to 16th, 1893.

\$150,000 Expended in Improvements in 1892, and \$100,000 in 1893.

New Horse Stables, New Cattle Sheds, and many other New Buildings.

\$30,000 in prizes, principally for Live Stock, Agricultural and Dairy Products. Entries for Live Stock positively close August 12th, for Agricultural Products August 19th, and Poultry August 26th. New and Varied Attractions—Cheap Excursions on all the Railroads. The People's Great Annual Holiday Outing. For Prize Lists, Entry Forms and all particulars, drop a Post Card to

JOHN J. WITHROW,

H. J. HILL,

337-1-b-om

President.

Manager and Secretary, Toronto.

IMPROVED CHESTER WHITE SWINE
—AND—
DORSET-HORNED SHEEP
—A SPECIALTY—

Write for particulars, or call and inspect the stock. Visitors welcome.

R. H. HARDING, Mapleview Farm,
331-1-y-om Thomdale, Ont., Middlesex Co.

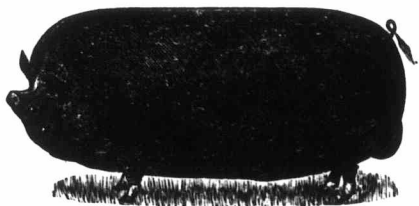
Duroo-Jersey Swine
are the best all-round hog known. No squealing; quiet disposition; good grazers; defeated the Berks and P. C. on all points at Mich. Agr. Coll. test. Pigs for sale. Address **PETER LAMARSH**, Wheatley, Ont. 329-14-om

H. J. DAVIS, Woodstock, Ont., Breeder of High-class Large Berkshire and Imp. Large White Yorkshire Swine, Short-horn Cattle. — A grand lot of young pigs ready for shipment of both breeds; also boars fit for service from prize-winning stock. Stock shipped to order. Satisfaction guaranteed. Young Bulls generally on hand. 332-y-om

C. R. DECKER, Chesterfield, Ont.
Breeder of high-class Large English Berkshires. Imported Lord Hayter, assisted by other equally good boars. Sows second to none. Pairs not akin supplied at any time. 339-1-y-om

ISRAEL CRESSMAN, New Dundee, Ont.
Breeder of Large English Berkshires. Young Hogs always on hand; got by imported stock. 328-y-om

BERKSHIRES, COTSWOLDS
—AND—
JERSEYS.



Young stock of both sexes and of various ages for sale. Show Rams and Ewes, Ram Lambs and Ewe Lambs. Come and see, or address—
J. C. SNELL,
332-y-om EDMONTON, ONT.

S. COXWORTH, CLAREMONT, ONT.,
Breeder and Importer of Berkshire Hogs.
Young stock of different ages constantly on hand. Pairs supplied not akin. Stock won at leading shows in 1892 in first, second, third, including Toronto, Montreal and Ottawa. Prices moderate. Satisfaction guaranteed. Station and Telegram Office—CLAREMONT, C. P. R. 322-y-om

THE OXFORD HERD OF REGISTERED POLAND CHINAS
We have spared no expense in selecting the choicest individuals from the best American and Canadian herds.
TWO IMPORTED BOARS IN USE.
W. & H. JONES,
Mount Elgin P. O. Telephone connection. 359-y-om

EUROPEAN ADVERTISEMENTS.
SHROPSHIRE!

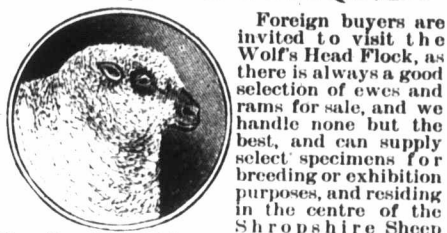
JOHN W. EDWARDS,
"The Hollies," West Felton, Shropshire, Eng. Invites all American and Canadian buyers to visit his flock, which has sent more than one winner across the Atlantic. A choice lot always on hand to select from. Visitors always welcome. No trouble to show sheep. Address as above. 322-1-y-om

BARCHESKIE HERD OF AYRSHIRES
Andrew Mitchell,
the largest breeder and exporter of Ayrshire cattle in Scotland, has always on hand and for sale bulls, cows and heifers of the choicest breeding and quality. Inspection invited. Prices on application. Apply to
ANDREW MITCHELL,
327-1-y-om Barcheskie, Kirkcudbright.

CANADIAN BLACK BESS HERD
Of Registered Poland-Chinas—
A choice lot of young pigs for sale. Elected 148, the great ribbon winner at the head of herd, assisted by 14th's Chief, who weighs 1,000 pounds. Correspondence or inspection of herd solicited. **J. J. PAYNE,** Chatham, Ont. 323-y-om



SHROPSHIRE.



Foreign buyers are invited to visit the Wolf's Head Flock, as there is always a good selection of ewes and rams for sale, and we handle none but the best, and can supply select specimens for breeding or exhibition purposes, and residing in the centre of the Shropshire Sheep Breeding District buyers are assisted in selecting from other flocks. Write for prices or visit us before going elsewhere. Visitors met by appointment at Baschurch Station, G. W. R. Address—**J. & T. THONGER, Wolf's Head Farm, Nesscliff, Baschurch, Shrewsbury, Eng.** Telegram: Thonger, Nesscliff. 322-1-y-om

USE
ROWLIN'S CHAMPION :::
Fall Wheat Fertilizer

(Made of Bone, Blood, Flesh and Potash.)
Price, \$30 per Ton.
F. O. B. HERE, CASH.

On time, bank interest will be charged, 8 per cent. four months. We are willing to make a public test with any other brand, **Freeman's** preferred. See government report, it is the best. Reference: Robt. Thompson, President Patrons' Industry, St. Catharines, or Messrs. Pearce & Co., Seed-men, London, Ont.

Hamilton Fertilizer Works,
HAMILTON, ONT.

ERTEL'S VICTOR



HAY PRESS

MOST RAPID, DURABLE AND ECONOMICAL. SO WARRANTED OR NO SALE. The Most Scientifically Arranged and Most Improved Baling Machine Manufactured.

THOUSANDS IN USE.

ALL THE LATEST IMPROVEMENTS, SUCH AS AUTOMATIC DOUBLE PLUNGER BRAKE. AUTOMATIC TENSION REGULATOR. PRESS BOX LINED WITH IRON OR STEEL. Capacity: One to Two Tons Per Hour.

We warrant it to be the most complete Hay and Straw Press manufactured. Warranted by us as being the strongest built baler; baling Hay or Straw more rapidly, nicer and easier, and doing the work more economically than can be done with any other Horse Power Press manufactured and sold in America.

WE INVITE COMPETITION, excepting no one, whatever name or style it may be.

Illustrated large circulars giving full information, with prices of the different Ertel Baling Presses, mailed free. Address,

STEVENS & BURNS
339-f-o MANUFACTURERS,
LONDON, ONTARIO, CANADA.

CENTRAL CANADA EXHIBITION,
OTTAWA,
SEPTEMBER 22nd to 30th.

Improved Grounds, New Grand Stand.
\$12,500 OFFERED IN PRIZES!

Large Purses given for Races, including a 2.22, 2.30, 2.38 and 2.50 Class; also a Free-for-All.

TWENTY-SEVEN SPECIAL PRIZES OFFERED, 18 OF WHICH ARE GOLD MEDALS.

Grand Electrical Exhibit; also Cooking by Electricity in Main Building.

SPECIAL ATTRACTIONS. Amongst which are Prof. W. C. Coup's \$100,000 Challenge Horses; also his troupe of Performing Dogs. This attraction alone is well worth going to Ottawa to see. The feats performed by these animals are something marvellous.

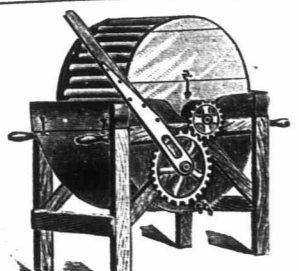
For particulars see small hangers. Bench Show of Dogs. Lacrosse Match. Entries in all the departments (except races) close on Tuesday, Sept. 19th. For prize lists and all information, apply to **A. MacLEAN, E. McMAHON, PRESIDENT, SEC.**, 26 Sparks-St., Ottawa. 339-1-b-o

GREAT EASTERN EXHIBITION
THE NINTH ANNUAL EXHIBITION OF THE
Eastern Townships Agricultural Association

—WILL BE HELD AT—
SHERBROOKE, QUE., SEPT. 5th, 6th, 7th, 1893

\$10,000 in purses and premiums. Competition open to the world. The grounds and buildings have been improved, the prize list increased, and a programme of attractions provided surpassing anything of the kind ever furnished at any exhibition in the province. Prize Lists and any other information may be obtained by applying to the Secretary. Stock breeders, farmers and manufacturers are requested to communicate with the undersigned, and will find it to their advantage to exhibit at the now celebrated Sherbrooke Fair, where an exhibitor has never been known to go away dissatisfied. Special rates and excursions on all railways.
H. R. FRASER, Secretary.
339-1-b-o

MANITOBA

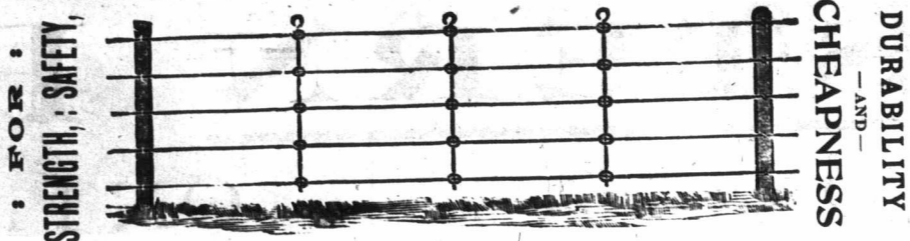


WASHER!

Morden, Man., March 31st, 1893.
MR. McCROSSAN, 566 Main St., Winnipeg:

Dear Sir,—Your Washer has been in use for nearly two months, and I am glad to say it is a great success. Our servant, who puts her confidence in the old-fashioned, reliable methods, was doubtful about the washer at first, but now she would not part with it.
Yours respectfully,
J. B. McLAUREN, Barrister.

MCCROSSAN & CO.,
566 Main Street, WINNIPEG, MAN.
These machines will be shown at Toronto and London exhibitions.
42-y-om



FOR STRENGTH, SAFETY, DURABILITY AND CHEAPNESS
NOTHING CAN APPROACH THE LOCKED-WIRE FENCE
AS BUILT BY **LOCKED-WIRE FENCE CO'Y,**
Ingersoll, - Ontario.
Apply to the above for Farm Rights and Agencies to build in any part of the Dominion.
339-b-om

Ontario Agricultural College

WILL RE-OPEN ON THE 2nd OCTOBER.

Full courses of lectures, with practical instruction, in **Agriculture, Live Stock, Dairying, Veterinary Science, Chemistry, Geology, Botany,** and other subjects required by young men intending to be farmers.

For circular giving full information as to cost, terms of admission, etc., apply to **JAMES MILLS, M. A.,** PRESIDENT.
Guelph, June, 1893. 337-f-om

PRESTON FURNACES

ARE FULLY DESCRIBED IN **OUR FURNACE BOOK** which is sent free upon application. THOUSANDS OF WELL-PLEASSED USERS IN ALL PARTS OF CANADA SAY **THEY ARE THE BEST**
CLARE BROS. & CO.
PRESTON, 339-d-om ONT.

THE - VERY - BEST - THRESHING - ENGINES
In the Dominion of Canada are built by **JOHN ABELL, - TORONTO.**
13--THIRTEEN GOLD MEDALS--13.

THE FINEST SEPARATOR IN ONTARIO IS THE "NEW TORONTO,"
—BUILT BY—
JOHN ABELL, - TORONTO.
Highest testimonials from practical threshers.

PORTABLE ENGINES. TRACTION ENGINES. AUTOMATIC ENGINES. COMPOUND TRACTION ENGINES. TREAD POWERS & THRESHERS. SEPARATORS. HORSE POWERS. MANURE SPREADERS. VICTOR CLOVER HULLERS. HAY PRESSES. BOILERS OF ALL KINDS. DUPLEX FEED MILLS. CREAMERY BOILERS.

JOHN ABELL ENGINE - AND - MACHINE - WORKS,
Toronto, Canada. 323-j-o

SEED WHEAT
I offer the following varieties for sale:
Early Red Clawson—A Grand Yielding Wheat.
Golden Cross—1st Prize, Toronto, 1892.
Surprise—A Popular Variety.
Jones' Winter Fyfe—A Good Milling Wheat.
Write for samples and prices.
Address—**J. E. RICHARDSON,**
Creekside Farm,
PRINCETON, ONT. 47-y-om

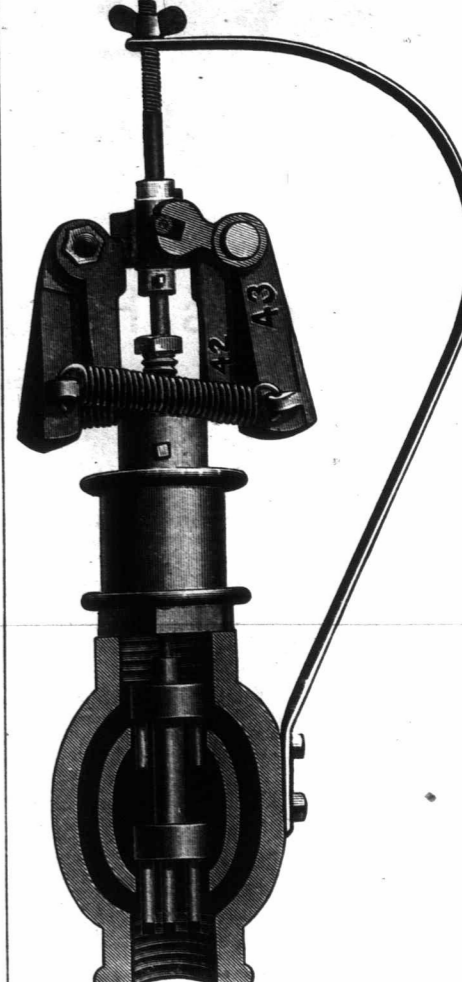
FARM AT GREAT SACRIFICE!
\$1.50 PER ACRE. S. W. 1, Sec. 12, Tp. 16, Range 28 W. Mostly clear, rolling prairie, rich soil.

FARMS FOR SALE IN MINNESOTA DISTRICT

CHEAPEST IN COUNTY.	PER ACRE.
S. W. 14, Section 31, Township 14, Range 18, West.	\$3.00
S. E. 14, " " " " "	3.00
S. E. 12, " " " " "	3.00
S. E. 14, " " " " "	3.50
N. W. 14, " " " " "	3.00
S. W. 14, " " " " "	2.50
E. 12, " " " " "	3.50
S. W. 14, " " " " "	2.00
N. E. 14, " " " " "	2.50

Splendid chances among the above. Easy terms, especially to good actual settlers. Apply for particulars. **ALEX. STEWART,** Agent, Minnedosa, Man. 47-y-om

GEO. WHITE & SONS,
London, Ont.



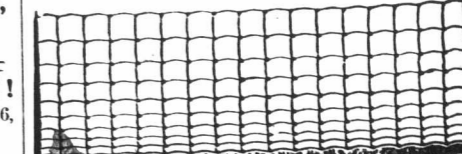
Our New GOVERNORS with Brass Valve and Stationary Speeder. We also use new Wrist Pin Oiler and many other useful attachments. 339-a-o

THE EXCELSIOR
LIFE INSURANCE CO. OF ONTARIO, LTD.

Incorporated 1889. Subscribed Capital, \$354,500.
Office: Cor. Adelaide and Victoria Streets, Toronto.
A home company with most liberal and attractive plans and features. Largest Assets in comparison to Liabilities. Highest Rate of Interest on Investments. Lowest for cost of Management, in cost of obtaining new business, and in rate of mortality. Policies non-forfeited, incontestable, and entitled to large percentage of profits.
GOOD RELIABLE AGENTS WANTED.
E. MARSHALL, SECRETARY. **E. F. CLARKE, MANAGING DIRECTOR.**
339-l-o

ENSILAGE!

We are the largest makers of Ensilage Cutters in Canada. We have 400 Ensilage Cutters at work now. We sell more than all other makers in Canada. We sell direct to the Farmer and have no Agents. We give the Farmer all Agent's profits. We make the strongest and most durable Cutter. We guarantee it to cut ten tons of corn per hour. We make the largest assortment of Implements in Canada. Write for Large Catalogue and Price List at once. We have reduced old prices 25 per cent.
WATSON MANUFACTURING CO., Ltd.
AYR, ONTARIO, CANADA. 339-1-b-o



38 CARLOADS TO IOWA IN THREE MONTHS
Averaging over ten miles of complete fence to the car. Through special agents this goes at once into use on farms instead of being held by dealers. Iowa farmers know a good thing when they see it tried. Their only complaint: Can't get it fast enough.

PAGE WIRE FENCE CO. OF ONTARIO, LTD.,
WALKERVILLE, ONT. 325-y-om

ADVERTISE IN ADVOCATE

TO FARMERS! Valuable Manitoba Farm TO RENT OR FOR SALE

A splendid, well improved farm, comprising 1600 acres, on the Assiniboine River, about twenty miles from Winnipeg, and two and one-half (2 1/2) miles from White Plains station, would be rented for a fixed sum or on shares, either with or without the stock and machinery necessary to work it. 1400 acres fenced, about 350 acres cultivated, 200 acres of timber, good house, ample stabling for 150 head of cattle and forty horses; also other buildings. From its superior situation, quality of land, valuable buildings and proximity to Winnipeg, this makes one of the best farms in Manitoba. The place is at present in good running order, and is well-stocked with horses, cattle, pigs, etc. Immediate possession can be given. I desired the farm would be sold on easy terms. For full information apply to
OSLER, HAMMOND & NANTON, Winnipeg, Man.
33-1-y-om

\$2.00

per acre will buy a few farms within six miles of the great W-E-E-A-T shipping town of

PORTAGE LA PRAIRIE
Other choice properties in town and vicinity cheap and on easy terms. Correspond with
W. RICHARDSON,
Real Estate, Loan and Collecting Agency, Sask. Ave., Portage la Prairie. P.O. Box 753. 42-y-om

THRASHING MACHINES AND HORSE-POWERS
(One, Two and Three-Horse).



OLDS' PATENT.

The best Tread Horse-Powers and Threshing Machines made. Take the lead wherever in the Dominion. Also Drag and Circular Saws and Ensilage Cutters. Agents wanted. JOHN LAMONT & Co., Manufacturers, Pt. St. Charles, Montreal, P.Q.; E. G. Prior & Co., Agents, Victoria, B.C.; A. L. Gruggen, Agent, Moosemin, N. W. T. 334-j-om

THE GARDEN OF MANITOBA.

I am making a specialty of selling large Grain Farms at prices from \$3.00 to \$20.00 per acre. District: Carman, Roland and Miami, rising towns attracting great attention. Lots of wood, water and good railway competition in districts rapidly settling. Easy terms and special bargains for cash. Speculators' land sold on commission. Correspondence solicited. D. HONEYWELL, box 32, Carman, Man. 34-1-y-om



ALMA

The leading Canadian College for Young Women. ST. THOMAS, ONTARIO. Graduating Courses in Literature, Music, Fine Art, Commercial Science and Education. The efficiency of Canadian Colleges is conceded by all. 20 professors and teachers. 200 students from all parts of America. Heal b and home. LOW RATE. Only 3 hours from Detroit. 60 pp. illustrated prospectus. President AUSTIN, A. B.

PILES Radically Cured.

W. E. BESSEY, M.D., C.M.,
300 JARVIS STREET, TORONTO. SPECIALTY.—Operative Surgery, Piles and Rectal Diseases. Stomach and Intestinal Disorders, Chronic and Nervous Diseases, Genito-Urinary Affections, and Diseases of Women. Private Hospital, with trained nurses. 329-y-om

YOUR HOUSE

Should be painted only with **UNICORN READY MIXED PAINTS.** If you want it to look the very best. Ask your dealer to show you our card of forty colors. We guarantee them. Take no other. MANUFACTURED ONLY BY **A. RAMSAY & SON, - MONTREAL.** Established 1842. Leads, Colors, Varnishes, etc. 331-y-om

CRADLE CHURN—PERFECTION AT LAST

It is a labor-saver. It always in order. The sealed top cleans the sides to operate; no light cover required; allows a free circulation of air while churning; and churns with half the labor required by any revolving churn. **CRADLE CHURN.** PAT. NOV. 28, 1892. JOHN LAW, General Agent, Toronto, or to the **WATSON MANUFACTURING CO., Ayr, Ont.** 337-y-o



ADVERTISE IN THE ADVOCATE

HOW SHE MADE HER MONEY.

Mrs. E. M. Jones' New Book, "DAIRYING FOR PROFIT," Tells the Whole Story. So anyone reading it can do the same, and secure a comfortable independence. 60,000 COPIES SOLD ALREADY! Orders still pouring in. Price, 30c. by mail; four copies to one address by mail, \$1. **ROBT. F. BROWN, Agent,** Box 324, Brockville, Ontario, Canada. 332-y-om

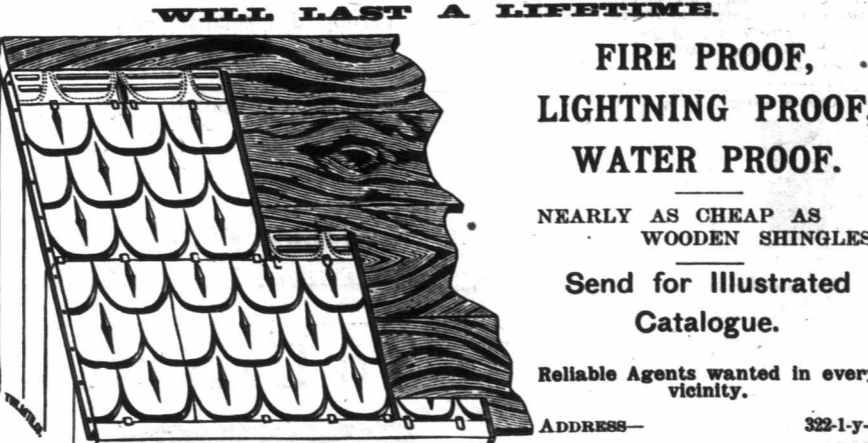


FALL WHEAT!

INCREASE YOUR YIELD AND INSURE A GOOD CROP OF GRASS BY USING **-FREEMAN'S HIGH GRADE OF FERTILIZERS-**

Send for **FREEMAN'S NEW CATALOGUE**, Treating on Manuring and how to grow large and paying crops. **-SENT FREE BY ADDRESSING-** **W. A. FREEMAN, - HAMILTON, ONTARIO.** Please mention this paper. 338-1f-om

THE PEDLAR PATENT STEEL SHINGLE



THE PEDLAR METAL ROOFING CO., OSHAWA, ONT.

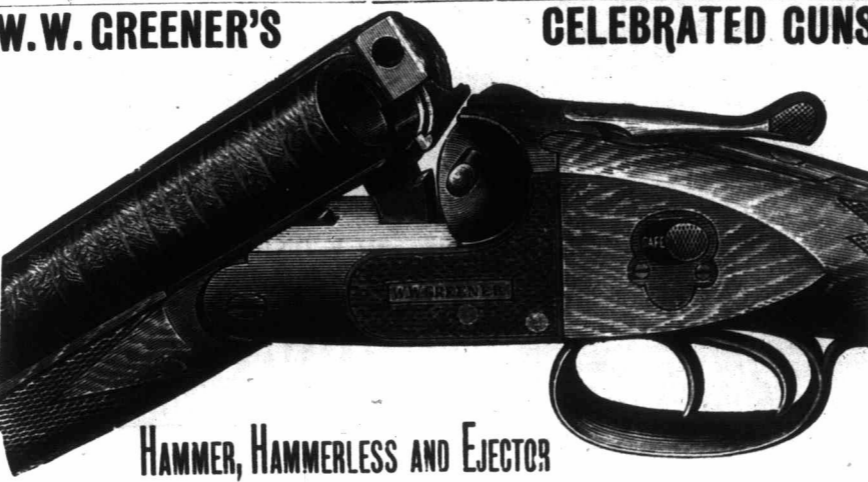
FIRE PROOF,
LIGHTNING PROOF,
WATER PROOF.

NEARLY AS CHEAP AS WOODEN SHINGLES.
Send for Illustrated Catalogue.
Reliable Agents wanted in every vicinity. ADDRESS— 322-1-y-o

MICA ROOFING

Use Mica Roofing on all your buildings. It is cheaper than Shingles. **Water Proof and Fire Proof.** **Use Mica Paint** To Repair Leaky Roofs. Shingles, Iron or Tin Roofs painted with it will last twice as long. **RAPIDLY TAKING THE PLACE OF SHINGLES.** Is put up in rolls of 106 square feet each, 36 feet long by 3 feet wide, and cost 2c. per square foot, thus affording a light, durable and inexpensive roofing suitable for buildings of every description, and can be laid by ordinary workmen. One man will lay ten square in a day, which brings the cost of Mica Roofing about 75c. per square cheaper than shingles. Special terms to dealers who buy our Mica Roofing to sell again. Orders and correspondence answered promptly. **HAMILTON MICA ROOFING CO.,** 321-1-y-om Office—124 James Street North, HAMILTON, ONT.

W.W. GREENER'S CELEBRATED GUNS



HAMMER, HAMMERLESS AND EJECTOR
Are the best finished and finest shooting guns in the world. Write for Catalogue. **W. W. GREENER, Birmingham, England.** 337-l-om

Trios only \$4.50!

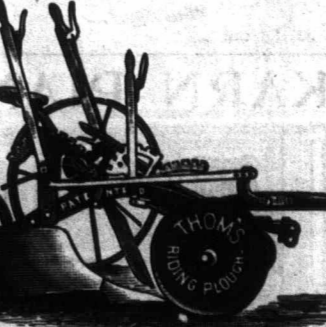
(Worth \$10.00). Choice cockerel and two fine pullets. All bred from our great prize winners. Mated not akin. For delivery September 1st. Order now and get selection from hundreds. Your money back if they don't please. **C. W. ECKHARDT,** RIDGEVILLE, ONTARIO, Plymouth Road Headquarters. (Draw P. O. orders on Fonthill, Ontario.) 327-y-om

Sweetstakes at Chicago, 1891. 131 birds scoring 90 to 96. B. and W. F. Eagle, W. and S. Wyandottes, W. and Br. Leg-horns, and Bronze Turkeys. 200 selected birds, pairs, trios and pen. mailed for best results. 200 Tom and Hen sired by Editor of the "Poultry Churn," 25 cts. per year. 327-1-y-om

400—Helderleigh Fruit Farms Nurseries—400

(Four Hundred Acres in Extent.) Established 1882. There is no place in Canada where the season is longer than here. Hence we get trees brought to the fullest maturity, capable of withstanding the severest cold. Having one hundred acres in fruit, from which cuttings, buds, scions, etc., are taken, I can safely guarantee the purity of my stock to be equal, if not superior, to any other nursery. The soil is specially adapted to produce vigorous, hardy trees, a grand lot of which are now growing and for sale. All the leading sorts of both old and new varieties deemed worthy of propagation. Catalogues free on application. Agents wanted in every township. 337-y-om E. D. SMITH, Winona, Ontario.

The Famous Watford Plows!



The Leading Sulky Plow. Thom's Sulky is the only plow having adjustable draft clevis and gauge wheel. Patented in Canada and the States. We manufacture the Standard Walking Plows of the Dominion. No. 3, IXL, No. 4, 5, 7, and 30. Also the latest improved and best two-furrow on the market, and the oldest manufacturer in Canada of this class of plows. We lead, others follow. All the latest improvements in riding and walking plows. **THOM'S PLOW WORKS, - WATFORD, ONT.** Established 1875. Send for Circulars. Agents wanted in unoccupied territory. 339-1-b-o



W. & F. P. CURRIE & Co.

Wholesale General Merchants, 100 GREY NUN ST., MONTREAL. IMPORTERS OF Scotch Glazed Drain Pipes, Chimney Tops, Vent Linings, Flue Covers, Fire Bricks, Fire Clay, Portland Cement, Roman Cement, Canada Cement, Water Lime, Whiting, Plaster of Paris, Borax, China Clay, etc., etc. MANUFACTURERS OF BESSEMER STEEL **SOFA, - CHAIR - AND - BED - SPRINGS** A LARGE STOCK ALWAYS ON HAND. **WM. CURRIE,** 331-y-om **F. P. CURRIE.** **LIVE STOCK AUCTION SALES** Conducted in all parts of the country. Pedigree stock a specialty. Write for terms. References: J. C. Snell, Edmonton; Hon. M. H. Cochrane, Compton, P. Q., or this office. 333-1-y-o **JOHN SMITH, Brampton.** **J. H. TENNENT,** VETERINARY SURGEON. Office, King street, opposite Market House; residence, corner King and Wellington, London, Ont. Telephone. 319-1-y-o

NOTHING SUCCEEDS LIKE SUCCESS!

The fourteenth year, just ended of the GRANGE WHOLESALE SUPPLY COMPANY (LTD.) has been the best the Company have ever had. Why? Because the farmers in general are co-operating together, and by so doing we are enabled to buy in larger quantities, and consequently get better prices. For instance, we have this day (June 16th) bought some five hundred one-pound butter moulds from the estate of Noble & Davidson, at a rate on the dollar, which we will sell you while they last at twenty-five cents each when shipped with other goods. This is the same kind of mould which we quote (see our catalogue) at fifty cents, and cannot in the regular way be bought for less.

Our Boots and Shoes are having great sale, and are giving the best of satisfaction. Our \$8, \$11 and especially our \$14 Single Harness are great values, while our Teas and General Goods are equalled by few and surpassed by none. For general prices, see our catalogue.

Note—Sugars have advanced 65c. per cwt. since it was issued.

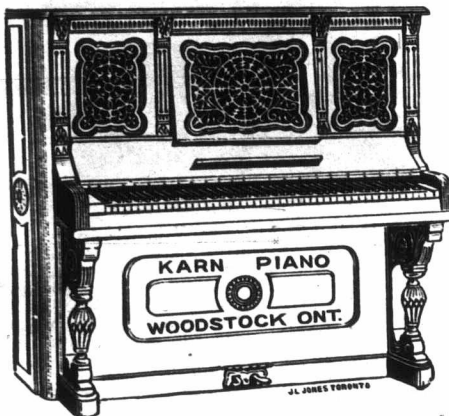
We have a good leather team horse fly net with chest protector for 75c. each.

Freight paid on all orders of \$10 and upwards, according to advertised regulations. Co-operate with us, the only farmers' co-operative store in Canada.

GRANGE WHOLESALE SUPPLY CO'Y, LTD.

R. Y. MANNING, 35 Colborne St., Toronto.
337-1-y-om

KARN PIANOS.



Warranted for 7 Years. Strictly First-Class. UNEQUALLED IN TONE, TOUCH, WORKMANSHIP AND DURABILITY.

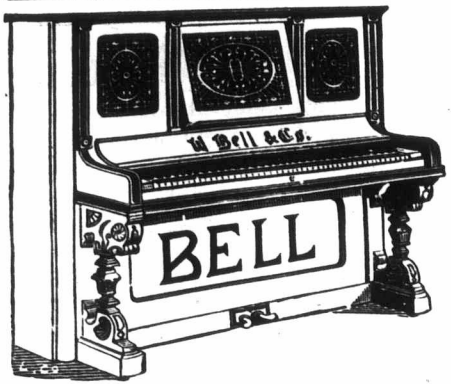
USED IN TORONTO CONSERVATORY OF MUSIC.

CANNOT BE EXCELLED. SUPERIOR TO ALL OTHER CANADIAN PIANOS.

KARN ORGAN

Still the Favorite. Send for Catalogues and Prices.

D. W. KARN & CO., MANUFACTURERS OF PIANOS AND ORGANS, 321-1-y-o WOODSTOCK, ONT.



PIANOS, REED ORGANS & CHURCH PIPE ORGANS THE STANDARD INSTRUMENTS OF THE WORLD.

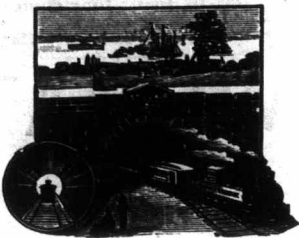
Send for Catalogue.

BELL ORGAN AND PIANO CO., Guelph, Ont. 321-1-y-o

FRUIT EVAPORATOR

THE ZIMMERMAN THE Standard Machine Different sizes and prices. Illustrated Catalogue free. THE BLYMYER IRON WORKS CO., Cincinnati, O. 331-1-y-om

GREAT INTERNATIONAL ROUTE.



You may see both the St. Clair Tunnel AND THE WORLD'S FAIR (Chicago, 1893.)

on one trip by purchasing tickets to Chicago and beyond via the Peoples' Favorite and Reliable Line, the

Grand Trunk Railway.

It is the only line under one management from all principal places in Ontario and Quebec. Passengers may go to Chicago via St. Clair Tunnel and return via Detroit, or vice versa. Full particulars, Maps, Time Tables, etc., may be obtained from the Company's Ticket Agents everywhere. 331-1-o

Perfect Cooler DON'T HAVE SOUR MILK

USE THE Champion Cooler

and you need not. It is for the use of the farmer immediately after milking, and removes all the animal heat and odors at once. We guarantee that milk will keep from 12 to 24 hours longer by its use. Easily cleaned. Never gets out of order. Prices according to size of dairy, \$7 to \$10. Send for our descriptive folder. We want an agent in every town, and will allow a liberal commission. Address, CHAMPION MILK COOLER CO., Cortland, N. Y.

Factories at Hamilton, Ont., and Cortland, N. Y.

Allan Line

ROYAL MAIL STEAMSHIPS

THE QUICKEST ROUTE TO THE OLD COUNTRY.

The name of this line is a guarantee of safety, speed and comfort. Every steamer of this popular company is of the highest class, and every passenger advertises the line.

RATES OF PASSAGE—Montreal and Quebec

Cabin, to Londonderry or Liverpool:
By SS. Parisian. \$60, \$70 and \$80 Single. \$110, \$130 and \$150 Return.
Extra Class Cabins for two persons (Rooms) \$100 \$125
for three persons (50 to 57). 80 150
By SS. Sardinian or Circassian. \$50, \$55 and \$60 Single. \$95, \$105 and \$115 Return.
By SS. Mongolian or Numidian. Cabin \$45 and \$50 Single. \$85 and \$100 Return.
(According to accommodation.)
Children 2 to 12 years, half fare; under 2 years, free.
Second Cabin, \$30. Return, \$60.
Steerage, 20. 40.
For full information as to rates of passage, etc. apply to H. BOURLIER, Toronto. ROBT. KERR, Or. Winnipeg. 320-1-y-om H. & A. ALLAN, Montreal.

CANADA SHIPPING COMPANY. BEAVER LINE OF STEAMSHIPS.

SAILING WEEKLY

BETWEEN MONTREAL AND LIVERPOOL DIRECT. From MONTREAL Every Wednesday. From LIVERPOOL Every Saturday.

The Steamers have First-class Accommodation for Saloon, Second Cabin and Steerage Passengers.

RATES OF PASSAGE—MONTREAL TO LIVERPOOL.

Saloon, \$45, \$50 and \$60. Round Trip, \$90, \$100 and \$110, according to steamer and accommodation. The \$45 and \$50 rates per S. S. Lake Nipigon only. Second Cabin, \$30; Steerage, \$21.

Each Steamer carries a duly qualified Surgeon and experienced Stewards.

The attention of Importers of Horses and Live Stock generally is directed to the fact that these Steamers have the highest record for the successful carriage of the same, and a trial shipment is solicited. For freight or passage, apply to R. W. ROBERTS, H. E. MURRAY, Manager, Gen'l Manager, 21 Water Street, 11 Custom House Square, 332-1-o Liverpool. Montreal.

ADVERTISE IN THE ADVOCATE

W. H. TRELEAVEN, Real Estate and Commission Agent, SACK AVENUE, PORTAGE LA PRAIRIE, MAN. Farms and town property bought, sold or exchanged, rents collected, money to loan, money invested, land inspected and appraised, letters of enquiry promptly attended to in every detail. Portage Plains Farms—Good water, convenient to wood, no failures. Improved farms for sale from \$10 to \$27 per acre; unimproved from \$2.50 to \$12. Easy terms of payment. Information cheerfully given by calling on or writing W. H. TRELEAVEN, 34-1-y-om

Success
Awaits those who Prepare for it!

The best investment a young person can make is to secure a high-grade business training, such as is given at the

CENTRAL BUSINESS COLLEGE
Stratford, - Ontario.

THE LARGEST AND BEST SCHOOL OF THE KIND WEST OF TORONTO.
Experienced Specialists Employed in Every Department.

GRADUATES EMINENTLY SUCCESSFUL.

Stratford students transact business with our Toronto students. Satisfaction guaranteed or money refunded. Write for new illustrated circulars.

FALL TERM, MONDAY, SEPT. 4th

SHAW & ELLIOTT, PHINEAS MCINTOSH, 339-1-e-o Proprietors. Principal.

To Exhibitors

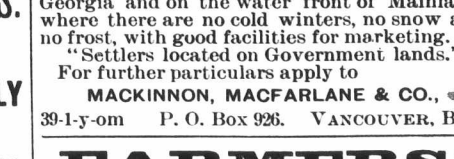
of Stock at the Fall Fairs
If you would secure first prize you must have your animal in the finest condition, his coat must be smooth and glossy, and he must be in good spirits so as to "show off" well. DICK'S BLOOD PURIFIER is the best Condition Powder known for horses and cattle. It tones up the whole system, regulates the bowels and kidneys, strengthens the digestion, turns a rough coat into a smooth and glossy one. It gives horses "good life," making them appear to the best possible advantage. Get Dick's from your druggist or grocer, or address DICK & CO., P. O. Box 482, Montreal.

5,000 ACRES OF LAND FOR SALE FROM \$5 TO \$10 PER ACRE.
British Columbia, THE CALIFORNIA OF THE DOMINION
This is a young and rising country, with productive powers for grain, fruits, vegetables, stock and poultry raising, second to none in America. We offer lands on the Islands of the Gulf of Georgia and on the water front of Mainland, where there are no cold winters, no snow and no frost, with good facilities for marketing. "Settlers located on Government lands." For further particulars apply to MACKINNON, MACFARLANE & CO., 39-1-y-om P. O. Box 926. VANCOUVER, B. C.

FARMERS!

If you want the best value for your money. If you want an article that will never disappoint you. If you want thoroughly good and healthy Baking Powder, into which no injurious ingredient is ever permitted to enter.

BUY ONLY THE GENUINE



REMEMBER THAT
McLAREN'S COOK'S FRIEND IS THE ONLY GENUINE.
The Best Grocers Sell It.
331-1-y-om

Do Not Insure

Until you have seen the Double Maturity Policy of the Manufacturers' Life. Ordinary prudence suggests that you should carry some life insurance, if ever so little, and it is as well to know where the best is to be had, both for security and profit. Life insurance creates an immediate capital at a trifling outlay, which returns, as a rich and ample investment, to a man's family or himself at its period of maturity. You should find out about this Double Maturity we speak of.

MANUFACTURERS' Life Insurance COMPANY,
63 Yonge Street, Cor. Colborne, Toronto, Ont.
307-1-3v-om

The High Speed Family Knitter

Will knit 10 pairs socks per day. Will do all work any plain circular knitting machine will do, from homespun or factory yarn. The most practical family knitter on the market. A child can operate it. Strong. Durable. Simple. Rapid. We guarantee every machine to do good work. Beware of imitations. Agents wanted. Write for particulars. Dundas Knitting Machine Co., Dundas, Ontario.

FREE GRANT LAND

near Gainsboro, Carnduff, Oxbow, Estevan. Having resided for ten years in the Souris district, and being thoroughly acquainted therewith as a practical farmer, I am in a position to locate farms for parties who wish to take up homesteads, and will furnish full instructions of how they may be obtained and save all travelling expenses. Improved and unimproved farms also for sale.—J. W. Connell, Carnduff, Man. 41-y-om

WEAKNESS OF MEN
Quickly, Thoroughly, Forever Cured

by a new perfected scientific method that cannot fail unless the case is beyond human aid. You feel improved the first day, feel a benefit every day; soon know yourself a king among men in body, mind and heart. Drains and losses ended. Every obstacle to happy married life removed. Nerve force, will, energy, brain power, when failing or lost, are restored by this treatment. All small and weak portions of the body enlarged and strengthened. Victims of abuses and excesses, reclaim your manhood! Suffers from folly, overwork, early errors, ill health, regain your vigor! Don't despair, even if in the last stages. Don't be disheartened if quacks have robbed you. Let us show you that medical science and business honor still exist; here go hand in hand. Write for our book with explanations and proofs. Sent sealed, free. Over 2,000 references.

ERIE MEDICAL CO., Buffalo, N. Y. 333-y om

A PLEASANT TONIC

Which will strengthen unnerved tired people and invalids, and quickly restore their appetites, is CAMPBELL'S QUININE WINE. Prepared only by K. CAMPBELL & Co., Montreal. Beware of imitations. 333-1-y-om

CASH FOR FEATHERS

We are paying cash for all kinds of feathers. June is the month when farmers should pluck their geese, as otherwise the feathers are lost. Send us samples of what you have, and we will quote you best prices for them.

McINTOSH, WILLIAMS & COMPANY, 10 St. Sacramento St., Montreal P. Q. 337-1-b-om